



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

ARCHIVIO ISTITUZIONALE
DELLA RICERCA

Alma Mater Studiorum Università di Bologna
Archivio istituzionale della ricerca

WTO must ban harmful fisheries subsidies

This is the final peer-reviewed author's accepted manuscript (postprint) of the following publication:

Published Version:

Sumaila, U.R., Skerritt, D.J., Schuhbauer, A., Villasante, S., Cisneros-Montemayor, A.M., Sinan, H., et al. (2021). WTO must ban harmful fisheries subsidies. *SCIENCE*, 374, 544-544 [10.1126/science.abm1680].

Availability:

This version is available at: <https://hdl.handle.net/11585/836841> since: 2021-11-02

Published:

DOI: <http://doi.org/10.1126/science.abm1680>

Terms of use:

Some rights reserved. The terms and conditions for the reuse of this version of the manuscript are specified in the publishing policy. For all terms of use and more information see the publisher's website.

This item was downloaded from IRIS Università di Bologna (<https://cris.unibo.it/>).
When citing, please refer to the published version.

(Article begins on next page)

This is the final peer-reviewed accepted manuscript of:

Sumaila, U. R., Skerritt, D. J., Schuhbauer, A., Villasante, S., Cisneros-Montemayor, A. M., Sinan, H., ... & Jin, X. (2021). WTO must ban harmful fisheries subsidies. *Science*, 374(6567), 544-544.

The final published version is available online at:

<https://doi.org/10.1126/science.abm1680>

Terms of use:

Some rights reserved. The terms and conditions for the reuse of this version of the manuscript are specified in the publishing policy. For all terms of use and more information see the publisher's website.

This item was downloaded from IRIS Università di Bologna (<https://cris.unibo.it/>)

When citing, please refer to the published version.

WTO must ban harmful fisheries subsidies

Sustainably managed wild fisheries support food and nutritional security, livelihoods, and cultures (1). Harmful fisheries subsidies—government payments that incentivize overcapacity and lead to over-fishing—undermine these benefits yet are increasing globally (2). World Trade Organization (WTO) members have a unique opportunity at their ministerial meeting in November to reach an agreement that eliminates harmful subsidies (3). We—a group of scientists spanning 46 countries and 6 continents—urge the WTO to make this commitment.

To curb overfishing, biodiversity degradation and loss, and CO₂ emissions, and to safeguard food and livelihoods, WTO members must prohibit fisheries subsidies that cause harm, such as those that lower the cost of fuel and vessel construction and those that provide price support to keep market prices artificially high (2). Subsidies to distant-water fishing fleets must be eliminated to prevent overfishing on the high seas and in waters under national jurisdiction. Such subsidies threaten low-income countries that rely on fish for food sovereignty (4, 5). Exceptions to the rules—known as special and differential treatment—should be considered for small-scale fishers that use low-impact gears or that fish for subsistence, but only if decoupled from incentivizing overfishing (6).

An effective agreement must eliminate subsidies for fuel (7), distant-water and destructive fishing fleets (4, 5), and illegal and unregulated vessels in line with the aims of Sustainable Development Goal 14.6 (8). To ensure accountability, it should also support low-income countries' efforts to meet their commitments and transition to sustainable management. Finally, the agreement should require transparent data documentation and enforcement measures (9).

We call on the heads of state of the High Level Panel for a Sustainable Ocean Economy, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, and the United States–Mexico–Canada Agreement—who have already committed to eliminating harmful subsidies (10–12)—as well as other trade blocs and individual countries, to declare their support now for an agreement that enshrines these recommendations. WTO members must harness their political mandate to protect the health of the ocean and the well-being of society.

