

Dated Itanagar, the August 8, 2007

To,

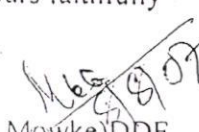
The Director of Fisheries
Govt. of Arunachal Pradesh
Itanagar

Sub: Submission of report of the Fish Farm Committee for reviewing the performance of Govt. Farms/Beels & Lakes/Fish Mahals.

Ref: Order No. Fish/Dev-02/2007-03 dated 25.06.2007
Sir,

With reference to the above, I am submitting herewith the detailed report alongwith the Draft Guidelines and specific recommendations for management of Departmental Fish/Seed farms, Beels & Lakes and Fish mahals which will speak for itself for your further necessary action.

Yours faithfully


(N. Mowke)DDF
Chairman

Fish Farm Committee
For reviewing the performance of
Govt. Farms/Beels & Lakes/Mahals

Copy to :

1. All concerned Members (by name) S. J. Passang ADF
2. File.

(P.V.)
17/8/07
DAL(D)
As order above
29/8/07

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**REPORT OF THE FISH FARM COMMITTEE FOR REVIEWING THE PERFORMANCE
OF FISH FARMS/LAKE & BEELS/FISH MAHALS UNDER DIRECT CONTROL AND
MANAGEMENT OF FISHERIES DEPARTMENT : ARUNACHAL PRADESH**

In pursuance of Order No.Fish/Dev-02/2007-08 dated 25-06-2007, the members of the Committee for reviewing the performance of Govt. sector Fish Farms/Beels & Lakes/Fish Mahals, etc; assembled on 29-06-2007 and discussed the issue in details with reference to the available records in the Department, sought for individual opinion in the matter not only from the members but also from the other senior HQ & District officers present on the said date; and finalized the modality/approach for the purpose. Some additional informations were also obtained from the district unit in the form of report/verbal communication for better appreciation of the ground reality of those resources and there by to evolve an appropriate and suitable strategy for improving their performance through some realistic and systematic steps.

The main objective of setting up the Fish/Seed farms at the inception of the Department in 1958-59 was for demonstration purpose. However, as the Fisheries changed with the time, it was shifted towards production and supply of quality fish seeds to meet the growing demand - the basic pre-requisite for fishery development while the focus on the development of beels & lakes and fish mahals was maximizing the Governmental Revenue.

In the context of above, the Committee reviewed those resources in three categories, namely - i) Fish/Seed Farms, ii) Beels & Lakes and iii) Fish Mahals with reference to not only the 4(Four) conventional determinants of production but also in its totality encompassing the all other relevant factors which may have direct or indirect bearing on production/performance. Accordingly, detailed analysis was done and the same is annexed hereto as Appendix-"A". In the light of above said analysis, the draft guidelines and specific recommendations are as follows -

I. Draft Guidelines and specific recommendations for management of fish/seed farms.

- ❖ Leasing out of all smaller size Farms/Ponds/Nursery having water area below 0.5 ha to the Private Fish Farmers except Seppa, Itanagar Nursery Farm. The Department will assist such leasees in capacity building in fish seed rearing technique as well as in fish farming. This will also help the Department to minimize the burden of overhead cost and to pool the necessary resources including manpower for proper management of other potential Medium & Large Farms with 29.64ha + Seppa(0.40ha) & Itanagar Farm (0.22 ha) totaling 30.26 ha including 4.19 ha Nursery area.
- ❖ Production potential of each of the other remaining potential/bigger farms will be determined with reference to the relevant parameters and the target of production will be fixed accordingly.
- ❖ Available facilities of all other farms without Hatchery would be utilized as Rearing Farm for raising spawn/early fry to right size of stocking by taking care of Nursery Pond Management Training needs of operational staff and thereby to meet the localized demand of fish seeds.
- ❖ One existing potential fish farm of each district shall be re-modeled/strengthened with additional necessary facilities such as Nursery, Rearing, Stocking space, Store, Minimum accommodation for the staff, proper boundary fencing/wall etc. to meet the growing demand of fish seeds in the district. Initially, this shall be taken up in those districts/farms where fish Hatchery has already been installed i.e. Emchi, Lathao, Deomali & Pasighat.
- ❖ While strengthening the seed production infrastructure as above in the remaining districts, preference will be given for doing the same through Pvt. Fish farmers having minimum fish farm area since the performance of such facility through them in respect of fish farmers of other counter parts has been found better than the Public sector. The Department will assist such farmers in capacity building and for the development of necessary additional facilities including the low-cost design hatchery for which the pattern of assistance from the State Plan would be finalized with the approval of the Govt.

- ❖ Besides, the department would also develop fish seed rearing capability of selected progressive fish farmers for generating market demand of fish seeds in every stages of seed production – Spawn (4 day old), Early Fry (7 day old), Fry etc. from those seed production infrastructure and thereby to meet the demand of seed in respective area.
- ❖ Fishermen both in regular and contingent capacity engaged in the breeding farms will be provided with working dress including rain coat as an incentive for performing duties in the rainy/breeding season.
- ❖ Necessary fund allocation for maintenance of farms will be made as per the minimum requirement for 1.00ha/per year i.e. Rs.60,000/- per ha/year (as per the norms of National Fisheries Development Board) and an additional amount of Rs.10,000/- for breeding farms to meet necessary requirement for fish breeding/seed rearing. Thus for 29.64ha Medium & Large Farms (-) minus 4.19ha Nursery = 25.50 ha water area, total requirement would be Rs.15.30 Lakh + Rs.0.40 Lakh additional requirement for four Breeding Farms totaling Rs.15.70 Lakh say Rs.16.00 Lakh.
- ❖ The matter shall be taken up with the Govt. (Budget Branch of FD) for providing at least 25% of the total requirement of fund for maintenance of all the Farms i.e. Rs.4.00 lakh under NON-PLAN Head for timely allocation so that seasonal/fish breeding programme is not hampered. In case the proposal is not agreed to, administrative approval will be conveyed to all concerned to go ahead with the 25% of the total requirement of fund against each farm pending allocation of necessary fund under PLAN Head after finalization of AOP i.e. by September/October every year.
- ❖ Farms will be maintained in scientific lines adhering Farm Calendar/Annual Action Plan, utilizing available manpower properly through the principle of teamwork with due emphasis on proper brood fish stock management for ensuring production of Catla & Grass Carp varieties besides other species.
- ❖ Key staff with requisite qualification, professionalism, management skill, etc will be identified and re-deployed in the Farms accordingly i.e. right person in the right place and the posting of Farm In-Charge in the cadre of Fishery Officer in the potential/big Farms will be made mandatory.
- ❖ The Farm In-Charge will be made responsible for the proper management of the Farm including preparation of necessary estimate for maintenance, execution thereof, etc. in consultation and/or under guidance of respective Controlling Officer and the Controlling Officer will be responsible for timely supply of necessary inputs and other facilities to the Farms. Both Controlling Officer as well as the Farm In-Charge will be held accountable for achieving the set target.
- ❖ Payment of wages of Contingent Fisherman shall be made without inordinate delay by processing the proposal for continuation of contingent post latest by 1st week of April every year and constant follow up thereof. In spite of this if any body is found default in attendance/performance, he will be dealt as per the provisions of relevant rules.
- ❖ Acquisition of Farm area/land shall be completed and regularized as per laid down procedures at the earliest possible but not later than 2008-09.
- ❖ The Departmental staff will be nominated for 1(one) year P.G. Certificate Course at CIFE, Mumbai's Salt Lake Centre, Kolkata from the academic session 2007-08 onwards in batches consisting 1 or 2 as per the training needs. The CIFE, Mumbai – the nodal agency for D.F.Sc./M.F.Sc. Courses for in-service personnel will be taken up for revival of those 2(two) Courses for the Departmental Officers as well as for some specialized training programme as per the needs of the State.

