

S 2307

Global Change Research Improvement Act of 2007

Congress: 110 (2007–2009, Ended)

Chamber: Senate

Policy Area: Environmental Protection

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Sponsor

Name: Sen. Kerry, John F. [D-MA]

Party: Democratic • **State:** MA • **Chamber:** Senate

Cosponsors (3 total)

Cosponsor	Party / State	Role	Date Joined
Sen. Snowe, Olympia J. [R-ME]	R · ME		Nov 5, 2007
Sen. Klobuchar, Amy [D-MN]	D · MN		Dec 3, 2007
Sen. Nelson, Bill [D-FL]	D · FL		Dec 5, 2007

Committee Activity

Committee	Chamber	Activity	Date
Commerce, Science, and Transportation Committee	Senate	Reported By	May 22, 2008

Subjects & Policy Tags

Policy Area:

Environmental Protection

Related Bills

No related bills are listed.

Global Change Research Improvement Act of 2007 [sic]- **Title I: Amendment of the Global Change Research Act of 1990** - (Sec. 103) Amends the Global Change Research Act of 1990 to: (1) rename the Committee on Earth and Environmental Sciences as the Committee on Global Change Research; and (2) replace the Federal Coordinating Council on Science, Engineering, and Technology with the National Science and Technology Council established by Executive Order 12881, November 23, 1993. Defines "global change" to mean human-induced or natural changes in the global environment (including climate change and other phenomena affecting land productivity, oceans and coastal areas, freshwater resources, atmospheric chemistry, biodiversity, and ecological systems) that may alter the capacity of Earth to sustain life.

(Sec. 104) Requires the Committee to include at least one representative from the National Institute of Standards and Technology (NIST) of the Department of Commerce. Requires Committee representatives to be each member agency's Deputy Secretary or such Deputy Secretary's designee. Authorizes the Committee to establish subcommittees and working groups. Requires the Committee to work with authorities to ensure that the United States Global Change Research Program (GCRP) is designed to produce information needed to develop policies to reduce the impacts of global change.

(Sec. 105) Renames the National Global Change Research Plan as the National Global Change Research and Assessment Plan. Requires the Chairman of the Council, through the Committee, to develop a strategic plan for the GCRP for the 10-year period beginning in 2008 and submit the plan to Congress within a year after this Act's enactment.

Requires such plan to: (1) include a detailed plan for research, assessment, information management, public participation, outreach, and budget; (2) be updated every five years; (3) provide information to decision makers and end users for the formulation of effective decisions and strategies for measuring, predicting, mitigating, and adapting to global change; (4) describe development of regional scenarios, assessment of model predictability, and assessment of climate change impacts among activities required to achieve goals and priorities and propose measures to address gaps and growing needs for such activities; (5) make recommendations for the coordination of the global change research and assessment activities of the United States with activities of other nations and international organizations; (6) detail budget requirements for federal global change research and assessment activities to be conducted under the plan; (7) include a process for identifying information needed by decision makers to develop policies to plan for and address projected impacts of global change; (8) identify and sustain the observing systems currently employed in collecting data relevant to global and regional climate change research and prioritize additional systems that may be needed to ensure adequate data collection and monitoring of global change; (9) identify existing capabilities and gaps in climate prediction and scenario-based modeling capabilities for forecasting and projecting climate impacts at local and regional levels and propose measures to address such gaps; (10) describe specific activities designed to facilitate outreach and data and information exchange with regional, state, and local governments; and (11) identify and describe U.S. ecosystems and geographic regions that are likely to experience similar impacts of global change or are likely to share similar vulnerabilities to global change.

Revises the Plan's research elements. Requires the Plan to provide recommendations for collaboration within the federal government and among nations to establish a common assessment and modeling framework that may be used in both research and operations to project, predict, and assess the vulnerability of natural and managed ecosystems and of human society in the context of other environmental and social changes.

Requires the Chairman of the Council to enter into an agreement with the National Research Council under which the

latter shall: (1) evaluate the scientific content of the Plan; (2) provide information and advice obtained from the United States and international sources, and recommend priorities for future global and regional climate research and assessment; and (3) address such other studies on emerging priorities.

Requires the Secretary of Commerce to execute an agreement with the National Research Council to: (1) examine existing research, potential risks (including adverse impacts to the marine environment), and the effectiveness of ocean iron fertilization or other coastal and ocean carbon sequestration technologies; and (2) identify domestic and international regulatory mechanisms and regulatory gaps for controlling the deployment of such technologies and provide recommendations for addressing such regulatory gaps.

(Sec. 106) Requires the President to establish a Global Change Research Coordination Office to: (1) manage, in conjunction with the Committee, interagency coordination and program integration of global change research activities and budget requests; (2) ensure that the activities and programs of each federal agency participating in the GCRP address the goals and objectives identified in the strategic research plan and interagency implementation plans; (3) arrange funding for partnership projects that address the GCRP's critical research objectives or operational goals; (4) review and provide recommendations on all annual appropriation requests from participating agencies; (5) provide technical and administrative support to the Committee; (6) serve as a point of contact for technical and programmatic information on federal climate change activities; and (7) conduct public outreach. Authorizes interagency funding of the Office and requires the Director to report to specified congressional committees on such funding.

(Sec. 107) Requires the President to: (1) provide an opportunity to the Committee and the Office to review and comment of the budget estimate of each agency involved in global change research in the context of the Plan; and (2) submit an integrated budget plan at the time of the annual budget request to Congress.

