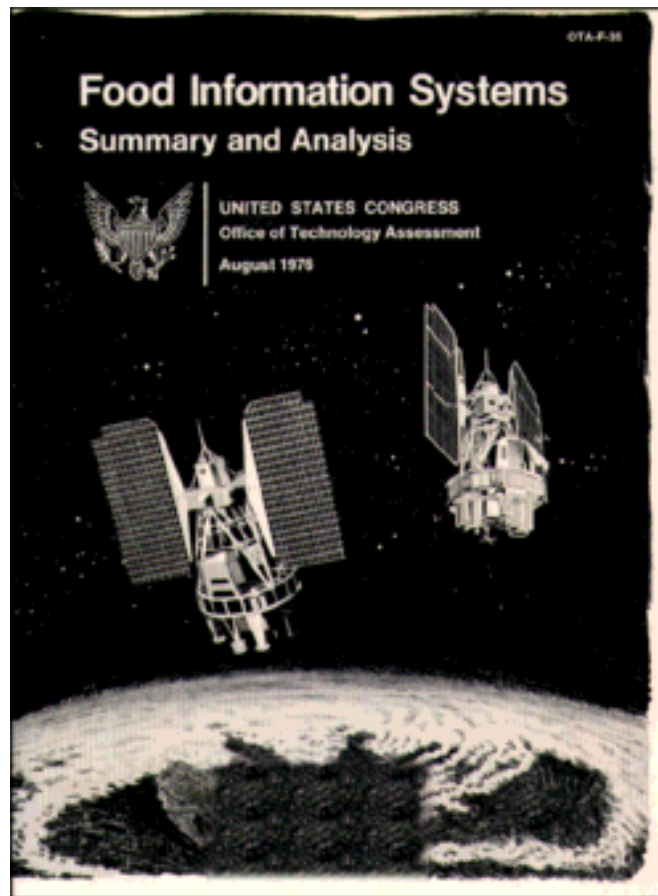


*Food Information Systems: Summary and
Analysis*

August 1976

NTIS order #PB-258172



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July 22, 1976

The Honorable Olin E. Teague
Chairman
Technology Assessment Board
Office of Technology Assessment
Congress of the United States
Washington, DC 20510

Dear Mr. Chairman:

The world food situation has been drastically altered by a series of major events that converged in 1972 and 1973. The consequences of these events have demanded new policies. To develop and carry out these policies requires more timely and accurate information.

Congress is substantially dependent upon data developed and evaluated from information resources outside the Congress. Until 1973, with our food policies based upon "burdensome surpluses," our information needs seemed to be well taken care of. No one, inside or outside the Government, predicted that the events and policy decisions of 1972 and 1973 would lead to sharp increases in the cost of food and farm inputs and shortages of such key production supplies as fuel, protein meals, and fertilizers. It was this apparent breakdown of information that led me to request, and the chairman of the Senate Committee on Agriculture and Forestry to endorse, that OTA identify the key information systems and determine how well they were serving decision makers; identify defects in these systems; and suggest options for Congress to consider to improve these information sources. I am pleased that the summary and analysis of this study, as presented during hearings by the OTA Board, can be transmitted to the Congress.

I have been an active participant in this study. It was my privilege to chair four days of hearings for OTA's Board on food information systems. These hearings were triggered by the report of OTA's Food Advisory Committee and afforded me the opportunity to dialogue with the most knowledgeable individuals on this subject. The impressive mix of people who helped in this study has given this document a balance and diversity of views.

The most feasible option seems to be to make perfecting changes in the existing system rather than to try to develop a single integrated worldwide system or to rely on the initiative of existing institutions to make these improvements.

