

Chairman HUMPHREY. Dr. Hathaway, we welcome you. In light of the time that we have you might want to summarize your statement; and we, I can assure you, will read it very, very carefully.

STATEMENT OF DR. DALE E. HATHAWAY, DIRECTOR, INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

Dr. HATHAWAY. Thank you, Senator.

I thought I might just make it clear at the outset that I do not speak for the Food and Agricultural Organization of the United Nations - nor the United States or any other government; but I represent a newly formed research institute and thus what you have are my views of the FAO food information system. I have described the components of the much improved FAO system in the paper that I will submit for the record.

In view of the time, I would just like to go directly to the recommendations that might be related to the U.S. role relative to FAO'S food information system. It seems to me that, first, the United States should actively cooperate in continuing to supply FAO the information that the U.S. Government, has available to it. The problems that may be involved in this can best be discussed by some of the people that will be appearing before you tomorrow and subsequently.

Second, since the FAO system, like every other system in the world that is available in general, is totally inadequate because of the lack of accurate information on the U.S.S.R. and the People's Republic of China, I believe, strongly that, we should use our persuasive powers as an exporter and as a major supplier of food aid to encourage those countries which withhold information from the international system to provide that information so that it is available to everyone.

Third, I strongly suggest the U.S. Government ought to increase its support for the improvement of statistical systems in developing countries, and to use our advanced technology, and to put a good deal of cooperative research effort in the application of that technology to the particular problems of crop reporting in developing countries. These problems are of a substantially different nature than they might be in the U. S. S. R.: because there is a difference between satellite technology in half-acre rice paddies and 10,000-acre wheat farms; and I am not sure that the technological problems are fully realized in the case of developing countries, and yet the statistics are really very poor there, as I pointed out.

Fourth, as a major contributor to the FAO and other United Nations organizations concerned with food information systems, I think the U.S. Government should take leadership in insuring that such activities receive the funds that they need to develop an adequate international food information system. One of my fears is that our Government, because it does have one of the best reformation systems in the world, may pay too little attention to the food information system for the world, which is really the FAO) food information system. In so doing, the U.S. may leave the rest of the world, and particularly the developing countries, with totally inadequate information and, as a result, they may make large, erroneous policy decisions based on inaccurate or incomplete information. Basically, this brings me to a question directly related to Mr. Bell's testimony; and it relates to the in-

formation the U.S. Government is obtaining or will obtain under some kind of agreement with the U.S.S.R. and other countries which are now not generally releasing good information. I think there is a major question as to whether the U.S. Government should maintain that information for its exclusive use or make it available to the world. I feel very strongly it should be available to the world, so that other nations also know what is likely to happen in terms of supplies, availability, et cetera.

Chairman HUMPHREY. I thoroughly agree with that. I think it is information of interest to everyone. And it is vital for every country that has to do its own planning in terms of imports, exports, crop planning, and everything involved with agricultural production.

Dr. HATHAWAY. I will end my comments and submit this longer statement, which outlines the FAO information system, for the record.

Chairman HUMPHREY. Could you give us the elements, of that FAO information system as it is now constituted?

Dr. HATHAWAY. Well, basically, it consists of four elements. It is a food situation and outlook series, which now include monthly and quarterly bulletins, an early warning of food shortages, an information system on foodstocks and food aid, and fertilizer and pesticide information.

Chairman HUMPHREY. Is this information current? Is the FAO getting this information?

Dr. HATHAWAY. There has been a very substantial improvement in the FAO's timeliness; particularly with the development of their early warning and food shortage system. It is not qualitative in terms of precise estimates, but it gives early indications of major trouble spots in the world. I think it is of special importance in terms of timeliness of information regarding potential world trouble spots, particularly for the developing countries which may require massive food aid from national or international sources.

No organization that I know of has anything a preaching an adequate information system on fertilizing and pesticides. This is of major importance to the United States and to U.S. farmers, and to other countries. It is a very complex situation. I think the information is neither timely, not very accurate, and the coverage is not very good.

