# Submission to the Commonwealth Fisheries Policies Review: Harvest Strategy

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**Professor Kate Barclay, Faculty of Arts and Social Sciences and Director of the Climate, Society and Environment Research Centre (C-SERC) at the University of Technology Sydney (UTS), member of MarSocSci Australia**

**Dr Matt Navaro, Research Fellow, School of Biological Sciences and Oceans Institute at the University of Western Australia, member of MarSocSci Australia**

**Dr Carla Sbrocchi, Faculty of Arts and Social Sciences and Director of the Climate, Society and Environment Research Centre (C-SERC) at the University of Technology Sydney (UTS), Convenor of MarSocSci Australia**

### About the Marine Social Sciences Network Australia (MarSocSciAus)

MarSocSci (marine social science) Australia is the Australian chapter of an international network of leading experts on the social dimensions of marine resources and environments from universities, government agencies and other organisations.

## SUBMISSION OVERVIEW

Our submission is based on a key point from the Draft Report 2024 for the Commonwealth Fisheries Policy Review on Harvest Strategy: “growing recognition that the Fisheries Management Act’s objective to maximise net economic returns to the Australian community from the management of fisheries should include consideration of a broader suite of economic benefits when setting TRPs.” (Section 3.1 p. 13, emphasis added). The Technical Review indicates problems with having maximum economic yield (MEY) for commercial fishers as the default target. The draft findings of the policy review specify that Commonwealth fisheries “should benefit all Australians”, specifying commercial, Aboriginal and Torres Strait Islander fishers, recreational fishers, as well as consumers.

We strongly agree with this point but are concerned that the draft Report is too timid in suggesting this change and argue that further clarity is required in the policy around how to identify and operationalise consideration of a broader suite of economic benefits.

# RECOMMENDATIONS

### Recommendation 1

We recommend that the Commonwealth Harvest Strategy Policy more strongly assert that alternative target reference points to MEY are needed to maximise economic benefits to the Australian community, and commit to developing the evidence base necessary to properly evaluate a broader suite of economic benefits from fisheries.

### Recommendation 2

We recommend that the Commonwealth Harvest Strategy policy interpret the objective of maximising 'net economic returns to the Australian community' using a wellbeing economy approach, in line with overarching Commonwealth economic policy as laid out in Treasury's Measuring What Matters Framework[1] and develop fisheries objectives accordingly.

### Recommendation 3

We recommend that the Commonwealth Harvest Strategy Policy specifies investment in a co-design process to develop target reference points with Aboriginal and Torres Strait Islander communities, commercial and recreational fishing representatives, consumers, community stakeholders and fisheries researchers with social, economic and ecological expertise.

### Recommendation 4

We recommend that the Commonwealth Harvest Strategy Policy incorporates a strategy to develop the multidimensional data needed for target reference points based on a wellbeing economy approach, and for reporting on the effectiveness of Harvest Strategies in meeting economic objectives.

We note that harvest strategies are just one part of fisheries management, and that allocation of catch and spatial management are also important. The recommendations we make here are based on doing fisheries governance[2] better as a whole in Australia. Some of the specific difficulties for considering a wider suite of economic benefits in harvest strategies cited in the report – lack of data and the costs of generating new data – would be addressed if the wider Commonwealth fisheries governance approach were improved to have more effective stakeholder engagement and better integration with related policy fields, with interoperability in existing social and economic datasets so they can be used for fisheries purposes.

We recognise that much of what we suggest in this submission is novel for fisheries management. MarSocSciAus has a great deal of capacity to support policy officers in working towards operationalising a wellbeing approach in fisheries management. We can help inform and support officers as part of the policy development process.

