

A Review and Reassessment of Design Principles for Community-based Natural Resource Management

by

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Appendix

1. **Abernathy, C. L., S. Hilmy, K. Lonsway, and C. Maman.** 2000. Farmer-based financing of operations in the Niger valley irrigation schemes. Research Report, 37. International Water Management Institute, Colombo, Sri Lanka.
2. **Abernathy, C. and S. Hilmy** 2000. Experiments of some government-sponsored organizations of irrigators in Niger and Burkina Faso, West Africa. *Journal of Applied Irrigation Science* **35**(2): 177-205.
3. **Adams, W.M., E.E. Watson, and S.K. Mutiso.** 1997. Water, rules and gender: water rights in an indigenous irrigation system, Marakwet, Kenya. *Development and Change* **28**.
4. **Agrawal, A.** 1994. Rules, rule making, and rule breaking: examining the fit between rule systems and resource use. Pages in 267-282 in E. Ostrom, R Gardner, and J. Walker, editors. *Rules, Games, & Common-Pool Resources*. The University of Michigan Press, Ann Arbor, MI.
5. **Agrawal, A.** 2003. Sustainable governance of common-pool resources: context, methods, and politics. *Annual Review of Anthropology* **32**:234-262.
6. **Agrawal, A., and A. Chhatre.** 2006. Explaining success on the commons: Community forest governance in the Indian Himalaya. *World Development* **34**(1): 149-166.
7. **Agrawal, A., and G. N. Yadama** 1997. How do local institutions mediate market and population pressures on resources? Forest panchayats in Kumaon, India. *Development and Change* **28**: 435-465.
8. **Alcorn, J. B., and V. M. Toledo.** 1998. Resilient resource management in Mexico's forest ecosystems: the contribution of property rights. Pages 216-249 in F. Berkes and C. Folke, editors. *Linking Social and Ecological Systems*. Cambridge University Press, New York, NY.
9. **Baland, J., and J. Plateau** 1996. *Halting Degradation of Natural Resources: Is There a Role for Rural Communities?* Clarendon Press, Oxford, England.
10. **Bardhan, P.** 2000. Irrigation and cooperation: an empirical analysis of 48 irrigation communities in south India. *Economic Development and Cultural Change* **48**(4): 847-865.

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11. **C.D. Becker., and R. Leon.** Indigenous forest management in the Bolivian Amazon: Lessons from the Yuracare people. Pages 164-189 in C.C. Gibson, MA. McKean, E. Ostrom, eds. *People and Forests: Communities, Institutions, and Governance*.
12. **Berge, E.** 2000. *Principles of Institutional Design and the Management of Norwegian Nature*. Presented at Constituting the Commons: Crafting Sustainable Commons in the New Millennium, the Eighth Conference of the International Association for the Study of Common Property, 31-4 May/June 2000, Bloomington, Indiana, USA.
13. **Berkes, F.** 2005. Commons theory for marine resources management in a complex world. *Senri Ecological Studies* **67**:13-31.
14. **Blaikie, P.** 2006 Is small really beautiful? Community-based natural resource management in Malawi and Botswana. *World Development*. **34**(11): 1942-1957.
15. **Bodin, Ö., and B. I. Crona.** 2008. Management of natural resources at the community level: exploring the role of social capital and leadership in a rural fishing community. *World Development* **36**(12): 2763-2779.
16. **Bruns, B.** 2007. Community priorities for water rights: some conjectures on assumptions, principles and programmes. Pages 28-45 in B.V. Koppen, M. Giordano, and J. Butterworth, editors. *Community-Based Water Law and Water Resource Management Reform in Developing Countries*. CABI, Wallingord, UK.
17. **Campbell, B. M., A. Mandondo, and F. Matose.** 2001. Challenges to proponents of common property resource systems: despairing voices from the social forests of Zimbabwe. *World Development* **29**(4): 589-600.
18. **Cinner, J.E.** 2007. Designing marine reserve to reflect local socioeconomic conditions: lessons from long-enduring customary management systems. *Coral Reefs* **26**(4): 1035-1045.
19. **Cleaver, F.** 1999. Paradoxes of participation: questioning participatory approaches to development. *Journal of International Development* **11**: 597-612.
20. **Cleaver, F.** 2000. Moral ecological rationality, institutions and the management of common property resources. *Development and Change* **31**(2): 361-383.
21. **Cox, M.** 2010. *Exploring the Dynamics of Social-Ecological Systems: The Case of the Taos Valley Acequias*. PhD thesis, School of Public and Environmental Affairs, Indiana University, USA.
22. **Dolfing, B., and W.B. Snellen.** 1999. *Sustainability of Dutch Water Boards: Appropriate Design Characteristics For Self-Governing Water Management Organizations*. ILRI, Wageningen, The Netherlands.
23. **Dorji, L., E.L. Webb, and G.P. Shivakoti.** 2003. Can a nationalised forest management system uphold local insititutions? The case of leaf litter forest [Sokshing] management in Bhutan. *Asian Studies Review* **27**(3): 341-359.