- ❖ The existing small training infrastructure for Fish Farmers shall either be strengthened into a full-fledged State Fisheries Training Institute with adequate infrastructure and faculty and/or a new such Institute will be established in a suitable location to meet the training needs of the State/Department on regular basis for which the matter will be taken with the Govt. of India for necessary onetime grant. The Training Centre and the Emchi Fish Farm will be brought under the control of ADF(Trg) for smooth functioning.
- ❖ Requirement of fund for renovation/maintenance of existing bad condition accommodation of the farms and stores shall be worked out on priority and the necessary fund will be made available during the current financial year itself and the additional minimum residential buildings shall be constructed in a phased manner to meet the shortage of the accommodation.
- ❖ An efficient monitoring system of Govt. sector Farms will be evolved ensuring access to the activities and checking corruption in its execution, pilferation of fish stock, etc.
- ❖ Performance of each farm will be reviewed in the first part of April every year and the necessary corrective steps shall be incorporated in the next cycle of **PREPARATION – ACTION – REVIEW** for further improvement. Besides, a consolidated performance report of all the farms will be prepared for wide circulation and the effort and contribution of good achiever would be duly acknowledged and their exposure in fisheries development in the country as well as nomination for overseas study tour as incentive for better performance.
- ❖ The present sale rate of Table fish effective from 01-09-2005 vide order No.Fish/Dev/FS-139/97-98 dated 26-07-2005 shall be reviewed in view of increased in price of input and transportation cost and the consequent increase in the production cost thereof.
- ❖ Due care would be taken for entertainment of personal claims of Farm staff – regular & contingent staff in particular.
- ❖ Nuranang Trout Farm would be strengthened with required facility to meet the growing demand of trout seed for propagation in the High altitude open water fisheries such as Lakes, Streams, etc.
- ❖ The Regional Hatchery Complex for Cold Water Fisheries at Samteng (NEC Sponsored) would be commissioned at the earliest possible but not later than December 2007.
- ❖ One responsible Officer in the HQ would be entrusted to look after the farms including the private sector farms for necessary action in the light of recommendation of the Fish Farm Committee and thereby to ensure seed production, supply to the farmers and fish production thereof as a regular/continuous process.
- ❖ The Department/Government would follow reward and punishment policy by rewarding the honest, efficient, committed employees & officers while not hesitating to punish inefficient, corrupt and indifferent employees and officers, if necessary for which present seniority based recruitment rules (RR) would be changed to performance and merit based ones.

II. Draft guidelines and specific recommendations for management of Beels & Lakes.

- These open water fisheries shall be leased out to the Community/Individual Farmers on long-term basis. The Department will assist such lessees to manage their resources by themselves by empowering them and building necessary capacity for the same.
- The main objective of leasing will be enhancing the benefits to the lessees and will not be maximizing the Departmental Revenue.
- Necessary environmental safeguard shall be incorporated in the lease clause.

- Adequate quantity of Fish seed i.e. fingerlings of right size with required species shall be produced with public, Pvt. & lessees participation for stocking in such open water fisheries.
- Cage and Pen culture to be encouraged in those fisheries to enhance fish production.
- Indiscriminate fishing methods like blasting, poisoning, etc. to be prevented through strict regulations.
- Enforcement of necessary regulatory measures as per the provisions of AP Fishery Act, 2005 to avoid over exploitation.
- Strict vigilance to prevent introduction/entry of exotic species.

III. Draft guidelines and specific recommendations for management and operation of Fish Mahals.

- ✓ Uniform policy will be adopted in the mode of sharing of revenue from these mahals i.e. 50% by the Department and 50% by the Anchal Samittees of respective area of the Mahals. The lease period would be for seven months from September – March.
- ✓ For exploitation of Mahals open Tenders will be invariably floated through publication in local daily newspapers for wide circulation and competitive bid.
- ✓ The main objective of management and exploitation of mahals will be, in its broadest sense, to use these fisheries to improve the well-being of people living in the surrounding area and specific objective will be to derive sustainable economic benefits to them and will not be for maximizing the departmental revenue.
- ✓ Plans should include protection/conservation of fish habitats threatened by degradation and/or developmental efforts on river system including their catchment areas.
- ✓ The issue/dispute of Tengapani Fish Mahal would be sorted out immediately through discussion/negotiation with the involvement of Local MLA and concerned Villagers.
- ✓ The main focus of management of these mahals will be on conservation of their biological resources and sustainable utilization through active involvement of members of the concerned Anchal Samittees in the awareness programme.
- ✓ Blasting and poisoning to be banned in fish mahals through strict regulations.
- ✓ Similarly, introduction/entry of exotic fish species into these mahals will not be permitted.

(S. Pul)

Dy. Director of Fisheries
Member

(N. Pussang)

Asstt. Director of Fisheries
Member

(C.B. Das)

Administrative Officer
Member

(N. Mowke)

Dy. Director of Fisheries
Chairman

APPENDIX-"A"

DETAILED REVIEW OF GOVT. FARMS/BEELS & LAKES/FISH MAHALS UNDER MANAGEMENT OF FISHERIES DEPARTMENT : ARUNACHAL PRADESH

An overview of general performance of all the farms/beels & lakes/mahals under the management of Fisheries Department for last five years appears as under –

Rs. in Lakh

Period	Expenditure on maintenance	Production		Revenue	Remarks
		Fish (in tonnes)	Seed (in lakh)		
1	2	3	4	5	6
2002-03	10.00	NA	NA	7.77	1. Fish production from Mahals not assessed and hence not accounted in Column-3
2003-04	13.75	NA	NA	6.30	
2004-05	10.50	NA	NA	7.58	
2005-06	13.00	5.48	9.40	9.40	2. The revenue in Col.5 is inclusive of other receipts
2006-07	19.00	2.50	7.20	6.26	
Total	66.25			37.31	

The break-up of expenditure on resource-wise maintenance and revenue thereof for the last two years is as follows –

Rs. in lakh

Period	Maintenance expenditure on				Revenue from				
	Farms	Beels & Lakes	Mahals	Total	Farms	Beels & Lakes	Mahals	Other receipts	Total
2005-06	10.62	2.38	-	13.00	6.58	0.50	1.82	0.50	9.40
2006-07	9.75	9.25	-	19.00	4.16	0.13	1.96	0.01	6.26

It is seen from the above that – i) The performance is neither steady nor consistent, it is rather declining ; ii) the bulk of the maintenance expenditure is being incurred on farms with poor returns and iii) availability/allocation of maintenance fund is not directly proportional to the performance and thus not the sole determinant of production/performance and some other forces are acting on it.

