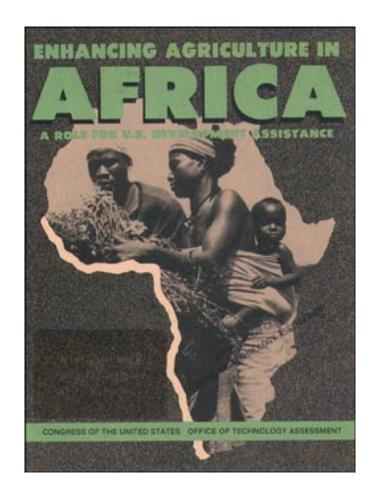
Enhancing Agriculture in Africa: A Role for U.S. Development Assistance

September 1988

NTIS order #PB89-137087



Recommended Citation:

U.S. Congress, Office of Technology Assessment, *Enhancing Agriculture in Africa: A Role for U.S. Development Assistance, OTA-F-356* (Washington, DC: U.S. Government Printing Office, September 1988).

Library of Congress Catalog Card Number 87-619896

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Foreword

Few African farmers, herders, and fishers have adequate resources to assure continuous food supplies. For them, access to additional resources is vital, along with making the best use of existing capital, information, labor, equipment, etc. On the other hand, most U.S. farmers and ranchers have a larger endowment of resources, including the natural ones upon which agriculture depends ultimately. Nevertheless, increasing numbers of U.S. farmers are choosing to reduce resource use to cut input costs and increase profits. Now, broad interests worldwide seem to be converging on making the most of modest resources. This report examines the situation of African agriculturalists specifically. We anticipate, though, that many of the important lessons learned in Africa will become increasingly relevant to U.S. agriculture.

OTA's Technology Assessment Board, in June 1985, approved requests of three congressional committees and five Board members that OTA examine low-resource agriculture in Africa. OTA published its first results in a 1986 special report that focused on development in the West African Sahel. OTA's first report examined the record of U.S. assistance to nine African nations, explored the lessons learned in a decade of efforts, and suggested policy alternatives to improve the effectiveness of U.S. assistance.

This second report is cast more broadly. OTA has gathered information on agricultural production throughout Sub-Saharan Africa, looked closely at specific, promising technologies such as agroforestry, small-scale irrigation, soil and water management, and the improved use of animals. As a result, it seems clear that low-resource agriculture has a sizable potential to contribute to increased African food security. Also, it is clear that low-resource agriculture must be enhanced in order to reach its full potential. This report identifies ways that U.S. development assistance can aid this process.

The committees that requested this study are: the House Select Committee on Hunger, the House Science and Technology Committee (the Subcommittee on Natural Resources, Agriculture Research, and Environment), and the House Agriculture committee. Of OTA's 1985 Technology Assessment Board, Senators Hatch, Kennedy, and Pen and Representatives Evans and Udall requested this work. *Also, the House* Foreign Affairs Committee supported OTA's assessment.

The report draws on the expertise of a **large** number of people. We appreciate the assistance of our Advisory panel, the authors of contractor reports, workshop participants, and additional reviewers. Also, we owe a special debt to the Africans who responded to our request for their thoughts and advice on U.S. technical assistance and development policy. Of course, OTA remains responsible for the analysis and the report does not necessarily represent the views of individuals who participated in the study.

JOHN H. GIBBONS

Director

¹Continuing the Commitment: Agricultural Development in the Sahel, OTA-F-308 (Washington, DC: U.S. Government Printing Office, August 1986).

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'Appointed as of Feb. 12, 1986. 5Appointed as of July 15 1986. 6Resigned as of Sept. 26, 1986, 'Appointed as of Sept. 27, 1986.

NOTE: OTA gratefully acknowledges the members of this advisory panel for their valuable assistance and thoughtful advice. The panel does not, however, necessarily approve, disapprove, or endorse this report. OTA assumes full responsibility for the report and the accuracy of it contents.

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¹ From *March* to August, 1986 2 Until December 1986. ³Until May 1987.

The work was back-breaking. Farmers in the Sahel were carrying rocks, really boulders, on their heads to block gullies and rebuild soil. Their grandparents grew cotton on this land but, after years of erosion, it was rock hard and bare. They came from the village to show us their work, proud of the wire-filled bags of rocks and the smidgins of soil beginning to accumulate around them. One farmer bowed as we met, welcoming visitors who had travelled far to see their efforts, and, maybe, giving us more respect as outside experts than we deserved. "No," one of us responded, "we should bow to you for the work you are doing here."

Notes from an OTA field visit near Ouahigouya Burkina Faso, November 16, 1986.