[1] Australian Government, Treasury website. Retrieved 19th December 2024 from: https://treasury.gov.au/policy-topics/measuring-what-matters/framework

[2] "Governance" refers to how societies organise to make decisions in ways that influence management choices (e.g., harvest allocation), such as levels of participation, the inclusion of different types of knowledge, and legitimacy of processes that lead to decisions. A failure to consider the governance context may lead to unexpected consequences or break points in decision-making, bias estimates of risk and returns from management choices, and mask the potential for undesirable social and ecological outcomes. See Derek R Armitage, Daniel K. Okamoto, Jennifer J. Silver, Tessa B. Francis, Phillip S. Levin, André E. Punt, Ian P Davies, Jaclyn S. Cleary, Sherri C. Dressel, R. Russ Jones, Harvey Kitka, Lynn Chi Lee, Alec D. MacCall, Jim A. McIsaac, Melissa R. Poe, Steve Reifenstuhl, Andrew O. Shelton, Jörn O. Schmidt, Thomas F .Thornton, Rudi Voss, John Woodruff (2019) Integrating Governance and Quantitative Evaluation of Resource Management Strategies to Improve Social and Ecological Outcomes, BioScience, 69(7), 523–532, https://doi.org/10.1093/biosci/biz059

# CONCERN 1: THE REPORT SHOULD ARGUE MORE STRONGLY FOR GOING BEYOND MEY

A target of maximising economic returns has been built into *Commonwealth Fisheries Management Act 1991* and into harvest strategy (HS) policy since 2007. Chapter 2 in the 2018 policy defines the objective of the policy as the ecologically sustainable and profitable use of fishery resources, where the latter is interpreted in the Strategy (section 2.1) as implementing harvest strategies that "maximise net economic returns to the Australian community from management of Australian fisheries," based on the objectives of the Act.

In the current HS policy "returns to the Australian community" has been interpreted to mean a target of maximum economic yield (MEY) for commercial fishers. The Harvest Strategy Policy Guidelines currently assert that maximising the net economic return from a fish stock or fishery to the Australian community will in most cases be consistent with maximising net economic returns for the commercial fishery. For example, MEY benefits the community beyond commercial fishers through increasing taxation revenue from commercial fisheries.

However, the Technical Review found that in many circumstances, an MEY target may not be optimal. Consumers likely benefit with a biomass target lower than MEY as higher catch reduces fish prices due to higher supply. In contrast, Aboriginal and Torres Strait Islander fishers and recreational fishers are likely to benefit from biomass targets higher than MEY to maximise catch rates in accessible locations. The importance of factoring in these diverse interests is reflected in a new objective included in the Fisheries Management Act in 2017 which says that AFMA must "have regard to the objective of ensuring that the interests of commercial, recreational, and Indigenous fishers are taken into account." The wording of the Act regarding economic returns to "the Australian community" also implies that consumers should be included.

In addition to the inability of MEY to capture diverse interests, the Technical Review (Appendix A to the Policy Review) notes that 'economic yield' in MEY may not equate to what legislators intended by "economic returns" in the Act (1991). Specifically, in MEY, labour is considered a cost to be minimised, whereas legislators likely considered employment in the fishing sector to be an economic benefit that should not be minimized. As noted in Appendix 1 (p.23), in the Southern and Eastern Scalefish and Shark Fishery, the most important fishery for Australian consumers, the current management system is designed to maximise producer returns (MEY) but "this comes at a social cost for crew members and fish consumers".[3]

We are concerned that the Draft Report 2024 is too timid in suggesting change to economic objectives operationalised in harvest strategies. The Technical Review in the Draft Report 2024 indicates that MEY for commercial fishers is too narrow an objective, and that targets could be set to include benefits for commercial fishers, recreational fishers, Aboriginal and Torres Strait Islander fishers and consumers, and to consider employment as a benefit rather than just a cost. However, in the Summary of recommendations about Harvest Strategy Policy (p. v) it says: "[t]he review recommends the policy's current default target reference point be retained as the starting point when setting target reference points for a stock, and suggests alternative targets be adopted if there is sufficient evidence available to suggest this would achieve better outcomes for multiple sectors."

Currently the social or economic outcomes of fisheries policies for multiple sectors are not routinely evaluated, so there is little possibility that there will be such evidence. The report points out (p.17): "[t]he starting point for setting the stock level target reference point (BTARG), when this cannot be reliably modelled, should remain at B48 (based on MEY). Whilst the settings could be made higher or lower depending on the evidence, ultimately by defaulting to MEY and not providing resources to investigate alternatives MEY is likely to be relatively uncritically applied to most fish stocks." The report cautions (p.16) that the costs associated with data collection to understand non-commercial interests in fisheries should be weighed against potential benefits from that data. Appendix 2 canvasses various ways economic benefits beyond MEY could be estimated, including non-commercial benefits, while noting challenges with obtaining data required for these analyses.

