Principles for Designing and Implementing Climate Smart Actions

Resources Legacy Fund Expert Panel
Guiding Principles for Ecosystem Adaptation
October 2012

1. Conserve the variety of ecological settings that will support California's biodiversity and ecosystems as they shift in response to the changing climate.

2. Conserve and restore landscape linkages and connectivity areas that will allow diverse species to move to new locations and will enhance their persistence.

3. Set priorities for watershed protection and management that will yield conservation and societal benefits as water flows become more variable and potentially decline.

4. Adjust flows below dams and protect coldwater habitats to support native species and aquatic ecosystems.

5. Develop and implement strategies that will ensure the persistence of coastal ecosystems as sea level rises.

6. Manage ecosystems for resilience in the face of extreme events.

7. Align adaptation and mitigation strategies to optimize the co-benefits for people and for ecosystems

8. Use best available scientific information and technical know-how to make informed decisions now in an adaptive management framework

9. Manage for the future.

Excerpted from the forthcoming report soon to be posted online at http://www.resourceslegacyfund.org.

Resources Legacy Fund. 2012. *Ecosystem Adaptation to Climate Change in California: Nine Guiding Principles.* Resources Legacy Fund, Sacramento, California, 32 pp.


Stuart B. Weiss

National Wildlife Federation
Climate Change Adaptation Principles
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1. Actions Linked to Climate Impacts. Conservation strategies and actions are designed specifically to address the impact of climate change in concert with existing threats; actions are supported by an explicit scientific rationale.

2. Forward-Looking Goals. Conservation goals focus on future, rather than past, climatic and ecological conditions; strategies take a long view (decades to centuries) but account for near-term conservation challenges and needed transition strategies.

3. Broader Landscape Context. On-the-ground actions are designed in the context of broader geographic scales to account for likely shifts in species distributions, to sustain ecological processes, and to promote collaboration.

4. Robust in an Uncertain Future. Strategies and actions provide benefit across a range of possible future conditions to account for uncertainties in future climatic conditions, and in ecological and human responses to climate shifts.

5. Agile and Informed Management. Conservation planning and resource management is capable of continuous learning and dynamic adjustment to accommodate uncertainty, take advantage of new knowledge, and cope with rapid shifts in climatic, ecological, and socio-economic conditions.

6. Minimizes Carbon Footprint. Strategies and projects minimize energy use and greenhouse gas emissions, and sustain the natural ability of ecosystems to cycle and sequester carbon and other greenhouse gases.

7. Climate Influence on Project Success. Considers how foreseeable climate impacts may compromise project success; generally avoids investing in efforts likely to be undermined by climate-related changes unless part of an intentional strategy.

8. Safeguards People and Wildlife. Strategies and actions enhance the capacity of ecosystems to protect human communities from climate change impacts in ways that also sustain and benefit fish, wildlife, and plants.

9. Avoids Maladaptation. Actions taken to address climate change impacts on human communities or natural systems do not exacerbate other climate-related vulnerabilities or undermine conservation goals and broader ecosystem sustainability.

Climate Smart Conservation
Ellie Cohen, President and CEO of Point Blue Conservation Science
(www.pointblue.org)

Climate smart conservation strategies and actions specifically address impacts of climate change in concert with existing threats and promote nature-based solutions to:

- Reduce greenhouse gas (GHG) emissions and enhance carbon sinks;
- Reduce climate change impacts on wildlife and people and enhance ability to adapt; and,
- Sustain vibrant, diverse ecosystems.

Climate Smart Principles
(adapted from NWF principles and others' attached):

1. **Focus goals on future conditions** not past ('stop trying to prevent ecological change'); incorporate extremes; use plausible scenarios w/ modeled projections to address uncertainty in near- & long-term time frames.
2. **Design Actions in ecosystem context** prioritizing ecosystem function & ecological diversity focused on multiple species benefits in broader geographic scope (e.g., watersheds); think & link beyond current protected areas including private lands.
3. **Employ adaptive & flexible approaches** for most timely, effective responses to continual change in climate, ecology and economics; includes adaptive management framework with regular monitoring and reassessments to actively apply learning from what works and what doesn't.
4. **Prioritize actions** based on best available science, across multiple plausible scenarios (including extremes, worst cases) and across multiple species to best prepare for ongoing change and to produce greatest benefits to wildlife & people.
5. **Collaborate & communicate across sectors:** establish/ expand non-traditional alliances to accelerate effective problem solving (e.g., between/among public & private resource managers, scientists, decision-makers); share knowledge openly & actively; regularly and clearly communicate to the public on the science as well as range of solutions- convey hope; engage local communities, e.g., youth, to instill conservation ethic for long term success.
6. **Practice the TEN % Rule: Test and Experiment Now:** use 10% (or more) of your time every day to develop and try out creative new approaches at every level of natural resource conservation; based on what you already know to address climate change impacts and increasing variability/extremes.