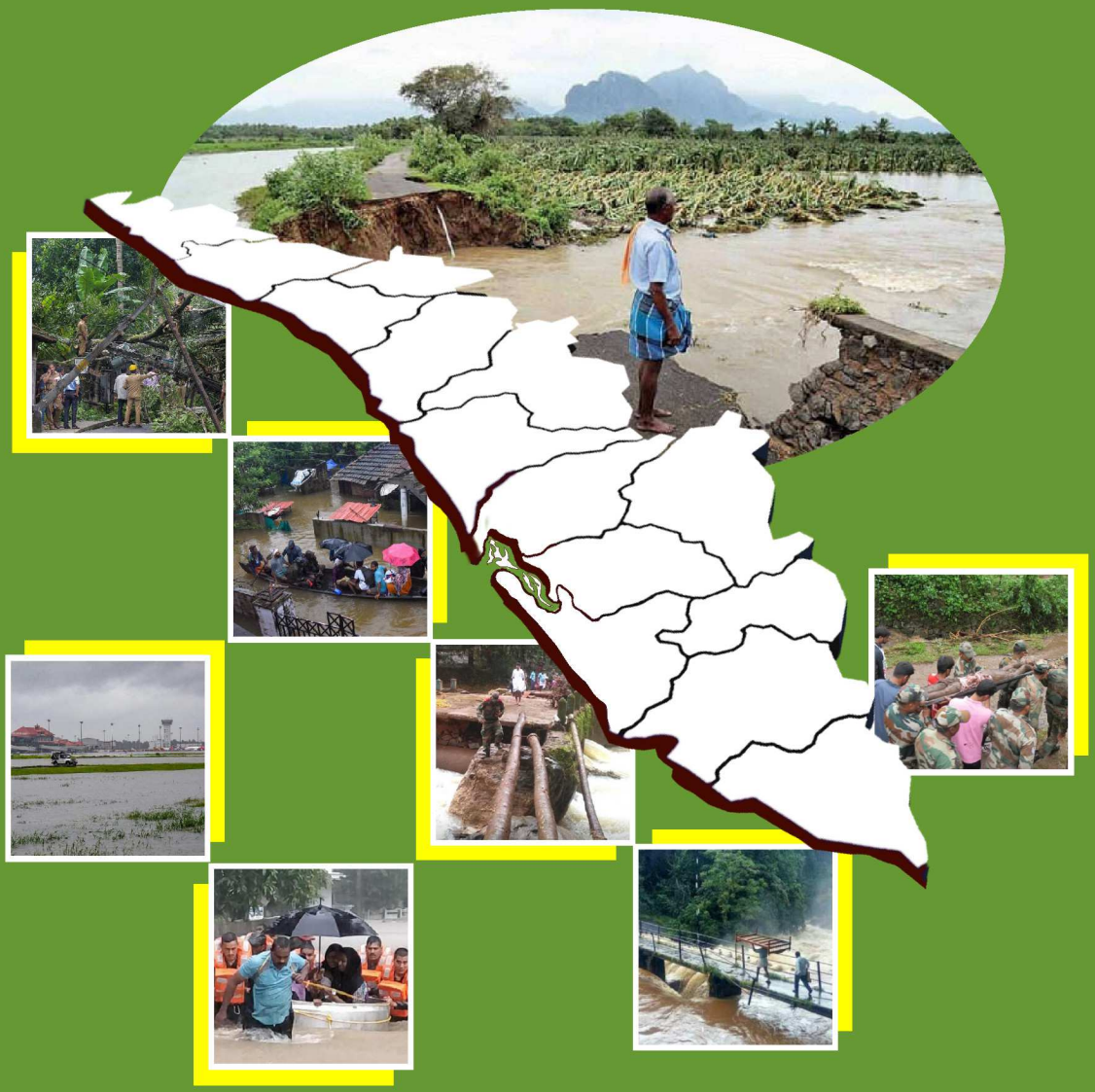
Building a New Kerala

Ideas and Reflections



Everyday Risks, Precarious Livelihoods and the Politics of Disaster Management

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Cyclone Ockhi in November 2017 and the monsoon floods of August 2018 are disastrous events which, in different ways, impacted on the lives of Kerala artisanal fishers. These two events are connected in several ways. Firstly, they materialised the historical unfolding of environmental transformations that have made weather patterns simultaneously more severe and unpredictable. Secondly, both events revealed the human contribution to, or even social determination of weather-related disasters, either in terms of the effects of long-term environmental degradation or apparent shortcomings in weather forecasting and the communication of the risks extreme weather systems might entail. Thirdly, and most importantly, these two events have lifted weather-related hazards from the every day, onto the realm of the extraordinary as *disasters*, leading to calls for the introduction of policies, measures and protocols directed towards making the state and its populations resilient in the face of such emergencies. In the coming pages, we reflect on the consequences on the everyday lives of artisanal fishers of the ways extreme weather events have been represented and acted upon in Kerala in recent months.

Our intervention builds on data collected in 2018 in two coastal villages in Thiruvananthapuram district—Anchuthengu and Poonthura—as part of a pilot research project focused on communication of weather forecasts for artisanal fishers. The project had three objectives: i) to study hazard risks, using local knowledge and instrument observations; ii) to understand the decision-making process involved in fishing mediated by local risk cultures, using ethnographic methods; iii) to co-produce risk communication with fishers and forecasters, contributing to accurate, accessible, actionable forecasts and advisories, through workshops, and focus groups. From February to September 2018, the research team conducted 20 in-depth interviews, eight focus groups and two co-production workshops; besides tracking five boats for 100 days in each village, recording their fishing patterns in line with forecasts, perceived risks, and local risk cultures. A test website (radiomonsoon.in) was set up with social media interfaces, and a free phone service accessed by more than 150 boats, especially during periods of bad weather conditions.