24. **Gallofré i Torredemer, A.** 2001. Las comunidades de usuarios de aguas subterráneas en la Catalunya del 2000: desarrollo histórico y realidad actual. Pages 323-366 in N.H. Mora and R. Llamas, editors. *La Economía del Agua Subterránea y su Gestión Colectiva*. Fundación Marcelino Botín, Madrid, Spain.
25. **Gatzweiler, F.** 2006. Organizing a public ecosystem service economy for sustainable biodiversity. *Ecological Economics* **59**(3): 296-304.
26. **Gautam, A. P., and G. P. Shivakoti.** 2005. Conditions for successful local collective action in forestry: some evidence from the hills of Nepal. *Society and Natural Resources* **18**(2): 153-171.
27. **Ghate, R., and H. Nagendra.** 2005. Role of monitoring in institutional performance: forest management in Maharashtra, India. *Conservation and Society* **3**(2):509–532.
28. **Gibson, C. C.** 2001. Forest resources: institutions for local governance in Guatemala. Pages 71-90 in J. Burger, E. Ostrom, R. B. Norgaard, D. Policansky and B. D. Goldstein. *Protecting the Commons: A Framework for Resource Management in the Americas*. Island Press, Washington, D.C.
29. **Gibson, C.C., and C.D. Becker.** A lack of institutional demand: Why a strong local community in Western Ecuador fails to protect its forest. Pages 135-162 in C.C. Gibson, MA. McKean, E. Ostrom, eds. *People and Forests: Communities, Institutions, and Governance*.
30. **Giménez Casalduero, M., and J. Palerm Viqueira.** 2007. Organizaciones tradicionales de gestión del agua: importancia de su reconocimiento legal para su supervivencia: el caso de España. *Región y Sociedad* **19**(38): 3-24.
31. **Guillet, D.** 1992. *Covering Ground: Communal Water Management and the State in the Peruvian Highlands*. University of Michigan Press, Ann Arbor, MI.
32. **Gunawardena, A., and P. Steele.** 2008. The stake-net fishery association of Negombo lagoon, Sri Lanka: Why has it survived over 250 years and will it survive another 100 years? Pages 144-164 in R. Ghate, N.S. Jodha and P. Mukhopadhyay, editors. *Promise, Trust and Evolution: Managing the Commons of South Asia*, Oxford University Press, Oxford.
33. **Gupta R., and S. Tiwari.** 2002. *At the Crossroads: Continuity and Change in the Traditional Irrigation Practices of Ladakh*. Presented at the 9th Biennial Conference of the IASCP, 17-21 June 2002, Victoria Falls, Zimbabwe.
34. **Haller, T.** 2009. Common-pool resources, legal pluralism and governance from a new institutionalist perspective: Lessons from the African floodplain wetlands research project (AFWeP). In I. Eguavoen and W. Laube, eds. *Negotiating Local Governance. Natural Resources Management at the Interface of Communities and the State*. Lit Verlag, Munster/London/New York.
35. **Harkes, I.** 2006. *Fisheries Co-management, The Role of Local Institutions and Decentralization in Southeast Asia: With Specific Reference to Marine Sasi in Central Maluku, Indonesia*. PhD Dissertation, Centre of Environmental Sciences (CML), Faculty of Social and Behavioural Sciences, Leiden University.

