

Building Sustainable Governance

Policy Briefing

February, 2010

Securing fisher wellbeing in a changing coastal zone: a route to sustainable coastal development

Key points

- Fisheries contribute significantly to India's national economy and provide a livelihood to an estimated 10 million people (Swaminathan et al 2009).
- The fisheries sector is diverse and the benefits of coastal ecosystem services are unequally distributed amongst different user groups.
- A substantial proportion of fishing households are at risk from growing poverty fuelled by ecosystem degradation, rapid coastal development, and climate change.
- Given past failures, innovative approaches are required to understand vulnerabilities facing India's fisheries-dependent people, and implications of coastal development for their *wellbeing*.
- New knowledge must feed into *interactive* forms of governance that facilitate a *sustainable and shared vision* of how to address the challenges facing the people of India's coasts.

There are 3000 fishing hamlets along India's coastline, many of which are home to traditional castes that have pursued fishing as a livelihood for many generations. In India an estimated 3.5 million marine fishers represent traditional fishing castes. A further 2.5 million people are dependent upon fisheries for seasonal or part time occupations (Tietze et al 2000) which often form a safety net from household poverty by providing critical supplementary income (Bene et al 2007). Poverty persists throughout India's fishing communities and access to healthy and sustainable marine



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and coastal *ecosystem services* (see Box 1) is an important part of poverty alleviation at the coast.

Box 1

Ecosystem services are the benefits people obtain from ecosystems.

The Millennium Ecosystem Assessment (2005) has categorized ecosystem services into:

- **Provisioning services** [such as food, water, timber];
- **Regulating services** that affect climate, floods, and disease;
- **Cultural services** that provide recreational, aesthetic, and spiritual benefits; and
- **Supporting services** such as soil formation and photosynthesis

Changing vulnerabilities following India's Blue Revolution

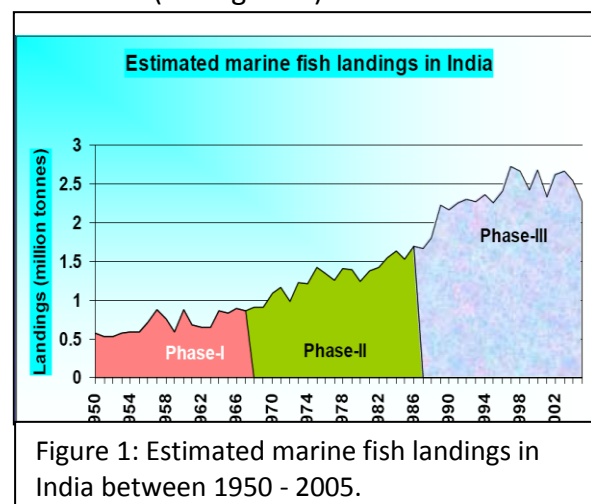
The last few decades have witnessed extensive development within the fisheries sector, often referred to as India's 'Blue Revolution' (see Bavinck 2001). To date, the main thrust in fisheries development has been optimizing productivity, augmenting marine product export, development of aquaculture and infrastructure, generating employment, and improving the welfare of fishermen and their socio-economic status (Govt. of India 2009). For some fishers, the Blue Revolution has contributed to their wellbeing through improved access to market, technology and infrastructure, and to insurance programmes and saving schemes which are promoted through fisheries development. The National Welfare Programme of Fishermen [a joint central and state government initiative] supports the development of fishing communities more broadly, through the provision of basic civic amenities such as housing and drinking water (Govt. of India 2009). However, in spite of continued institutional support, it is increasingly recognized that the benefits from fisheries development have often been

unequally felt. Shifts in fishing technology and in market supply chains has led to the marginalization of certain sectors (such as small-scale fishers and women involved in fish processing) which has created new vulnerabilities (Salagrama 2006). Illustrative of this inequality are the persistent tensions between the mechanized (mostly trawler) and non-mechanized / artisanal fishing sectors, which have been well documented in several maritime states (Bavinck 2001, Bavinck and Johnson 2008).



In India, the Mechanized fishing sector, which constitutes 20% of the fishing community, gets 60% of the catch, leaving the rest for Small Scale fishers.

It is further recognized that the benefits of fisheries development are not limitless and concern grows as to the sustainability of India's marine resources (Bhathal and Pauly 2008). Recent evidence suggests that India's fish stocks have reached a plateau which questions the plausibility of future growth in the sector (see figure 1).



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As we move from an era of fisheries development and growth, into an era of vulnerability and uncertainty, it is important to engage with the implications for those men, women and children who are dependent upon marine and coastal ecosystem services.

Here, we highlight two pressures that pose a particular risk in an Indian context:

- i) the decline of marine ecosystem services
- ii) the displacement (or reduced access) to ecosystem services due to competitive coastal development.

The historical inequality of benefits from coastal and marine ecosystem services places the small-scale fisheries sector in a particularly vulnerable position. Some will be less able than others to adapt to change in fisheries, due to factors such as low levels of education, lack of access to alternative livelihoods, and a strong commitment to a fisheries way of life (particularly relevant in traditional fishing caste societies). Whilst failing marine ecosystem health may affect different fishers in different ways, and this needs to be better understood, it still represents a common concern across the broader sector and may even be a means of uniting fishers through collaborative negotiation. For example, see recent deliberations around trawler fleet reduction in the Palk Bay, Tamil Nadu (Sathyapalan et al. 2008)

Concerns over the depletion of marine resources need to be matched with attention to the changing *access* that people have to marine and coastal ecosystem services, especially given that it is often the poorest members of the fishing community who are most dependent upon these services (Salagrama 2006, Brown et al 2009). The fast pace of coastal development in India has created intense competition, amongst a multitude of users, for coastal space and resources. In particular, the

development of *Special Economic Zones* has sparked conflict with fishers in many coastal states [see Box 2].

