

Albert Norström

Head of Knowledge and Evidence

Global Resilience Partnership

Date of Birth: August 30th, 1979

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Researcher

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Short resumé

I currently serve as the Head of Knowledge of the Global Resilience Partnership. The GRP is made up of 60+ organisations that have joined forces to work together towards a world where people and places are able to persist, adapt and transform in the face of shocks, uncertainty, and change. The GRP secretariat is hosted by the Stockholm Resilience Centre, Stockholm University.

My background is coral reef ecology, but my ongoing research areas are broad. My current work spans the social-ecological dynamics of ecosystem services, resilience in vulnerable and fragile contexts, the development of positive social-ecological visions for sustainable futures and delivering better frameworks to understand what is meant by knowledge co-production in sustainability research.

I served as Executive Director of Future Earth's Programme on Ecosystem Change and Society (PECS) between 2011-2018. PECS integrates research on the stewardship of social-ecological systems, the services they generate, and the relationships among ecosystems, human wellbeing, livelihoods, inequality, and poverty. Between 2018-2020 I served as the Deputy Director of the Guidance for Resilience in the Anthropocene: Investments for Development (GRAID) programme which is hosted by the Stockholm Resilience Centre (SRC) and funded by the Swedish International Development Cooperation Agency (Sida). GRAID aimed to bridge the worlds of resilience thinking and development practice.

Academic titles and education

- 2010 PhD, Natural Resource Management. Stockholm University, Sweden
- 2003 MSc, Ecotoxicology. Stockholm University, Sweden
- 2002 BSc, Biology and Systems Ecology. Stockholm University, Sweden

Current appointments

- 2020 – Head of Knowledge of Evidence. Global Resilience Partnership
- 2020 – Senior Researcher. Stockholm Resilience Centre, Stockholm University.

Previous appointments

- 2018 – 2020 Deputy Director. Guidance for Resilience in the Anthropocene: Investments for Development (GRAID), Stockholm Resilience Centre, Stockholm University.
- 2011-2018 Executive Director. Programme on Ecosystem Change and Society (PECS). Stockholm Resilience Centre. Stockholm University.
- 2010 – 2011 Researcher. Stockholm Resilience Centre, Stockholm University

Selected grants (since 2012)

- 2021 Awarded project funding from Department for Environment, Food and Rural Affairs UK Govt Blue Planet Fund for 9 months. Project title “Ocean risks and vulnerabilities in SIDS and LDCs”. Main applicant (1,700,000 SEK)
- 2020 Awarded project funding from BiodivERSA/FORMAS for 3 years. Project title “Eastern

- Tropical Pacific reef fish on the move: biodiversity reorganisation and societal consequences". Co-applicant (3,200,000 SEK)
- 2020 Awarded project funding from Government of Canada for 18 months. Project title "Emerging Ocean risks, and their implications on the resilience and human wellbeing on small island developing states (SIDS) and coastal least developed countries (LDCs)". Main applicant (2,000,000 SEK)
- 2018 Awarded project funding from FORMAS for 1 year. Project title "Resilience practice for Swedish governance". Main applicant (1,480,000 SEK)
- 2017 Awarded project funding from FORMAS for 3 years. Project title "Seeds of a Good Anthropocene: A Swedish perspective". Co-applicant (3,000,000 SEK)
- 2015 Awarded project funding from FORMAS for 3 years. Project title "A global analysis of coral reef regimes: patterns, drivers and functional indicators". Main applicant (3,000,000 SEK)
- 2014 Awarded Fast Track Initiative funding from Future Earth/US National Science Foundation for 2 years. Project title "Bright spots: seeds of a good Anthropocene". Co-applicant (75,000 USD)
- 2013 Awarded project funding from the Swedish Environmental Protection Agency (Naturvårdsverket) for 3 years. Project title "Managing bundles of ecosystem services with multiple users in the Helge å catchment". Co-applicant (5,000,000 SEK)
- 2012 Awarded project funding from FORMAS for 3 years. Project title "Social-ecological dynamics of ecosystems services in the Norrström region. Co-applicant (6,000,000 SEK)

Recent examples of science for change and impact

- 2020 – present. Current position as Head of Knowledge of the GRP allows work to constantly feed into regional and global policy arenas such as the UNFCCC, CBD, OECD, WEF.
- 2018-present. Co-developing the knowledge agenda for the next four years of the Global Resilience Partnership, that will bring together a growing movement of close to 100 organisations to help build a resilient future that 'leaves no-one behind'.
- 2017- present. Ongoing participatory project in Stockholm region that is exploring transformations towards more sustainable and resilient food. We work with a diverse set of regional actors (civil servants, other researchers, NGOs, business representatives, grassroots initiatives) to develop visions of a positive food future and identify conflicts and opportunities for moving towards it.
- 2013 – 2019. Participatory resilience assessment process in the Helge river catchment area in Southern Sweden. The generated knowledge from this process is being used to inform strategic sustainability plans in different municipalities in the region.

