

Mobilization of Collective Action for Fishing Rights and Management of Fishery Resources: A Case Study

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ABSTRACT

The literature on natural resource management is replete with conceptualization, experimentation, analysis and evolution of different forms of community-based management. The role and relevance of local communities in the management of natural resources have now been recognized globally. There is growing recognition of the effectiveness of local groups and associations in bringing about positive biodiversity outcomes. In this paper, efforts of the tribal people displaced by the Tawa dam in Hoshangabad distt. of M.P, towards mobilization of collective action for obtaining fishing rights in the Tawa reservoir and successful management of fishery resources in an organised cooperative way, are presented and the lessons learnt from this experience and scaling up possibilities are discussed. This case study shows that if recognized and supported through appropriate policy and administrative interventions, local people's organizations can become active partners in the co-management of freshwater fisheries resources, by providing institutional support at the grassroots level, for sustainable and equitable utilization.

Key words : Mobilization; Collective action; Fishing rights; Management of fishery resources; Fishing cooperative societies

In recent years, there has been a considerable experimentation in the institutional arrangements governing natural resource management (NRM) in different countries. The institutional changes amount to a redefinition of the role of the state and have stimulated further exploration regarding a variety of local government and non-state forms of management and co-management. Institutional restructuring efforts of this kind involve local communities and user groups, joint environmental management schemes, nongovernmental organization-based initiatives, cooperative bodies and other actors at the micro and meso levels (Maynen and Doornbos, 2004). Thus, it is emphasized, the key task in NRM is building the right kind of institutions (Shah, 1993).

The literature on NRM is replete with conceptualization, experimentation, analysis and evolution of different forms of community-based management. The managerial rationale for co-management lies, it is argued, in fact that the strengths and weaknesses of the state in resource management are complementary to those of local communities or user groups (Baland and Platteau, 1996). Several countries have recognized the role and relevance of local communities in the management of natural resources (Baland and Platteau, 1996; Agrawal and Gibson, 1999; Berkes, 2003; Ostrom, 1990). In

this context, a study was undertaken at the Tawa reservoir in Hoshangabad distt. of M.P. with following objectives :

1. To document and analyse the efforts made by the tribal people displaced by the Tawa dam in Hoshangabad distt. of M.P, towards mobilization of collective action for obtaining fishing rights in the Tawa reservoir and successful management of fishery resources in an organised cooperative way.
2. To document and analyse the lessons learnt from their experiences and explore the possibilities for up-scaling.

METHODOLOGY

This case study was conducted during the years 2006-07. The detailed field visits were made and data was collected by in-depth interviews of the member tribal fisherfolks and representatives of the Tawa Matsya Sangh (TMS) with the help of a specially prepared checklist. The officials of the state fisheries department, MP State Fisheries Development Corporation and Kisha Adivasi Sangthon - a local NGO, were also interviewed. Besides, the data was also collected from the secondary sources such as published literature and annual reports and records of TMS.

RESULTS AND DISCUSSION

Status of fishing cooperative societies at Tawa reservoir:

There are 34 primary fishing cooperative societies at village level and 6 affiliated fishing cooperative societies. Total membership of all the 40 societies is 1679, out of which, 1445 are tribal (Gonds & Korkus) members (Table 1).

One of the conditions for the membership of primary Fisherman's Cooperative Society is that the person should be displaced from Tawa Dam or should reside within three kilometers of the reservoir boundary. Outsiders have no entry in these societies. The people concerned are the natives of this region.

Table 1. Details of the fishing cooperative societies and number of members at Tawa reservoir

Details of societies			No. of members			
Type of society	Landing center	Number of societies	SCs	STs	OBCs	Total
Primary member fishing cooperative societies	Tawa Nagar	5	7	135	25	167
Primary member fishing cooperative societies	Banglapura	20	19	989	6	1014
Primary member fishing cooperative societies	Tekapar	9	0	319	13	332
Associate societies	Tawa Nagar	6	1	2	163	166
Total		40	26	1445	207	1679

Performance of fishing cooperative societies : After a long struggle, the tribal communities got the exclusive fishing rights in the name of Tawa Matsya Sangh in the year 1996-97. The TMS and Kisan Adivasi Sangathan, with cooperation of other grassroot organizations organised meetings, protest campaigns, workshops, etc. from time to time to get the fishing rights and then to get them renewed for another term. An important aspect of this struggle of tribals has been the active involvement of the women. This lease was extended for another 5 years in 2001. However, the lease has not been renewed after December 2006, due to legal and technical objections from the forest and wildlife department.

A comparative account of fish production and seed stocking in Tawa Reservoir under different management regimes is presented in Table 2. It is clear from the data that the tribal fishermen's cooperative societies in Tawa reservoir, under the leadership of TMS, have not only increased fish production and fishermen's income (as compared to the other management regimes i.e. the state agencies and the private rights) during the last ten years (Table 2), but also concentrated on resource enhancement and conservation of fishery resources. The data shown in table 2 indicate that total fish production has increased by 135% where as, average productivity increased by 140% during ten years of TMS regime.