# CONCERN 1: THE REPORT SHOULD ARGUE MORE STRONGLY FOR GOING BEYOND MEY

Data collection and analysis for Commonwealth fisheries management has been viewed through a cost-recovery model.[4] If fisheries objectives are to include a broader suite of economic benefits it is unrealistic to expect that the fishing industry will pay for data collection and analysis of the benefits to other resource users. It may be that public funding should be used for the evaluation of economic benefits if we are considering benefits to the Australian community rather than just to producers (see more on data for evaluating economic benefits in Concern 4 below).

In addition, harvest strategies that rely on aggregate stock status are not sufficient for ensuring benefits for recreational and Aboriginal and Torres Strait Islander fishers. They require also a spatial element, in that for stocks to be accessible for these groups they need to be available at important cultural sites and where these fishers can access them, including importantly close to shore. A governance structure that separates spatial considerations from overall stock health is problematic for true capture of economic values for recreational and Aboriginal and Torres Strait Islander fishers.

Going beyond MEY as a reference point requires considering how management of the fishery conforms to the goals of ecologically sustainable development (ESD), as defined by the Australian National ESD strategy.[5] ESD is defined by how development of the fishery improves the "total quality of life, both now and in the future" of beneficiaries. ESD has been embedded in fisheries policy documents, but not coherently pursued through to operational objectives or fisheries management.[6]

In the Productivity Commission's review of ESD in Commonwealth portfolios,[7] DAFF recognised the merits of ESD principles, but identified that its main challenge "in implementing ESD in the future will be to maintain the dynamic balance between social, economic and environmental considerations, so that no one set of considerations dominates the policy process" (p. 46). We assert that the Harvest Strategy Policy has allowed a narrow definition of economic benefits and their distributions to be maintained through the MEY reference point, and we strongly encourage decision makers to review its policy to ensure its social ESD commitments aim to provide total quality of life both now and into the future for the full range of beneficiaries. We suggest that this can be done through a wellbeing approach, which aligns with other Australian Government processes.

**Recommendation 1**

We recommend that the Commonwealth Harvest Strategy Policy more strongly assert that alternative target reference points to MEY are needed to maximise economic benefits to the Australian community, and commit to developing the evidence base necessary to properly evaluate a broader suite of economic benefits from fisheries.

[3] Briton F., Thebaud, O., Macher, C., Gardner, C., and Little, L.R. (2023). Managing biological, economic and social trade-offs in the Australian Southern and Eastern Scalefish and Shark Fishery. Marine and Freshwater Research, doi:10.1071/MF23024

[4] Australian Government (2019). Cost recovery implementation statement 2018-19. Australian Fisheries Management Authority. Retrieved 5 February 2021 from: https://www.afma.gov.au/sites/default/files/uploads/2018/06/AFMA-Cost-Recovery-Implementation-Statement-CRIS-2018-19_.pdf

[5] Australian National Strategy for Ecologically Sustainable Development, endorsed by all Australian jurisdictions in 1992. The following ESD principles are outlined in Section 3A of the EPBC Act: a) Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations (the 'integration principle').

[6] Farmery, A. K., et al. (2019). "Incorporating ecologically sustainable development policy goals within fisheries management: An assessment of integration and coherence in an Australian context." Journal of Environmental Management 249: 109230.