Participation and organization of conferences and workshops (selected)

I have chaired the organizing committee of two major international conferences. I have been an invited speaker and participant at >30 international science conferences & workshops. I have been an invited expert at workshops hosted by the FAO, WEF, Bioversity International, Swedish EPA and many other science-policy organizations. I have organized and facilitated >20 science and science-policy workshops.

Special commissions and awards (selected)

I am member of the Scientific Committee of the Future Earth Programme on Ecosystem Change and Society (PECS). I am a member of the UNFCCC Race to Resilience technical &

methodological expert group. In 2019, I was recipient of the Ecological Society of America (ESA) Innovation in Sustainability Science Award (together with other co-authors) for the 2016 study "Bright spots: seeds of a good Anthropocene" which was published in 2016 in *Frontiers in Ecology and the Environment*. I am currently a subject editor for *Ecology and Society*. I am a member of the Resilience Alliance.

Publications

Total of >50 publications, including 5 book chapters.

Google scholar citations = 5415 (of which 4569 since 2016), h-index 31 (as of October 2021):

<https://scholar.google.se/citations?user=IHogpeMAAAA&hl=en>

- Folke C, Haider JL, Lade SJ, **Norström AV**, Rocha J (2021) Resilience and social-ecological systems: A handful of frontiers. *Global Environmental Change*(October):102400.
- Queiroz C, **Norström AV**, Downing A, Harmáčková Z V, Coning C De, Adams V, Bakarr M, Baedeker T, Chitate A, Gaffney O, Gordon L, Hainzelin É, Howlett D, Krampe F, Loboguerrero AM, Nel D, Okollet C, Rebermark M, Rockström J, Smith M, Wabbes-candotti S & Matthews N (2021) Investment in resilient food systems in the most vulnerable and fragile regions is critical. *Nat Food* 2.
- Pereira L, Kuiper JJ, Selomane O, Aguiar APD, Asrar GR, Bennett EM, Biggs R, Calvin K, Hedden S, Hsu A, Jabbour J, King N, Köberle AC, Lucas P, Nel J, **Norström A V.**, Peterson G, Sitas N, Trisos C, Vuuren DP van, Vervoort J & Ward J (2021) Advancing a toolkit of diverse futures approaches for global environmental assessments. *Ecosyst People* 00:191–204.
- Woodhead AJ, Graham NAJ, Robinson JPW, **Norström A V**, Bodin N, Marie S, Balett M & Hicks CC (2021) Fishers perceptions of ecosystem service change associated with climate-disturbed coral reefs. *People Nat* 3:639–657.
- Schneider F, Tribaldos T, Adler C, Biggs RO, de Bremond A, Buser T, Krug C, Loutre M, Moore S, **Norström A V**, Paulavets K, Urbach D, Spehn E, Wülser G & Zondervan R (2021) Co-production of knowledge and sustainability transformations: a strategic compass for global research networks. *Curr Opin Environ Sustain* 49:127–142.
- Qiu J, Queiroz C, Bennett EM, Cord AF, Cruzat E, Lavorel S, Maes J, Meacham M, **Norström A V**, Peterson GD, Seppelt R & Turner MG (2021) Land-use intensity mediates ecosystem service tradeoffs across regional social-ecological systems. *Ecosyst People* 17:264–278.
- Malmborg K, Enfors-Kautsky E, Queiroz C, **Norström A** & Schultz L (2021) Operationalizing ecosystem service bundles for strategic sustainability planning: A participatory approach. *Ambio* 50:314–331.
- Ford A, Jouffray J-B, **Norström A**, Moore BR, Nugues MM, Williams G, Bejarano S, Magron F, Wild C & Ferse SCA (2020) Local human impacts disrupt relationships between benthic reef assemblages and environmental predictors. *Front Mar Sci* 7:794.
- Jacobs S, Zafra-Calvo N, Gonzalez-Jimenez D, Guibrunet L, Benessaiah K, Berghöfer A, Chaves-Chaparro J, Díaz S, Gomez-Baggethun E, Lele S, Martín-López B, Masterson VA, Merçon J, Moersberger H, Muraca B, **Norström AV**, O'Farrell P, Ordóñez JC, Prieur-Richard A-H, Rincón-Ruiz A, Sitas N, Subramanian SM, Tadesse W, van Noordwijk M, Pascual U & Balvanera P (2020) Use your power for good: plural valuation of nature – the Oaxaca statement. *Glob Sustain* 3:1–7.
- Norström AV**, Cvitanovic C, Löf MF, West S, Wyborn C, Balvanera P, Bednarek AT, Bennett EM, Biggs R, de Bremond A, Campbell BM, Canadell JG, Carpenter SR, Folke C, Fulton EA, Gaffney O, Gelcich S, Jouffray J, Leach M, Le Tissier M, Martín-López B, Louder E, Loutre M, Meadow AM, Nagendra H, Payne D, Peterson GD, Reyers B, Scholes R, Speranza CI, Spierenburg M, Stafford-Smith M, Tengö