The specific areas for improvement to the existing information resources are relevant and useful. Indeed, the utility is already evident by the

uses Congress has made of preliminary assessment material:

1. Background material for the U.S. congressional delegation to the 1974 World Food Conference, which supported Conference Resolution XVI to establish an early warning and agriculture information system;
2. Congressional hearings;
 - a. Subcommittee on Foreign Agriculture Policy of the Senate Committee on Agriculture and Forestry on "Implementation of World Food Conference Recommendations" and "Improving the Coordination of U.S. and Foreign Agricultural Policy."
 - b. Subcommittee on Census and Population of the House Committee on Post Office and Civil Service on "The Need for Improvement and Coordination in Federal Government Statistics";
- 3.' HR12397, introduced by Congressman Neal Smith, and S3215, which I introduced "to relieve the Secretary of Commerce of the responsibility for taking Censuses of Agriculture every fifth year and require the Secretary of Agriculture to collect comparable information using sampling methods."
4. The Senate Select Committee on Nutrition and Human Needs for a staff report on "The U.S. , FAO, and World Food Politics: U.S. Relation with an International Food Organization."

In addition, the chairman of the Senate Committee on Agriculture and Forestry and I, as chairman of the Joint Economic Committee, have asked Secretary of Agriculture Earl Butz to respond to suggestions made by participants in the Technology Assessment Board hearings, encouraging USDA to make certain improvements.

As the OTA report indicates, substantial progress has already been made to improve the U.S. and world food information systems since 1973, in part as a result of OTA studies, hearings, and staff interaction with USDA personnel. These changes include: modifying the agricultural attache system; improving staff analytical competence; upgrading publication and eliminating duplication; attempting to get better information on the Soviet food situation; releasing more timely crop forecasts; collecting data from new areas; and using modeling and remote sensing technologies.

I will follow with interest continued improvement along the lines suggested by the five areas that the OTA study emphasizes:

1. Improving the accuracy and timeliness of U.S. food and agricultural information systems.
2. Strengthening the U.S. role in a world food information system.

The Honorable Olin E. Teague
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3. Increasing congressional staff analytical capabilities,
4. Increasing the integration of nutrition and the consumer,
5. Accelerating the use of advanced technologies.

I plan to call this report, along with suggestions for action, to the attention of the chairmen of the relevant committees of the Congress, I look forward to continued interactions between these committees and the OTA staff to help implement the alternatives in this report.

Sincerely,

Hubert H. Humphrey

OLIN E. TEAGUE TEXAS, CHAIRMAN
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WASHINGTON, D.C. 20510

July 22, 1976

The Honorable Olin E. Teague
Chairman
Technology Assessment Board
Office of Technology Assessment
Congress of the United States
Washington, D.C. 20510

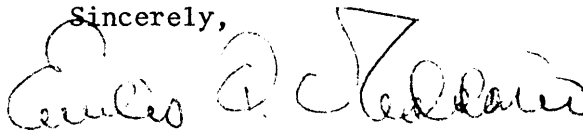
Dear Mr. Chairman:

I am pleased to submit OTA's report entitled "Summary and Analysis of the Office of Technology Assessment Hearings on Food Information Systems," which was requested by Senator Hubert H. Humphrey, OTA Board member, and endorsed by Senator Herman Talmadge, Chairman of the Senate Committee on Agriculture and Forestry.

This summary and analysis was prepared by the Office of Technology Assessment, based upon material developed by its Food Advisory Committee, consultant and contractor reports, and four days of Board hearings. The complete record of these hearings and the material that triggered these hearings is included in Food Information Systems: Hearings Before the Technology Assessment Board of the Office of Technology Assessment, Congress of the United States, Ninety-Fourth Congress, First and Second Sessions, September 24, 25, and December 10, 1975, February 4, 1976.

With the approval of the OTA Board, as indicated at its July 21, 1976 meeting, Senator Humphrey will forward the hearings document and this summary and analysis to the relevant committees of the Congress.

Sincerely,



EMILIO Q. DADDARIO
Director

PREFACE

Senator Hubert H. Humphrey, as a member of the Technology Assessment Board, Office of Technology Assessment (OTA) in a letter of January 22, 1974, requested "an OTA assessment of agricultural information systems and their adequacy for . . . agricultural policy planning." This request was endorsed by the Senate Committee on Agriculture and Forestry. The OTA Board approved this request on February 6, 1974.

The principal activity of the study was to review food information systems in order to isolate and evaluate those significant to the development of food legislation and related congressional policymaking.