In view of above and to facilitate for identification of slack in the performances, the present status of those assets was reviewed under three categories, namely- i) Fish/Seed farms, ii) beels & lakes, and iii) fish mahals revolving around the following principles/consideration :

- Guiding principles of fish farming,
- Basic principles of effective management i.e. the practice of team work,
- The characteristics of fisheries administration,
- The eye-opening fact that employees devotion/loyalty can not be forced; it can only be earned with specific efforts and realistic expectations,
- Risk factors and the prevailing local conditions.

I) Review of present status of Fish/Seed farms and related expects

- The department has created 51 Nos of Fish/Seed Farms, Nursery having 35.69ha water area which are widely scattered as shown at Appendix-I with an initial capital investment (establishment cost) of Rs.3.16 Crores. However, establishment cost of many farms is missing and could not be incorporated in the said figure and likely to touch Rs.5.0 Crores . Thereafter, substantial additional investment was also made for their improvement and expansion from time to time from the State Plan, Eleventh Finance Commission (EFC) Grants (Rs.1.70 Crores), etc. besides incurring annual maintenance expenditure every year. However, except Tarin Fish Seed Farm (NEC sponsored), none of the farms is with the required infrastructure particularly in terms of required Nursery space for seed production to meet the growing demand of respective area/district. It is seen from the summery of Fish farms in Appendix-I that there are 23 Nos of smaller farms (below 0.50 ha water area) having 6.05ha water area, 17 Nos of Medium Farms (0.5 to 1.0ha) with 11.47ha water area and 11 Nos of Large Farms (1.0 to 3.0ha) with 18.17ha water area. Lohit district is having the maximum water area under Govt. sector Fish farms (4.33ha) while the Kurung Kumey is the lowest (0.72ha). There is no Govt. Sector Farms in Dibang Valley & Anjaw Districts.

- Most of the Farms were set-up between 1980-1990 and the oldest and the latest one being the Pasighat Farm in 1958-59 and the Samteng Project/Farm (NEC Sponsored) in 1999-2000 respectively.
- The water area of Farms varies from the minimum of 0.02 ha (Tawang Common Carp Nursery) to the maximum of 3.00 ha (Tarin Farm, NEC Sponsored). According to size, all the Farms could be divided into three categories for convenience indicating category-wise No. of Farms, Water area, Nursery area, etc. as under –

Category	Farm size (Ha)	No. of Farms	Water area of each category(ha)	Nursery area (ha)	Medium and Large farms		Nursery area of medium & large farms
					No.	Ha	
SMALL	Below 0.5	23	6.05	1.64			4.19 ha
MEDIUM	0.5 – 1.0	17	11.47	1.28	17	11.47	
LARGE	1.0 – 3.0	11	18.17	2.91	11	18.17	
Total		51	35.69	5.83	28	29.64	4.19

According to altitude & water temperature thereof, farms could also be divided into two categories as follows –

Category	Particulars with location	Water area of category-wise farm (Ha)	Remarks
Cold Water Farms	Tawang 4 Nos = 1.18 ha W/Kameng 7 Nos = 3.73 Excluding Bhalokpong Farm(0.49ha), L/Subansiri (Tarin) 3.00 Ha.	7.91 ha	Ideal for the development of cold water fisheries – trout, common carp, grass carp, & silver carp.
Warm water farms	All other remaining Farms in the districts + Bhalokpong farm = 0.49 ha	27.88 ha	Ideal for the development of all the six recommended species in composite fish culture – 3 Indian major carps – viz – Catla, Rahu, Mrigal and 3 exotic carps - Common, Grass, Silver Carps having wide tolerance Limit of temperature and thus suitable for both in cold & warm water.

According to activities of the Farms they could further be divided in the following way –

Category	No. of Farms	Water area	Activities
Breeding Farms	7 (Nuranang, Shergaon, Samteng, Emchi, Tarin, Lathao & Deomali)	11.37 Ha	In such farms both fish breeding and seed rearing activities are undertaken
Rearing Farms	6 (Drj, Psg, Bdl, Diyum, TR Camp, Nongkhon)	5.48 Ha	Here fish seed rearing activity is also taken-up alongwith fish production
Fish farms	All other 38 Farms	18.84 Ha	Here only table fish production activity is undertaken

- All the farms are controlled & managed by the Department except the Chyangtajo Farm, with 0.14 ha which has been leased out to the Pvt. Farmer.

- The available facilities of all the rearing and fish farms could be easily utilized as seed rearing farms to their potential with available manpower but the Department has not made any attempt/effort in this direction.

- Three Warm Water Fish farms (Emchi, Deomali & Lathao) are equipped with circular type fish hatchery which is considered to be most efficient system of fish breeding & hatching of all the required varieties having the production capacity of 12 – 15 million quality seeds in spawn stage (4 day old) by administering hormone stimulants to near mature fish at desired time under control conditions. Two more similar Hatcheries – one at Pasighat Farm is likely to be commissioned very soon and the other one at Yachuli Farm is not functional at the moment.
- Cold water fish farms – Shergaon & Nuranung are installed with mini Trout Hatchery and the Samteng Farm(NEC sponsored) with a larger version for production of trout seeds of Rainbow and Brown trout. The Samteng Project is yet to be commissioned and needs urgent attention for doing the needful and to make it fully operational.
- The expenditure on maintenance of farms, production, revenue & input-output ratio thereof for the last two years comes as under –

Period	Maint. expdtr. On Farms	Production			Revenue from			Input-Output ratio
		Fish (Tonnes)	Seed (Lakh)	Species of production percentage thereof	Fish	Seed	Total	
05-06	10.62	5.00	9.40	C/carp 63% (6.20lakh), Trout 5% (0.50 lakh), Others i.e. Rohu, Mrigal, Gonious, S/Carp 31% (2.80 lakh)	3.75	2.83	6.58	6.58/10.62=0.62
06-07	9.75	2.55	7.50		1.91	2.25	4.16	4.16/9.75 =0.43

