

Managing fisheries from a migrant perspective

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A characteristic feature of nature in the present is change. From coastlines to urban green spaces, our conception of nature is in flux, as is the technology that we use to interact with nature. Nowhere is that more obvious than in the marine realm. As sea levels rise, waters warm and acidify, so mobility, flexibility and adaptability become key characteristics of survival. The survival of charismatic marine species, or people who traditionally depend on marine fishing, is seen as being threatened by ecological and economic transformations. In an era of environmental and economic change, my approach to understanding nature emerges

from the ways in which fisherfolk adapt to changes in the natural resources on which they depend. Examining the processes and impacts of their adaptation strategies allows us to see the complex ways in which nature is transformed.

It was January 2011 in Mandapam, Ramnathapuram district, Tamil Nadu, when I came across George. A fisherman from Kanyakumari district, George was on his annual trip up the coast to follow the fish. Along with his group from Kanyakumari, George operates a wooden boat powered by an outboard motor, which he uses to catch mackerel, seerfish and mainly

sharks. George claims that he spends six months of the year migrating as far North as the Pudukottai district (a distance of over 400 km each way), staying with relatives, in-laws and others with whom his group has made 'traditional' arrangements.

These 'traditional' arrangements are only a few decades old, dating back to the 1980s.¹ Given the background of conflicts among fishermen regarding territoriality, particularly who could fish in which waters, and the self-distinction of fishing communities from 'outsiders', such arrangements with temporary migrant fishermen seem surprising. In stark contrast is the experience related to me by Ramulu in 2013. A fisherman from the Sri-kakulam district of Andhra Pradesh, Ramulu regularly migrates to the Sindhudurg district of Maharashtra to work in the purse seine fishery. His group is treated with suspicion by local artisanal fishermen, who maintain fishing territories in which the purse-seine boats are not allowed to operate. Further, he is not allowed to stay or access the fish market in the artisanal fishing village.

Migration is thus a key process in shaping the discourse of fishing communities across India. A history of migration has meant that fishing villages and societies, just like the activity of fishing, cannot be viewed in isolation and must necessarily function in relation to other places, people and activities.

The relational aspect of marine fisheries is best demonstrated in the form of the conflicts and contestations that define most fishing communities and fishing operations in India. Con-

flicts over access to fish resources, use of technology and sustainable resource use have been described across India, in the states of Tamil Nadu,² Kerala,³ Goa, Andhra Pradesh and Gujarat.⁴ Many of these conflicts involve a spatial dimension, i.e. conflicts over the movement of people into a fishery, either on land or at sea.

Conflict on land has been described in many cases to have a basis in caste politics. Single castes dominate many fishing villages and the immigration of fishermen from a different caste, with or without fishing backgrounds, could create conflict.⁵ Conflict at sea has much more to do with equitable access to resources and ecological sustainability. My focus in this essay is on conflict at sea in the face of different types of migration.

The impact of migration on the environment is not straightforward. Both immigration and the use of fishing areas by migrant fishermen could have a significant impact on the marine ecosystem. For instance, immigration into the fishery in the Ramnathapuram district of Tamil Nadu has led to over-capitalization and resource degradation due to an absence of checks by

2. M. Bavinck, *Marine Resource Management: Conflict and Regulation in the Fisheries of the Coromandel Coast*. Sage Publications, Delhi, 2001.

3. J. Kurien and A.J. Vijayan, 'Income Spreading Mechanisms in Common Property Resource: Karanila System in Kerala's Fishery', *Economic and Political Weekly*, 1995, pp. 1780-1785; A. Paul, 'Rise, Fall, and Persistence in Kadakkodi: An Enquiry into the Evolution of a Community Institution for Fishery Management in Kerala, India', *Environment and Development Economics* 10(1), 2005, pp. 33-51.

4. M. Bavinck, D. Johnson, O. Amarasinghe, J. Rubinoff, S. Southwold and K.T. Thomson, 'From Indifference to Mutual Support: A Comparative Analysis of Legal Pluralism in the Governing of South Asian Fisheries', *European Journal of Development Research* 25(4), 2013, pp. 621-640.

