Integrating biodiversity conservation into local land use planning

New research indicates that successful integration of conservation into local land-use planning needs a combination of regulatory measures and community values. This could be encouraged by better education on conservation, and greater collaboration between neighbouring geographical areas.

Habitat loss due to urbanisation poses a large threat to biodiversity. As such, local land-use planning has a potentially important, but largely unrealised, role in biodiversity conservation. The research interviewed 17 directors of municipal planning departments in greater Seattle, USA to identify the factors that help and impede integration of conservation into local planning. The departments were categorised into high and low performers based on a previous survey of their use of planning-related activities that favoured biodiversity, such as protecting open space, maintaining habitat connectivity and controlling non-native species.

The results indicated that the degree of integration of biodiversity conservation and local land-use planning was limited. Even planners from high-performing departments reported, on average, using less than half of the full range of conservation measures.

The clearest message from the data was the influence of local community values in incorporating conservation into planning. These values are positive attitudes held by the local population about biodiversity conservation. Planners from high-performing departments tended to cite community values as the most important driver of biodiversity conservation. Regulation and government mandates on the other hand, while identified as important by most planners, tended to be ranked as most important only by those from low performing departments.

Greater attention to biodiversity conservation was associated with perceived local benefits to humans. Local prominence of conservation flagships, or shining examples of the conservation of specific species or habitats received greater emphasis in high-performing departments. Examples in Seattle are salmon, eagles, lakes and rivers. Flagships are especially effective because they combine both legal protection mandates of endangered species and community values. Collaborations with other municipalities also appeared to be an important factor in successful integration of biodiversity conservation; planners from high-performing municipalities reported more than twice as many collaborations. As one respondent said “Habitat doesn’t stop with lines on a map.”

On the basis of their results the researchers made several recommendations to promote greater integration of biodiversity conservation into local land-use planning:

- More research on the use of potential flagships and how to communicate findings to the public and planners.
- More research on the benefits of biodiversity conservation to humans.
- Greater collaboration between neighbouring municipalities or regions and between academic science, local land-use planning and government regulation. For example, including conservation specialists in planning departments.
- Better public education about biodiversity conservation and the presence of biodiversity in urban areas, including communication on flagships and the benefits of biodiversity to humans, as mentioned above.
- A more effective explanation of biodiversity and greater use of accessible and evocative terminology when speaking to planners and public.


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