

Large Scale Ecosystem Restoration: Five Case Studies from the United States

M. Doyle and C. A. Drew (eds), 2008
Island Press, Washington D.C.
ISBN (paperback) 978 1 59726 025 8
RRP US \$35.00

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“IT all comes down to leadership. You need it at all levels . . . We all think we’re good at fighting. We’re not always quite as good at collaborating”.

Published by the Society for Ecological Restoration International, this book examines the complexities of setting and achieving restoration and rehabilitation goals in four water-shed ecosystems in the United States; the Everglades, with a high level of endemism; the Platte River, essential for large number of threatened water birds; the California Bay-Delta, the most important estuary on the west coast; Chesapeake Bay, the US’s largest estuary system; and the Mississippi River which bisects the US and if the sub-basins are counted, the greater Mississippi catchment drains more than one third of the entire country.

Each has its own issues and peculiarities of geography and socio-economic context, but the approaches developed in the US to tackle these huge ecological problems share similarities and carry lessons that all those with an interest in the restoration of our environment, whether you are an educator, scientist, politician, land manager or primary producer.

This book highlights the success that the Americans have had to varying degrees in the implementation of restoration/rehabilitation programs, which can be attributed to several themes.

An integrated approach is essential. What stands out most is the ability of the Americans to be able to identify the issues, bring together all the stakeholders and to set short-term, medium-term and long-term goals. Where gaps in our understanding are apparent, these are addressed through research programmes, the advice of scientists is valued as they are participants in the process as are all stakeholders. Committees, panels, boards are a feature of this approach giving rise to the legitimization of all views and interests so they may be canvassed and addressed. Where consensus for action is gained, this will lead to political support. Often issues particularly relating to the tension between producers and environmentalists

Substantial legislative support, eg the Everglades Forever Act, was accompanied by federal money amounting to billions of dollars and commitment to tackle to difficult economic issues that always accompany large scale projects.

The participation of the US Army Corps of Engineers, Everglades and Chesapeake Bay. Large

scale restoration projects require large-scale engineering solutions.

Adaptive Management. Uncertainties always abound as to how an ecosystem may respond to restorative actions, indeed one of the bigger questions concerns the issue of restoration (to convert back to a pre-European state) or rehabilitation (achieving a functioning system via a number of pathways). Many where gaps in knowledge still remained, the general approach was to use incremental adaptive restoration which invested in projects large enough to provide restoration benefits as well as provide answers to scientific uncertainties. This is restoration as an iterative process rather than a fixed plan.

Such an approach is necessary given the vagaries of climate change, rising populations and invasive species.

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