

1 **Supplementary Table 1 for**

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3 Identifying Management Actions that Promote Sustainable Fisheries

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5 Michael C. Melnychuk, Hiroyuki Kurota, Pamela M. Mace, Maite Pons, C oil n Minto, Giacomo
6 Chato Osio, Olaf P. Jensen, Carryn L. de Moor, Ana M. Parma, L. Richard Little, Daniel Hively,
7 Charmane E. Ashbrook, Nicole Baker, Ricardo O. Amoroso, Trevor A. Branch, Christopher M.
8 Anderson, Cody S. Szuwalski, Julia K. Baum, Tim McClanahan, Yimin Ye, Alessandro Ligas,
9 Jilali Bensbai, Grant G. Thompson, John DeVore, Arni Magnusson, Bjarte Bogstad, Edward
10 Wort, Jake Rice, Ray Hilborn

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12 Correspondence to: mmel@u.washington.edu

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14 **This PDF file is provided separately from other Supplementary Information.**

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17 **Supplementary Table 1 | Management measures considered as predictor variables**
18 **potentially affecting stock status.**

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Management measure ^a	Level ^b	Temporal effect ^c	Description
Rebuilding plan	Stock	Only when active; separate immediate and persistent effects.	Years in which the stock was placed under a formal rebuilding plan or moratorium. Criteria for implementing a rebuilding plan may vary among countries. Does not necessarily require a complete closure of a fishery, but generally involves more than slight reductions in allowable catch. May be in place for one or more years, de-activated for one or more years following stock rebuilding, and then later re-activated for one or more years.
Scientific survey	Stock	Persistent	Fishery-independent, scientific surveys that are typically used to estimate an index of abundance, which is then often used (or could be used) in stock assessments. → One of five measures comprising the stock-level management intensity index.
Stock assessment	Stock	Persistent	Scientific assessment in which an estimate of stock status (current biomass and/or fishing pressure, relative to some reference point) is provided. Usually involves a population model fit to catch and abundance index data, but approaches vary. → One of five measures comprising the stock-level management intensity index.

Management measure ^a	Level ^b	Temporal effect ^c	Description
Harvest control rule (HCR)	Stock	Persistent	Pre-specified, transparent rule for adjusting catch or fishing pressure as stock size changes. Usually involves a framework to reduce catch limits or effort in response to decreases in observed stock size. → One of five measures comprising the stock-level management intensity index.
Fleet-wide catch limit (TACs)	Stock	Persistent	Annual catch limits such as Total Allowable Catch or Guideline Harvest Levels. → One of five measures comprising the stock-level management intensity index.
Individual quotas (IQs)	Stock	Persistent	System in which quota units (or effort units) are allocated to individual fishermen, vessels, companies, or communities. Quota units are not necessarily transferable. → One of five measures comprising the stock-level management intensity index.
EEZ declaration	National/ inter-national	Persistent	Exclusive Economic Zone. → One of three measures comprising the national/ international-level management intensity index.
UN CA/FSA ratification	National/ inter-national	Persistent	First ratification of the UN FAO Compliance Agreement or UN Fish Stocks Agreement. → One of three measures comprising the national/ international-level management intensity index.
National/ regional legislative policy (varies)	National/ inter-national	Persistent	A major fisheries policy implemented by a country or a tuna Regional Fisheries Management Organisation, applying to most or all managed stocks within that jurisdiction. See Supplementary Table 2 for specific policies by country or region. → One of three measures comprising the national/ international-level management intensity index.

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21 ^aFive of the six stock-level measures and all three national/international-level measures were used
22 in analyses as aggregate indices of management intensity rather than as individual predictor
23 variables.

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25 ^bIn analyses, observations are individual stocks so all management measures are technically at the
26 stock level; here, ‘level’ refers to whether the measure applies to a specific stock (‘stock’) or to
27 multiple stocks within the country or region (‘national/international’).

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29 °Refers to whether the management measure is considered to have potential effect on stock status
30 only in the years in which it is operational ('only when active') or in all years during and
31 following its first usage ('persistent'). For rebuilding plans, the only measure with temporal
32 effect treated as 'only when active', the modelled effect on stock status is separated into an
33 immediate component (in the first year of implementing a rebuilding plan) and a persistent
34 component (for all years after the first year until the end of the rebuilding plan or end of the time
35 series).