- M, van der Hel S, van Putten I & Österblom H (2020) Principles for knowledge co-production in sustainability research. *Nat Sustain*.
- Jouffray J, Blasiak R, **Norström AV**, Österblom H & Nyström M (2020) The Blue Acceleration: The Trajectory of Human Expansion into the Ocean. *One Earth* 2:43–54.
- Sellberg MM, **Norström AV**, Peterson GD, and Gordon LJ (2020). Using local initiatives to envision sustainable and resilient food systems in the Stockholm city-region. *Global Food Security* 24
- Nyström M, Jouffray J-B, **Norström AV**, Crona B, Sjøgaard Jørgensen P, Carpenter SR, Bodin Ö, Galaz V & Folke C (2019) Anatomy and resilience of the global production ecosystem. *Nature* 575:98–108.
- Jiménez-Aceituno A, Peterson GD, **Norström AV**, Wong GY & Downing AS (2019) Local lens for SDG implementation: lessons from bottom-up approaches in Africa. *Sustain Sci*.
- Pereira LM, Calderón-Contreras R, **Norström AV**, Espinosa D, Willis J, Guerrero Lara L, Khan Z, Rusch L, Correa Palacios E & Pérez Amaya O (2019) Chefs as change-makers from the kitchen: indigenous knowledge and traditional food as sustainability innovations. *Glob Sustain* 2:e16.
- Quintas-Soriano C, García-Llorente M, **Norström AV**, Meacham M, Peterson G & Castro AJ (2019) Integrating supply and demand in ecosystem service bundles characterization across Mediterranean transformed landscapes. *Landsc Ecol* 7.
- Raudsepp-Hearne C, Peterson GD, Bennett EM, Biggs R, **Norström AV**, Pereira L, Vervoort J, Iwaniec DM, McPhearson T, Olsson P, Hichert T, Falardeau M & Aceituno AJ (2019) Seeds of good anthropocenes: developing sustainability scenarios for Northern Europe. *Sustain Sci*.
- Martín-López B, Felipe-Lucia MR, Bennett EM, **Norström A**, Peterson G, Plieninger T, Hicks CC, Turkelboom F, García-Llorente M, Jacobs S, Lavorel S & Locatelli B (2019) A novel telecoupling framework to assess social relations across spatial scales for ecosystem services research. *J Environ Manage* 241:251–263.
- Williams GJ, Graham NAJ, Jouffray J-B, **Norström AV**, Nyström M, Gove JM, Heenan A & Wedding LM (2019) Coral reef ecology in the Anthropocene. *Funct Ecol*:1–9.
- Woodhead AJ, Hicks CC, **Norström AV**, Williams GJ & Graham NAJ (2019) Coral reef ecosystem services in the Anthropocene. *Funct Ecol*:1365-2435.13331.
- Jouffray J, Wedding LM, **Norström AV**, Donovan MK, Williams GJ, Crowder LB, Erickson AL, Friedlander AM, Graham NAJ, Gove JM, Kappel C V, Kittinger JN, Lecky J, Oleson KLL, Selkoe KA, White C, Williams ID & Nyström M (2019) Parsing human and biophysical drivers of coral reef regimes. *Proc R Soc B Biol Sci* 286:20182544.
- Cvitanovic C, Howden M, Colvin RM, **Norström A**, Meadow AM & Addison PF. (2019) Maximising the benefits of participatory climate adaptation research by understanding and managing the associated challenges and risks. *Environ Sci Policy* 94:20–31.
- Cvitanovic C, Löf MF, **Norström AV** & Reed MS (2018) Building university-based boundary organisations that facilitate impacts on environmental policy and practice. *PLoS One* 13:e0203752.
- Donovan MK, Friedlander AM, Lecky J, Jouffray J-B, Williams GJ, Wedding LM, Crowder LB, Erickson AL, Graham NAJ, Gove JM, Kappel C V., Karr K, Kittinger JN, **Norström AV**, Nyström M, Oleson KLL, Stamoulis KA, White C, Williams ID & Selkoe KA (2018) Combining fish and benthic communities into multiple regimes reveals complex reef dynamics. *Sci Rep* 8:16943.
- Sellberg MM, Ryan P, Borgström ST, **Norström AV**, Peterson GD (2018) From resilience thinking to Resilience Planning: Lessons from practice *J. Environ. Manage.* 217 906–18

