POLICY RECOMMENDATIONS

CLIMATE CHANGE AND THE FLORIDA KEYS

FACT SHEET 7

FKNMS/NOAA SOCIOECONOMIC RESEARCH AND MONITORING PROGRAM

The views and recommendations are the author's and are not necessarily endorsed by NOAA.

BACKGROUND

The recommendations summarized below are a product of the lengthy research underlying the project report, but three special sources are gratefully acknowledged. In 2009, the author and Lara Hansen (EcoAdapt) were on the writing team of a scenario study of the Coral Triangle in Southeast Asia, listed under "further reading" below. With her colleague, Keys-based Alessandra Score, Lara Hansen adapted the policy recommendations for the Coral Triangle study for this project. Chris Bergh's study of sea-level rise in the Keys and the US Global Change Research Program's 2009 report provided further valuable insights.

These contributions are part of Chapter 8 of the project report. The author, however, takes full responsibility for the synthesis reproduced below from the report. As noted above, the recommendations are not necessarily endorsed by NOAA or FKNMS, or by the persons mentioned in the previous paragraph, but the author stands by his statement that the US Government should act with the utmost possible urgency despite its political setbacks. The list is unchanged from the version shown in the original project report of July 2010, including item 5, where political reality following the mid-term elections may now regrettably suggest 2012, rather than 2011.

SYNTHESIS OF POLICY RECOMMENDATIONS

The following list proceeds from global to local perspectives:

1. There is overwhelming scientific consensus that climate change has become the most critically urgent issue of our time. There is a pressing need for effective international climate change mitigation now to limit the need to have to adapt in future.
2. Non-linear positive feedback responses in the climate system will become more frequent; intensified controlling action is urgently required. This is behind the targets to reduce greenhouse gas emissions by at least 80% by 2050, to stay below a $2^{O}C$ global temperature rise and 350 ppm CO_2. It is not just a matter for international negotiators; constant local, state and national action is required to reinforce and re-educate.
3. It is essential, therefore, to work toward an effective and binding international agreement on emissions control, with the onus on the developed world. Define substantial points for negotiation in time for the climate change conference in Mexico in

December 2010 (COP-16) and achieve binding agreement for an effective successor to the Kyoto Protocol at the very latest at COP-17 in South Africa, in December 2011.

4. An environmentally friendly global scenario exemplified by the updated version of IPCC's "B1" is vital for long-term survival, backed by a prevailing spirit of strong community involvement. Continued encouragement of environmentally sensitive policies encompassing all nations is a primary objective, whatever it takes.

5. The political process in many leading countries has temporarily lost its sense of urgency and needs a wake-up call. The United States, as world leader, needs to ensure the passage of effective climate legislation through the Senate in 2010, but political reality suggests 2011. It must happen then.

6. It is high priority to promote and fund more research into new technologies including not only renewables but also energy efficiency and the protection of rural and coastal carbon sinks, plus the international diffusion of all renewable technologies, big and small, to the developing world. Diffusion is important to get the whole planet involved.

7. The Florida Keys are the most threatened area in the most threatened mainland State in the nation. They would not survive in a "business-as-usual" scenario. This gives the Keys as a mainstream American community a unique voice in the advocacy.

8. The existing strength of the integrated coastal management philosophy forms a solid foundation for Keys-based action. The keyword is resilience.

9. Local government is an important part of the solution, setting local targets, coordinating local initiatives, pushing state and national action from "below", and generally helping to secure that the effort to build up resilience remains "climate-smart".

10. The Keys economy must remain viable if the community has any chance of thriving. Sixty percent of the economic activity comes from tourism, with no real substitutes in sight. Tourist activity has been shifting from nature-based activities to historical tourism based on Key West. It is important to eliminate any dissonance between communities and induce maximum cooperation in their mutual interest.

11. Although mainly applied to the marine ecosystem centered on the coral reef, resilience is also a survival factor for other parts of the Florida Keys "super-ecosystem" – relating to natural areas, native species populations, and human communities.

12. Structural change threatens the resilience of the human community in the Keys, with an influx of occasional visitors owning local property but having no other local interest. It is important for survival to retain the strong current sense of community that remains. One way is keeping the young on side through education and outreach, encouraging them to stay, and to enlist their help working with and educating the older generation.

HHG November 6, 2010

Further reading:

Climate Change and the Florida Keys, Chapter 8 in full.

Chris Bergh (2009), *Initial Estimates of the Ecological and Economic Consequences of Sea-level Rise on the Florida Keys through the Year 2100*. The Nature Conservancy, Sugarloaf Key, FL. August. http://www.frrp.org/SLR.htm.

Ove Hoegh-Guldberg et al. (2009), *The Coral Triangle and Climate Change: Ecosystems, People and Societies at Risk*. WWF Australia, Brisbane, Australia. May. (http://assets.panda.org/downloads/climate_change___coral_triangle___full_report.pdf).

Thomas Karl et al. (ed.) (2009), *Global Climate Change Impacts in the United States: A state of knowledge report from the U.S. Global Change Research Program.* Cambridge University Press, New York. http://www.globalchange.gov/usimpacts.

Pictured: Grassy Key (HHG 2008)