

Payment for Ecosystem Services
An Accountability Framework to Improve Marine Fisheries?

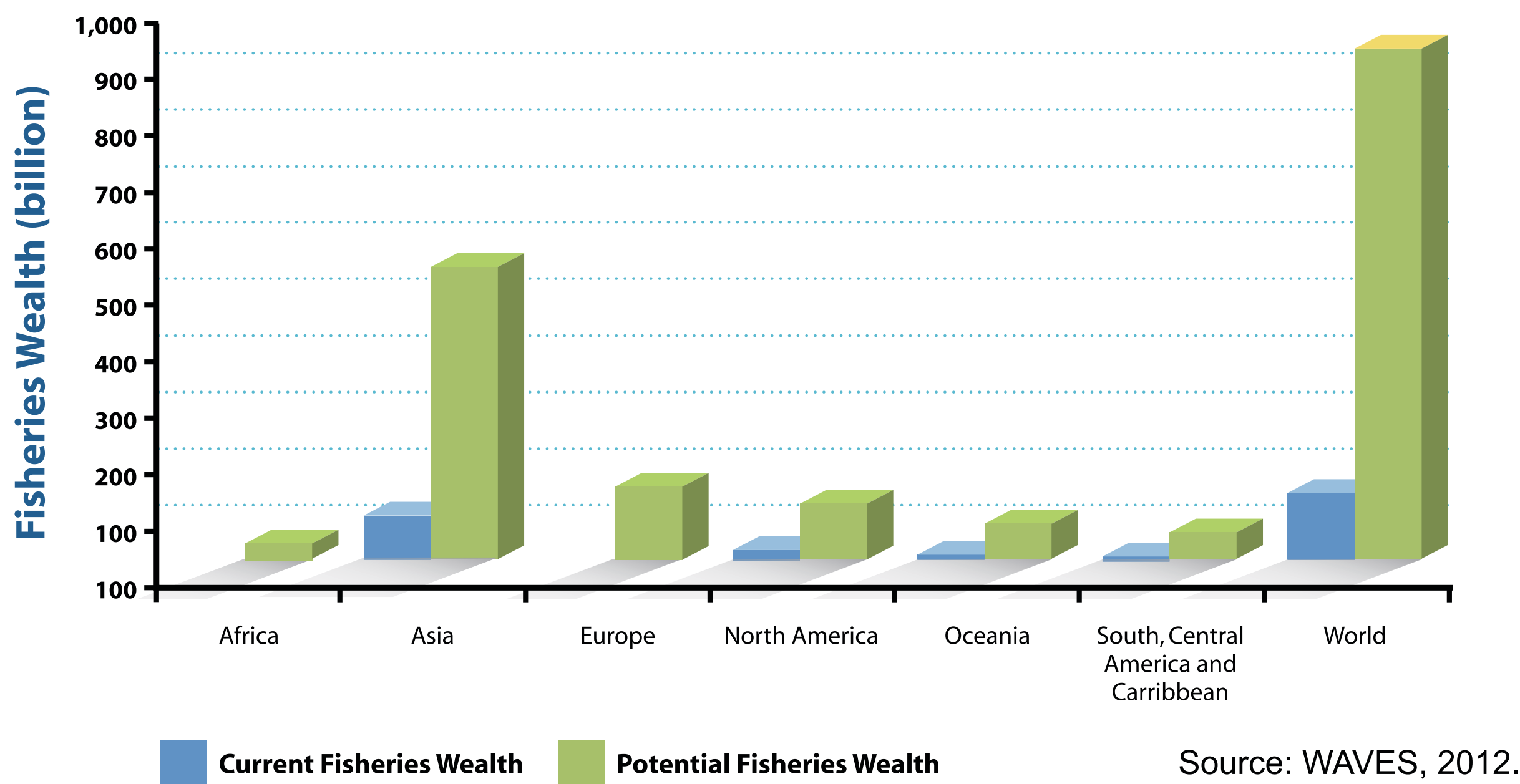
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SOME MARINE FISHERIES REMAIN IN CRISIS

In the twenty years since the historically enormous Grand Banks Cod fishery collapsed, many fisheries globally have continued to decline, whilst some in more developed countries (USA, New Zealand and Australia), have stabilised or started to recover – in fisheries management, if not in ecosystem-based terms (Ward *et al*, 2002). Whilst debate rages (Worm *et al*, 2006, 2009) about the metrics of decline and recovery, there is clear agreement on the significantly increased wealth potential of sustainably managed marine fisheries (WAVES, 2012), significant cost of recovering them, (Ye *et al*, 2012, World Bank 2009), and the need for public private partnerships to invest in practical initiatives for enhanced sustainability. (Ecosystem Marketplace, 2010).

