

Different worldviews as impediments to integrated nature and cultural heritage conservation management

Carl Österlin^{1*}, Peter Schlyter^{1,2},

*Corresponding author.

¹Department of Physical Geography, Stockholm University, 106 91 Stockholm, Sweden,

²Department of Spatial Planning, Blekinge Institute of Technology, 371 79 Karlskrona, Sweden

carl.osterlin@natgeo.su.se,

peter.schlyter@natgeo.su.se

Extended abstract

Despite an explicit objective from the two responsible managing governmental agencies, Swedish Environmental Protection Agency (SEPA) and Swedish National Heritage Board (SNHB), attempts to initiate and increase the degree of integrated nature and cultural heritage conservation management in the Swedish mountains are failing. The delivery of the Swedish National Environmental Objective (NEO) called Magnificent Mountains is dependent on increased collaboration between the state and local stakeholders. One of these key areas of increased collaboration that has been identified by SEPA and SNHB is in integrated nature and cultural heritage conservation management.

The NEO approach is supposed to allow a transition from reactive regulation based environmental governance to a more proactive approach based on objective (Sandström et al., 2008). The NEO approach is further based on the assumption that all stakeholders (government agencies, municipalities, private and public corporations, individual owners and the public) should contribute to the attainment of the objectives and that objective fulfilment is monitored through national and regional indicators, and thus puts high demands on integrated environmental management.

However, just asking for more integration between nature and cultural heritage conservation management is not necessarily an easy and straightforward task. The separation of society and nature into two separate realms is a typical western way of describing and understanding nature (Latour, 1993; Sluyter, 2003). Some scholars have pointed out how the idea of the wilderness is, to a certain extent, an urban construction and description of an alien but pristine environment, which as a response to guilt over environmental degradation, should be protected from the devastating human actions of for example industrialisation. This view of nature is also linked to a romantic, and to some extent nationalistic, view of nature (Brockington et al., 2008). Where the creation of national parks is one example of this. Whether there actually are areas which could be called wildernesses, implying that they are essentially undisturbed by the influence of human actions, or not has been internationally a long standing and polarized academic debate (Nelson and Callicott, 2008).

This study, using a group model building approach, maps out the systems dynamics of interactions between the objectives of managing agencies and the participation of local stakeholder. We aim to understand what challenges and barriers there are to initiating an integrated nature and cultural heritage conservation management in the protected areas of the Swedish mountains, within the boundaries of the current planning system. Further, we aim to identify if there are potential leverage points for actors to overcome these challenges and barriers.

13 key actors important for generating/up keeping or regulating/governing natural and cultural environments in the mountains was identified. These actors ranged from governmental representatives, to various regional governmental authorities like the county administrative boards of the four mountain counties, to actors relevant for the regeneration of cultural environments like the Swedish Reindeer Herding Association, Swedish Hamlet Users Association. These 13 actors participated in a one day group model building session, followed up with additional individual interviews. Based on that material a Causal Loop Diagram was constructed to understand the dynamics pertaining to integrated nature and cultural heritage conservation management.

Based on the CLD we find that a dominant wilderness discourse influence the objectives for the protected areas to be managed, and that this wilderness discourse appears to work as barrier to including local stakeholders in management. This because wilderness-influenced objectives are defining the protected areas as environments "untouched" by humans, while they also depend traditional practices to be continued, and thus leads to reducing the need for local participation in environmental management.

We conclude that the willingness, from governmental agencies, to increase integration of nature and cultural heritage conservation management in protected areas of the mountains is there. However, the objectives for such integration remains unclear both in a theoretical and practical meaning. The dominant wilderness discourse is currently and impediment to integrated nature and cultural heritage conservation management. Furthermore, it provides no common arena for local stakeholders to engage with authorities. Achieving better integration between the perspectives is likely to be a conflictual process. However, stakeholder based group modeling may be one way forward to reduce conflict level and collectively find joint objectives.