[7] Productivity Commission (1999). 'Implementation of Ecologically Sustainable Development by Commonwealth Departments and Agencies'. Inquiry Report, Report No 5. 5 May 1999. Retrieved 29 November 2024 from https://www.pc.gov.au/inquiries/completed/ecologically-sustainable-development/report/esd.pdf

# CONCERN 2: COMMONWEALTH FISHERIES POLICY SHOULD TAKE A WELLBEING ECONOMY APPROACH

A key principle of a wellbeing approach to fisheries is an enhanced appreciation for the distribution of benefits. Whilst MEY-based fisheries management approaches maximise the total pool of economic benefits (when defined as returns to producers), wellbeing approaches highlight that how those benefits are distributed is critically important. As highlighted in the Draft 2024 report, some of these considerations may be more relevant to the Commonwealth Fisheries Resource Sharing Framework 2020; however, when thinking about broad community benefits it is difficult to separate decisions around how many fish can be removed from discussions of who benefits from their removal.

The Commonwealth Government now takes a wellbeing economy approach as reflected in the Measuring What Matters Statement released from The Treasury in July 2023. We argue that fisheries policy should reflect this policy direction, meaning that the community benefits from fisheries should be considered in terms of fisheries contributions to wellbeing.[8] A wellbeing approach informs "people-centric and integrated policy making across the many dimensions that matter for people, the planet and future generations".[9] Furthermore, the Commonwealth's draft Sustainable Ocean Plan proposes that ocean-related businesses will be socially responsible and economically prosperous, benefits from ocean resources will be shared, and that decision-making on using and managing the ocean will be inclusive and fair for all Australians (p.11, p.25).[10] If the operational objectives for commercial fisheries remain narrowly defined as MEY fisheries policy will not align with related policy strands, leading to policy incoherency.

The narrow definition of economic benefits to the community as commercial quota holders' profitability in MEY shapes fisheries away from many of the community benefits fishing industries can generate.[11] This issue goes beyond MEY as a target reference point as such, and is part of the broad policy approach that has been taken in State and Commonwealth fisheries policy for several decades, which favours large-scale, high-value, export oriented companies and pushes out small scale fishers who love the life but work for a basic livelihood, who supply domestic markets at relatively low margins, and who promote local employment and regional development for coastal towns.[12]

Fisheries researchers have argued that maximizing employment is one of the 'beacons' of fishery performance to which fisheries policy should aim.[13] In the MEY approach labour is considered a cost to be minimized but it is reasonable to expect that maximising "economic returns to the community" should include generating jobs in the regional locations where most fisheries are based. That would benefit regional coastal communities, and the fishing industry's human resource base. Australian fishing companies struggle to find crew. If fisheries policy objectives shifted towards a broader suite of benefits, including employment, the Commonwealth could consider support for training and accrediting regional and Aboriginal and Torres Strait Islander crew, which would both improve benefits from fishing and increase the fishing industry's social license to operate.

[8] For ideas about how a wellbeing approach can be applied to fisheries see panel on 'The "Blue Doughnut": A framework for a wellbeing ocean economy beyond growth' at the European Union Beyond Growth conference 15-17 May 2023. Retrieved September 5, 2024, from: https://www.beyond-growth-2023.eu/lecture/focus-panel-12/. See also Fudge, M., Ogier, E. & Alexander, K.A. 2023. Marine and coastal places: Wellbeing in a blue economy, Environmental Science and Policy, 144, 64-73. https://doi.org/10.1016/j.envsci.2023.03.002

[9] Organisation for Economic Cooperation and Development (OECD) 2024 'Measuring well-being and progress'. Retrieved September 5, 2024 from: https://www.oecd.org/en/topics/sub-issues/measuring-well-being-and-progress.html.

[10] See at the Department of Climate Change, Energy, the Environment and Water website, viewed 19 December 2024: https://www.dcceew.gov.au/environment/marine/sustainable-ocean-plan

[11] Fabinyi, M. & Barclay, K. (2022). 'Fisheries Governance' in Asia-Pacific Fishing Livelihoods. Palgrave Pivot, London.

[12] Abernethy, K., Barclay, K., Mcilgorm, A., Gilmour, P., Mcclean, N., & Davey, J. (2020). Victoria's fisheries and aquaculture: economic and social contributions, FRDC Report (2017-092); Voyer, M., Barclay, K., Mcllgorm, A., & Mazur, N. (2016). Social and Economic Evaluation of NSW Coastal Professional Wild-Catch Fisheries, FRDC Report (2014-301).