In 2017, when Cyclone Ockhi hit the Arabian Sea, 60 fishers from Kerala and 42 fishers in Tamil Nadu (mostly Kanyakumari district) died. Besides, 102 missing persons from Kerala and 161 from Tamil Nadu have been declared dead by the State Governments. In Kerala 384 and Tamil Nadu 4207 fishing boats were lost, disrupting coastal livelihoods; many houses were damaged or destroyed –— In Kerala 3600, Tamil Nadu 7400, and Lakshadweep 1022 (Rijiju 2018). However, dramatic as these figures are, even when it is business as usual, artisanal fishing is one of the riskiest occupations in the world (Lloyd's Register Foundation 2018). Indeed, on the Kerala coast—home to some of the largest artisanal fishing communities in India— accidents at sea are all too frequent. For instance, in 2012 maritime agencies rescued 3,046 fishermen in 454 operations of the shores of Kerala, but 44 fishers lost their lives, and 11 went missing. In 2011 there were 433 rescue operations saving 6,033 lives (Anandan 2013). During 2011–2016, an independent study documented 643 incidents

in Kollam and Thiruvananthapuram districts of Kerala and Kanyakumari district of Tamil Nadu, further south. Of these 75 per cent of the incidents involved small motorised boats (SIFFS 2017). According to Kurien and Paul (2001: 14), Matsya Board reported that between 1986 and 1998 the number of deaths of fishermen in the course of fishing was 1096. Commonly due to the effects of strong currents, high waves/winds, and poor visibility, the risk of deadly accidents increases when fishing under adverse weather conditions. Indeed, every year the monsoon season—the time when artisanal fishers make the largest catches—causes serious or deadly accidents.

Over the last 60 years, there have been many technical and socio-economic interventions on artisanal fishing in Kerala aimed at improving fishing practices, labour standards, livelihoods, as well as the political and social status of fishing communities (Kurien 1985). Regardless of the relative success or otherwise of these interventions, accidents and casualties at sea and on shore continue to mark fishing on the Malabar Coast. Our research suggests that most accidents at sea are part of daily operations, with a strong nexus with weather and sea conditions, and their sudden variation, and uncertainties. Fishers reported that rising wind and currents, high waves, and low visibility make fishing during the monsoon season extremely hazardous, especially at night. The most common risks include getting lost at sea and being taken far away by strong currents, capsizing and/or losing gear in rough sea. Getting hit by high waves while launching and landing is a widely reported risk, especially when groynes and sea walls lead to changes in waves, currents, and contours of the coasts. Other common risks include collision with ships, nets being run over by the latter, and the losses due to aborted trips in extreme weather after burning a lot of fuel.