BOX 2

Special Economic Zones (SEZs)

SEZs are a new instrument of state policy to attract industrial investment in physically separate enclaves that are dedicated to exports. SEZs are being promoted all over India, with a reported 80% of approved SEZs appearing in coastal states (Asher 2007). SEZs act as magnets for investment and economic growth (Reddy et al 2009) but, in parallel, pose a potential threat to already fragile coastal eco-systems and dependent livelihoods. Serious conflicts have arisen in Kutch District of Gujarat state between local fishing communities and the Adani Port and SEZ Ltd., over their plans to expand port infrastructure and develop a large industrial SEZ for a variety of industries. This project involves the take over of over 40 kms of coastline, currently used by fishers in 10 fishing settlements for their livelihood activities. Similar conflicts are emerging in other parts of the coast over large coastal SEZ planning.

To seek sustainability in India's coastal zone, coastal managers must address the diversity of winners and losers of coastal development. The SEZ conflict is a useful illustration of this, where a majority population may benefit from greater economic growth and investment, but at a cost to both ecosystem services (through (potential) habitat loss and degradation) and to displaced fishing populations. Understanding, and confronting, trade-offs such as these demands innovative approaches and better understanding of the vulnerability of the fisheries-dependent population. New knowledge must feed into *interactive* forms of governance that facilitate trust between scientists, government, civil society, and fishers themselves, to work towards reaching a *common vision* of how to achieve sustainable coastal development in a fair and inclusive way.

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Why fisher wellbeing matters for sustainable coastal development.

The challenge of achieving sustainable coastal development in India requires balancing the demands of economic growth alongside the needs of sustainable ecosystem health and the welfare of the 10 million fisheries-dependent people living along India's coastal zone. Increasingly, we need broader frameworks and innovative methods to gauge the growing risk and uncertainty that fishers face. Such understanding needs to be accompanied by new ways of governing that can take account of different, and sometimes, competing needs of those who depend upon the coast.

Two recent frameworks developed in the field of social sciences –**wellbeing** and **interactive governance** - are relevant in addressing these challenges.

The concept of **human wellbeing** is increasingly being realized as the central aim of development policy (Sen 1999, Sen, Stiglitz and Fitoussi 2009). As far back as 1986, the UN Declaration on the Right to Development recognized that "...development is a comprehensive economic, social, cultural and political process, which aims at the constant improvement of the well-being of the entire population and of all individuals on the basis of their active, free and meaningful participation in development and in the fair distribution of benefits resulting therefrom." The concept of wellbeing has also gained currency in international environmental policy, for example, *Millennium Ecosystem Assessment* stresses the importance of the relationship between ecosystem changes and human wellbeing globally. Scientifically, the concept of wellbeing gives a multi-dimensional and people-centred approach to understanding poverty. It focuses not just on the material aspects and what a person has, but also what a person can do with what they have, and how people feel about their

quality of life, their aspirations and their hopes for the future. Recent work on wellbeing from a consortium of universities from the UK, Bangladesh, Thailand and Ethiopia – developed the following definition:

"Wellbeing is a state of being with others, which arises human needs are met, where one can act meaningfully to pursue one's goals, and where one enjoys a satisfactory quality of life."

Using this definition, we can start to address the broad range of consequences of living with coastal change, and how fishers themselves feel about the challenges that they face. Competing claims on coastal resources can be conceptualized as competing strategies to achieve wellbeing, recognizing that one person's wellbeing may result in ill-being for another [as was demonstrated in the case of SEZ development which contrasted 'national' level wellbeing through economic growth with 'local' ill-being of displaced fishers]. Such divisions need to be identified and reconciled through an open, and transparent, process of deliberative decision-making.

Interactive Governance theory (Bavinck et al 2005) offers a process for deliberating hard choices, primarily through a process that encourages exploration of the basic values and agreed principles on which governance can proceed. In practical terms, this means the active participation of planners, policy makers, scientists, fisher representatives, and other coastal stakeholders in decision making.

Opportunities for sustainable coastal governance

A wellbeing approach helps us to place the needs of the fishing population at the centre of the debate and ensure their inclusion in decision-making. Once wellbeing strategies are identified, interactive governance can create space for diverse stakeholders to

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discuss their needs and aspirations, negotiating competing needs, trade-offs and hard choices. Such partnership building requires a degree of trust between individuals and an equal platform upon which deliberations can take place. Interactive governance recognizes that there are many governing systems of equal worth, and that no single governing system can deal effectively with the frequent clash between economic growth, ecosystem health and human development goals.

This policy briefing originates from the Building Sustainable Governance (BSG) project. Partners include representatives from a range of scientific institutions and disciplines, government departments and civil society. The partners of this project are committed to developing an approach to policy that is wider-reaching and which actively integrates the poverty alleviation and coastal development agendas.

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Please see the network website for further information: www.wellcoast.org.