[13] Bavinck, M., Scholtens, J., & Fabinyi, M. (2024). Maximum sustainable employment: Adding to the beacons of wild fisheries governance. Fish and Fisheries, 25(4), 619–629. https://doi.org/10.1111/faf.12829

# CONCERN 2: COMMONWEALTH FISHERIES POLICY SHOULD TAKE A WELLBEING ECONOMY APPROACH

The Australian community would also benefit from a greater focus on food supply outcomes in fisheries policy.[14] Leading international fisheries scientists point out that fisheries governance should be nutrition-sensitive.[15] Australian policy that favours high value export fisheries fails to meet community desires for a greater proportion of the seafood consumed in Australia to be produced domestically, and for 'fresh local seafood'.[16] In wealthy economies such as Australia, cardiovascular disease and greenhouse gas emissions from ruminant meat farming could be improved by replacing meat with more seafood.[17] Australian policy, including objectives for harvest strategies, does not consider seafood in a holistic food systems sense linking nutritional health with the full range of sustainability concerns along supply chains (more than just preventing overfishing of target species).[18] There are trade-offs to manage in considering food policy as part of fisheries policy, e.g., the objective of reducing seafood prices may be in conflict with objectives to increase biomass for recreational and Aboriginal and Torres Strait Islander fisheries, and maintaining viable livelihoods for commercial fishers.

Many fishing businesses outside the high value export oriented businesses in both State and Commonwealth fisheries feel they have been "doing it very tough" for twenty years or more, in part due to the regulatory bias towards maximising commercial profitability above other considerations.[19] Recognising the problems arising from narrow views of the economic benefits from fishing, industry groups through the Fisheries Research and Development Corporation (FRDC) requested studies to investigate the full range of community benefits from commercial fishing,[20] building on earlier work to identify social objectives and indicators for fisheries management.[21] The FRDC has invested over $1,000,000 in wellbeing studies, as a basis for understanding the broad wellbeing contributions from commercial fishing to coastal communities. Examples of community wellbeing indicators that could be applied in Harvest Strategies include employment rates, work or life satisfaction, equity in catch value distribution, vulnerability and malnutrition levels.[22]

[14] Garcia Garcia, S., Barclay, K., & Nicholls, R. (2020). The multiple meanings of fish: policy disconnections in Australian seafood governance. In E. Probyn, K. Johnston, & N. Lee (Eds.), Sustaining Seas. Oceanic Space and the Politics of Care. Lanham, MD: Rowman & Littlefield Publishers.

[15] Allegretti, A., & Hicks, C. C. (2023). 'Getting the Right Nutrients to Those Who Need Them Most': towards nutrition-sensitive governance of fisheries in the Global South. Reviews in Fish Biology and Fisheries, 33(3), 561–571. https://doi.org/10.1007/s11160-022-09743-6

[16] Abernethy, K., Barclay, K., Mcilgorm, A., Gilmour, P., Mcclean, N., & Davey, J. (2020). Victoria's fisheries and aquaculture: economic and social contributions, FRDC Report (2017-092); Voyer, M., Barclay, K., Mcllgorm, A., & Mazur, N. (2016). Social and Economic Evaluation of NSW Coastal Professional Wild-Catch Fisheries, FRDC Report (2014-301). For a synthesis of results see the University of Technology Sydney submission to the Country of Origin Labelling for food policy review here: https://consult.industry.gov.au/evaluation-of-country-of-origin-labelling-for-food/submissions/list.

[17] Crona, B. I., Wassénius, E., Jonell, M., Koehn, J. Z., Short, R., Tigchelaar, M., Daw, T. M., Golden, C. D., Gephart, J. A., Allison, E. H., Bush, S. R., Cao, L., Cheung, W. W. L., DeClerck, F., Fanzo, J., Gelcich, S., Kishore, A., Halpern, B. S., Hicks, C. C., … Wabnitz, C. C. C. (2023). Four ways blue foods can help achieve food system ambitions across nations. Nature, 616(7955), 104–112. https://doi.org/10.1038/s41586-023-05737-x