Thus the production and operating efficiency of the farms is far below the satisfactory and running in loss even in terms of input-output ratio (leaving aside the capital & the managerial costs) which should be always more than 1(one) but here it is less than 1 i.e. 0.62 in 2005-06 and 0.43 in 2006-07. It is seen from above that the major contribution of seed production is from Common Carp with 62% of total production. Common Carp is a prolific natural breeder and their eggs are adhesive in nature and thus it does not require Hatchery for breeding & hatchery purpose. Significantly, there is no production of Catla & Grass Carp seed at all – the most preferred/wanted species by the farmers in fish farming for fast growth and taste although 3(three) efficient Fish Hatcheries are operating in three fish farms. In other words, the system has failed in production of quality fish seed to the meet the growing demand of the State, the present estimated requirement being – 130 lakh i.e. 13 million seeds for 2230 ha area under fish culture at present and thus the percentage of production is 5.2% of the total requirement and there is a wide gap between the demand supply. Hence, the present system is required to be examined in its entirety taking into account all the relevant factors as indicated below:

- The present farming system is very poor, traditional and not in scientific lines – Fish seed is stocked in the farms without maintaining proper ratio, there is even no application of feed, fertilizers, lime etc. as per the requirement mainly due to non-availability/non-supply of them as per provision of maintenance schemes sanctioned as reported/feed back received from most of the Farm In-charges. The Farm In-charges are neither involved nor delegated the power to frame necessary maintenance schemes and execution thereof, no Farm Calendar/Annual Action Plan is prepared and followed. Add to this, absence of any proper direction/guidelines, monitoring, etc. from the Department except fixation of target on the basis of water area of the farms.
- Farm management practices are time bound/seasonal – fish breeding/hatching in particular for which required maintenance fund is not provided accordingly and timely and it is made available only after the finalization of AOP by September/October under PLAN Head in every year and in consequence, this also hampers for proper management of the farms.

- Fishes as cultivable organisms are hidden and mobile in water. The loss of fish stock from the system could be attributed to (i) Natural mortality, (ii) predation by fish enemies, (iii) escapement due to damage of bundhs/flood, (iv) poaching nuisance and (v) pilferation. In the context of present issue in question, the significant factors of loss are identified as pilferation followed by poaching nuisance and needs to be minimized the same.
- The deployment of operational staff including the Fisherman in the farms as shown in Appendix-II is not as per the project size, level of technical needs, on the job experience, ability, etc. Further, they are not fully utilized in the farms.
- The existing career advancement scheme (i.e. RR to all categories of posts) is seniority based, found to be flawed and does not inspire the employees to deliver their "very best" and needs to be changed.
- There is no regular training programme/refresher courses to departmental staff in all the level for upgrading their knowledge, skill and change of attitude and for improving their knowledge and skill by pursuing M.F.Sc./D.F.Sc./P.G. Certificate Course although most of them were inducted and trained long back. The MFSc/BFSc. programmes available for in-service personnel has been discontinued by the concerned Institute and although the P.G. Certificate Course is continuing by the concerned Institute but Departmental officers are not nominated for the same and hence required to be reviewed.
- There is a small training infrastructure at Emchi Farm to meet the training needs of the Fish Farmers and the same is under the control of ADF (Trg.) and the Emchi Farm which is also an integral part of training infrastructure is controlled by the DFDO, Yupia. But the existing facilities are not adequate to meet the training needs of Departmental staff which is required to be reviewed including the dual administration of training infrastructure.
- Non-receipt of wages by the Contingent Fishermen monthly and timely for the period from April – July/August every year (incidentally, this period also coincides with the fish breeding season) due to inordinate delay in processing the proposal for obtaining Govt. approval for continuation of Contingent post of the Department after 31st March every year and as a result their minimum service could not be expected from such unpaid workforce. Add to this, these contingent staff are appointed from their respective districts and posted in the nearby farm from their native place. Under above circumstances they do not attend/perform their duties properly and regularly as reported and observed and needs to be sorted out.
- Though Farms were established long back, Farm-wise production potential with reference to the relevant parameters such as water area, soil and water conditions, water retainty, altitude, present condition, other related available facilities, local conditions, etc. has not been determined as yet for fixing the minimum target of production accordingly and the present fixation of target is primarily based on water area only.
- There is also problem of encroachment of Farmland due to non-availability of valid documents for acquisition of land particularly in respect of old farms, which were acquired through the deed of agreement between the donor and the department, increasing population pressure on the land, non-availability of proper Boundary fencing/wall around the farms.
- Accommodation problem of Farm staff and so also problem of storage facility (Store) for inputs/equipment and the existing ones are in a very bad condition due to non-maintenance for want of necessary fund.
- The necessary personal claims- MR, TA, etc. in respect of Fishermen both regular and contingent are not taken care of promptly and timely by the respective controlling officer.
- Fund allocation for maintenance of the farms is made mainly considering the district as a unit without taking into account the production potential, minimum requirement of fund as per water area, performance, etc. and this is also required to be streamlined.

- Fishermen are the backbone for the various operational steps in the farms which are arduous in nature particularly in fish breeding/raining season and they are not provided with working dress/rain coat for under-taking such work and needs to be seen.
- The inputs as well as transportation cost of various farm items has increased considerably in the recent time and accordingly the production cost has also increased. Therefore, the present sale rate of Table Fish, which is effective from 01-09-2005, is required to be reviewed.
- ✱ ➤ The Chayangtajo Fish Farm (0.15ha) which was leased out to Pvt. Fish farmer in 2002 at the annual lease rent of Rs.3000/- is doing well, and the lessee has duly deposited the necessary rent at the above rate from 2002 to 2006 although rent for the current year is still due from him and hence this may be encouraged.
- It is also observed that the present system is such that it does not matter whether some body achieves/contributes remarkably to his assigned task and/or the other one does not do anything to his similar task although the facilities provided/available are more or less the same and needs to be reviewed.