U. Rashid Sumaila^{1,2*}, Daniel Skerritt¹, Anna Schuhbauer¹, Sebastian Villasante³, Andres. M. Cisneros-Montemayor⁴, Hussain Sinan⁵, Duncan Burnside¹, Patr zia Raggi Abdallah, Keita Abe, Kwasi A. Addo, Julia Adelsheim, Ibukun J. Adewumi, Olanike K. Adeyemo, Neil Adger, Joshua Adotey, Sahir Advani, Zahidah Afrin, Denis Aheto, Shehu L. Akintola, Wisdom Akpalu, Lubna Alam, Juan Jos  Alava, Edward H. Allison, Diva J. Amon, John M. Anderies, Christopher M. Anderson, Evan Andrews, Ronaldo Angelini, Zuzy Anna, Werner Antweiler, Evans K. Arizi, Derek Armitage, Robert I. Arthur, Noble Asare, Frank Asche, Berchie Asiedu, Francis Asuquo, Lanre Badmus, Megan Bailey, Natalie Ban, Edward B. Barbier, Shanta Barley, Colin Barnes, Scott Barrett, Xavier Basurto, Dyhia Belhabib, Elena Bennett, Nathan J. Bennett, Dominique Benzaken, Robert Blasiak, John J. Bohorquez, Cesar Bordehore, Virginie Bornarel, David R. Boyd, Denise Breitburg, Cassandra Brooks, Lucas Brotz, Donovan Campbell, Sara Cannon, Ling Cao, Juan C. Cardenas Campo, Steve Carpenter, Griffin Carpenter, Richard T. Carson, Adriana R. Carvalho, Mauricio Castrej n, Alex J. Caveen, M. Nicole Chabi, Kai M. A. Chan, F. Stuart Chapin, Tony Charles, William Cheung, Villy Christensen, Ernest O. Chuku, Trevor Church, Colin Clark, Tayler M. Clarke, Andreea L. Cojocar, Brian Copeland, Brian Crawford, Anne-Sophie Cr pin, Larry B. Crowder, Philippe Cury, Allison N. Cutting, Gretchen C. Daily, Jose Maria Da-Rocha, Abhipsita Das, Santiago de la Puente, Aart de Zeeuw, Savior K. S. Deikumah, Mairin Deith, Boris Dewitte, Nancy Doubleday, Carlos M. Duarte, Nicholas K. Dulvy, Tyler Eddy, Meaghan Efford, Paul R. Ehrlich, Laura G. Elsler, Kafayat A. Fakoya, A. Eyiunmi Falaye, Jessica Fanzo, Clare Fitzsimmons, Ola Flaaten, Katie R. N. Florke, Marta Flotats Aviles, Carl Folke, Andrew Forrest, Peter Freeman, K tia M. F. Freire, Rainer Froese, Thomas L. Fr licher, Austin Gallagher, Veronique Garcon, Maria A. Gasalla, Jessica A. Gephart, Mark Gibbons, Kyle Gillespie, Alfredo Giron-Nava, Kristina Gjerde, Sarah Glaser, Christopher Golden, Line Gordon, Hugh Govan, Rowenna Gryba, Benjamin S. Halpern, Quentin Hanich, Mafaniso Hara, Christopher D. G. Harley, Sarah Harper, Michael Harte, Rebecca Helm, Cullen Hendrix, Christina C. Hicks, Lincoln Hood, Carie Hoover, Kristen Hopewell, B rbara B. Horta e Costa, Jonathan D. R. Houghton, Johannes. A. Iitembu, Moenieba Isaacs, Sadique Isahaku, Gakushi Ishimura, Monirul Islam, Ibrahim Issifu, Jeremy Jackson, Jennifer Jacquet, Olaf P. Jensen, Jorge Jimenez Ramon, Xue Jin, Alberta Jonah, Jean-Baptiste Jouffray, S. Kim Juniper, Sufian Jusoh, Isigi Kadagi, Masahide Kaeriyama, Michel J. Kaiser, Brooks Alexandra Kaiser, Omu Kakujaha-Matundu, Selma T. Karuaihe, Mary Karumba, Jennifer D. Kemmerly, Ahmed S. Khan, Patrick Kimani, Kristin Kleisner, Nancy Knowlton, Dawn Kotowicz, John Kurien, Lian E. Kwong, Steven Lade, Dan Laffoley, Mimi E. Lam, Vicky W. L. Lam, Glenn-Marie Lange, Mohd T. Latif, Philippe Le Billon, Val rie Le Brenne, Fr d ric Le Manach, Simon A. Levin, Lisa Levin, Karin E. Limburg, John List, Amanda T. Lombard, Priscila F. M. Lopes, Heike K. Lotze, Tabitha G. Mallory, Roshni S. Mangar, Daniel Marszalec, Precious Mattah, Juan Mayorga, Carol McAusland, Douglas J. McCauley, Jeffrey McLean, Karly McMullen, Frank Meere, Annie Mejaes, Michael Melnychuk, Jaime Mendo, Fiorenza Micheli, Katherine Millage, Dana Miller, Kolliyil Sunil Mohamed, Essam Mohammed, Mazlin Mokhtar, Lance Morgan, Umi Muawanah, Gordon R. Munro, Grant Murray, Saleem Mustafa, Prateep Nayak, Dianne Newell, Tu Nguyen, Frederik Noack, Adibi M. Nor, Francis K. E. Nunoo, David Obura, Tom Okey, Isaac Okyere, Paul Onyango, Maartje Oostdijk, Polina Orlov, Henrik  sterblom, Dwight Owens, Tessa Owens, Mohammed Oyinlola, Nathan Pacoureau, Evgeny Pakhomov, Juliano Palacios Abrantes, Unai Pascual, Aur lien Paulmier, Daniel Pauly, Rodrigue Orobiyi Ed ya P l b , Daniel