Chairman HUMPHREY. That's on fertilizer?

Dr. HATHAWAY. That's on the fertilizer part. But my feeling on the food information and the early warning, the FAO system is substantially improved in terms both of its coverage and its timeliness.

Chairman HUMPHREY. Your feeling is that as a reserve food country and one that significantly contributes to agricultural trade, that the effectiveness of FAO's system should be of vital concern to us?

Dr. HATHAWAY. I do, indeed. Because as you pointed out in opening, India last year was the largest purchaser of wheat. As one looks at the potential developments in the world over the next decade, it is increasingly likely that the developing countries, some of them with ample foreign exchange reserves, will become increasingly major customers of the United States. And it is important that they have this information, just as vice versa.

And equally important, I think, that we put pressure on their governments to do a better job of crop reporting and a more realistic job of estimating their needs.

Chairman HUMPHREY. All right.

Mr. Cordaro, do you have any questions you want to ask to Mr. Hathaway?

By the way, Dr. Hathaway, we are very appreciative of getting your statement early so that we summarize and digest it. We are getting very close to finishing this assessment, aren't we?

Mr. DADDARIO. Once these hearings are over with, Senator Humphrey.

Chairman HUMPHREY. And the emphasis that you can bring to us is most helpful.

Mr. CORDARO. Mr. Chairman, I would like to ask one question. It's very relevant to the foreign assistance bill that is now pending.

Dr. Hathaway, is it possible to be more specific about what kind of technical assistance or training or use of technologies that AID, through our foreign assistance program, should emphasize in working with developing countries to improve their information systems capabilities ?

Dr. HATHAWAY. Well, as I state in here, the gathering of accurate and timely information is just not a glamorous job wherever it's done. It generally does not get a very high priority in any country, including our own; because until you get in a crunch and the decisionmakers need it, information gathering does not get high priority. It seems to me that in our foreign assistance program, we should repeatedly remind the decisionmakers in other countries that they cannot make rational food policy without better information about their own food situation and the world food situation, and then work either directly with them, or through the international organizations to provide the technical expertise that will provide it.

We also have a question of some countries which, for their own reasons, will not, disclose, to FAO even though they are members and cooperating members, all of the data and their crop estimates. And my impression is that we ought to put more pressure on such countries to be fully cooperative in terms of projections.

Chairman HUMPHREY. Would it be desirable to ask the United States to have copies of agricultural attache reports sent directly to FAO at the same time they are sent to Washington?

Dr. HATHAWAY. I believe that there is some exchange of information, in fact, a good deal of exchange of information from the attache reports to FOA now. I do not know as to what the timing of that flow is. Dr. West or Dr. Paarlberg, I think, could inform you on that.

But it seems to me that it is pretty important that the United States cooperate fully because in many cases, our attache estimates, I believe, are some of the best estimates in the developing countries.

Chairman HUMPHREY. I think that's perhaps the best information that we are able to get.

I'd like to make sure that for the report on the bill we get a statement about the cooperation of AID in the agricultural title of the act. to emphasize the development of information capability along with the productive capability of those countries. We tied in a new title on our Foreign Assistance Act, as you know, on the land-grant colleges. They could be very helpful.

Dr. HATHAWAY. Yes, indeed.

Chairman HUMPHREY. Dr. Wilcox, do you have any questions?

Dr. WILCOX. Well, since Dr. Hathaway represents a new institution, wouldn't it be beneficial to have him put in the record a statement describing it?

Chairman HUMPHREY. Could you give us some idea of the purpose and objectives of the International Food Policy Research Institute?

Dr. HATHAWAY. Basically, if you don't object, I have a very short statement I would put in the record; and to summarize, we are a newly organized—

The International Food Policy Research Institute I—nonprofit research and education institution, located here in Washington, to do research on the major food policy issues, international in nature, concentrating on certain key issues relative to the potential problems faced in feeding the population of the developing world.

