Tidal marsh restoration: necessary but also desirable

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In the challenge towards developing integrated ecosystem management, it is important to illustrate and measure the ecological and socio-economic importance of ecosystem restoration projects. Restoration projects are often developed for one specific target, but could add many other benefits to the society. With an ecosystem services assessment we could make an evaluation of the different positive and negative effects of the project. In this study biophysical and monetary data were collected to calculate the value of ecosystem services delivered by two different tidal marsh restoration projects in the Schelde estuary (Belgium and The Netherlands). The main target flood protection is compared to the other ecosystem service benefits to illustrate the potential added value of an ecosystem services assessment. The ecosystem services assessment of the presented projects show that the projects are more beneficial for the society then the situation without the project. Remarkable is that this conclusion is the opposite of what would have been decided without including additional ecosystem services benefits (the projects are not clearly beneficial when only comparing the investment cost with the flood protection benefit).

Overall, the multiple benefits of tidal marsh restoration projects make it interesting projects to include in an integrated ecosystem management plan. An ecosystem services assessment enables an integrated evaluation of projects for several targets which is essential when looking for opportunities to reduce management costs and to increase benefits to society. This helps the development of an integrated management strategy with respect to both ecological and socioeconomic needs in the estuary.