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## Sommario/riassunto

Our nation faces daunting challenges to its food and fiber system and to the condition of our natural resources in the coming decades. Rapid increases in world population and the pressure on resources generated by increasing per capita consumption as a result of increasing per capita income challenge the very basis of our standard of living-our food, fiber, and natural-resource base. As the nation faces the challenges, new technologies and new information systems are changing the face of biologic research. The US Department of Agriculture (USDA) has traditionally been the nation's primary public research engine in food, fiber, and natural resources. The National Research Initiative Competitive Grants Program (NRI) is a small part of that USDA research effort, but it accounts for a substantial portion of the nation's merit-based peer-reviewed fundamental research efforts in food, fiber, and natural resources. In 1997, USDA asked the National Research Council Board on Agriculture (now the Board on Agriculture and Natural Resources) to conduct an independent assessment of the NRI program. Specifically, USDA asked the Research Council to: perform a retrospective assessment of the quality and value of research funded by the program; determine whether the science and technology priorities in the major NRI programs are defined appropriately; assess how NRI activities complement other USDA programs, those of other federal agencies, and state programs in the private sector; and

recommend the nature and content of changes for the future. This report summarizes the results of the committee's analysis. Chapter 2 summarizes the value of food, fiber, and natural resources-research to the United States, focusing on economic contributions and rates of return of food and fiber research. The committee's analysis of the quality, value, fairness, relevance, and responsiveness of the NRI competitive grants program is presented in chapter 3. Chapter 4 presents the committee's analysis of the role and scope of the NRI, including its scientific objectives, its value in training and education, and its complementarity with other research activities. The committee's analysis of NRI's priority-setting process and its research priorities is given in chapter 5. The committee's analysis of organizational and funding issues is given in chapter 6. Chapter 7 presents the committee's recommendations to improve the effectiveness of the NRI program. Additional supporting materials are found in appendixes A through I.

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