“A flurry of studies have examined the economic value of ecosystem services delivered by oceans, but little has happened to bring this theoretical value into the real modern economy. Until these ideas are practiced in places where money changes hands, the cost of environmental degradation will not be embedded in the cost of producing goods and services derived from the sea – and there will be no economic incentive to preserve the sea for future generations”. (Ecosystem Marketplace, 2010)

FIGURE 1 Rebuilding the world's fisheries



SOLUTIONS

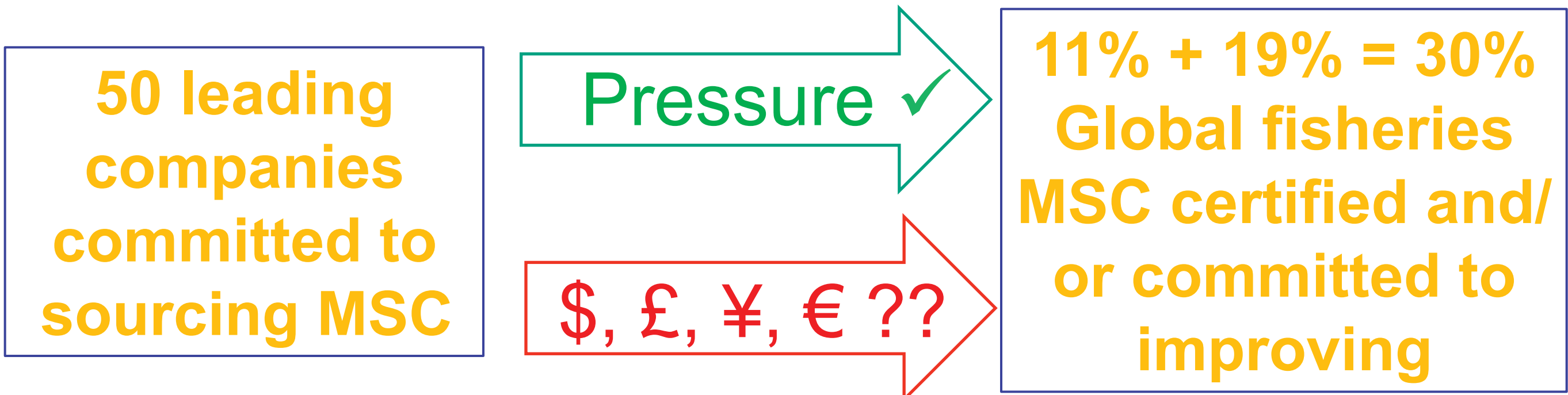
Since the closure of the Grand Banks cod fishery in 1992, many actors involved with fisheries management internationally have tried a range of approaches to address unsustainable fisheries including government initiatives such as the FAO Code of Conduct for Responsible fisheries, which has had mixed results. (Pitcher *et al*, 2009), to non-government such as the Marine Stewardship Council (MSC), through to NGO facilitated and private sector partnership Fisheries Improvement Projects (FIPs).

The MSC operates a robust market incentive 3rd party, independent certification scheme to operationalise the MSC Fishery Standard. About 6% of global marine fisheries landings are MSC certified and a further 4-5% are in the process.



WWF, the conservation organisation and Sustainable Fisheries Partnership facilitate FIPs towards MSC certification: 43 projects (14.5M tonnes) & 17 projects (1.2 M tonnes) respectively totalling 19% of global landings (CEA, 2011). In fewer cases aquaria, other NGOs and niche consultancies also play this role. Thus management, timeframes, objectives and accountability frameworks are hugely inconsistent across them. This is exacerbated by a lack of transparency about the investments being made and ecological outcomes. However, associated with the 50 leading company commitments to source MSC, is both significant purchasing power and investment potential. Can terrestrial PES experience guide the design of new accountability mechanisms? Can PES valuation tools (i.e. Marine InVest) be deployed alongside new corporate governance tools (i.e. Corporate Ecosystem Service Valuation, Global Reporting Initiative) in the seafood sector?

FIGURE 2. The Scale of Potential Investment?



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PAYMENT FOR ECOSYSTEM SERVICES (PES)

PES acts as an umbrella for approaches that provide conditional positive incentives to manage ecosystems to produce environmental services (Sommerville, 2009). The lack of property rights is often held up as a mitigating factor against Marine PES given the common property nature of many marine contexts. Appropriately defining rights is key for marine resource stewardship and to strengthen fisheries improvement approaches – both public and through partnerships, a range of tools need to be applied – economic, ecological and social.

In Figures 3-5, I have developed conceptual and institutional frameworks that explore the working hypothesis that more private sector seafood supply chain investment can be secured to improve fisheries given:

- i) Greater financial accountability,
- ii) Clear ecological accountability,
- iii) Adapted ecosystem service valuation tools, and,
- iv) Effective institutional frameworks.