[18] Bogard, J. R., Farmery, A. K., Baird, D. L., Hendrie, G. A., & Zhou, S. (2019). Linking production and consumption: The role for fish and seafood in a healthy and sustainable Australian diet. Nutrients, 11(8). https://doi.org/10.3390/nu11081766

[19] Barclay, K., Davila, F., Kim, Y., McClean, N., & Mcilgorm, A. (2020). Economic analysis and social and economic monitoring following the NSW commercial fisheries business adjustment program. Institute for Sustainable Futures, University of Technology Sydney. Retrieved February 5, 2021, from https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0007/1256128/Economic-analysis-and-Social-and-Economic-monitoring-following-the-NSW-Commercial-Fisheries-Business-Adjustment-Program.pdf; Minnegal, M., & Dwyer, P. D. (2008). Managing risk, resisting management: Stability and diversity in a southern Australian fishing fleet. Human Organization, 67(1), 97–108. https://doi.org/10.17730/humo.67.1.x38g60 k463p26855

[20] Abernethy, K., Barclay, K., Mcilgorm, A., Gilmour, P., Mcclean, N., & Davey, J. (2020). Victoria's fisheries and aquaculture: economic and social contributions, FRDC Report (2017-092); Voyer, M., Barclay, K., Mcllgorm, A., & Mazur, N. (2016). Social and Economic Evaluation of NSW Coastal Professional Wild-Catch Fisheries, FRDC Report (2014-301).

[21] Triantafillos, L., & K. Brooks, (2014). Managing the social dimension of fishing: Part 1 Introduction to social objectives and indicators in fisheries management. FRDC Project 2010-040 - Final Report. Adelaide, Primary Industries and Regions SA, Fisheries and Aquaculture.

[22] Barclay, K. M., Bush, S. R., Poos, J. J., Richter, A., van Zwieten, P. A. M., Hamon, K. G., Carballo-Cárdenas, E., Pauwelussen, A. P., Groeneveld, R. A., Toonen, H. M., Schadeberg, A., Kraan, M., Bailey, M., & van Leeuwen, J. (2023). Social harvest control rules for sustainable fisheries. Fish and Fisheries. https://doi.org/10.1111/faf.12769

# CONCERN 2: COMMONWEALTH FISHERIES POLICY SHOULD TAKE A WELLBEING ECONOMY APPROACH

Given that the Commonwealth Government has adopted a wellbeing economy approach overall, the work on understanding wellbeing benefits from fisheries in Australia should inform fisheries policies. Data requirements for wellbeing analyses are significant, and are discussed below in Concern 4. The shift from viewing the economic benefits from fisheries only in terms of profitability of commercial fishing quota holders to broader economic benefits for commercial, recreational and Aboriginal and Torres Strait Islander fishers, for consumers and for regional economies. For example, maximizing viable livelihoods in commercial fishing may be a more appropriate target than maximizing profits for quota holders. The shift could also enable fishing to be more accurately accounted for within the trade-offs made in coastal zone planning. Fishing grounds have already been restricted by marine protected areas and areas set aside for recreational fishing. Now that energy providers (oil, gas and wind) are also competing for access to coastal areas, it is vitally important to understand properly the economic benefits lost when fishing is restricted.

**Recommendation 2**

We recommend that the Commonwealth Harvest Strategy policy interpret the objective of maximising 'net economic returns to the Australian community' using a wellbeing economy approach, in line with overarching Commonwealth economic policy as laid out in Treasury's Measuring What Matters Framework[23] and develop fisheries objectives accordingly.

[23] Australian Government, Treasury website. Viewed 19 December 2024: https://treasury.gov.au/policy-topics/measuring-what-matters/framework

# CONCERN 3: MORE EFFECTIVE STAKEHOLDER ENGAGEMENT IS NEEDED

Adopting a wellbeing economy approach requires that fisheries management settings be established in ways that best serve local communities. Often fisheries objectives are region specific. For example, aspirations for Sea Country are likely to differ between adjacent Aboriginal and Torres Strait Islander communities, requiring stakeholder engagement to elicit nuances and lead to appropriately designed fisheries management settings.