5. Ibid.

the state.⁶ In fact, several aspects of national legislation (such as Article 19-1g and 19-1e of the Constitution) promote the idea of open access to fishing as an occupation.⁷ Constraints on migration are more likely to emerge from customary rule making bodies of fishing communities. These bodies base many of their arguments on preventing the community and 'outsiders' from indulging in practices that reduce opportunities for others to access fish, as well as on ecological principles to sustain the fishery. These bodies also react differently to different types of migrants. Salagrama identifies that the threat posed by mechanized fishing vessels from Andhra Pradesh, fishing in Orissa waters, resulted in the strengthening of artisanal fishing management regimes in Orissa.⁸

Among fishing communities, migration is common within areas of similar environmental and social conditions, i.e. access to the sea, and ability to use traditional skills and knowledge.⁹ Migrants from other fishing castes are more readily accepted by locals, provided that they use artisanal (non-mechanized) fishing technology¹⁰ and have an acceptable reason for migration. George's group in Mandapam is seen as acceptable because of their use of artisanal fishing gear and the

6. A. Menon, M. Bavinck, J. Stephen and R. Manimohan, 'The Political Ecology of Palk Bay Fisheries: Geographies of Capital, Fisher Conflict, Ethnicity and Nation-State', *Antipode* 48(2), 2016, pp. 393-411.

7. M. Bavinck, 'Wealth, Poverty, and Immigration: The Role of Institutions in the Fisheries of Tamil Nadu, India', in *Poverty Mosaics: Realities and Prospects in Small-Scale Fisheries*. Springer Netherlands, 2011, pp. 173-191.

8. V. Salagrama, Trends in Poverty and Livelihoods in Coastal Fishing Communities of Orissa State, India (No. 490). Food and Agriculture Organization, United Nations, 2006.

9. V. Salagrama, 2006, op. cit., fn. 6.

10. M. Bavinck, 2001. op. cit., fn 2

1. M. Bavinck and K. Karunaharan, Legal Pluralism in the Marine Fisheries of Ramnad District, Tamil Nadu, India. Report to the Indian Council of Social Science Research (ICSSR), 2006.

devastation wreaked on the Kanyakumari coast (his origin) by the 2004 tsunami. Migrant labour, on the other hand, is not deemed acceptable because it is associated with technological change. Such labour is usually required to man mechanized fishing vessels, which are seen as a threat to ecology and equity.

Curran distinguishes at least five forms of migration – return, repeat, circular, permanent and temporary, which could have different impacts on origin and destination sites.¹¹ Depending on the social composition of migrants, each of these forms could produce different outcomes in destination sites. Some temporary migrants have been linked to declines in resource sustainability, through mechanisms such as disruption of the social bonds that sustain collective action.¹² For instance, the *kadakkodi* (sea-court) system in Kerala, was associated with users of artisanal fishing vessels and gear. Paul attributes its decline to technological change, such as motorization and mechanization, influx of migrant labour and subsequent politicization of the fishing community.¹³

Other temporary migrants have been linked to the creation of management regimes by locals, as a response to the threat that migrants pose to the resource.¹⁴ Trawl owner groups have managed to set up financial arrangements with the leaders of some fishing villages in Tamil Nadu in order to

temporarily fish and land their catch in those villages.¹⁵ In Ramnathapuram district, trawl owners gave weekly or monthly payments to village leaders in exchange for landing their catch on the village beach.

While several studies have attempted to theorize the relationship between migration and the environment, no broad theory has emerged that can be extended to explain the impact of migration on marine resource use. One approach to building a theory is to look not only at the processes by which migrants participate in their occupation at the destination, but also the relationships and networks that they build there. Curran attributes the diversity in outcomes to the varied ways in which migrants embed themselves in the social relations that govern ecosystem use at the destination.¹⁶ The degree of embeddedness is the key to positive or negative outcomes.¹⁷ I shall attempt to demonstrate the ways in which embedding in social relations affect fisheries management using examples from my own research in the fisheries of Maharashtra.

The Ratnagiri and Sindhudurg districts of Maharashtra, where I focused my research, have a mix of different fishing communities and technologies. The fisheries of these districts are relatively disconnected from the main markets due to a lack of well developed transport infrastructure. The main roadways connecting the fish landing sites to markets are the National Highway 17, which runs quite a bit inland, and state highway MSH 04, which is generally in poor condition after damage wrought

annually by the monsoon. As a result, marine exports, other than from large ports like Ratnagiri and Mirkarwada, are not well organized and occur at a smaller scale than in other parts of coastal Maharashtra. Ratnagiri's fishing society consists mainly of people from the Kharvi fishing caste, with some Kolis and several migrant communities including the Memons from Gujarat and fisherfolk from Andhra Pradesh.¹⁸ It is this last group that is relevant to my discussion of migration.