Table 2. Comparative account of Fish production and seed stocking in Tawa Reservoir under different management regimes

Year	Total Fish Prod. (tones)	Av. Prod. (kg/ ha)	Stocking of fish seed (lakhs)	Fish seed produced by villagers (No. lakhs)	Managing agency
1990 - 91	130.69	10.75	20.67	—	Fish. Dev. Corp.
1991 - 92	146.01	12.05	24.85	—	Fish. Dev. Corp
1992 - 93	88.67	7.30	16.43	—	Fish. Dev. Corp
1993 - 94	84.42	6.95	27.48	—	Fish. Dev. Corp
1994 - 95	176.18	15.50	17.96	—	Contractor
1995 - 96	Authorized fishing remained closed				
Average of 5 yrs. 1990-91 to 1994 -95	125.19	10.31	21.48	—	
1996-97 (Av. of 3 months)	93.22	7.68	—	—	TMS
1997 - 98	245.81	20.24	26.14	0.20	TMS
1998 - 99	344.37	28.35	27.90	0.20	TMS
1999 - 2000	393.16	32.37	29.47	4.77	TMS
2000 - 01	327.17	26.94	32.19	5.45	TMS
2001 - 02	269.05	22.15	31.11	5.96	TMS
2002 - 03	202.13	16.64	27.34	8.61	TMS
2003 - 04	195.89	16.12	26.54	9.80	TMS
2004 - 05	382.12	31.46	23.20	3.96	TMS
2005 - 06	287.33	23.66	28.40	11.37	TMS
Average of 9 years 1997-98 to 2005-06	294.118	24.22	28.03	5.58	TMS

Source: TMS Annual Report 2005-06

Performance of the tribal fishermen's cooperative societies under TMS on some of the socioeconomic

parameters is summarised in table 3. The maximum number of working fishermen ranged between 35 - 50%

of the total members, out of which, on an average, 40-45% has been working daily in the fishing activity. The average number of working days has been consistently above 250 days in a year which has resulted in creation of over 50,000 fishing days of employment, on an average, in a year. It shows that the sustainable production from the reservoir has been able to provide gainful employment to the displaced tribal people sustain their livelihood. These are remarkable figures in the present scenario of inland capture fisheries where more and more number of fishermen are leaving capture fisheries due to declining fish catches.

Despite these successes, informal interactions with the state fisheries department and other state agencies

revealed that they did not have a favourable attitude towards these people's organisations.

Interventions implemented by tribal fishing cooperative societies : During the period of ten years when the tribal people (through the TMS) had fishing rights over Tawa reservoir, they introduced a number of initiatives to mobilise collective action for ensuring proper management of the resources which included :

- (i) devising mechanisms and procedures for effective management of the fishing and fish marketing activities,
- (ii) measures for enhancement and conservation of fishery resources, and
- (iii) equitable sharing of benefits among the fishermen.

Table 3 Detail performance of the fishing cooperative societies on socioeconomic parameters under the Tawa Matsya Sangh

Parameters/ Indicators	YEAR								
	1997-98	1998-99	1999 -2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
No. of Societies	36	38	38	38	38	40	40	40	40
No. of Active Societies	33	34	36	36	37	39	38	38	38
No. of Members	1000	1042	1042	1242	1250	1250	1300	1500	1600
Max. No. of Working Members	393	400	479	477	554	400	477	484	413
Daily Av. of Working Members	171	205	213	209	183	156	159	212	205
Av. no. of Working Days	267	257	262	250	270	272	289	290	284
Employment created (Total Fishing days)	45750	52749	55,806	52191	49394	42435	46039	61568	58356
Income from fish sale (Rs. lakhs)	77.56	99.86	125.35	116.71	97.21	71.27	74.40	131.31	99.90
Total income of fishermen (Rs. lakhs)	30.45	47.15	52.12	47.46	36.37	26.64	29.43	62.81	44.78
Royalty paid to Fish Fed. (Rs. lakhs)	11.80	16.53	18.87	15.70	12.91	9.70	9.40	18.34	13.79
Income of fishermen (Per Kg of fish) (Rs.)	12.37	13.69	13.26	14.51	13.52	13.20	15.02	16.44	15.58
Income of fishermen (Per Day) (Rs.)	66.56	89.39	93.27	90.93	73.64	62.79	63.92	102.02	76.73

Source : TMS Annual Report 2005-06

Some of the measures undertaken by the TMS are following :

- It ensures that all the conservation rules enforced by the state government are followed.
- TMS undertook responsibility of stocking several lakhs of fish seed fingerlings every year in order to replenish and maintain the fish stock in the reservoir.
- Seeds of only recommended species are stocked.
- Care is taken not to stock seeds of exotic species e.g. Silver Carp, Common Carp, Grass Carp, Thai Mangur, etc. which may be harmful to native fish fauna.
- TMS undertook a unique experiment of developing low-cost rearing ponds at the periphery of the reservoir and mobilising people to form groups of tribal men and women to rear fish seed. This has got both socio-economic, as well as, ecological advantages.
- A number of mechanisms have been developed to

manage the fish production and marketing activities of the member fishermen, such as, the rate for purchase of fish from the fishermen member is decided in the general body meeting of all the members of the primary societies of TMS, weekly payments are made to the fishermen by the TMS, etc.