II. Present status of Beels & Lakes

- Four Beels & Lakes as shown below having total water area of 128.80 ha are under management of Fisheries Department of which Borbeel, near Lathao, Namsai was reclaimed under NEC Scheme –

Name of Beels/Lakes	Water are (Ha)
Borbeel	110.00 ha (total area 300 ha)
Ganga Lake	16.00 ha
Shalley Lake	02.00 ha
Karko Lake	00.80 ha
Total	128.80,80 ha

- The details of beels & lakes under management of Fisheries Deptt. indicating deployment of staff against each of them is shown in Appendix-III.
- Management practices involves stocking of fish seeds and fishing out of grown up fishes by using Gill/Caste nets, etc. without application of any feed and fertilizers, etc. except the smaller Karko Lake where conventional fish farming practices are adopted. However, in respect of Borbeel, the management practices also involves clearing of infested aquatic weeds – water hyacinth in particular for the fish habitat and proper fish growth thereof and no stocking of fish seed is carried out in this Beel.
- Beel/Lake wise maintenance expenditure and revenue thereof is being as shown below, it calls for immediate review of the present system and the policy for management these resources –

Name of Beel/Lake	Maint. Expdtr. (Rs. in lakh)			Revenue, year-wise (Amount in Rs)		
	2005-06	2006-07	Total	2005-06	2006-07	Total
Karko Lake	0.40	5.00	5.40	4230	6040	10270
Gangalake	1.38	0.50	1.88	-	2890	2890
Salley Lakes	0.10	0.50	0.60	25310	3910	29220
Borbeel	1.50	2.25	3.75	20000	-	20000
Total	2.38	9.25	11.63	49540	12840	62380

- There is also problem in management of Borbeel from the Insurgent groups from the neighboring State who use to take shelter in the surrounding areas/villages of the beel and poaching nuisance, disturbance(s) from bad elements in the management of Ganga & Salley Lakes. The situation is further compounded in respect of Ganga lake due to its multiple ownership by the various agencies such as Tourism, Fisheries and Forest & Environment Deptt. and conflict in the water use thereof in the developmental process.

III. Present status of Fish Mahals

- 15 (Fifteen) Fish Mahals, 5(five) from Lohit and 10(Ten) from Changlang District are controlled and managed by the Department of Fisheries. Their particular with boundary description, etc. is shown as per the Appendix-IV.
- These Mahals are leased out to the local bidders by inviting open/closed Tenders. However for actual fishing operation, professional fishermen from other States, Bihar in particular are engaged by the bidders and the mode of sharing of revenue from such Mahals in Lohit District is 50:50 basis i.e. 50% is accounted under the Revenue Head of Fisheries Department and the balance 50% is shared by the Anchal Samittees of respective Mahals. However, in respect of Changlang District the entire bid amount/revenue is deposited under the Revenue Head of Fisheries Department. Leasing period in respect of Mahals of Lohit District for six months from October – March and in Changlang District, it is for seven months from September – March every year.
- However, although the Tengapani Fish Mahal was earlier operated by the Department, the same was taken over by the nearby villagers without sharing 50% of the revenue to the Department since 1992-93 and the issue is pending till date and required to be sorted out.
- There is no any developmental effort as such from the Department involving financial implication except creation of awareness about the conservation of resources from time to time.
- The district-wise revenue from the Mahals is as shown below –

District	Revenue from Mahals during (in Rs.)		Total
	2005-06	2006-07	
Lohit	1,24,102.00	1,20,291.00	2,44,393.00
Changlang	57,600.00	75,488.00	1,33,088.00
Total=	1,81,702.00	1,95,779.00	3,77,481.00

Thus, it is seen that this is the only resource managed by the Department where its performance is found to be satisfactory without any financial involvement. Increase effort is required to be made for their scientific management and steady and sustainable exploitation for the benefit of the people.

(S. Pul)
Dy. Director of Fisheries
Member

(N. Pussang)
Asstt. Director of Fisheries
Member

(N. Mowke)
Dy. Director of Fisheries
Chairman

(C.B. Das)
Administrative Officer
Member

APPENDIX - I

List of district-wise distribution of Govt. Fish/Seed Farms, Transit Nursery indicating the location, year of establishment, farm area, water area and other facilities, etc

Districts	Name of Farm with location	Year of Estt.	Farm Area (Ha)	Water Area (Ha)	Of which (5) Nursery Pond	Other facilities available in the Farm			Remarks
						No	Area(Ha)	Store/ Godown	
1	2	3	4	5	6	7	8	9	10
1. Tawang	1. Tawang Common Carp Nursery (-)	75-76	3.56	0.19	1	0.02	-	-	-
	2. Nuranang Trout Farm (+)	66-67	1.12	0.50	2	0.03	-	Mini Trout Hatchery	Functional
	3. Seru Fish farm (-)	87-88	0.65	0.35	5	0.01	-	-	-
	4. Gyangkhar Fish Farm (-)	91-92	0.93	0.19	3	0.01	-	-	-
	Sub- Total =		6.28	1.18		0.08	-	-	-
2. West Kameng	5(1). Bomdila Fish farm (-)	77-78	0.75	0.13	5	0.08	-	-	-
	6(2). Salari Fish farm (+)	76-77	1.75	1.00	3	0.06	1(one)SPT	-	-
	7(3). Kalaktang Fish Farm (-)	85-86	0.80	0.20	2	0.04	-	-	-
	8(4). Bhalukpong Fish Farm (+)	91-92	1.10	0.49	1	0.03	-	-	-
	9(5). Khelong Fish Farm (-)	87-88	1.20	0.45	1	0.04	-	-	-
	10(6). Shergaon Trout Farm (+)	78-79	0.70	0.50	2	0.03	1(OBT)	Mini Trout Hatchery	Functional
	11(7). Hisu-Hubu Fish Farm, Thrizino (-)	85-86		0.45	-	-	-	-	-
	12(8). Regional Hatchery Complex for Cold Water Fishery, Samteng (+)	99-2000	300	1.00	72	0.13	1 (SPT)	Trout Hatchery - larger version	NEC Sponsored Scheme, Hatchery Functional
	Sub - Total =		306.30	4.22		0.41	1	-	-
3. East Kameng	13(1). Seppa Fish Farm (+)	71-72	0.80	0.40	3	0.03	-	-	-
	14(2). Veo Fish farm (-)	80-81	2.00	0.60	5	-	-	-	-
	15(3). Wessang Fish Farm (-)	86-87	1.11	0.28	1	-	-	-	-
	16(4). Pompoli Fish Farm (-)	76-77	0.93	0.21		-	-	-	-
	Sub- Total =		4.84	1.49		0.15	-	-	-
4. Papumpare	17(1). Govt. Fishery Project, Emchi (+)	77-78	4.42	2.34	6	0.23	1(RCC)	Hatchery(Circular Type)	Functional
	18(2). Fish Seed Multiplication Centre, Gumto (+)	74-75	2.20	1.00	11	0.27	1(one) SPT	-	-
	19(3). Itanagar Fish Farm (+)	93-94	0.23	0.22					
	Sub- Total =		6.85	3.56		0.50			