This underpins a unique exploration of the constellation of related sustainable seafood tools.

FIGURE 3: Multiple Tools Align to Incentivise Leveraged Investment in Improving Marine Fisheries

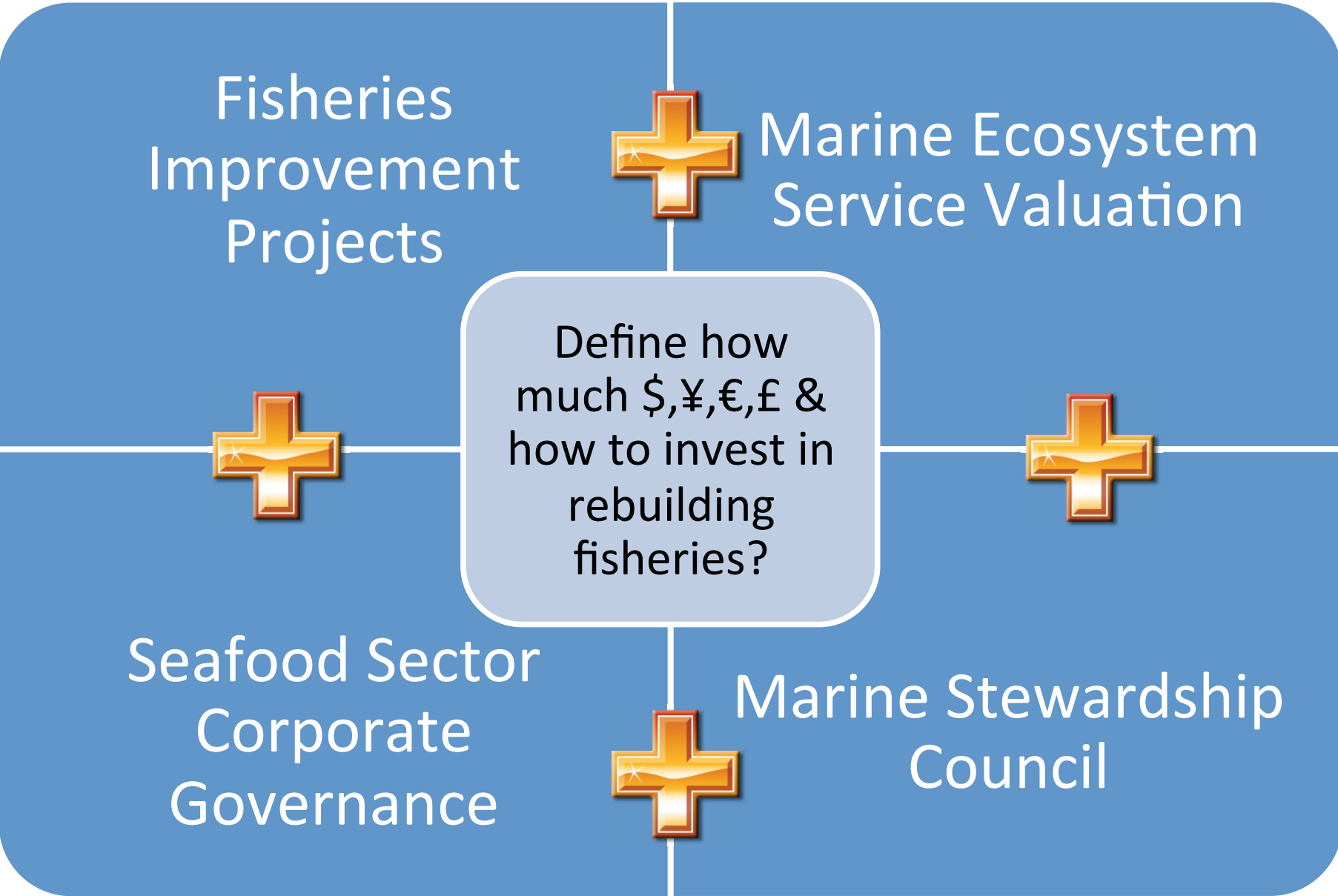
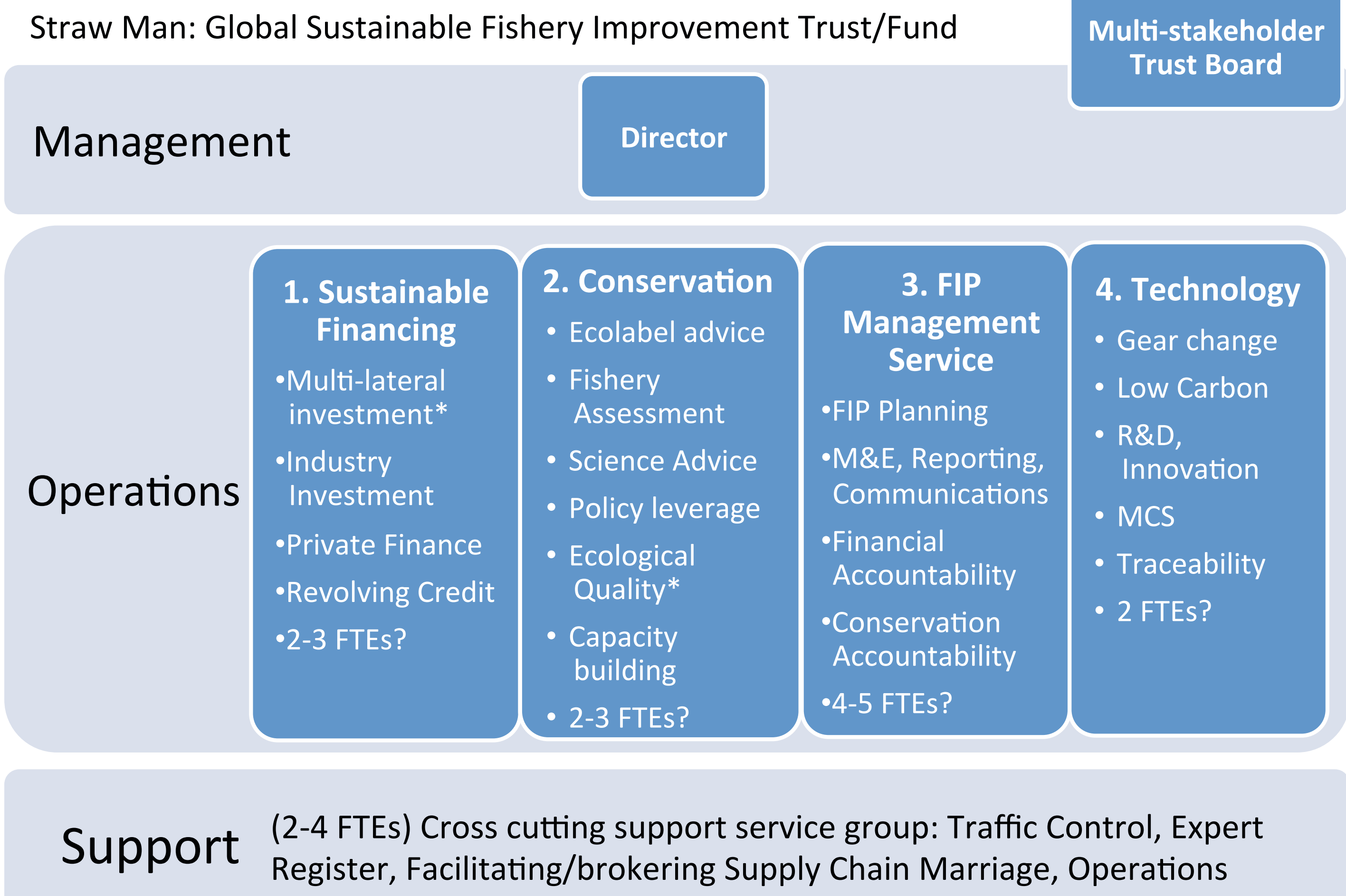


