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Literacies, development and education in fishing-dependent communities

Development narratives on the world's small-scale fishing communities emphasise the importance of the local, including informal and culturally embedded institutions regulating fishing activities; the local distribution, exchange and consumption of fish; knowledge systems that are learned and transmitted in a local cultural setting, and skills that are acquired by play and work within the community (Pinkerton, 1989; Berkes et al., 2000). Beyond the local, state management agencies and their advisors now acknowledge the importance of situated, tacit knowledge for the legitimacy and efficacy of local institutions for fishery governance. However, there are risks associated with a construction of the local that does not integrate the impacts of institutions, technologies and changes that are present on national and global scales, and this is very much the case in the fields of literacy and communication (Brandt and Clinton 2002). The technologies, organisation and management of fisheries exist in a fast-changing world that is also shaped by external, often globalised, social, economic, environmental and political influences. These include state rules on access and management of fishery resources, the increased reach of urban and global markets – both for fishery products, and for the labour of people originating from fishing communities; and new information and knowledge systems.

Responding to such change creates new opportunities as well as threats. Opportunities exist for economic development through wider market access, and application of new technologies and systems of collective resource management. However, local autonomy and self-determination may be threatened - increased intensity of resource use may risk ecological overexploitation, and equity and community cohesion can be threatened by technological and educational divides. Within these processes, people's use of knowledge, literacy and communicative competencies are critical. It is an often repeated statement (but rarely empirically

verified) that access to education, schooling and – by inference – literacy levels are lower in fishing communities than they are in the population at large. This is clearly important for the potential and efficacy of fisheries interventions and the wider commitment to education within the Millennium Development Goals. Yet we know surprisingly little about the role that education and literacy play in the lives of fisherfolk. The four papers in this edition of *MAST* are therefore intended to inform such debates. The papers address the changing relationships among the various literacies, knowledges and practices in small-scale fishing communities across a range of settings.

The papers in this collection originate in a workshop on literacy and fisheries, held at the University of East Anglia in September 2008. The workshop built on earlier work with the FAO on literacy and livelihoods (FAO 2006). The starting point for our shared interest in this topic was in addressing two development issues. First, given a trend towards participatory co-management in fisheries (usually state-community partnerships) how do small-scale fishers' literacy abilities and schooling affect their ability to benefit from engagement with the state and other actors in resource governance? Second, given the reach of the global (markets, technologies, discourses, institutions) how do literacy practices and abilities, informal learning, and formal schooling influence fisherfolk's ability to deal with and take advantages of such change? The extensive literature on fisheries co-management and local fishers' knowledge has paid surprisingly little attention to the importance of education and literacy for the lives of fishers, particularly in terms of their ability to access and manage resources and to engage with governance regimes. The fisheries co-management literature has also had little to say about how new information technologies impact on people's communicative repertoires and how they are integrated into existing practices and knowledge.

The papers in this volume highlight global and local dimensions of such change, across diverse social contexts (Ghana, Uganda, Bangladesh, Mexico, Peru). The global dimension is perhaps most clearly illustrated by the rapid spread of new information and communication technologies, but might equally be understood in terms of globalised markets, institutional arrangements and developmentalist discourse. Improved engagement with globalised markets, for example through

ecolabelling and fair-trade initiatives or contractual relationships between small-scale producers and major seafood companies, raise questions about the knowledge and communication practices required to effectively manage such relationships and encounters. Fisherfolk may require literacy and numeracy across a range of texts; from digital price information to instructions on hazard and critical control point (HACCP) requirements. We examine these issues from a critical perspective, locating such questions within concrete contexts and situations.

The papers point us towards the need for much fundamental work on understanding what is meant by 'literacy' (and plural literacies), and the importance of careful, ethnographic exploration of these issues. Aikman's paper on the indigenous Arakmbut people in the Peruvian Amazon for example, describes a fishing and hunting community who have an uneasy relationship with development initiatives and the State, and whose ontology, local knowledge and fishing practices do not fit easily within modernist perspectives on economic growth or environmental protection. Their emphasis on fish as food, rather than as an exchange commodity reminds us of the pervasiveness of market institutions and ideologies in the fisheries sector. The papers by Maddox and Overa and by Kalman and Liceaga describe the ways in which new information technologies impact on the communicative repertoires and livelihoods of fishers within large scale markets. Maddox and Overa's paper describes the changes in the literacy practices of fishers in Ghana and Bangladesh as they are influenced by new institutional arrangements and by the adoption of mobile phone technologies. While new technologies bring certain potentials or affordances, understanding their use and impact requires a localised perspective. Kalman and Liceaga's paper also describes the adoption of new technologies – in their case describing how Mexican lobster fishers adoption of GPS technologies co-exists with local knowledge.

In each of these papers, new communicative practices have been learned and integrated informally through situated learning, and driven by necessity and market opportunities rather than through formal schooling or development led initiatives. However, we might ask whether schooled literacy and communication abilities are necessary to enable such learning and change? Do we too readily assume that fishing communities (which we know to be strong on innovation and adaptation) will

have the necessary capabilities to adapt to new demands and opportunities? The paper by Westaway, Barratt and Seeley on educational attainment and literacy in Ugandan fishing communities provides a sobering answer to such questions, highlighting the negative impacts of poor quality schooling within fishing communities, and its impact on economic inequality and the mismatch between schooling and peoples' aspirations. They locate these debates in a wider agenda of schooling and opportunity, reminding us that while understanding the relevance of literacy practices to fisheries is important, the importance of formal education for wider agendas of mobility and wellbeing must also be considered.

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