Mr. DADDARIO. Dr. Hathaway, you made what I believe is a very interesting point on the need for the United States to take the lead in developing the statistics and the ways and means by which the statistics are developed in the developing countries, because they don't have the capabilities.

What are the problems that you see in stating that we should take the lead? Perhaps that's an easy thing to say. But what do you see as the problems in their willingness to do that, a concern about the size of the U.S. involvement in what they do, and in the problems in getting us to the point where that could be effectively done?

Dr. HATHAWAY. Basically, it would seem to me that one would approach it, if you are going to do it on a bilateral basis, by picking some countries which clearly are open and friendly and concerned about such matters, and entering into some kind of collaborative research as to what can be done with these advanced technologies under these conditions.

If you then can produce some results that prove that it can be done and that it is useful for the developing countries to have it done, then either through the international organizations or other countries I think will then become interested.

Right now I think part of the skepticism rests, in the countries that I have been working in, which is largely Asia, is that we are flying satellites around and looking at them, but they don't see anything coming out of that that tells them anything they want to know. And I think you have to start by saying: We believe we can produce information of importance to you in a collaborative way, and do it a piece at a time. It involves some fairly sophisticated research in the use of high-level technology under very difficult conditions.

Mr. DADDARIO. You foresee, then, possibilities in this order: Relationships with countries, with a country or two countries which were friendly, where some of the same problems exist in all types of developing countries, building a prototype of some kind which, over the course of a period of time, would show its effectiveness and show our own goodwill, something of that order?

Dr. HATHAWAY. And then possibly, for those countries which do have concerns about the United States, its size, its policy position, and so on, essentially make this technology available to one of the international organizations which other countries cooperate with on a continuing basis. But right now the international organizations do

¹ See p. 80.

not have the high-level technology and the funds to carry on large-scale experimentation on some of these things.

Mr. DADDARIO. And even though that large-scale experimentation would be quite costly, If you take into consideration your concerns, if it would be able to be done, what would be your guess as to the ultimate tradeoff in cost?

Dr. HATHAWAY. It might be very positive, because if one finds that a country with a very large population suddenly discovers that it has a massive shortfall and we are either forced to step in with large-scale foreign aid or the countries that can have a major impact on the market, if they have the foreign exchange--It seems to me that we can avoid the kinds of fluctuations in our market and the unplanned actions that have been a concern since the shortfall in the Asian rice crop. It can easily, in a bad monsoon year, be roughly the equivalent of the shortfall in the Russian wheat crop; and many people in those countries are living on a margin of subsistence and somebody in the world is most likely going to have to make that up, and that means the United States, in large part under the current situation.

Chairman HUMPHREY. This is valuable information. I wish that every Member of Congress could know this. You would be surprised at the problems we have trying to convey the sensitive nature of the food supply situation.

Just as you have indicated, it is entirely probable in the rice-consuming areas, to have a bad crop. It is not unknown. In fact, it is more common than uncommon. The American rice crops often provides the necessary reserve. Fortunately, we have a big rice crop again this year.

Mr. DADDARIO. Well, if we were to follow this suggestion and develop this prototype, would the development of this be useful?

Dr. HATHAWAY. I think the technology itself--and I am not well informed at all on this--but the technology itself, of getting accurate estimates on very small farms which are under water, anywhere from 4 inches to 4 feet, is something else from getting accurate estimates in Kansas or the Ukraine, that's all.

Mr. DADDARIO. Well, it is a use of the technology in a different way than we are presently using it.

Dr. HATHAWAY. Much more complex. Multiple crops on the same land at the same time in different growing stages. I think it is a technological problem as much as a--as an international problem of the use of such technology if it were available.

Chairman HUMPHREY. When you see multiple cropping in China, for example, you see two or three crops in the same row and all at different growing stages. It is remarkable. I don't think any satellite is going to pick that out very well. Someone must walk around to see this and feed that information in at this particular time. We are just beginning to experiment with double cropping.

Thank you very much.

Dr. HATHAWAY. Thank you, Senator.