This in turn requires in-depth stakeholder engagement and deliberative approaches to identify benefits derived from fisheries and to identify ways to optimise these benefits (i.e. determine the objectives of fisheries management). It is important to note that engagement processes do not always work as intended,[24] so the key here is not 'more' engagement but 'more effective' engagement,[25] some of which could be facilitated through existing governance structures (e.g., peak body groups). However, we also recognise that some groups currently lack the organisational capacity to be adequately represented through such a system (e.g., consumers), or broad scale representation is culturally inappropriate (e.g., some Aboriginal and Torres Strait Islander communities).

For Aboriginal and Torres Strait Islander communities, and for many commercial and recreational fisheries, engagement may also necessitate a consideration of diverse worldviews and knowledge systems present across Australia.[26] This is because processes and outcomes of stock status assessments are often not aligned with Local Ecological Knowledge, and this misalignment can drive divisions in and between sectors.[27] Fisheries managers will also need to appreciate how layers of Western fisheries management intersect with local Traditional systems for managing fish stocks. A wellbeing approach requires attention be paid to both the outcomes of fisheries management (i.e., target levels) but also the processes (i.e., whose knowledge is integrated into assessing stock status).[28]

**Recommendation 3**

We recommend that the Commonwealth Harvest Strategy Policy specifies investment in a co-design process to develop target reference points with Aboriginal and Torres Strait Islander communities, commercial and recreational fishing representatives, consumers, community stakeholders and fisheries researchers with social, economic and ecological expertise.

[24] Fudge, M. (2018). Participation and representation in governing multiple-use marine ecosystems. Australian Journal of Maritime and Ocean Affairs, 10(4), 263–279. https://doi.org/10.1080/18366503.2018.1536314

[25] Cvitanovic, C., Shellock, R. J., Mackay, M., van Putten, E. I., Karcher, D. B., Dickey-Collas, M., & Ballesteros, M. (2021). Strategies for building and managing 'trust' to enable knowledge exchange at the interface of environmental science and policy. Environmental Science and Policy, 123, 179–189. https://doi.org/10.1016/j.envsci.2021.05.020

[26] Hoschke, R., Pauli, N., Langlois, T., Knight, A. T., Davies, H., & Navarro, M. (2024). Navigating diverse commercial fisher perspectives for effective knowledge exchange in fisheries research and management. Environmental Science & Policy, 158(103798), 103798.

[27] Johannes, R. E., Freeman, M. M. R., & Hamilton, R. J. (2008). Ignore fishers' knowledge and miss the boat. Fish and Fisheries , 1(3), 257–271.

[28] Croft, F., Breakey, H., Voyer, M., Cisneros-Montemayor, A., Issifu, I., Solitei, M., Moyle, C., Campbell, B., Barclay, K., Benzaken, D., Bodwitch, H., Fusco, L., Lozano, A. G., Ota, Y., Pauwelussen, A., Schutter, M., Singh, G., & Pouponneau, A. (2024). Rethinking blue economy governance – A blue economy equity model as an approach to operationalise equity. Environmental Science & Policy, 155(103710), 103710

# CONCERN 4: THE POLICY SHOULD COMMIT TO INVESTING IN DATA TO PROPERLY UNDERSTAND ECONOMIC BENEFITS

Estimating the various values that should make up “economic returns to the Australian community” will require data and analysis that is not currently built into fisheries management systems.

The Productivity Commission recommended that Government[29] include specific references in policies to the likely short- and long-term social, economic and environmental costs and benefits. The Draft Report 2024 does not clearly presage such cost benefit analysis, instead it identifies the measurement of costs and benefits as resource intensive. For example, Appendix 2 discusses the difficulties in estimating fisheries benefits beyond commercial fishers, such as consumer surplus, for Indigenous cultural fishing and recreational fishing. We argue that methods for generating data could be designed with industry, fisheries beneficiaries, other Commonwealth agencies and through collaboration with State and Territory agencies, in order to understand the real-world costs and benefits of fisheries policies.