The goal was to develop options that Congress could consider to improve the usefulness, timeliness, and reliability of information for policymaking, budget formulation, legislation, and oversight in the food area.

An OTA Food Advisory Committee was formed. In addition, OTA staff, assisted by three contractor studies and consultants, developed and prepared background material for the committee's use. The committee, relying on staff and contractor materials, prepared and submitted a report to the Technology Assessment Board entitled "Food, Agriculture, and Nutrition Information Systems: Assessment and Recommendations." This report became the basis for 4 days of hearings held by OTA's Board on September 24 and 25 and December 10, 1975, and February 4, 1976. '

This document is a summary and analysis of the hearings record which directly or indirectly includes all the relevant material acquired in this study.

*Food Information Systems. Hearings before the Technology Assessment Board of the Office of Technology Assessment, Congress of the United States, Ninety-Fourth Congress, First and Second Sessions. Washington, D. C.: U.S. Government Printing Office, 1976. (Hereinafter referred to as "Hearings.") The Food Advisory Committee report is found in Hearings, pp. 4-36.

ACKNOWLEDGMENTS

The food program staff and the Food Advisory Committee of the Office of Technology Assessment (OTA) received advice and assistance from OTA and congressional staff members, Federal agency officials, individuals from the private food sector, farm organizations, consumer groups, experts from international organizations, and widely known researchers. Some were advisors, some were the subjects of interviews, others assisted in review, and others helped in numerous ways essential to a balanced understanding of the complex issues involved in this study of food information systems.

Their assistance is acknowledged. Likewise, the time made available and the effort put forward on behalf of OTA and the Congress is appreciated.

The views expressed in this report are solely those of OTA and should not be construed as those of any individuals or groups listed in appendices I and II.

HIGHLIGHTS

The major food information systems are operated by the U.S. Department of Agriculture (USDA) and the Food and Agriculture Organization of the United Nations (FAO). The systems maintained by individual countries, international organizations, and the private sector either are limited to their specific needs or use USDA and/or FAO data as their benchmark. (Page 7)

The Foreign Agricultural Service (FAS), Economic Research Service (ERS), and Statistical Reporting Service (SRS) are the key USDA units responsible for operating national and worldwide systems. This study examines the improvements made in these units since the apparent informational breakdown of 1972-73. Some of these improvements are: modifying the agricultural attached system; improving staff analytical competence; upgrading publications and eliminating duplication; attempting to get better information on the Soviet food situation; releasing more timely crop forecasts; collecting data from new areas; and using modeling and remote-sensing technologies. (Pages 7-25)

Deficiencies that persist are grouped into four categories:

- (1) poor national systems, upon which USDA must depend;
- (2) collection of inadequate and/or obsolete data;
- (3) inadequate analysis, especially by the overseas network of agricultural attaches; and
- (4) USDA's fragmented organizational structure, which hinders effectiveness and promotes institutional conflicts of interest. (Pages 25-29)

The study discusses a variety of alternatives that could be taken to correct these deficiencies. A number of specific proposals are reviewed in the general areas of improving the accuracy and timeliness of USDA's system (Pages 34-40); integrating nutrition information into USDA'S system (Pages 40-43); and using advanced technologies (Pages 43-60).

The OTA study does not explore the FAO system in the same detail as the USDA system. It notes that the principal improvement has been the increased attention to the establishment of an Early Warning and Agricultural Information System. The 1974 World Food Conference emphasized the important relationship of better information to the world food situation. (Pages 61-68).

The OTA study suggests that the United States can play a key role in helping FAO and the developing countries to improve their information systems. (Pages 68-70)

Attention was given to the suggestions that Congress might increase its analytical capability. The report stresses that this need not imply additional personnel but that this increased capability could be obtained through more efficient use of the resources at the Office of Technology Assessment, General Accounting Office, Congressional Research Service, and others such as the land-grant university system. (Pages 71-73)

The magnitude of the demand placed upon Congress to deal with food issues can be seen from the analysis of the 1,831 and 1,725 bills and resolutions of the 93rd and 94th Congresses. (Pages 73-76).