[The prepared statement of Dr. Hathaway follows:]

STATEMENT OF DR. DALE E. HATHAWAY, DIRECTOR, INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

Senator Humphrey, members of the Technology Assessment Board, I am pleased to be able to appear before you to comment on the world food, agriculture, and

nutrition systems, a matter of significance to all concerned with food policy decisions at the national and international level. Since others will be discussing the information and analytical systems of the U.S. Government, as requested by Chairman Teague in his letter of August 29, 1975, I will concentrate my comments on the expanded Global Information and Early Warning System on Food and Agriculture of the Food and Agriculture Organization of the United Nations (FAO). At the outset, I should like to make it clear that I speak as the director of a newly formed, independent research institute keenly interested in, and dependent upon the statistics available from such sources; and not as a representative of any government or the FAO. I have, however, had the full cooperation of the North American Office of FAO and of FAO officials in Rome regarding the nature of and plans for their food information system ; but, they have no responsibility for my comments.

First, it should be noted that the FAO took the initiative in this area prior to the World Food Conference in November 1975. FAO recognized that an adequate World Food Security Programme required accurate and timely information on world food conditions. Thus, the improved system called for by the World Food Conference in Resolution XVI was already being planned before that Conference, and it was endorsed in principal by the FAO Council in its November 1974 session immediately following the World Food Conference. Thus, the system we are discussing is not merely a hasty reaction to a current crisis, but expansion and improvement of a system that has evolved from FAO'S long history of dealing with food problems and the related policy decisions.

Second, it should be noted that most of the problems and deficiencies I shall mention later are largely those faced by any attempt at collection and dissemination of data from a large number of governments with diverse information assembling capabilities and dissemination policies. Partially these deficiencies can be attributed to the limitations on FAO action inherent in an international or inter-governmental organization.

At the outset, I should like to comment on the use of information and analysis in policy making. I shall start with the obtaining and disseminating of information and later discuss analysis and use of the available information.

Presumably we are talking about current information that is of value to policy-makers in current policy decisions.

Information for policy making purposes ideally must be timely, adequate in coverage, and accurate. On the face of it, this seems to be obvious, but a failure to distinguish among these characteristic and their importance can cause confusion, malallocation of scarce resources in the information-gathering field, and a failure to recognize where the major efforts for improvement should be placed. Let me illustrate the difference.

Timeliness is the most obvious and widely recognized attribute of information for policy makers. It is of little help to find out that the grain crop in a major producing country has failed some time after they have entered world markets and made major purchases. It is of no great help to find that a portion of the population in a country, large or small, faces starvation due to crop failure when it is too late to effectively mobilize national or international emergency relief programs.

The adequacy of the information is a different matter entirely. Adequacy relates both the items covered in the information system and the extent of the coverage. Moreover, adequacy must be judged relative to the policy actions contemplated. From the standpoint of international production, trade and aid policies, it is completely unrealistic to talk of an adequate food information system that does not have timely and reasonably accurate information on agricultural conditions in the world's second and third largest grain-producing countries—the USSR and the People's Republic of China. On the other hand, the absence of such data from a country whose population or food production is small is not of major significance to world markets and to other countries' well-being. Thus, the adequacy of data for countries with small production and consumption levels is primarily their concern, and if they choose for one reason or another not to provide such information, they are more likely to be harmed as a result than is the rest of the world. On the other hand, timeliness of information provided is just as important for small countries as large ones when issues of food aid, disaster relief and similar matters are involved; a starving person in a small country is just as badly off as one in a very large country if food aid arrives too late. Thus, timely information is essential for the effective operation of world food programs or a bilateral aid program,

Accuracy of information is always of importance to policy makers, but here again it relates to magnitude of the populations and production involved. A ten percent error in production estimates for large countries such as India, the USSR, China or the USA creates substantially greater problems for world policy makers than a 50 percent error in the production estimate of a country that produces or consumes a few hundred thousand tons of grain annually. Unfortunately, statisticians are often more concerned about estimating errors than policy implications of such errors and thus may be overly concerned with accuracy in some cases.