(Sec. 108) Requires: (1) the Committee to develop a list of priority areas for research and development on climate change that are not being adequately addressed by federal agencies; and (2) the Director of the Office of Science and Technology Policy to transmit the list to the National Science Foundation (NSF) for funding through the Science and Technology Policy Institute. Authorizes funding to be appropriated to the NSF for research in those priority areas.

(Sec. 109) Requires the President to periodically submit to Congress a single, integrated, comprehensive assessment on information being developed under such Act.

(Sec. 110) Repeals a declaration that such Act does not preclude or delay federal planning or action to address the threats of stratospheric ozone depletion or global climate change.

(Sec. 111) Requires the Administrator of the National Oceanic and Atmospheric Administration (NOAA) to report to specified congressional committees on the strategy to restore the decommissioned and scaled down climate sensors scheduled for the National Polar-orbiting Operational Environmental Satellite System and the Geostationary Operational Environmental Satellites-R Series.

(Sec. 112) Requires the NSF to contract with the National Academy of Public Administration to conduct: (1) an independent review of the implementation of the Global Change Research Act of 1990 and the National Climate Service and the extent to which scientific communications and findings are inappropriately subject to nonscientific policy considerations; and (2) an independent review of the process undertaken by the GCRP in developing the strategic plan and the national assessments that evaluates the extent to which the scientific communications and findings were inappropriately subjected to nonscientific policy considerations. Authorizes appropriations for FY2009-FY2013.

(Sec. 113) Requires the President to establish guidelines and implement a plan that requires specified agencies to adopt policies to ensure the integrity of scientific communications.

(Sec. 114) Requires the Administrator of NOAA to implement a program to address aging work force issues in climate science, global change, and certain other research focuses. Authorizes appropriations for FY2009-FY2013.

Title II: National Climate Service - (Sec. 201) Renames the National Climate Program Act as the National Climate Service Act of 2007. Amends such Act to direct the Secretary to establish within NOAA a National Climate Service that includes a national center and a network of regional and local facilities for operational climate monitoring and prediction. Requires the Service to produce and deliver authoritative, timely, and usable information about climate change, climate variability, trends, and impacts. Sets forth the minimum services to be conducted by the Service and the minimum components of a plan of action for the Service to be submitted by the Secretary.

Requires the Administrator to appoint a Director of the Service to serve as a liaison to the GCRP to ensure the transition of research into services and to provide services to meet the needs of research.

Requires the Administrator to appoint a National Climate Service Advisory Council to: (1) advise the Director of key priorities in climate-related issues; and (2) be responsible for ensuring the coordination across regional and national concerns and the assessment of evolving information needs. Requires the Secretary to report to the President and specified congressional committees on the activities conducted pursuant to such Act. Authorizes appropriations for FY2009-FY2013 to the Secretary for such Act.

Title III: Technology Assessment - (Sec. 301) Amends the National Science and Technology Policy, Organization, and Priorities Act of 1976 to establish within the legislative branch a Science and Technology Assessment Service, consisting of a Science and Technology Board and a Director, to coordinate and develop information for Congress relating to the uses and application of technology to address current national science and technology policy issues. Authorizes science and technology assessment activities undertaken by such Service to be initiated upon the request of specified congressional committee chairpersons, the Board, or the Director. Requires such Service to report annually to Congress on technology assessment techniques and identification of technological areas and programs requiring future analysis. Authorizes appropriations.

Title IV: Climate Change Technology - (Sec. 401) Amends the National Institute of Standards and Technology Act to authorize the Secretary to perform research to develop enhanced measurements, calibrations, standards, and technologies to enable the reduction of greenhouse gases (GHG). Requires: (1) the Secretary to develop standards and measurement technologies to calculate GHG emissions and reductions for which no accurate or reliable measurement technology exists; (2) the Director of the Institute to establish a research program on climate change standards and processes; (3) the Institute's National Measurement Laboratories to conduct specified research on developing material and manufacturing processes designed for energy efficiency and reduced GHG emissions, developing environmentally friendly green chemical processes to be used by industry, and enhancing building performance; and (4) the Director to utilize the National Voluntary Laboratory Accreditation Program to establish a program to satisfy the needs for accreditation in measuring GHG production.

(Sec. 404) Authorizes the Director, through the Manufacturing Extension Partnership Program, to develop a program to support the implementation of new green manufacturing technologies and techniques by small business manufacturers. Authorizes appropriations for FY2009-FY2013.

Title V: Abrupt Climate Change - (Sec. 501) Requires the Secretary to establish within the Office of Oceanic and

Atmospheric Research of NOAA a program of scientific research on abrupt climate change. Authorizes appropriations for FY2009-FY2013.

Actions Timeline

- **Jun 3, 2008:** Star Print ordered on on the bill as reported.
- **May 22, 2008:** Committee on Commerce, Science, and Transportation. Reported by Senator Inouye with amendments. With written report No. 110-341.
- **May 22, 2008:** Placed on Senate Legislative Calendar under General Orders. Calendar No. 752.
- **Dec 4, 2007:** Committee on Commerce, Science, and Transportation. Ordered to be reported with amendments favorably.
- **Nov 5, 2007:** Introduced in Senate
- **Nov 5, 2007:** Read twice and referred to the Committee on Commerce, Science, and Transportation.