Peñalosa, Maria G. Pennino, Garry Peterson, Thuy T. T. Pham, Evelyn Pinkerton, Stephen Polasky, Nicholas V. C. Polunin, Ekow Prah, Jorge Ramírez, Veronica Relano, Gabriel Reygondeau, Don Robadue, Callum Roberts, Alex Rogers, Katina Rumbedakis, Enric Sala, Marten Scheffer, Kathleen Segerson, Juan Carlos Seijo, Karen C. Seto, Jason F. Shogren, Jennifer J. Silver, Gerald Singh, Ambre Soszynski, Dacotah-Victoria Splichalova, Margaret Spring, Jesper Stage, Fabrice Stephenson, Bryce D. Stewart, Riad Sultan, Curtis Suttle, Alessandro Tagliabue, Amadou Tall, Nicolás Talloni-Álvarez, Alessandro Tavoni, D. R. Fraser Taylor, Louise S. L. Teh, Lydia C. L. Teh, Jean-Baptiste Thiebot, Torsten Thiele, Shakuntala H. Thilsted, Romola V. Thumbadoo, Michelle Tigchelaar, Richard S. J. Tol, Philippe Tortell, Max Troell, M. Selçuk Uzmanoğlu, Ingrid van Putten, Gert van Santen, Juan Carlos Villaseñor-Derbez, Colette C. C. Wabnitz, Melissa Walsh, J. P. Walsh, Nina Wambiji, Elke U. Weber, Frances Westley, Stella Williams, Mary S. Wisz, Boris Worm, Lan Xiao, Nobuyuki Yagi, Satoshi Yamazaki, **Hong Yang**, and Dirk Zeller

1Institute for the Oceans and Fisheries, University of British Columbia, Vancouver, BC V6T 1Z4, Canada.

2School of Public Policy and Global Affairs, University of British Columbia, Vancouver, BC V6T 1Z4, Canada.

3Cross-Research in Environmental Technologies, Department of Applied Economics, University of Santiago de Compostela, 15782 Santiago de Compostela, Spain.

4School of Resource and Environmental Management, Simon Fraser University, Burnaby, BC V5A 1S6, Canada. 5Marine Affairs Program, Dalhousie University, Halifax, NS B3H 4R2, Canada.

Department of Geography and Environmental Science, University of Reading, UK, RG6 6AB, UK.

*Corresponding author. Email: r.sumaila@oceans.ubc.ca

1. D. Pauly et al., *Nature*418, 689 (2002).
2. U. R. Sumaila et al., *Mar. Pol.*109, 103695 (2019).
3. WTO, Negotiations on fisheries subsidies (2021); www.wto.org/english/tratop_e/rulesneg_e/fish_e/fish_e.htm.
4. D. Tickler et al., *Sci. Adv.*4, eaar3279 (2018).
5. E. Sala et al., *Sci. Adv.*4, eaat2504 (2018).
6. A. M. Cisneros-Montemayor et al., *Mar. Pol.*69, 229 (2016).
7. U. R. Sumaila et al., *ICES J. Mar. Sci.*65, 832 (2008).
8. United Nations General Assembly, "Transforming Our World: The 2030 Agenda for Sustainable Development" (2015).
9. M. D. Smith, *Science*364, 34 (2019).
10. High Level Panel for a Sustainable Ocean Economy, "Transformations for a sustainable ocean economy: A vision for production, protection and prosperity" (2020); www.oceanpanel.org/ocean-action/files/transformations-sustainable-ocean-economy-eng.pdf.
11. M. A. Khan et al., *J. Econ. Struct.*7, 1 (2018).
12. A. M. Villarreal, I. F. Fergusson, "NAFTA and the United States-Mexico-Canada Agreement (USMCA)" (Congressional Research Service Report, 2020).