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- Sellberg MM, Borgström ST, **Norström AV**, Peterson GD (2017) Improving participatory resilience assessment by cross-fertilizing the Resilience Alliance and Transition Movement approaches. *Ecol. Soc.* 22, art28
- Norström AV**, Balvanera P, Spierenburg M, Bouamrane M (2017) Programme on Ecosystem Change and Society: Knowledge for sustainable stewardship of social-ecological systems. *Ecol Soc* 22:art47
- Balvanera P, Daw TM, Gardner TA, Martín-López B, Norström AV., Ifejika Speranza C, Spierenburg M, Bennett EM, Farfan M, Hamann M, Kittinger JN, Luthe T, Maass M, Peterson GD, Perez-Verdin G (2017) Key features for more successful place-based sustainability research on social-ecological systems: a Programme on Ecosystem Change and Society (PECS) perspective. *Ecology & Society* 22:art14
- Norström AV**, Nyström M, Jouffray JB, Folke C, Graham NAJ, Moberg F, Olsson P, and Williams GJ (2016) Guiding coral reef futures in the Anthropocene. *Frontiers in Ecology and the Environment* 14(9):490–498.
- Bennett EM, Solan M, Biggs R, Mcphearson T, **Norström AV**, Olsson P, Pereira L, Peterson GD, Raudsepp-hearne C, Biermann F, Carpenter SR, Ellis EC, Hitchert T, Galaz V, Lahsen M, Milkoreit M, Martin Lopez B, Nicholas K a., Preiser R, Vince G, Vervoort JM, Xu J (2016) Bright spots: seeds of a good Anthropocene. *Frontiers in Ecology and the Environment* 14:441–448
- Folke C, Biggs R, **Norström AV**, Reyers B, Rockström J (2016) Social-ecological resilience and biosphere-based sustainability science. *Ecology and Society* 21:art41
- Meacham M, Queiroz C, **Norström AV**, Peterson G (2016) Social-ecological drivers of multiple ecosystem services: what variables explain patterns of ecosystem services across the Norrström drainage basin? *Ecology and Society* 21: 1
- Fischer J, Gardner TA, Bennett E, Balvanera P, Biggs, R, Carpenter S, Daw T, Folke C, Hill R, Hughes T, Luthe T, Maass M, Meacham M, **Norström AV**, Peterson G, Queiroz C, Seppelt R, Spierenburg M, Tenhunen J (2015) Advancing sustainability through mainstreaming a social–ecological systems perspective. *Current Opinion in Environmental Sustainability* 14: 144.149
- Crona BI, Daw T, Swartz W, **Norström AV**, Nyström M, Thyresson M, Folke C, Hentati-Sundberg J, Österblom H, Deutsch L, Troell M (2015) Masked, diluted and drowned out: how global seafood trade weakens signals from marine ecosystems. *Fish and Fisheries* DOI: 10.1111/faf.12109
- Jouffray J-B, Nyström M, **Norström AV**, Williams ID, Wedding L, Kittinger JN, Williams GJ (2015) Identifying multiple coral reef regimes and their drivers across the Hawaiian Archipelago. *Proceedings of the Royal Society B* 370(1659): 20130268
- Moore M-L, Tjornbo O, Enfors E, Knapp C, Hodbod C, Baggio J, **Norström AV**, Olsson P, Biggs D (2014) Studying the complexity of change: toward an analytical framework for understanding deliberate social-ecological transformations. *Ecology and Society* 19(4): 54.
- Queiroz C, Meacham M, Nigell K, Andersson E, **Norström AV**, Norberg J, Peterson G (2014) Mapping bundles of ecosystem services reveals distinct types of multi-functionality within a Swedish landscape. *AMBIO* 44(Suppl. 1): S89-S101
- Norström AV**, Dannenberg A, McCarney G, Milkoreit M, Diekert F, Engström G, Fishman R, Gars J, Kyriakopoulou E, Manoussi V, Meng K, Metian M, Schlüter, Schoon M, Schultz L, Sjöstedt M (2014)