FIGURE 4: Conceptual PES Framework

Common PES Conditions (Adapted from Sommerville, 2009)	In Marine Fisheries
Well-defined environmental service.	✓ Provisioning, Regulating, Cultural, Supporting (MEA, 2005) i.e. seafood, habitat, nursery, wildlife, prey.
Environmental service (ES) purchased by at least one service buyer.	✓ Multi-scale definitions of local i.e. supply chain.
Parties voluntarily involved.	✗ Depends on institutional context (Sommerville, 2009).
Payment conditional on environmental service provision.	✓ Seafood sector is dependent on biodiversity. Significant work to quantify via ES valuation.
Incentive must be positive.	✓ Cultural and behaviour change is essential to reset status quo. Markets and supply chain are committed.
Incentive payment for ES must be cash.	~ Not necessarily. Other incentives: i.e. influencing stewardship.
Scheme must provide ES additionality to the situation without the ES scheme.	✓ e.g. Marine Stewardship Council is an incentive scheme but not directly restoring marine ecosystems.
ES must be provided by service providers with well-established property rights.	~ Depends on institutional context. Multi-scale rights.
PES scheme must be adequately enforced.	✓ Monitoring, control and surveillance is core to effective marine fisheries management.

FIGURE 5: Conceptual Institutional Framework



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