Assessing the resilience of small coastal fisheries, peculiarities and return of experiments

Christian Chaboud∗†, Joceline Ferraris∗‡, and Marie-Hélène Durand∗§

1Institut de Recherche pour le Développement (IRD) – Ministère de l’Enseignement Supérieur et de la Recherche Scientifique – France

Abstract

Develop tools of measurement and evaluation, quantitative or qualitative, is a common but difficult exercise when the systems studied are dynamic and complex, such as the small coastal fisheries of the countries of the South. Resilience is a polysemic concept. If a consensus exists to define resilience as the ability of a system to maintain structures and functions against disruption, its interpretation and its assessment differ between disciplines, spatial or temporal or scales according to the objectives of the study. The small coastal fisheries socio-ecosystems governed by interactions between man and Nature, are particularly complex because of the characteristics of exploited marine resources. They are confronted with environmental as well as economic and institutional risks. Faced with the structures and functions to maintain control capabilities are many but subject to highly variable constraints depending on the context and, due to the interactions between modes of action, their effects can be, depending on the case and timescales, favourable or not to resilience.

We propose to address the issue of the resilience of small coastal fisheries questioning the notion of scale, the spatio-temporal dynamics in which they fit their constraints and modes of regulation. Case, especially in Africa, Pacific and Indian Ocean Studies, will document these questions on various economic, biological and social components in relation to the concept of resilience.

This includes the economic component of these systems, size of the market (local, national or international), or access to capital, and their economic and biological consequences, in terms of specialization and intensity of resource exploitation. This also concerns the biological component of systems, diversity of resources, habitats, fleets, extended and accessibility of fishing areas, etc. The ‘portfolio’ effect, which is often put forward requests to be checked. Diversification or access to new resources is permitted either by intensification or by spatial extension of resource exploitation. These two strategies, sequential or parallel, which have contributed to the maintenance of coastal fisheries can also find their limits, both in terms of resources and of space whose access is increasingly constrained by policies of conservation (MPA), by local and territorial management policies and competitive uses (extractive or non) spaces and marine biodiversity.

∗Speaker
†Corresponding author: christian.chaboud@ird.fr
‡Corresponding author: Jocelyne.ferraris@ird.fr
§Corresponding author: marie-helene.durand@ird.fr
This analysis grid, documented by different small coastal fisheries cases, aims to highlight the relationship between the maintenance or development of these systems and economic or ecological scales of activities; between levels of specialization or diversification and flexibility and adaptability to natural and anthropogenic disturbances. We start from the assumption that activities diversity, the spatial extension, diversity of resources and habitats, markets or social networks, offer more flexibility, lower the cost of change and encourage adaptation and resilience but that this ability depends on the threshold of economic, biological, social or institutional resource constraints.

**Keywords:** Small scale fisheries, development, constraints, adaptability, resilience