Further, we argue that a potential leverage point to initiate change towards increased integration of nature and cultural environmental management is to give the implementation of the European Landscape Convention a higher priority.

References

- Bernes, C., Lundgren, L.J., Sverige. Naturvårdsverket, 2009. Use and misuse of nature's resources : an environmental history of Sweden. Swedish Environmental Protection Agency, Stockholm.
- Born, S.M., Sonzogni, W.C., 1995. Integrated environmental management: strengthening the conceptualization. *Environ. Manage.* 19, 167–181. doi:10.1007/BF02471988
- Brockington, D., Duffy, R., Igoe, J., 2008. Nature unbound : conservation, capitalism and the future of protected areas. Earthscan.
- Emmelin, L., 2005. Att synas utan att verka – miljömålen som symbolpolitik, in: Lundgren, L.J., Edman, J. (Eds.), *Konflikter, Samarbete, Resultat – Perspektiv På Svensk Miljöpolitik*. Festskrift till Valfrid Paulsson. Kassandra, Brottbys, Sweden, pp. 19–43.
- Horstkotte, T., 2013. Contested landscapes social-ecological interactions between forestry and reindeer husbandry. Department of Ecology and Environmental Science, Umeå University.

- Jordbruksverket, 2005. Ängs- och betesmarksinventeringen 2002-2004.
- Larsen, R.K., 2017. Impact assessment and indigenous self-determination: a scalar framework of participation options. *Impact Assess. Proj. Apprais.* 5517, 1–12. doi:10.1080/14615517.2017.1390874
- Latour, B., 1993. *We have never been modern*, Harvard University Press. doi:10.1016/0956-5221(96)88504-6
- Lawrence, R., 2014. Internal colonisation and Indigenous resource sovereignty: Wind power developments on traditional Saami lands. *Environ. Plan. D Soc. Sp.* 32, 1036–1053. doi:10.1068/d9012
- Lawrence, R., Larsen, R.K., 2017. The politics of planning: assessing the impacts of mining on Sami lands. *Third World Q.* 38, 1164–1180. doi:10.1080/01436597.2016.1257909
- Maani, K.E., Cavana, R.Y., 2000. *Systems Thinking and Modelling: Understanding Change and Complexity*. Prentice Hall, Auckland, NZ.
- Margerum, R.D., 1999. PROFILE: Integrated Environmental Management: The Foundations for Successful Practice. *Environ. Manage.* 24, 151–166. doi:10.1007/s002679900223
- Margerum, R.D., 1995. Integrated Environmental Management: Moving from Theory to Practice. *J. Environ. Plan. Manag.* 38, 371–392. doi:10.1080/09640569512922
- Margerum, R.D., Hooper, B.P., 2001. Integrated environmental management: Improving implementation through leverage point mapping. *Soc. Nat. Resour.* 14, 1–19. doi:10.1080/08941920120890
- Meadows, D., 1999. *Leverage Points: Places to Intervene in a System*.
- Mitchell, B., 1986. The evolution of integrated resource management, in: Lang, R. (Ed.), *Integrated Approaches to Resource Planning and Management*. Banff Centre School of Management.
- Moen, J., 2008. Climate change: effects on the ecological basis for reindeer husbandry in Sweden. *Ambio* 37, 304–311. doi:10.1579/0044-7447(2008)37[304:cceote]2.0.co;2
- National Heritage Board, 2008. *Swedish National Heritage Board Proposals for Implementation of the European Landscape Convention in Sweden*.
- Naturvårdsverket, 2017. *Miljömålen - Årlig uppföljning av Sveriges nationella miljömål 2017*.
- Naturvårdsverket, 2014. *Förslag till en strategi för miljö kvalitetsmålet Storslagen fjällmiljö 3–220*.
- Naturvårdsverket, 2009. *Miljömålen i halvtid, de Facto 2009* ISBN 978-91-620-1272-4, ISSN 1654-4641.
- Naturvårdsverket, 2004. *Miljömålen – när vi dem? de Facto 2004– när vi dem?* ISBN 91-620-1237-1.
- Nelson, M.P., Callicott, J.B., 2008. *The wilderness debate rages on : continuing the great new wilderness debate*. University of Georgia Press.
- Rouwette, E.A.J.A., Korzilius, H., Vennix, J.A.M., Jacobs, E., 2011. Modeling as persuasion: the impact of group model building on attitudes and behavior. *Syst. Dyn. Rev.* 27, 1–21. doi:10.1002/sdr.441
- Sandström, C., Falleth, I., Hovik, S., 2008. Omstridd natur : trender & utmaningar i nordisk naturförvaltning, in: Sandström, C., Hovik, S., Falleth, I. (Eds.), . *Borea*, Umeå, Sverige.
- Sandström, C., Widmark, C., 2007. Stakeholders' perceptions of consultations as tools for co-management - A case study of the forestry and reindeer herding sectors in northern Sweden. *For. Policy Econ.* 10, 25–35. doi:10.1016/j.forpol.2007.02.001
- Sandström, U.G., Hedfors, P., 2018. Uses of the word “landskap” in Swedish municipalities' comprehensive plans: Does the European Landscape Convention require a modified understanding? *Land use policy* 70, 52–62. doi:10.1016/J.LANDUSEPOL.2017.07.060
- Sauer, C.O., 1925. *The morphology of landscape*. Univ. Californial Publ. Geogr.
- SCB, 2016. *Skyddad natur 2016* [WWW Document]. URL <http://www.scb.se/hitta-statistik/statistik-efter-amne/miljo/markanvandning/skyddad-natur/pong/statistiknyhet/skyddad-natur-2016/> (accessed 3.19.18).
- Schlyter, P., Stjernquist, I., 2010. Regulatory challenges and forest governance in Sweden, in: Bäckstrand, K., Kahn, J., Kronsell, A., Lövbrand, E. (Eds.), *Environmental Politics and*