And yet, there is a substantial pressure to fish in bad weather because during the monsoon season fish is more abundant, and competition from mechanised trawlers is less as the latter are banned from fishing during the rainy season. Fish catch is seasonal, and fish is perishable, therefore without regular and successful fishing, income becomes uncertain or reduced, leading to precarity associated with artisanal fishing livelihoods (Campling et al. 2012). Marine fish catch in Kerala has been declining since 2011-12 (except for a marginal increase in 2014-15), with reduction in high value species (State Planning Board 2017). At the same time, fuel prices have been increasing in recent years in India, considerably increasing operational costs of fishing as our interviews suggest. More generally, whilst artisanal fishers communities have remained on the margins of colonial and post-colonial development due to historical, political, and social reasons (Kurien 1995), the politics of post-1991 economic liberalization have introduced novel forms of marginality and precarity in the livelihoods of fishers (Devika 2017; see also Subrahmanian and Prasad 2008). Trade union activities since the 1980s have given fishers the collective bargaining powers; still, their marginal status continues with reduced voice, entitlements, and political space, despite affirmative action by the government (Chiramel 2014; Devika 2017). Given that government compensations for fishing days lost to adverse weather (and related restrictions) are insufficient to make up for the loss of income, fishers constantly feel the pressure to fish, regardless of weather conditions (Osella et al. 2018). Indeed, seeing a boat return with a large catch is enough to convince many fishers to defy warnings and take to the sea. Moreover, the availability of powerful outboard engines, together with intense competition over catches push artisanal fishers to extend the distance and length of their fishing expeditions, thus making them more vulnerable to weather variations and hazards.

Artisanal fishers in our study areas are more than aware that fishing can be extremely dangerous—"this is our way of life", they said—and consider skills and experience crucial for their success and safety. Decisions to go out fishing or to stay back, or indeed to return when the weather turns foul, are taken on the basis of weather forecasts, observations based on experience, and information shared over social networks. Fishers have an extensive understanding of risk and safety at sea, whereby informal, practical knowledge gathered through experience has been complemented by years of interventions and training by the government, fisher organisations and NGOs. They closely observe weather conditions and make decisions as to whether go to sea or not on the basis of their assessment of wind, waves, currents, rain, fog and lightning. Fishers consult a variety of sources for weather forecasts and alerts – mainly from television and the internet—alongside observations and information from peer groups, social media and institutions such as local churches. Mobile phones and, in some instances two-way radios are utilised to get up-to-date weather information and to maintain a degree of communication between boats when at sea. Whilst the use of GPS technology to navigate and to mark fishing grounds is relatively common practice, offshore communication beyond the range of mobile phones to receive weather warnings, or to communicate distress messages is limited or altogether absent.

To cut it short, then, artisanal fishers rely on the timeliness and accuracy of weather forecasts, and yet there is a generalized mistrust of the accuracy of existing forecasts, the latter believed to be either too generic or altogether incorrect, delivered in a jargon which does not often reflect local needs and understandings. To boot, cyclone Ockhi shook the confidence of fishers, and many of them nurse a deep resentment of forecast agencies and the Kerala government for failing to issue timely warnings. The result, as we know, is that many were caught unawares at sea, lives were lost, and many of those who escaped lost boats and gear. Whilst the perceived shortcomings of existing forecasts have increased mistrust of agencies delegated with the provision of weather predictions, fishers resent the issue of blanket fishing bans on account of impending weather events. Fishers argued that if they were to abide by such warnings and bans—all too common during the monsoon season—they would have to spend too many days on the shores, unable to fish, and hence to support their households.

This is an important matter, not only because it affects the livelihoods of fishing-dependent households, but also in that it reveals a chasm between weather forecasters and fishers on the way natural hazards are turned—via the deployment of socially embedded technologies and practices—into risk objects, and of the relationship which are established between the latter and those who are deemed to be potentially harmed by such a risk (Boholom and Corvellec 2011). The issue here is not simply a naïve appreciation of risk as a socially constructed phenomenon (see, e.g. Douglas and Wildavsky 1982), but the recognition that,"risk [is] a technology and a form of governmentality" (Samimian-Darash and Rabinow 2015: 5; see also Latour 2005; Lakoff and Collier 2008). Unsurprisingly, then, weather forecasters and fishers appear to be driven by different orientations, values, and interests in determining not only the point at which a weather event comes to be evaluated as a risk, but also what action should be taken to limit or ward off the consequences of such a risk. Often there is a gap between forecasters' and users' perceptions of how usable weather

information is (Lemos 2012). And it is here that we find the crucible of reciprocal misunderstandings and mistrust between forecasting agencies and artisanal fishers.