36. **Hayes, T. M.** 2006. Parks, people, and forest protection: an institutional assessment of the effectiveness of protected areas. *World Development* **34**(12): 2064-2075.
37. **Hobbes, M.** 2002. Pala'wan managing their forest. Pages 43-62 in G.A. Persoon, D.M.E. van Est, and P.E. Sajise, editors. *Co-management of Natural Resources in Asia: A Comparative Perspective*. Nordic Institute of Asian Studies, Copenhagen, Denmark.
38. **Johnson, K., and K. Nelson** 2004. Common property and conservation: the potential for effective communal forest management within a national park in Mexico. *Human Ecology* **36**(6):703-733.
39. **Karlstad, S.** 1998. Institutional theory, co-management and sustainable development in Saami reindeer pasture commons: critical factors for a robust system of local management. Pages 247-268 in S. Jentoft, editor. *Commons in a Cold Climate: Coastal Fisheries and Reindeer Pastoralism in North Norway: The Co-Management Approach*. Parthenon, Pearl River, NY.
40. **Klooster, D. E.** 2000. Institutional choice, community, and struggle: a case study of forest co-management in Mexico. *World Development* **28**(1): 1-20.
41. **Lam, W.F.** 1998. *Governing Irrigation Systems in Nepal: Institutions, Infrastructure, and Collective Action*. ICS Press, Oakland, CA.
42. **Lane, C. and I. Scoones** 1993. Barabaig natural resource management. Pages 93-120 in M.D. Young and O.T Solbrig, editors. *The World's Savannas: Economic Driving Forces, Ecological Constraints and Policy Options for Sustainable Land Use*. The Parthenon Publishing Group, New York, NY.
43. **Leal, D.** 1998. Community-run fisheries: avoiding the "tragedy of the commons." *Population and the Environment* **19**(3): 225-245.
44. **Lopez Galvez, J., and L. Villasante A.** 2001. Gestión del agua de riego en Campo Dalías. Pages 367-404 in N.H. Mora and R. Llamas, editors. *La Economía del Agua Subterránea y su Gestión Colectiva*. Fundación Marcelino Botín, Madrid, Spain.
45. **Lopez Gunn, E., and N. Hernandez Mora.** 2001. La gestión colectiva de las aguas subterráneas en la Mancha: análisis comparativo, pages 405-475 in in N.H. Mora and R. Llamas, editors. *La Economía del Agua Subterránea y su Gestión Colectiva*. Fundación Marcelino Botín, Madrid, Spain.
46. **Lu, F.E.** 2001. The common property regime of the Huaorani Indians of Ecuador: implications and challenges to conservation. *Human Ecology* **29**(4): 425-447.
47. **Mandondo, A.** 2001. Use of woodland resources within and across villages in a Zimbabwean communal area. *Agriculture and Human Values* **18**(2): 177-194.
48. **Marin, A., and P. Vedeld.** 2003. *The Political Ecology of Managing the Common Reindeer Ranges in Finnmark, Sub-Arctic Norway*. Presented at Joining the Northern Commons: Lessons for the World, 17-21 August 2003, Anchorage.