Migrants from Andhra Pradesh (AP) in Maharashtra hail mainly from the Srikakulam district, an area renowned for its fisherfolk migrations.¹⁹ The fisheries of the Srikakulam district are notorious for poor catches and difficult sailing, earning these fishermen a reputation for being extremely skilled. In the days before mechanization, their skill was in high demand in Gujarat and Maharashtra. Most of the fishermen from AP who moved to Ratnagiri district migrated there in the 1980s. They have subsequently settled down as permanent migrants and integrated themselves into the local society to the extent of setting up businesses and standing for election in the local panchayats. Nevertheless, they continue to be viewed as a distinct group, and sometimes as outsiders. This is reinforced by factors, such as the spatial clustering of their homes at one end of a village, relatively low rates of intermarriage with the Marathi fishing communities, and the rhetoric used by their political opponents during panchayat elections.

Their push factors from Srikakulam were uncertainties related to mar-

11. S. Curran, 'Migration, Social Capital, and the Environment: Considering Migrant Selectivity and Networks in Relation to Coastal Ecosystems', *Population and Development Review* 28, 2002, pp. 89-125.

12. E.G. Katz, 'Social Capital and Natural Capital: A Comparative Analysis of Land Tenure and Natural Resource Management in Guatemala', *Land Economics*, 2000, pp. 114-132.

13. M. Bavinck, et. al., 2013, op. cit., fn. 4.

14. Ibid.

15. M. Bavinck, 2011, op. cit. fn. 8.

16. Ibid.

17. B.J. McCay and S. Jentoft, 'From the Bottom up: Participatory Issues in Fisheries Management', *Society and Natural Resources* 9(3), 1996, pp. 237-250.

18. Government of India, 2010; http://eprints.cmfri.org.in/9007/1/MH_report_full.pdf

19. S.B. Sarma and V. Salagrama, Migration of Fishermen From Srikakulam District in Andhra Pradesh. Report of South Indian Federation of Fishermen's Societies, 2007.

keting, regular failures of the fishing season, combined with famines caused by poor agricultural produce from the arid hinterland of the district. Pull factors in Ratnagiri were the richer fishery which offered greater opportunities to trade, particularly with large export markets such as Mumbai. Many of these fishermen left Srikakulam during the prawn boom in Andhra Pradesh, and having been exposed to the technology and skills required to catch this export oriented seafood, brought these innovations to the Ratnagiri coast. Thus they were at an advantage in being able to supply this high commercial value item to fish traders in Mumbai at a time when prawn fishing had just been introduced in the Ratnagiri district. These migrants were able to quickly accumulate capital and in some cases began to own small fleets of trawl net operating vessels, or trawlers.

Characteristics such as capital accumulation and pursuing trawl fishing appear to mark these fishermen out as economically self-interested and capitalist. Nevertheless, several of them participate in community activities that sometimes appear to work against a profit motive. For instance, in one village in northern Ratnagiri district, the fishing community had decided to take a stand against the use of purse seines (a type of mechanized fishing net). The trawl owners association, consisting of Marathi and AP residents, joined this movement despite the fact that they had the capital to invest in purse seines.

Purse seine operations promised high rewards, and these seine were being used by fishermen from Ratnagiri town. However, the village projected a united front, preventing outsiders from using purse seines within their fishing territory and banning community members from purchasing the

nets. In this case the migrants had not acted as disruptors, but instead had participated in collective action. Further evidence of the embeddedness of the migrants comes from the rituals that they performed with the locals, such as observing the traditional monsoon fishing ban, participating in the religious rites surrounding the start of the fishing season and so on.

The migrants that I came across in the Sindhudurg district fit a different profile. The Sindhudurg district has a relatively more homogenous fishing caste distribution, with the fishing society primarily consisting of the Gabit caste, with a few Catholics who migrated from Goa, as well as some Muslim fisherfolk. Migrants from the Srikakulam district are temporary or repeat migrants, who travel to Sindhudurg and northern Goa every year during the fishing season on the West coast. They come to fill the requirement for labour aboard trawl and purse seine vessels, as well as to mend nets.