For forecasting agencies—Indian National Centre for Ocean Information Services and India Meteorological Department, for instance—the potential risk of weather events is determined by the intensity, evolution, trajectory and impact of weather systems. In turn, it entails differentiated levels of forecast and, consequently alerts and advisories that are then passed on and disseminated along an established bureaucratic chain of governance. The focus here is on ascertaining through scientific criteria the contours and behaviour of a hazardous weather event against the potential risks it might constitute for the physical and social environment affected by the same.

For fishers in our two research areas, the actual dangers ensuing from hazardous weather are evaluated and established in a somewhat different, and perhaps more complex fashion which focuses on the management, or containment of uncertainty, rather than on the elimination of risk. Thus, whilst scientific information on weather provided by (multiple and variously accessed) forecasts are evaluated against direct observations of the environment at hand, as well as information from other fishers, potential risks are gauged not only in terms of the severity of weather conditions, but also with reference to the ability and skills of skippers and crews, potential catches of fish and the price of the latter, financial needs and circumstances of fishers' households, and so on. Here, then, weather forecasts are one of the tools artisanal fishers deploy not only to decide as to whether go to sea or not, but also, and most importantly to manage potential risks, allowing them to prepare for fishing under hazardous conditions—deciding, for instance, length and distance of expeditions, what gear to take, etc.

Unsurprisingly, then, fishers in our research areas not only demanded that weather bulletins be communicated in a language and style accessible to them, but asked for more finely tuned forecasts. They sought information on specific sea areas relevant to their work, precise timeframe for beginning and end of high wind/wave spells, details of offshore wind patterns at various distances from the shore, and their impact for small boats. The fishers also requested for forecasts of direction and speed of currents, including deep water currents; tide timings and heights; and details of wave heights and wave frequency, both offshore and close to the coast. In other words, to be useful for fishers, weather forecasts need to be geared to seasonal fishing practices and their daily timing/routines, limiting fishing bans to extreme and potentially life-threatening events such as cyclones.

Artisanal fishers clearly know how to interpret and tailor weather forecasts to their needs, taking decisions which are contingent upon the balancing of a variety uncertainties, hazards and risks, and thus are inevitably contextual. And yet, artisanal fishers' socially-located evaluation of an approach to weather hazards and risks, are normally dismissed by forecasters and government agencies alike as the reckless behaviour of a somewhat badly-informed, if not altogether ignorant fishers population, normally stereotyped as lacking in self-control and prone to excesses. Such notions have historical roots (Kurien 1985). Whilst artisanal fishers thus become the object of pedagogical interventions and training to make them yield to the "scientific truth" of meteorology, and formal risk assessments, fishers' agency in determining how to best prepare and when to go to sea is contained, if not

suppressed altogether. Importantly, focusing attention and resources on the prevention and response to the extraordinary occurrence of disastrous events—as we have seen in the wake of Cyclone Ockhi and recent monsoon floods—instigates a politics of disavowal of the everyday roots of risks and uncertainties for sections of the Kerala population that have been historically marginalized in processes/politics of colonial and post-colonial development. Just as much as lethal accidents at sea do not occur only during cyclones—but are common place throughout the year, especially during the monsoon season—in much of Kuttanad many a labouring family living on unsafe, marginal land sees its house and possessions washed away on an all too regular basis as the result of annual monsoon floods (Osella and Osella 2000).

Unsurprisingly, then, for artisanal fishers in our research area, demands for accurate and actionable weather forecasts go alongside attempts to address other hazards and risks that contribute to the precarity and uncertainties of everyday life, from coastal erosion which leads to the collapse of houses and makes beaches unsuitable for launching fishing boats, to unsafe harbour structures making the crossing of the surf extremely dangerous, and increasing costs and diminishing returns of fishing. The August monsoon floods might have turned Kerala artisanal fishers from helpless victims of the cyclone into heroic figures, whose selfless efforts saved the lives of countless Malayalis left perilously stranded by the floods. It remains to be seen as to whether such a shift in the public imagination will lead to an increased appreciation of the everyday predicaments of artisanal fishers.

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