More effective engagement with stakeholders and rights holders noted in Concern 3 is of direct relevance to generating data for better understanding economic benefits to the Australian community. If stakeholders and traditional owners feel that their input to engagement activities is valued and incorporated into policy decisions they can co-develop cost effective datasets. For example, workshops with industry players can generate information about the average, high and low figures for costs and revenues, and avoid costly exercises in trying to have businesses submit their individual financial data. Recreational fishers and community members have shown that they can cooperate with fisheries agencies to provide important data.[30] Similarly, Local Ecological Knowledge held in a range of different fishing communities across Australia (including amongst commercial, recreational fishers and Traditional Owners) provides a potentially under-appreciated basis for managing Australian fish stocks.

In addition to establishing new data collection, much could be done through collaboration across agencies that already collect economic and social data. The Illuminating Hidden Harvests project, a global collaboration supported by the United Nations Food and Agriculture Organisation (FAO), has pioneered methods utilising various kinds of social and economic data, including census and labour force data, to understand the human dimensions of fisheries.[31]

[29] Productivity Commission (1999). Implementation of Ecologically Sustainable Development by Commonwealth Departments and Agencies. Inquiry Report, Report No 5. 5 May 1999. Retrieved 29 November, 2024 from https://www.pc.gov.au/inquiries/completed/ecologically-sustainable-development/report/esd.pdf

[30] Stenekes, N. & Sahlqvist, P. (2011). Community involvement in recreational fisheries data collection: Opportunities and challenges, ABARES Technical report 11.5, Canberra, September.

[31] FAO, Duke University & WorldFish. 2023. Illuminating Hidden Harvests – The contributions of small-scale fisheries to sustainable development. Rome. https://doi.org/10.4060/cc4576en

# CONCERN 4: THE POLICY SHOULD COMMIT TO INVESTING IN DATA TO PROPERLY UNDERSTAND ECONOMIC BENEFITS

An Australian example is work by CSIRO researchers using ABS data on demographic and socioeconomic characteristics of coastal communities for the purpose of understanding vulnerability to climate change.[32] Using non-fisheries data for fisheries purposes is not always straightforward. For example, fisheries-relevant data may be aggregated with forestry and agriculture data. However, the IHH project and others show that it is possible and may be cost-effective. In addition, there is already some time series social and economic data for fisheries and aquaculture collected by some States and Territories, which could potentially be useful for estimating community benefits from Commonwealth fisheries.[33] Efforts could be made to gain access to datasets held by other agencies and collaborate on adjustments to make them more interoperable for the purpose of fisheries policy, including harvest strategies.

One way to pursue social and economic data would be for the Department of Agriculture Fisheries and Forestry (DAFF) to participate in the Global Ocean Accounts Partnership, set up under the High-Level Panel for a Sustainable Ocean Economy (Ocean Panel), of which Australia is a leading member. Ocean Accounts use methods such as those outlined above to create time series data on ecological, economic and social dimensions of the ocean for policy purposes.[34]

**Recommendation 4**

We recommend that the Commonwealth Harvest Strategy Policy incorporates a strategy to develop the multidimensional data needed for target reference points based on a wellbeing economy approach, and for reporting on the effectiveness of Harvest Strategies in meeting economic objectives.

[32] Metcalf, S. J., van Putten, E. I., Frusher, S., Marshall, N. A., Tull, M., Caputi, N., Haward, M., Hobday, A. J., Holbrook, N. J., Jennings, S. M., Pecl, G. T., & Shaw, J. (2015). Measuring the vulnerability of marine social-ecological systems: A prerequisite for the identification of climate change adaptations. Ecology and Society, 20(2). https://doi.org/10.5751/ES-07509-200235

[33] BDO Econsearch has been producing economic indicator reports on commercial fisheries and aquaculture for the South Australian government for many years. These are not easily visible on the Primary Industries Research South Australia website, but can be found via web search. BDO Econsearch has also been commissioned to produce economic and social indicator reports for the New South Wales Department of Primary Industries for commercial fisheries and aquaculture since 2019, available on the DPI website. The Queensland Department of Primary Industries has on their website fisheries economic and social indicators dating from 2017.

[34] Ocean Accounts website, viewed 19 December 2024: https://www.oceanaccounts.org/what-are-ocean-accounts/