Thus, for a food information system to serve the needs of policy makers it needs to be timely for all countries; to be adequate, it needs to provide a wide range of information for those countries whose actions and/or needs can have a major impact on world markets; and it needs to be accurate in most respects for those countries that can or are likely to affect world markets. Of course, for national purposes all countries would benefit from timely, adequate and accurate information; but from the point of view of international policy makers the importance of adequacy and accuracy of food information regarding other countries varies greatly depending upon the nature of the policy issue involved.

With these comments as background, let me review briefly the status and plans of FAO for its Global Information and Early Warning System. In the past the FAO and the U.S. Government were the two major sources of world food information. The FAO statistics were published annually in *The State of Food and Agriculture*, and their various statistical publications. The statistics were generally a year to eighteen months old and thus failed to meet the criterion of timeliness.

The *Monthly Bulletin on Statistics*, the Early Warning System, and commodity publications provided more current data, especially in recent years on particular commodities and commodity groups. The new food information system represents a step forward in providing a greater emphasis on a more coordinated and timely approach.

The new FAO food information system has four basic types of output: 1) the food situation and outlook series, 2) an early warning of food shortages, 3) information on food stocks and food aid, and 4) fertilizer and pesticide information. Let me comment on each.

THE FOOD SITUATION AND OUTLOOK SERIES

This now consists of monthly, quarterly and ad hoc reports. They cover the food supply-demand outlook in light of changes in production prospects, prices, policies, sales, stocks and the availability and prices of key inputs such as fertilizer, pesticide, shipping, etc.

The Food Outlook Quarterly has now been published twice, the last dated August 25, 1975 and the next scheduled for release November 28, 1975.

The monthly Food Situation Report presents, more briefly, developments during each preceding month on factors affecting the world food situation, covering much the same material as the Quarterly, updating those items which have changed from the previous report.

My appraisal is that this new series will solve the timeliness problem to a large extent. Its gaps are in adequacy and accuracy, neither of which is the fault of the persons who produce the reports. In terms of the range of information covered, the adequacy is excellent; but in terms of world coverage, it is inadequate because the USSR is not a member of FAO and has thus far been no more cooperative with them than others regarding this information. The People's Republic of China, although a member of FAO, has not yet seen fit to provide the information requested for the system. Thus, the FAO food information system, in common with others which are generally available to most governments, is totally inadequate in terms of coverage of two of the world's largest agricultural producers and consumers. Until these countries choose to cooperate, no system can be adequate in terms of coverage.

Moreover, at the insistence of some Member Governments, statistics for a country may be, at the request of that government, only shown as part of area or world totals. This, again, limits the adequacy if the country is significant in world production, consumption and trade.

The problem of accuracy is two-fold. The first and most significant is the sheer inability to produce accurate information in developing countries with present indigenous technology. Despite the large quantities of technical assistance from FAO and national governments, the problem of producing reasonably accurate estimates in developing countries is enormous and far from solved. Hopefully, improved technology and more assistance can improve this situation. The World

Food Conference Resolution XVI establishing the Global Information and Early Warning System specifically requested governments to take steps to improve their data collection and dissemination services. Regular assessments of the effects of current weather on crop production was also emphasized.

Another accuracy problem arises because some countries simply do not want to admit that their agricultural economy is performing badly, and they do not report or are slow to report the facts regarding agricultural production. However, since FAO is governed and financed by its Member Governments, it must have a substantial basis to modify the official estimates of the Member Government, estimates that in the absence of objective statistics may represent hopes rather than actual achievements or expected performance. The reasons for such actions on the part of governments are varied and sometimes valid, but they reduce the accuracy of world food information.

EARLY WARNING OF FOOD SHORTAGES

A monthly summary of the latest information on crop conditions, weather and plant diseases, food deficits and availabilities in some 90 countries is published in Foodcrops and Shortages. This contains largely qualitative estimates of conditions including a rating scale of crop conditions, plantings, progress of harvest, and rainfall, plus comments or observations from FAO representatives, project specialists, World Food Programme officers and other sources.

