PPIC PUBLIC POLICY INSTITUTE OF CALIFORNIA

Preparing California for a Changing Climate

MANCHESTER SCOTT/CORBIS SYGMA

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SUMMARY

California's ambitious efforts to reduce greenhouse gas emissions have made the state a leader in the domestic and international fight against global warming. But even if these efforts are successful, mounting evidence shows that some impacts of warming are inevitable, including higher air and water temperatures, accelerating sea level rise, increasing coastal storm surges, and more frequent extreme events, such as heat waves, floods, drought, and wildfires. These impacts are anticipated to affect many aspects of California's society, economy, and natural environment.

To reduce the state's vulnerability, we need a strategy to prepare for—and adapt to—a changing climate. Some adaptation measures will need to be made by individuals—for instance, taking out insurance to protect against increased flood risk, or installing air conditioning to better cope with hotter summers. But institutions, particularly government agencies and public and private utilities, must play a central role in the adaptation process. Such institutions are responsible for providing services, investing in infrastructure, and setting the regulatory contexts in which individuals and businesses will make adaptation decisions.

In this study, we review adaptation challenges in six particularly susceptible areas—water resources, electricity, coastal resources, air quality, public health, and ecosystem resources—focusing on how well California's institutions are prepared for the challenge. We find grounds for hope alongside grounds for concern. In some areas, such as water and electricity supply, tools already exist to help California adapt to the changing climate, and institutions have

begun planning for change. But in other areas—notably coastal management, flood control, and habitat protection—climate change will exacerbate already difficult tradeoffs.

To develop a comprehensive statewide adaptation strategy, six actions are key:

- Improve the basic science on climate impacts, particularly at the regional and local levels.
- Help frontline actors, such as city and county governments, interpret the science and determine which levels of climate risks to plan for, over which time frames.
- Determine where early actions are needed—when a failure to act now will result in much greater cost or reduce future flexibility. These areas currently include infrastructure investment and habitat protection.
- Refine existing adaptation tools and experiment with new ones.
- Strengthen the incentives for coordinated action at the regional level and seek federal cooperation.
- Make legal and regulatory adjustments to facilitate adaptation.

To be most effective, California policymakers should develop an integrated climate policy, one that considers efforts to reduce greenhouse gas emissions and strategies for climate change adaptation in tandem. This means recognizing that some emission reduction policies can actually weaken our ability to adapt to climate change. This also means capitalizing on the significant support for emission reductions to heighten awareness of adaptation needs and tools. California is already a leader in efforts to reduce the effects of global warming. We now have the opportunity to become a leader in developing tools and approaches to limit the harm caused by the warming that we are unable to prevent. To read the entire report, click here.

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Please visit the report's publication page
http://www.ppic.org/main/publication.asp?i=755
to find related resources.