49. **Meenakshisundaram, S. S.** 2001. *Panchayatiraj Institutions in Natural Resources Management*. Presented at The Ninth Workshop on Community-Based Management of Forestlands, 5-2 February/March 2001, Honolulu, Hawaii.
50. **Merrey, D.J.** 1996. *Institutional Design Principles for Accountability in Large Irrigation Systems*. International Irrigation Management Institute (IIMI), Colombo, Sri Lanka.
51. **Morrow, C. E. and R. W. Hull.** 1996. Donor-initiated common pool resource institutions: the case of the Yanasha forestry cooperative. *World Development* **24**(10): 1641-1657.
52. **Mosse, D.** 1997. The symbolic making of a common property resource: history, ecology and locality in a tank-irrigated landscape in south India. *Development and Change* **28**: 467-504.
53. **Niamir-Fuller, M.** 1998. The resilience of pastoral herding in Sahelian Africa. Pages 250-284 in F. Berkes and C. Folke, editors. *Linking Social and Ecological Systems*. Cambridge University Press, New York, New York, USA.
54. **Nilsson, T.** 2001. *Management of Communal Grazing Land: A Case Study on Institutions for Collective Action in Endabeg Village, Tanzania*. M.A. Thesis, Department of Infrastructure and Planning, Royal Institute of Technology, Sweden.
55. **Orlove, B.** 2002. *Lines in the Water: Nature and Culture at Lake Titicaca*. University of California Press, Berkeley, CA, USA.
56. **Pagdee, A., Y. Kim, and P. J. Daugherty.** 2006. What makes community forest management successful: a meta-study from community forests throughout the world. *Society and Natural Resources* **19**(1): 33-52.
57. **Palsson, G.** 1995. Learning by fishing: practical science and scientific practice. Pages 85-94 in S. Hanna and M. Munasinghe, editors. *Property Rights in a Social and Ecological Context; Case Studies and Design Principles*. The Beijer International Institute of Ecological Economics and The World Bank, Washington, D.C.
58. **Penov, I.** 2003. *Institutional Options for Sustainable Irrigation: Evidence from Bulgaria*. Presented at The Commons in Transition: Property on Natural Resources in Central and Eastern Europe and the Former Soviet Union, Regional Conference of the International Association for the Study of Common Property, 11-13 April 2003, Prague, Czech Republic.
59. **Pinkerton, E., and M. Weinstein.** 1995. Community-management in Gulf of Mexico and Long Island oyster fisheries. Pages 99-114 in E. Pinkerton and M Weinstein. *Fisheries That Work: Sustainability Through Community-based Management*. The David Suzuki Foundation, Vancouver, CA.
60. **Pinkerton, E., and M. Weinstein.** 1995. Synthesis and conclusion: Principles for success. Pages 177-188 in E. Pinkerton and M. Weinstein. *Fisheries That Work: Sustainability Through Community-based Management*. The David Suzuki Foundation, Vancouver, CA.
61. **Pinto da Silva, P.** 2004. From common property to co-management: lessons from Brazil's first maritime extractive reserve. *Marine Policy* **28**(5): 419-428.

62. **Pomeroy, R.S., B.M. Katon, and I. Harkes.** 2001. Conditions affecting the success of fisheries co-management: lessons from Asia. *Marine Policy* **25**: 197-208.
63. **Quinn, C. H., M. Huby, H. Kiwasila, and J. C. Lovett.** 2007. Design principles and common pool resource management: An institutional approach to evaluating community management in semi-arid Tanzania. *Journal of Environmental Management* **84**(1): 100-113.
64. **Roldan, J., J.J. Reza, and A. Losada.** 1997. Uso del agua de riego en el valle del Guadalquivir: zonas del bembézar y de Fuente Palmera. Pages 99-138 in J. López Galvez and J. Naredo, editors. *La Gestión del Agua de Riego*. Fundación Argentaria, Madrid, Spain.
65. **Rout, S.P.** 2006. *Co-Management of Common Property Resources: A Case Study of Supra-National, National and Sub-National Institutions in Fisheries Management around Chilika Lake in Orissa, India*. Presented at the Eleventh Conference of the International Association for the Study of Common Property, June 19-23, 2006, Bali, Indonesia.
66. **Ruddle, K.** 1996. Boundary definition as a basic design principle of traditional fishery management systems in the Pacific Islands. *Geographische Zeitschrift* **84**(2): 94-102.
67. **Sandstrom, C., and C. Widmark.** 2007. Stakeholders' perceptions of consultations as tools for co-management: a case study of the forestry and reindeer herding sectors in northern Sweden. *Forest Policy and Economics* **10**:25-35.
68. **Sarker, A. and T. Itoh.** 2001. Design principles in long-enduring institutions of Japanese irrigation common-pool resources. *Agricultural Water Management* **48**(2): 89-102.
69. **Sarker, A., and T. Itoh.** 2003. The nature of the governance of Japanese irrigation common-pool resources. *Society and Natural Resources* **16**(2): 159-172.
70. **Schmidtz, D., and E. Willot.** 2003. Reinventing the commons: an African case study. *U.C. Davis Law Review* **37**(1): 203-232.
71. **Schweik, C.M., K. Adhikari, and K.N. Pandit.** 1997. Land-cover change and forest institutions: a comparison of two sub-basins in the Southern Siwalik hills of Nepal. *Mountain Research and Development* **17**(2): 99-116.
72. **Sekher, M.** 2001. Organized participatory research management: insights from community forestry practices in India. *Forest Policy and Economics* **3**: 137-154.
73. **Sengupta, N.** 1993. Reappraising common property institutions. Working paper. [Online] URL: <http://dlc.dlib.indiana.edu/dlc/handle/10535/3958>.
74. **Singh, K.** 1997. *Managing Common Pool Resources: Principles and Case Studies*. Oxford University Press, Oxford, UK.
75. **Singh, S.K.** 2002. *Conflicts and Disturbance -- a Reason to Change: Lessons from Community-Based Natural Resource Management Institutions in Orissa, India*. Paper presented at the 9th Conference of the International Association for the Study of Common Property, June 17-21, 2002, Victoria Falls, Zimbabwe.