The most valuable attribute of this portion of the system is its timeliness. The reporting of adverse weather conditions, natural disasters and other events which may affect crop availabilities and demands is a great aid to those who must make rapid policy decisions in advance of the final quantitative estimates.

The adequacy of information available in this part of the system varies greatly from country to country. This is partly a lack of an adequate support system and, in some cases, lack of country cooperation.

In the case of the early warning system, quantitative accuracy is almost impossible by definition. As yet the relationships between weather or insect and disease appearances are not well quantified, nor is a direct and stable relationship likely to be found in the near future. Thus, the qualitative estimates now used probably are as good as can be devised given the state of knowledge regarding these relationships.

FOOD STOCKS AND FOOD AID INFORMATION

World food stocks: status and evaluation reports were authorized by the FAO Conference of 1973; they include assessment of national stock targets and policies and the adequacy of world cereal stocks in the context of world food security; they also include data on storage capacity and facilities. The latest one was issued for the coming October meeting of the FAO Group on Grains.

The FAO Food Aid Bulletin issued quarterly since July 1970 provides information on bilateral and multilateral food aid transactions and food aid availabilities, based on notifications made by governments to FAO and data especially provided by international agencies concerned.

FERTILIZER AND PESTICIDE INFORMATION

The FAO fertilizer and pesticide information is an off-shoot of their newly established International Fertilizer Supply Scheme. Information on supplies, deficits, prices, contracts and capacities are monitored for the purposes of emergency operations under the scheme. A new quarterly fertilizer survey and other information-gathering activities have been initiated. Steps are being taken to develop a similar information system on pesticides.

In this area of key inputs, I must judge that the information is neither timely, accurate, nor adequate. The reasons for this vary. First, the production and distribution of these products are carried on by a mix of private and public enterprises, sometimes within the same country. Some countries, for their own reasons, do not divulge their current statistics on current status or plans even though they presumably have them. The private firms involved often are reluctant to disclose information which they believe may affect their competitive position. All in all, the situation is totally unsatisfactory in both current estimates and forecasts and the problem of accurate information an exceedingly difficult one.

As an illustration, in the months just prior to the World Food Conference in 1974, a series of estimates on world fertilizer production, use, availability and potential capacity in the short and longer run were prepared by several national

and international organizations. They varied widely in several aspects and changed markedly during a short period of time. The situation regarding pesticides appeared equally confusing.

It is clear that governments and the FAO need to spend much more time and money in devising and implementing an improved information system for this important area relating to agricultural production. I would expect it to be a difficult process, leaving aside the fact that some major countries may not wish to cooperate.

One final point on the FAO information system. By action of Member Governments it is a closed system. By that I mean certain of the materials are limited in distribution only to participating countries and cooperating international organizations for their exclusive use. This includes the monthly Food Situation Reports, the reports on crop conditions and food situations by countries and the special reports. The Food Quarterly Outlook is distributed to participating governments, to nonparticipating governments which are members of FAO, and to cooperating international organizations.

Thus, most of the material produced by the FAO food information system is not available to the general public and media. This condition was imposed by some Member Governments which believe that a disclosure of such information would give an advantage to private traders and speculators.

My own view is that such restrictions on the FAO system are wrong and that more and better information widely shared would reduce the advantages of those who cause concern. First, the large private international traders have their own complex information system that gives them an advantage that better public information would reduce or remove. Second, the major destabilizing forces in the market are governments that operate state trading operations in secrecy. But, right or wrong, these restrictions on the FAO system do exist and are likely to persist.

I hope I have not appeared overly critical of the FAO food information system. It represents a marked improvement over what has existed, and if it were adequately financed and received the full cooperation of Member Governments, it would be of significant aid to national and international policy makers.