- TMS has developed a mechanism of calling a meeting, collectively taking a decision and penalizing any member caught violating the rules.
- Fish poaching and illegal fishing has been an important problem in reservoir fisheries. This problem is resolved to a large extent by community participation and community control in the Tawa Reservoir. Every village on the periphery has a primary society and every willing resident of the village has been given an opportunity to join. Middlemen have been abolished and fishermen have got better wages. This has led to an increased

participation and commitment on their part. The previous 'poachers' have been transformed into owners.

- Fishing is done by manually operated boats. No trawlers or mechanized boats used for fishing.
- TMS staff regularly moves around in jeeps and motorboats in order to keep vigil and check illegal fishing. A lot of money is spent on this account.
- Proper records are maintained for all the activities by the TMS.

CONCLUSION

The following conclusions can be drawn from the detailed case study of the cooperative management of fishery resources in Tawa reservoir by the fishing cooperatives under TMS :

- It has presented a new model of community management of natural resources, where the use, development, conservation and governance of natural resources could be done simultaneously by the community organizations themselves.
- It is also a model of tribal development where the tribals have organized themselves and led a sustained

constructive struggle for, not only securing rights over natural resources, but also, devising mechanisms and implementing them for governing the resources successfully.

- It is a successful experiment of rehabilitation (though partial) of dam-affected people. Thus, it is a model of successfully combining the struggle and constructive initiatives of local community, without any outside funding, for real participatory development.
- It also reaffirms that the issue of rights (i.e. property/ ownership rights or at least the right to manage the resource) to the community, is the most fundamental issue to be addressed in dealing with the management and governance of natural resources.
- There is enough evidence, in case of Tawa fishing cooperatives, to show that if recognized and supported through appropriate policy and administrative interventions, such local people's organizations can become active partners in the co-management of freshwater fisheries resources, by providing institutional support at the grassroots level, for sustainable and equitable utilization.

REFERENCES

1. Agrawal, A. and C. Gibson, 1999. Enhancement and Disenchantment : The Role of Community in Natural Resource Conservation. *World Development*, **27** (4): 629-49.
2. Baland, J.M. and J.P. Platteau, 1996. Halting Degradation of Natural Resources: is there a Role for Rural Communities? *Oxford Economic Papers*, **49**: 451-82.
3. Berkes, F. 2003, Alternatives to Conventional management: Lessons from Small-scale Fisheries. *Environments*, **31** (1): 5-19.
4. Jyotishi, A. and R. Parthasarathy. 2007. Reservoir Fisheries Management: Experiences of Tawa in Madhya Pradesh. *Economic and Political Weekly*. **XLII** (5): 409-415.
5. Krishna, A. 2002. Active social capital: tracing the roots of development and democracy. Columbia University Press, New York.
6. McNeely, J.A. and S.J. Scherr. 2003. Ecoagriculture: strategies to feed the world and save biodiversity. Island Press, Washington, D.C.
7. Meynen, W. and Martin Doornbos. 2004. Decentralizing Natural Resource Management: A Recipe for Sustainability and Equity? *European Journal of Development Research*, **16**(1): 235-254.
8. Ostrom, E., 1990. Governing the Commons: The Evolution of Institutions for Collective Action, New York: Cambridge University Press.
9. Pretty, J.N. and H.D. Ward. 2001. Social capital and the environment. *World Development*. **29**: 209-227.
10. Pretty, J.N. and David Smith. 2004. Social capital and biodiversity conservation. *Conservation Biology*. **18** (3): 631-638.
11. Shah, Tushar. 1993. Institutional foundations of natural resource management. Foundation day lecture, Youth for Action. *Indian Journal of Public Administration*, **39** (3): 603-611.
12. Singh, K. and V. Ballabh. 1997. Cooperative management of natural resources. Sage, New Delhi.
13. Tawa Displaced Tribal Fish Production and Marketing Cooperative Federation Limited, 1999 to 2006, Various issues of Annual Reports, Kesla, Hoshangabad, Madhya Pradesh.
14. Thomson, K.T. 2006. The role of public-private cooperation in the management of estuarine fisheries : Learning from the Kerala model of co-management. Paper presented at the 11th biennial conference of the International Association for the Study of Common Property, Bali, Indonesia, June 19-23, 2006.