The local Gabit fishermen often do not participate in trawl or purse seine operations because many of their communities have taken a decision to ban these technologies for reasons of ecology and equity. They believe that usage of this gear results in excessively large fish catches and capital accumulation in the hands of a single trawl or purse seine boat owner at the cost of hundreds of artisanal fishermen whose catches have been accordingly diminished. They also mention how trawl nets dredge up the sea bed and purse seines trap the young fish due to their small mesh size, resulting in fewer fish for the future.

Migrant labour fills the vacuum created by the non-involvement of locals. The push factors for the Srikakulam fishermen include low fish catches in Srikakulam, combined with

increased competition from trawlers that originate in Vishakhapatnam and Orissa. They report a declining availability of natural resources, even on land, and a lack of fisheries infrastructure. The increasing production costs in the fisheries of Srikakulam is creating growing indebtedness amongst fisherfolk. However, they lack access to alternatives.

Srikakulam is the least developed district among the nine coastal districts of Andhra,²⁰ and rainfed agriculture has failed. The government has invested in some infrastructure projects, such as the building of cyclone shelters, but there has been little investment in developing social capital.²¹ Women from the Srikakulam fishing community also have their reasons for sending their male counterparts away to work. A liquor shop at the gate of the Vishakhapatnam fishing harbour ensures that most of the fishermen's income is drunk away before it reaches the family.

Wives of migrant labourers claim that being forced to live on board fishing vessels prevents their husbands from drinking away their earnings, resulting in greater remittances to the family, which can be used for education and economic mobility. They also claim an overall decline in alcoholism among the migrant fishermen. A second reason given by the women is that labour on Vishakhapatnam trawlers receive daily wages, which are very low, supplemented by a share of the profits. This means that income is extremely variable, depending on the profit reported by the boat owner after each fishing trip.

What attracts the temporary and repeat migrants from Srikakulam to Sindhudurg is the prospect of getting

20. Government of India, 2010, op. cit., fn. 18.

21. Ibid.

a fixed monthly income (although it is often paid as a lump sum at the end of the fishing season). There is some prestige associated with working on large mechanized vessels in Srikakulam. Mechanized vessels are considered easier to operate than traditional ones and therefore safer. Fishermen working on mechanized vessels often demand higher rates of dowry.²² However, conditions of employment in Maharashtra are often not labour friendly.

Unlike the migrant labour systems that take Srikakulam fishermen to Gujarat, boat owners in Maharashtra do not offer the migrants any advance payments. There is no health insurance or health cover provided by the boat owners. Migrants often bear the brunt of local hostility towards trawl and purse seine vessels. The migrants are often unaware about local rules regarding fishing territories and ban on mechanized vessels, and are caught or held hostage by the locals when they venture into these territories. Locals also do not allow the migrants to live in their villages, forcing them to stay onboard the vessel. As a result migrants have limited access to fresh water for bathing or laundry and are forced to use seawater for this purpose.

In this case migrants act as disruptors to common property regimes by taking jobs that locals consider ecologically and economically unsustainable, disregarding or being ignorant about fishing territories and rules. They do not contribute to the local economy because most of their remittances are sent back to their place of origin. Being outcast by locals, they are prevented from participating in local markets. Such a migrant labourer's situation is ripe for exploitation. Employed without a written contract, not well con-

22. S.B. Sarma and V. Salagrama, 2007, op. cit., fn. 19.

nected to locals who might be able to pressurize the boat owner into providing fairer wages and working hours, the migrant seems powerless. It is this very powerlessness that makes him an exploiter of marine life. Unable to make decisions about where to fish or how long to fish, a migrant's goal is to catch as much as he can for the boat owner, irrespective of the ecological consequences. Being the exploited makes him an exploiter.

The current picture of nature in the marine realm is one of decline, where every intervention by fisherfolk is seen as a threat. However, understanding the multiple pathways through which change operates, reveals a reason for hope. In order to build a resilient fishery management regime, whether by the government or local fishing communities, the fact of change, including migration, has to be taken into consideration.

These examples from my research indicate that the single phenomenon of migration can have multiple impacts on the marine ecosystem, depending on how people engage or integrate with social networks, culture and relations at their destination. In one case, migration is a disruptor exacerbating conflicts at sea in an already contentious fishery. In the other case, even though the migrants may be involved in conflicts on land, it does not seem to hamper their participation in collective action and common property regimes. The resilience of natural systems of resource use, such as fishing, could emerge from surprising factors, which in conjunction with existing social systems may work to conserve fisheries. Our understanding of nature in the present needs to move away from a dependence on standard tropes of change as a threat in order to leave room for these surprises.