It appears, based entirely on an examination of FAO budget documents, that far too little budget priority is given to such work by FAO. For the system to work as effectively as it could, it needs at least regional, and generally country statistical representatives, to provide information and reports to the Rome headquarters. This is in addition to the persons at the regional level who work with countries on upgrading the timeliness and accuracy of country data. Given the magnitude of their task it would appear that the Rome staff needs to be expanded. But, this again is a matter for decision on FAO'S program of work and budget, a decision made by Member Governments and, unfortunately the provision of timely, adequate, and accurate food information is less visible and glamorous than other activities that compete for scarce funds.

THE ANALYSIS PROBLEM

Thus far I have commented upon the data base for the food information system of FAO. But, even if all the data were timely, adequate, and accurate the utility depends upon its use in policy analysis. Facts without analysis often are not much more use than analysis without facts. And as we have seen recently, even within the U.S. Government, the same facts can be interpreted differently and different policy conclusions reached.

Essentially competent policy analysis should present an in-depth analysis of policy options and their implications for the parties concerned. At this point one enters the area of who gains and loses by certain policies or lack thereof. Such areas are sensitive in that they involve national political decisions, and that may at times have adverse effects upon others.

In this area FAO faces a problem created by the nature of the organization. The reporting of facts is a much less sensitive area than analysis of what actions need to be taken by whom. Here FAO directly encounters sensitive problems of national sovereignty. It is one thing to point out that there is a serious gap between the food and needs of the Most Seriously Affected Nations and another to suggest to the U.S. Government or to the EEC that they should do more in providing food aid. As I understand the rules of the game in international organizations, it is acceptable for one nation to publicly question another's

policy, but it is not acceptable for the staff of an international organization composed of member nations to do so.

Thus, I would think it is expecting too much of the FAO to provide substantial policy analysis which is explicitly critical of national policies. This means that policy analysis must rest with national governments and organizations outside the formal United Nations framework. This, of course, means that a substantial imbalance between nations occurs. The United States and many other developed, wealthy nations have a large core of trained professionals available to analyze the food information available to the government. Many developing nations have neither the trained manpower or resources for such analysis, nor do they always accept analysis done by other governments. The International Food Policy Research Institute represents a modest effort to redress that imbalance. It is our intention to do such analysis and to collaborate with countries interested in such work and in developing such capabilities within their own countries.

WHAT CAN AND SHOULD THE U.S. GOVERNMENT DO TO IMPROVE THE WORLD FOOD INFORMATION SYSTEM?

The prime interest of the Technology Assessment Board, as I understand it, is to assess the food, agriculture, and nutrition information systems and recommend action that can be taken by the United States to improve them. I shall confine my comments to U.S. Government actions which would be of aid in strengthening the FAO food information system, assuming that others will concentrate on the U.S. system.

First, of course, the United States Government should continue to actively cooperate with FAO in exchange of information available. Possible problems involved in that cooperation can be best discussed by U.S. Government representatives who will appear before this group.

Second, I suggest the U.S. Government should use its power and influence as the world's largest grain exporter and the largest supplier of food aid to try to persuade other governments to cooperate with the FAO in the provision of the information necessary to make the FAO food information system more timely and adequate in terms of country coverage.

Third, I suggest that the U.S. Government efforts be increased to aid developing countries improve their food information systems. This aid should include the development of and training for the provision of standard, statistical report procedures; but, equally important it should involve the increased development of new and better information based upon the most advanced technologies. The U.S. capabilities in satellites, weather monitoring, and related fields needs to be more fully used in the food information field. To do so will require a substantial investment in research on weather-crop relationships, the use of satellites in conditions of small, fragmented, multiple-crop areas, and similar problems. This also involves sensitive problems of national sovereignty, and will require full cooperation with other nations and international organizations. Funding, and encouragement and leadership in that cooperation should be forthcoming.