- Deliberative Democracy – Examining the Promise of New Modes of Governance. Edward Elgar, Cheltenham, UK, pp. 180–196.
- Schlyter, P., Stjernquist, I., Sverdrup, H., 2012. Handling Complex Environmental Issues – Formal Group Modelling as a Deliberative Platform at the Science-Policy- Democracy Interface. Proc. 30th Int. Conf. Syst. Dyn. Soc.
- Sluyter, A., 2003. Material-conceptual landscape transformation and the emergence of the pristine myth in early colonial Mexico, in: Zimmerer, K.S., Bassett, T.J. (Eds.), Political Ecology. The Guilford Press, New York, pp. 221–239.
- Sterman, J.D., 2000. Business Dynamics: Systems Thinking and Modeling for a Complex World [WWW Document]. J. Oper. Res. Soc. doi:10.1057/palgrave.jors.2601336
- Sverdrup, H., Belyazid, S., Koca, D., Jönsson-Belyazid, U., Schlyter, P., Stjernquist, I., 2010. Miljömål i fjälllandskapet . Natuvårdsverket rapport 6366
- Vennix, J.A.M., 1999. Group model-building: Tackling messy problems. Syst. Dyn. Rev. 15, 379–401. doi:10.1002/(SICI)1099-1727(199924)15:4<379::AID-SDR179>3.0.CO;2-E
- Vennix, J.A.M., 1996. Group Model Building. Wiley, New York.
- Wall Reinius, S., 2009. Protected Attractions - Tourism and Wilderness in the Swedish Mountain Region. Stockholm University.
- Walther, P., 1987. Against idealistic beliefs in the problem-solving capacities of integrated resource management. Environ. Manage. 11, 439–446. doi:10.1007/BF01867652
- Wu, C.J., Isaksson, K., Antonson, H., 2017. The struggle to achieve holistic landscape planning: Lessons from planning the E6 road route through Tanum World Heritage Site, Sweden. Land use policy 67, 167–177. doi:10.1016/j.landusepol.2017.05.036