er Subansiri	20(1).Regional High Altitude Fish Seed Farm, Tarin(NEC sponsored)	80-81	7.40	3.00	50	1.00	1(one)SPT	Hatchery(CIFE-D81 Model)	Not functional
	21(2).Yachuli Fish Farm (-)	92-93	0.70	0.50	15	-	-	Hatchery (Circular Type)	Not functional
	Sub-Total =		9.40	3.50		1.20	8	9	10
6.Kurung Kumey	22(1).Nyapin Fish Seed Farm (-)	91-92	0.30	0.22	-	0.22	-	-	-
	23(2).Pungrung Fish Farm (-)	92-93	1.20	0.50	-	-	-	-	-
	Sub-Total =		1.50	0.72		0.22			
7.Upper Subansiri	24(1).Daporijo Fish farm (+)	73-74	2.14	0.98	9	0.18	-	-	-
	25(2).Dumporijo Fish Farm (-)	79-80	0.88	0.31	2	0.03	-	-	-
	26(3).Nachō Fish Farm (-)	95-96	0.24	0.15	2	0.06	-	-	-
	Sub-Total =		3.26	1.44		0.27	1(SPT)		
8. West Siang	27(1).Along Fish Farm (+)	80-81	1.33	0.64	-	-	-	-	-
	28(2).Kombo Fish farm (-)	75-76	1.61	0.74	4	0.12	-	-	-
	29(3).Basar Fish farm (-)	92-93	0.80	0.54	1	0.06	-	-	-
	Sub-Total =		3.74	1.92		0.18			
9.Upper Siang	30(1).Yingkiong Fish farm (-)	72-73	1.50	0.52	4	0.08	-	-	-
	31(2).Jenging Fish Farm (-)	91-92	1.00	0.27	-	-	-	-	-
	Sub-Total =		2.50	0.79		0.08	1(OBT)		
10.L/Dibang Valley	32(1).Bolung Fish farm (-)	80-81	-	1.73	2	0.03	-	-	-
	33(2).Componath Fish Farm (-)	84-85	-	0.80	-	-	-	-	-
	34(3).Iduli Fish Farm (+)	94-95	-	1.49	2	0.03	1(OBT)	Hatchery, Fibre glass type installed in 06-07.	Functional
	Sub-Total =			4.02		0.06			
11.Lohit	35(1).Nongkhon Fish farm (-)	84-85	1.50	0.60	-	-	-	-	-
	36(2).TR Camp Fish Farm (-)	85-86	1.90	0.80	2	0.04	-	-	-
	37(3).Transit Nursery, Walong (-)	94-95	0.20	0.20	2	0.06	-	-	-
	38(4).Lathao Fish Farm (+)	79-80	4.00	2.73	15	0.38	1(OBT)	-	-
	Sub-Total =		7.60	4.33		0.26			
12.East Siang	39(1).Pasighat Fish farm (-)	58-59	3.00	1.48	7	0.26	1(SPT)	Circular type Hatchery under installation	-
	40(2).Panekorong Fish Farm (+)	85-86	1.60	0.70	2	0.08	-	-	-
	Sub-Total =		4.60	2.18		0.34			

Y.T.F. Farm water
Cell. area, N/P Area
Other facilities.

Changlang	41(1).Bordumsa Fish farm	76-77	1.662.	0.70	2	0.08	1(SPT,Dam aged)	-	-
	42(2).Diyun Fish Farm	80-81	1.80	0.85	2	0.25	1(RCC)	-	Including Sumpoi beel
	43(3).Rangkatu Fish farm	93-94	4.00	1.40	-	-	1(RCC)	-	NEC sponsored
	44(4).Transit Nursery, Changlang (-)	93-94	0.30	0.20	1	0.20	-	-	-
	45(5).Transit Nursery, Miao (-)	89-90	0.39	0.35	4	0.35	-	-	-
	46(6).Transit Nursery, Nampong (-)	88-89	0.30	0.28	2	0.28	-	-	-
	Sub-Total =		8.45	3.78		1.53			
14.Tirap	47(1).Deomali Fish Seed Farm (+)	83-84	2.50	1.30	9	0.33	1(SPT)	-	-
	48(2).Khonsa Fish Farm (-)	84-85	1.00	0.15	-	-	-	-	-
	49(3).Tissa Fish Farm (-)	84-85	0.30	0.26	-	-	-	-	-
	50(4).Transit Nursery, Laju (-)	85-86	0.25	0.15	-	-	-	-	-
	51(5).Kanubari Fish Farm (+)	80-81	1.00	0.70	1	0.03	-	-	-
	Sub-Total =		5.05	2.56		0.51			

Summary of Govt. Farms i.e. District-wise No. of farms, farm area, water area, category wise No. of farms with water area, etc.

Sl. No.	Name of Distts.	No. of farms	Farm area (Ha)	Water area (HA)	Small farms (below 0.5Ha)		Medium farms (0.5-1. ha)		Large farms (1.00 - 3.00ha)	
					No	Ha.	No	Ha.	No	Ha.
1.	Tawanag	4	6.26	1.18	3	0.68	1	0.50 (Nuranang)		
2.	West Kameng	8	306.30	4.22	5	1.72	1	0.50 (Shergaon)	2	2.00 (Salari, Samteng)
3.	East Kameng	4	4.84	1.49	3	0.89	1	0.60 (Veao)		
4.	Papum-Pare	3	6.85	3.56	1	0.22			2	3.34 (Emchi/Gumto)
5.	Lower Subansiri	2	9.40	3.50	-		1	0.50 (Yachuli)	1	3.00 (Tarin)
6.	Kurung-Kumey	2	-	0.72	1	0.22	1	0.50 (Pungrung)		
7.	U/Subansiri	3	4.26	1.44	2	0.46	1	0.98 (Daporijo)		
8.	West Siang	3	3.74	1.92	-	-	3	1.92 (Alg/Kombo/Basar)		
9.	Upper Siang	2	2.50	0.79	1	0.27	1	0.52 (Ykg)		
10.	L/Dibang Valley	3	-	4.02	-	-	1	0.80 (Kamponath)	2	3.22 (Bolung/Iduli)
11.	Lohit District.	4	7.60	4.33	1	0.20	1	1.40 (N/Khong/TRC)	1	2.73 (Lathao)
12.	East Siang	2	4.60	2.18	-	-	1	0.70 (Panikorong)	1	1.48 (Pasighat)
13.	Changlang District	6	8.45	3.78	3	0.83	2	1.85 (Diyun, Rangkata)	1	1.10 (Bordumsa)
14.	Tirap	5	5.05	2.56	3	0.56	1	0.70 (K/bari)	1	1.30 (Deomali)
TOTAL		51	369.87	35.69	23	6.05	17	11.47	11	18.17

Note: - Farm area in respect of Kurung Kumey & Lower Dibang Valley could not be incorporated due to non-availability required informations

APPENDIX-II**Deployment of Staff in various Govt. Fish/Seed Farms under Deptt. of Fisheries.**