- Three necessary conditions for establishing effective Sustainable Development Goals in the Anthropocene. *Ecology and Society* 19(3): 8
- Graham N, Cinner J, **Norström AV**, Nyström M (2014) Coral reefs as novel ecosystems: embracing new futures. *Current Opinion in Environmental Sustainability* 7: 9-14
- Graham N, Bellwood D, Cinner J, Hughes T, **Norström AV**, Nyström M (2013) Managing resilience to reverse phase shifts in coral reefs. *Frontiers in Ecology and the Environment* 11: 541-548
- Nyström M, **Norström AV**, Blenckner T, Eklöf JS, Folke C, Österblom H, Steneck R, Thyresson M, de la Torre Castro M, Troell M (2012) Confronting feedbacks of degraded marine ecosystems. *Ecosystems* 15 (5): 695-710
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- Norström AV**, Sandström M (2010) Lipid content of *Favia fragum* larvae: changes during planulation period. *Coral Reefs* 29: 793-795
- Lokrantz J, Nyström M, **Norström AV**, Folke C, Cinner JE (2010) Assessing potential vulnerability of coral reefs through functional groups of herbivores. *Environmental Conservation*. doi:10.1017/S0376892910000147
- Norström AV**, Nyström M, Lokrantz J, Folke C (2009) Alternative states on coral reefs: beyond coral-macroalgal phase shifts. *Marine Ecology-Progress Series* 376: 295-306
- Nyström M, Graham NAJ, Lokrantz J, **Norström AV** (2008) Capturing the cornerstones of coral reef resilience: linking theory to practice. *Coral Reefs* 27(4): 795-809
- Norström AV**, Lokrantz J, Nyström M, Yap HT (2007) Influence of dead coral substrate morphology on patterns of juvenile coral distribution. *Marine Biology* 150(6): 1145-1152

Book chapters

- De Vos A, Maciejewski K, Bodin Ö, **Norström A V.**, Schlüter M & Tengö M (2021) The Practice and Design of Social-Ecological Systems Research. In: *The Routledge Handbook of Research Methods for Social-Ecological Systems*, 1st Edition. R.O. Biggs, A. De Vos, R. Preiser, H. Clements, K. Maciejewski & M. Schlüter (eds). Routledge.
- Pereira LM, Bennett EM, Biggs RO, Peterson GD, McPhearson T, **Norström A V.**, Olsson P, Preiser R, Raudsepp-Hearne C & Vervoort JM (2017) Seeds of the Future in the Present. In: Urban Planet. T. Elmqvist, X. Bai, N. Frantzeskaki, C. Griffith, D. Maddox, T. McPhearson, S. Parnell, P. Romero-Lankao, D. Simon & M. Watkins (eds). Cambridge University Press. pp. 327–350.
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Other papers & reports

- Jouffray J-B, Blasiak R, Nyström M, Österblom H, Tokunaga K, Wabnitz CCC, **Norström AV** (2021) Blue Acceleration: an ocean of risks and opportunities. Ocean Risk and Resilience Action Alliance (ORRAA) Report
- Tokunaga K, Blandon A, Blasiak R, Jouffray J-B, Wabnitz CCC, **Norström AV** (2021) Ocean risks in SIDS and LDCs. Ocean Risk and Resilience Action Alliance (ORRAA) Report

Wabnitz CCC, Blasiak R, Harper S, Jouffray J-B, Tokunaga K, **Norström AV** (2021) Gender dynamics of ocean risk and resilience in SIDS and coastal LDCs. Ocean Risk and Resilience Action Alliance (ORRAA) Report

Norström AV, Mfitumukiza D, Beauchamp E & Rahman MF (2021) Resilience of local communities: lessons from COVID-19. GRP Policy Brief

Norström AV, Wetterstrand H, Schultz M, Elmqvist T, Cornell S, Öhman MC, Daw T, Moberg F, Persson Å, Peterson G, Rockström J, Hermansson Török E (2014) Integrating social-ecological resilience, biodiversity and ecosystem services into the Sustainable Development Goals. ICSU issue brief for the 8th OWG meeting on Sustainable Development Goals.

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