76. **Singleton, S., and M. Taylor.** 1992. Common property, collective action and community. *Journal of Theoretical Politics* **4**(3): 309-324.
77. **Skolsvold, T.M.** 2008. *The Institutional Reality of Common Pool Resources*. Master's thesis, Norwegian University of Science and Technology.
78. **Society for Promotion of Wasteland Development (SPWD).** 1994. Guidelines for the Study of Community Institutions in Forest Management. Society for the Promotion of Wasteland Development, New Delhi.
79. **Steins, N.A.** 1999. *All Hands on Deck: An Interactive Perspective on Complex Common-Pool Resource Management Based on Case Studies in the Coastal Waters of the Isle of Wight (UK), Connemara (Ireland), and the Dutch Wadden Sea*. PhD Dissertation, University of Wageningen.
80. **Steins, N. A. and V. M. Edwards.** 1999. Collective action on common pool resource management: the contribution of a social constructivist perspective to existing theory. *Society and Natural Resources* **12**(6): 539:557.
81. **Theesfeld I.** 2004. Constraints on collective action in a transitional economy: the case of Bulgaria's irrigation sector. *World Development* **32**(2): 251-271.
82. **Trawick, P. B.** 2001. Successfully governing the commons: principles of social organization in an Andean irrigation system. *Human Ecology* **29**(1): 1–25.
83. **Tucker, C. M.** 1999. Common property design principles and development in a Honduran community. *The Fletcher Journal of Development Studies* **IV**. [online] URL: <http://fletcher.tufts.edu/praxis/archives/xv.html>.
84. **Tucker, C. M., J. C. Randolph, and E.J. Castellanos.** 2007. Institutions, biophysical factors and history: an integrative analysis of private and common property forests in Guatemala and Honduras. *Human Ecology* **35**(3): 259-274.
85. **Turner, M. D.** 1999. Conflict, environmental change, and social institutions in dryland Africa: limitations of the community resource management approach. *Society and Natural Resources* **12**(7): 643-658.
86. **Verma, M.** 2000. Applying design principles for joint forest management in India. [Online] URL: <http://dlc.dlib.indiana.edu/dlc/handle/10535/4555>.
87. **Weinstein, M. S.** 2000. Pieces of the puzzle: solutions for community-based fisheries management from native Canadians, Japanese cooperatives, and common property. *Georgetown International Environmental Law Review* **12**(2): 375-412.
88. **Welch, J.R.** 1996. The dry and the drier: cooperation and conflict in Moroccan irrigation. Pages 69-97 in J. B. Mabry, editor. *Canals and Communities: Small-Scale Irrigation Systems*. University of Arizona Press, Tucson, AZ.
89. **Wittayapak, C., and P. Dearden.** 1999. Decision-making arrangements in community-based watershed management in northern Thailand. *Society and Natural Resources* **12**(7): 673-691.

90. **Yoder, R.** 1994. *Locally Managed Irrigation Systems: Essential Tasks and Implications For Assistance, Management Transfer and Turnover Programs*. International Irrigation Management Institute, Colombo, Sri Lanka.
91. **Young, O.** 2002. *The Institutional Dimensions of Environmental Change: Fit, Interplay, and Scale*. MIT Press, Cambridge, MA.