District	Name of Farm	Particulars of Staff against each Fish Farm
Tawang	1. Tawang CC. Nursery(0.19 ha	1. Sri S. Norbu, Fisherman
	2. Nuranang Trout Farm (1.12 Ha)	1. Shri T. Nokar, F D
		2. Shri T. Wangdi, Fisherman
		3. Sri Singchung, Contg. F/m
	3. Seru Fish Farm(0.35ha)	1. Sri L. Tsering, Fisherman
	4. Gyangkhar Fish Farm(0.19ha)	1. Sri Leptang Tsering, Fisherman
	Sub-Total	6 Nos.
West Kameng	1. Boimdila Fish farm(0.13ha)	1. Sri D. Wangshu, AFO
		2. Mrs. Mobia Yakang, Fisherman
		3. Miss Rani Chetry, Contg. F/m
		4. Miss Munu Chetry, Contg. F/m
	2. Salari Fish farm(1.0ha)	1. Sri Taku Lassa, AFO
		2. Sri Birbal Rabha, F/m
		3. Sri Singchung Khanriju, Contg. F/m
		4. Sri Gopal Sharma, Contg. F/m
	3. Bhalokpung Fish farm(0.49ha)	1. Sri Leiki Kahru, F/m
		2. Sri Nigma Miji, Contg. F/m
		3. Smti Trishna Kharu, Contg. F/m
	4. Shergaon Trout Farm(0.5ha)	1. Sri Sang Ledo Thungon, FD
		2. Sri Bir Bdr. Tamang, F/m
		3. Sri Ganesh Basumotary, Contg. F/m
		4. Sri Dose Rabha, Contg. F/m
	5. Samteng Project (NEC sponsored, with Trout Hatchery (1.0ha)	1. Sri Pem Dorjee Khrame, FD
		2. Sri Dorjee Gombu Lama, FD
		3. Sri Sang Kahndu Thungon, LDC
		4. Sri Bupkan Dutta, Fisherman
		5. Sri Yeshi Dorjee Khrame, F/m
		6. Sri Chowchong Tsering Thungon, F/m
		7. Sri Nima Tsering Thungon, F/m
		8. Sri Sang Dorjee Thungon, F/m
		9. Sri Rinchin Khandu Thungon, F/m
		10. Sri Pem Khandu Lama, F/m
		11. Miss Tsering Dema Thungon, Peon
	6. Kalaktang Fish farm (0.20ha)	No staff
	7. Khelong Fish Farm (0.45ha)	No staff
	8. Hisu-Hubu Fish Farm (0.45ha)	No staff
	Sub-Total	26 (Twenty Six) Nos.
East Kameng	1. Seppa Fish farm (0.40ha)	1. Sri Keracha Natung, FD
		2. Sri Tasar Tungi, FD
		3. Sri Lema Pemu, F/m
		4. Sri P.B. Rai, F/m
		5. Sri Pacha Fechang, F/m
		6. Sri kacha Bagang, F/m
		7. Sri Taram Bagang, Contg. F/m
		8. Sri Nibe Singhi, Contg. F/m
	2. Veo Fish farm (0.60ha)	1. Sri Takhyang Dafri, F/m
	3. Wessang Fish farm (0.28ha)	1. Sri Lata Tabri, F/m
	4. Pompoli Fish Farm (0.00ha)	1. Sri Nikam Londa, F/m
	Sub-Total =	11 (Eleven) Nos.

Papumpare	1. Emchi Fishery Project (2.34ha with Hatchery)	1. Sri R. N. Pradhan, FO
		2. Sri K. Tabing, FD
		3. Sri . Roy, F/m
		4. Sri H. Munda, F/m
		5. Sri R. C. Sahani, F/m
		6. Sri L. Lohar, F/m
		7. Sri J. Chendiguria, Contg. F/m
		8. Sri T. Tai, Contg. F/m
		9. Smti T. Anjali, Contg. F/m
		10. Smti T. Yagu, Contg. F/m
	2. Gumto Fish Seed Farm (1.0ha)	1. Sri Y.N. Comdir, AFO
		2. Sri T. Tacho, AFO
		3. Sri L. Tagam, FD
		4. Sri T. Taki, F/m
		5. Sri Chukhu Nana, F/m
		6. Sri S. Gour, Contg. F/m
	Sub-Total= 16(Sixteen) Nos	
Lower Subansiri	1. Tarin Fish Seed Farm (3.0ha, NEC sponsored)	1. Sri P. R. Swamy, Farm Manager (Gr. 'B')
		2. Sri H.K. Hazarika, FD
		3. Mrs. Phuleswari Tage, FD
		4. Sri Dani Tak, F/m
		5. Sri Taku Bida, F/m
		6. Sri Hoj Hapu, F/m
		7. Sri Tamo Randa, F/m
		8. Sri Dani Koyang, F/m
		9. Sri Pura Tage, Peon
		10. Sri Pura Nitin, Contg. F/m
		11. Sri Dani Tadi, Contg. F/m
	2. Yachuli Fish Farm (0.5ha)	1. Sri Joram amu, FD
		2. Sri Duyu Rika, F/m
		3. Sri Nokram Tami, Contg. F/m
	Sub-Total= 14(Fourteen) Nos.	
Kurung Kumey	1. Nyapin Fish Seed Farm (0.22ha)	1. Sri Phasang Mangha, FD
		2. Sri Tage Mobin, F/m
		3. Sri Paney Yachi, Contg. F/m
	2. Pungrung Fish Farm (0.80ha)	1. Sri Tai Tagung, FD
		Sub-total= 4(Four) Nos
Upper Subansiri	1. Daporijo Fish Farm (0.98ha)	1. Sri V. Singh, FO
		2. Sri Tabu Kare, F/m
		3. Sri Tage Malling, F/m
	2. Dumporijo Fish Farm (0.31ha)	1. Sri Tara Bullo, FO
		2. Sri T. Gyadu, F/m
	3. Nacho Fish Farm (0.15ha)	1. Sri Tade Nacho, Contg. F/m
	Sub-Total = 6(six) nos.	
West Siang	1. Along Fish Farm (0.64 ha)	1. Sri Moge Nacho, AFO
		2. Sri Jabom Bagra, Contg. F/m
	2. Kombo Fish Farm (0.74ha)	1. Sri D. Ado, F/m
		2. Sri Geke Lollen, F/m
	3. Basar Fish Farm (0.54ha)	1. Sri Jumdo Rirum, FD
		Sub-Total= 5(Five) Nos.
Upper Siang	1. Yingkiong Fish Farm (0.52ha)	1. Sri O. Tekseng, FD
		2. Sri T. Siyum, F/m
		3. Sri T. Libang, F/m
	2. Jengling Fish Farm (0.27ha)	1. Sri D. Apang, FD
		Sub-Total= 4(four) Nos.

