Advice to Council No: 14-03

Appendix C

Summary of Recommendations from Session 1: The Role of Blue Carbon Ecosystems in Climate Change Adaptation and Mitigation Strategies

Recommendations from the presentations and case studies

1. Identify and prioritize management of upland watersheds that have the greatest coastal impact.
2. Seek MPA connectivity for wildlife protection and to identify carbon sink potential.
3. Improve and complete coastal impact mapping of climate change.
4. Mangrove restoration is good for carbon storage and excellent for storm surge protection; therefore, invest in restoration.
5. Fund a collaborative monitoring project between the systems of Florida and the Yucatán, since they have very similar ecosystems.
6. Fund research to generate more precise data that are needed in order to bring coastal carbon into carbon markets.
7. Fund scientific studies to determine how to measure and account for the various origins of carbon (upstream versus coastal, and so forth).
8. Fund scientific studies to create a more accurate picture of carbon capture by volume. Volume storage by area is not uniform, given variations in age, depth and other factors.
9. We need to raise the profile of restoring the wetlands.
10. We need to set guidelines around what counts for blue carbon markets: restoration, creation of tidal wetlands (when you move to salt marsh), conservation versus avoided emissions.
11. Further engage the private sector in the effort to restore and conserve blue carbon areas.
12. Create standards and methodologies for accounting for and valuing carbon in the market.
13. Generate support for the incorporation of new IPCC guidelines on blue carbon.
14. Engage local communities in all aspects of blue carbon work: setting blue carbon goals, restoration activities, measurements, how it might affect their livelihoods, and so forth.
15. Set guidelines around how benefits derived from including blue carbon in the carbon market should be distributed to local and indigenous communities.
16. Use findings of blue carbon storage calculations to create restoration projections, for offsets, as an example.

Messages, themes and other take ways of the blue carbon session:

1. The storage potential of coastal systems (and of soil, in particular) is far greater than that of land-based systems.
2. There is a need to generate more precise science on how to calculate blue carbon within ecosystems and across different ecosystems. It is also not clear how to account for carbon as it passes from upland to coastal systems.

3. Land-based carbon storage calculation methods and protocols developed ad hoc in different countries and have been retrofitted into emerging standards. This has caused a lot of work and wasted time. This is an opportune moment to create international (trinational) standards around blue carbon before calculations progress too far.
4. Engaging local communities in meaningful ways around conservation and restoration is essential component to the success of such projects. Also, calculating the benefit to local communities from eventual carbon market benefits is also important.

Summary of Recommendations from Session 2: Challenges to Coastal Communities—Sea-level Rise

Recommendations from the presentations and case studies

1. Use reconstruction events (post-hurricane/storm/natural disaster) as opportunities for building resilience into the natural and built environments.
2. Create multi-stakeholder, participant-driven reconstruction design initiatives.
3. Establish a trinational cooperation group for monitoring oceans and coastal areas (could use the joint Mexican-European "Mexican Integrated Coastal and Ocean Observing System"—MexICOOS).
4. Promote the adaptation of a policy framework that seeks national ocean policy implementation as well as regional development watersheds and coastal areas integration.
5. Support more research and operational systems to understand climate effects (precipitation, sea-level rise, extreme weather, etc.).
6. Develop better communication between science and policy makers.
7. Create sister sanctuaries in MPAs.
8. Support the establishment of "collaboratories," collaborative, data-rich environments that can create predictive models and share data with anyone who can use them.

Summary of Recommendations from Session 3: Challenges to Coastal Communities—Impacts of Ocean Acidification on Indigenous and Local Communities

Recommendations from the presentations and case studies

1. Engage local communities to determine conservation goals and include them in data gathering, observation and monitoring.
2. Take measures to reduce CO_2 emissions.
3. Fund enhanced research and monitoring to better understand acidification processes and their impacts on Arctic marine ecosystems.
4. Fund a socio-economic study on the impacts of ocean acidification on Arctic populations.
5. Find ways to spread information on identification of and adaptation to ocean acidification for shellfish producers in the three countries.

6. Develop the right messages for the right people and find the right messenger to deliver those tailored messages. The governor of Washington State was moved to action on ocean acidification because of the economic and employment impacts it would have, for example.