

## Requirements for Fisheries Rebuilding Plans

Fisheries rebuilding should take place through a clearly defined process. Consistent with recommendations from global bodies, rebuilding plans must include elements that ensure depleted populations will recover to a healthy level of abundance while recognizing that environmental and ecological conditions can either inhibit or help rebuilding efforts.

A number of important studies have reviewed rebuilding plans and strategies around the world and have largely come to the same conclusion: rebuilding is most successful when there is a strong policy to reduce fishing pressure – either through a reduction in direct catches and bycatch, time-area closures or a combination of these – with rights-holder and stakeholder support and enforcement (Caddy and Agnew, 2004; Hammer et al., 2010; Murawski, 2010; National Research Council, 2004; OECD, 2012; Wakeford et al., 2007).

### To rebuild, a plan must *at a minimum*:

1. **Be legally binding:** all fisheries interacting with the target stock must comply with the rules in place to rebuild the stock.
2. **Be developed and implemented in consultation with rights-holders and stakeholders:** all parties directly affected by the rebuilding plan should be consulted.
3. **Set objectives for rebuilding including:**
  - a. **A target abundance** that is in the healthy zone – i.e., at or near the biomass that supports maximum sustainable yield – and allows the stock to support a high-yield sustainable fishery.
  - b. **A timeframe** based on a scientific estimate of how long rebuilding will take.
  - c. **A probability estimate of at least a 75 per cent** that the target abundance will be met within the timeframe.
  - d. **Associated milestones:** specific and measurable interim targets that represent the steps towards rebuilding.
4. **Set management measures** that will meet the objectives with a high probability of success, which will require, at a minimum, harvest decision or control rules, and often immediate and substantial reductions in fishing mortality.
5. **Establish a plan for monitoring, review, evaluation and revision** to track progress towards rebuilding objectives and make changes as needed.
6. **Be publicly available,** to increase transparency of decision-making and ensure everyone has access to the information required to evaluate the plan.

### A comprehensive rebuilding plan *should* also contain the following:

1. **Other stock-specific objectives,** such as target size or age structure, restoring historical distribution, maintaining social or cultural value or restoring economic benefits.
2. **An overview of all fisheries interacting with the stock:** all directed commercial fisheries and all other fisheries, including bycatch, recreational, bait and food-social-ceremonial, with a summary of socioeconomic and cultural importance, history of management and assessment and

an overview of all contributions to fishing mortality.

3. **A review of impediments to successfully rebuilding the stock**, including considering the biology of the species, any recent evolutionary changes, impacts of environmental conditions, multi-species interactions, other fisheries impacts and the levels of uncertainty and risk.
4. **Alternative management measures evaluated or considered** to increase transparency of decision-making.
5. **An overview of economic, social and ecological impacts of the rebuilding plan** to reduce surprises and allow for mitigation planning.
6. **Outline the steps to follow when objectives are met** to prepare for changes to management once the stock is rebuilt and fishing effort may be increased.

## References

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