Lower D/Valley	1. Bolung Fish Farm (1.73ha)	FD-1, F/m-1, Contg.F/m-1 = 3(three)
	2. Komponath Fish Farm (0.80ha)	FD-1, Contg. F/m-1 = 2(two)
	3. Iduli Fish Farm (1.49ha)	Contg. F/m-1
	Sub-Total	6(six) Nos.
Lohit	1. Nongkhon Fish Farm (0.60ha)	1. Sri R. Korio, F/m
	2. TR Camp Fish Farm (0.80ha)	1. Sri K.C. Das, AFO
		2. Sri P. Sharma, F/m
	3. Lathao Fish Farm (2.73ha)	1. Sri R. Limbo, FO
		2. Sri J. Pokna, AFO
		3. Sri Bharat Prasad, F/m
	Sub-Total	6(Six) Nos.
East Siang	1. Pasighat Fish Farm (1.48ha)	1. Sri S.R. Sarkar, FO
		2. Sri Oling Moyong, FD
		3. Sri Rudra Gogoi, F/m
		4. Smti Maya Tanti, Contg. F/m
	2. Panekorong Fish farm (0.70ha)	1. Smti Odyssey Tapok, FO
		2. Sri Tokshup Tayeng, FD
		3. Sri Rajeev Gamno, FD
		4. Sri Onying Tatang, F/m
	Sub-total=	8(eight) Nos.
Changlang	1. Bordumsa Fish farm (1.10ha)	1. Sri P. Saikia, AFO
		2. Sri A. Das, FD
		3. Sri Dani Tangu, F/m
	2. Dayin Fish farm (0.85ha)	1. Sri N. Boro, AFO
		2. Sri J.D. Paul, FD
		3. Sri A. Wangshu, F/m
	3. Rangkatu Fish farm (1.0ha)	1. Sri S. Ngotan, FD
		2. Sri P. Mamai, F/m
		3. Sri B. Boro, F/m
	4. Transit Nursery, Changlang (0.20ha)	1. Sri P.J. Deori, FO
		2. Sri Rajesh Mowke, FD
		3. Mrs. C. Taiju, Contg. F/m
	5. Transit Nursery, Miao (0.35ha)	1. Sri A. Shyam, FD
	6. Transit Nursery, Nampong (0.28ha)	1. Sri P.K. Chakraborty, FO
		2. Sri T. Debnath, FD
		3. Sri B. Topno, Contg. F/m
	Sub-total	16 (Sixteen) Nos.
Tirap	1. Deomali Fish Seed Farm (1.30ha with Hatchery)	1. Sri D. Bhattacharjee, FO (Looking after from Khonsa)
		2. Sri Kamal Sonwal, F/m
		3. Sri Tage Pussang, F/m
		4. Sri S. Bharat, Contg. F/m
	2. Khonsa Fish Farm (0.15ha)	1. Sri D.K. Gogoi, FO
		2. Sri Jabum, Contg. F/m
	3. Tissa Fish Farm (0.26ha)	1. Smti Phejam Wangshu, Contg. F/m
	4. Transit Nursery, Laju (0.15ha)	No staff
	5. Kanubari Fish Farm(0.70ha)	No staff
	Sub-Total=	7 (Seven) Nos.
	GRAND-TOTAL=	135 (one hundred thirty five)

Designation-wise number of staff deployed in the Farms :-

1. Fishery Officer	: 10 (Ten)
2. Asstt. Fishery Officer	: 9 (Nine)
3. Fishery Demonstrator	: 27 (Twenty Seven)
4. Fisherman	: 55 (Fifty Five)
5. Contg. Fisherman	: 32 (Thirty Two)
6. Peon	: 2 (Two)
Total =	: 135 Nos.

APPENDIX-III

Details of beels & Lakes under Management of
Fishery Department indicating deployment of
staff against each.

Sl. No.	Names of beels/lakes	Year of estt.	Water area (in ha.)	Particulars of staff attached with beels/lakes
1.	Karko lake (Upper Siang)	1979-80	0.80 ha.	1. Sri D. Apang, F.D. 2. " A. Nohar, F.M. 3. " P. Sahani, F.M.
2.	Ganga Lake (Papumpare District).	1978-79	16.00 "	1. " T. Kama, F.O. 2. " B. Sahani, Contg. FM.
3.	Salley Lake (Lower Dibang Valley Dist.)	1974-75	2.00 "	1. A. P. G. - 1, F.M. - 1, Contg. - 1.
4.	Bor-beel (Namsai, near Lathao, Jhitt) Reclaimed under NEC.	1968-89	110.00 "	1. Sri Atul Failing, F.D. 2. " Musafir Sahani, F.M. 3. " Puna Chowsong, F.M.
Total :			128.80 ha.	

20 APPENDIX - I - IV.

Particulars of Fish Mahals with boundary description under Fishery Department for management & exploitation.

Name of Mahals.	Stretch of the Mahal.	Boundary description.
A) Lohit District.		
1. Lohit	200 Km.	From the confluence of Tesu Khola stream with the point of right bank Balijan river and then across the Lohit rivers south westerly upto half km from the confluence of Tengapani river but excluding all tributaries of the Lohit rivers.
2. New Nao-Dithing Mahal.	205 Km.	M/pur-I to boundary of Changlang District.
3. Nao-Dithing Mahal	30 Km.	Lengtau Muxh to Dirak Muxh.
4. Tengapani, Mabira Panchala Mahal.	-	a) Mabira from the junction point of Soru mabira with Bara Mabira stream down stream upto mabira muct. b) Panchala from its jungle point origin to the confluence with Tengapani.
5. Dhanakhola Namlo beel.	5 Km.	North-left bank of Tangapani river and jungle South-Ahom village (Jona-II) East-Shauma Niri village & Jungle west left bank of Tangapani river.
B. Changlang District.		
1. Tirap river fish Mahal USF(A)	30 Km.	The portion of Simpahwa down stream upto Dokpewa under Manmao Circle.
2. Tirap river Fish Mahal USF(B)	30 Km.	The portion of Simpahwa upward to the confluence of Tichu Stream on Tirap river under Changlang Circle.
3. Namchik river fish Mahal.	16 Km.	From old Ngati village up stream of Namchik river under Manmao Circle.
4. Rima river fish Mahals.	15 Km.	From Hongthey Nallah to 02 kms beyond Rima Bridge under Jairampur/Nampong Circle.
5. Tipong River Fish Mahals.	6.5 Km.	From the confluence of Tipong river and phuachokha (Stream) run towards down river upto the confluence of Tipong and Panchupani river under Manmao and Jaitramput Circle.
6. Namchik Doimukh Fish Mahals.	10 Km.	From Namchik Doimukh to Kharsend Doimukh under Kharsang Circle.
7. Namchik-Jairampur Fish Mahals.	16 Km.	Namchik - Doimukh to Jaitrampur - Doimukh under Kharsang Circle.
8. Meen Mahal No.1.	6 Km.	Namchik Bridge to Namchik water pump under Kharsang Circle.
9. Meen Mahal No.2.	9 Km.	Namchik water pump to Namgoi Nallah under Miao Circle.
10. Meen Mahal No.3.		Namgoi Nallah to Hongthey Nallah under Miao Circle.

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