Fourth, as a major contributor to the FAO and other United Nations organizations concerned with improved food information systems, the U.S. Government should take the leadership in ensuring that such activities receive the funds that an improved FAO food information system requires to become more effective. I am concerned that since the food information system of the U.S. Government is so good and also is undergoing substantial improvements there may be a tendency on the part of this government to have less concern for an effective international system. If my concern is correct, then an important point is being missed. Until and unless a large portion of the policy makers in all countries have equally good information, there is a continuing likelihood that actions on the part of others, possibly acting on the basis of inadequate information, will continue to be a major destabilizing force in world markets, food trade, and inhibit effective food aid actions.

In summary, great progress has been made in recent years in providing an improved world food information system. Much more needs to be done in order to make the system adequate to meet the needs of policy makers in the U.S. and all other governments. The actions of the U.S. Government in this area can be an important factor in making the needed improvements.

[The following information was referred to on p. 73.]

ANNOUNCEMENT OF THE ORGANIZATION OF THE INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

In response to a recommendation of the Technical Advisory Committee of the Consultative Group on International Agricultural Research of June 1974, entitled Proposal For A World Food Policy Institute, the international Food Policy Research institute (IFPRI) has been established.

The purpose of IFPRI is to undertake research on selected policy problems affecting the production, consumption, availability and equitable distribution of food in the world with particular emphasis on the needs of the low income countries and especially the needs of the vulnerable groups within those countries. Specifically IFPRI will work:

(1) to identify major opportunities for expanding world food production with particular emphasis on the development actions and policies best suited to remove present constraints to production and to establish the framework for the sustained use of the potential agricultural capacities existing in low-income nations;

(2) to determine and publicize those actions which could be undertaken and those policies which could be adopted by governments, regional and international agencies, to effect a continued increase in the quantity and quality of food supplies available to all people through enhanced food production, wider trade opportunities, and improved efficiency and equity in food distribution; and

(3) to provide information, an expanded base of knowledge and objective analysis of world food problems, and to indicate the opportunities and options open for their solution.

IFPRI has been established as a non-profit research and education institution under the laws of the United States of America. It is governed by an international board of trustees. The Board of Trustees currently includes the following persons: Sir John Crawford, Chairman; Ojetunji Aboyade, University of Ibadan, Nigeria; David Bell, The Ford Foundation, United States; Norman Borlaug, international Maize and Wheat Improvement Center, Mexico; Ralph Kirby Davidson, The Rockefeller Foundation, United States; Mohamed El-Khash, Arab Center for the Study of Arid Zones and Dry Lands, Syria; Nurul Islam, Bangladesh Institute of Development Studies, Bangladesh; Affonso Pastore, University of Sao Paulo, Brazil; Andrew Shonfield, Royal institute of international Affairs, England; Ruth Zagorin, International Development Research Centre, Canada.

In addition to the above trustees invitations have been issued to others, primarily from developing countries, to join the Board of Trustees.

The trustees met July 21 and 22, 1975, in Washington, D.C. to discuss the initial plan of work and staffing pattern of the Institute.

The Board of Trustees invited Dr. Dale E. Hathaway to serve as the first Director of IFPRI. He officially assumed that position on a full-time basis effective August 1, 1975.

SOURCE OF FUNDS

The initial funds for the Institute's core budget have been provided by a grant from the International Development Research Centre of Canada. It is anticipated that the Rockefeller Foundation and Ford Foundation also will participate in the funding of the core budget. IFPRI has the legal authority both to receive contracts and to contract with other organizations for research. It is planned that, once the major staffing has been accomplished and the program of work developed, IFPRI will both accept and let contracts which are consistent with its mandate and the collaborative working relationships it wishes to establish at the national and international level.

THE STAFFING PATTERN

The staffing pattern that is planned for IFPRI is unique compared to most research organizations. The staff will consist of both social scientists and agricultural production scientists who will individually or cooperatively be responsible for research problem areas within IFPRI's areas of concentration. The long-term professional staff is expected to consist of 7-8 persons drawn from the international community.

In addition to the long-term staff the core budget provides for 1&12 short-term staff, drawn primarily from developing countries, who will have appointments from one to three years duration. This portion of the staff is expected to vary in