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INNOVATION IN NATIONAL ECONOMIC POLICY: BUT WARNING! EACH SOLUTION BRINGS NEW PROBLEMS*

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A seminar series like this carries two dangers. One is returning home all inspired and ready to introduce an idea that you've learned about, without thinking through how it fits your particular situation, or whether there may be serious side effects or longer-run repercussions to be avoided. At the other extreme is the danger of saying "That's all well and good for countries like the U.S. with money, technical capacity, a mature civil service, and stable politics, but--since my country is not like that--little that we've talked about here has application. And besides, when I get back home, I'll have all I can do just to keep abreast of routine paper work and the special problems that keep coming along, never mind trying to launch something creative and enduring."

In truth the usefulness of this kind of learning experience lies at a different plane. Hopefully your discussions with Dr. Breimyer, the other resource persons, and your fellow delegates have generated some new ideas about policy design that could appropriately be adapted to your unique problems. But that's not the main point. The lasting benefits of these discussions are probably more subtle--broader perspective about how particular programs relate to the development strategies of your country and to agricultural changes taking place elsewhere in the world ...greater sensitivity to the importance of taking human motivations and responses into account...a systematic thought-pattern for assessing proposals...greater readiness to learn from the experiences of others, yet the realization that there are no ready-made answers and that creative innovation on your own part may be

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needed. And--perhaps most important--this seminar experience hopefully will have generated in you a renewed spirit of vigor, purpose, and realistic optimism that will help you over the "humps" of frustration and uncertainty that may be encountered in months and years to come.

These are high-sounding words especially when in practice it is seldom that agricultural policy actions are reviewed and formulated in clean sweeps, and when it is equally seldom that any one government official--even at high levels--has the scope of authority and influence to initiate major new undertakings "on his own." Changes in policy directions and components usually come about in bits and pieces, often as outgrowths of immediate pressures or crises. Usually approval of a new venture requires agreement from several groups besides one's own agency--the finance ministry, the central planning agency, legislators, special interest groups, etc.--and exactly who needs to be involved in these decisions may in itself be unclear. And--even though you may have an innovative idea and the formal authority to go ahead with it--limited capability, the inertia of tradition, fear of displacement, and suspicion of your motives among persons within your own agency may be serious obstacles.

Most of the nations represented in this seminar are placing considerable emphasis these days on development planning. Preparing such plans is very helpful in rising above day-to-day activities to assess the long-run emphases and agency interrelationships that would be best. But putting these intentions into practice usually depends on initiatives being taken, and further details worked out, by individual officials operating under the kinds of constraints mentioned above. And it is also true that some of the most significant policy-action improvements can come about through changes in the way that <u>existing</u> programs are handled, rather than there necessarily having to be new legislation, or another agency, or additional funds. So, despite the limitations of your authority, time and resources, chances

are that you will be in a unique position to do something toward improvement of at least one phase of your nation's agricultural policies, through either your own initiative or your handling of special problems that come along. Making the most of these opportunities is what I'd like to focus on in the remarks that follow.

Setting the Stage for Continuing Innovation

At the direct action level there are two kinds of innovations that can be brought about:

1. Innovations in what to do--formulation and selection of basic strategies and programs.
2. Innovations in how to carry out these actions--improved effectiveness in organizing, timing, coordinating, and legitimating any chosen line of endeavor.

But equally important is the matter of generating an environment in your agency and other spheres of influence for creative change and response in the first place. Programs and procedures that are appropriate today may not be best for tomorrow; as has been stressed in this seminar, goals and feasible possibilities may change, lessons may be learned from experience, and unforeseen setbacks may occur. So, an underlying capacity and readiness to utilize the best insight available, to anticipate problems before they occur, to make improvements as need-be, and to keep sight of central objectives is essential.

Paving the way for such creativity may in itself call for innovative departures from the traditional ways that an agency does things. There is need for timely and accurate feedback from program workers and affected groups, so that emerging problems may be anticipated and averted. There is need to get at the heart of problems, rather than repeatedly trying to smooth them over through stop-gap measures. There is need to make use of the best thinking and experience available in your agency or others, and to encourage staff to take initiative consistent with

their capability, and to stand ready to buffer them from repercussions should well-intended actions go awry. There is need to make internal regulations, accounting procedures, staff motivations, and organizational structures work for you in positive fashion, rather than being obstacles that impede performance or adaptive response to new challenges. And beneath all this, there is need to generate a spirit of endeavor, centrality of purpose, and respect for one another's ideas--no matter how junior the person--that is conducive to greater achievement.

Special Problems of Older Institutions

Problems of maintaining vitality, keeping sight of objectives, and responding innovatively to changing needs are likely to be especially acute in agencies or projects that have been operating for many years. Self-perpetration and protection of "territory" may have become dominant concerns. Precedence and close ties with traditional interest groups may severely dampen proposals for new program content or approaches. There may be so much preoccupation with organizational maintenance--reports, internal control, staff benefits, public relations, etc.--that there is little reserve capacity for planning and execution of new endeavors. Many positions may be occupied by persons who have run out of fresh ideas, who are either discouraged or complacent, and who are reluctant to jeopardize their secure status.

Older agencies have some unique attributes too, such as experience and the reputation of previous usefulness to help buffer occasional mistakes. But the "hardening of the arteries" often found in such organizations can be frustrating to the official who would like to revitalize or reorient their work. Still, changes can be induced. Whereas major "reforms" in activity are likely to be resisted by leaders and personnel related to an aging program, the policy innovator can sometimes have success by working toward such shifts in small, less obtrusive increments. Earmarking additional funds and personnel for specific purposes is a second possibility, although this can create new rigidities that are hard to eliminate later on.

Requiring an agency to rejustify its programs "from scratch," as has been done to some extent in the U. S. in connection with PPBS, is another. Putting implementation of a new policy component "up for grabs" by the agency that comes forth with the best ideas is still another possibility.

Although the above comments relate to implementation agencies, some of the same problems and possibilities would apply also to well-entrenched legislative committees or political leadership groups that are concerned with policy formation itself. Actually, in this respect those of you who are from countries with recently formed governments, young programs and civil services, or fairly dynamic politics have some advantages. For you may have more opportunities than "mature" countries like the U. S. to introduce innovations in policies and programs while institutions are still in the process of jelling. And--more important for the long run--you may be able to establish procedures and precedents that pave the way for appropriate and timely response to the changing needs that are likely to emerge in years to come.[1/]

Capitalizing on Handholds

Even so, new ideas and plans are not often put into action in one clean, well analyzed sweep. Chances are that attention to a particular policy aspect will grow out of an immediate problem--demands from consumers to halt a sharp seasonal increase in food grain prices...a balance of payments crisis...unrest among low-income rural people...etc. Such pressures usually call for prompt relief, and proposed solutions often center around alleviation of symptoms instead of getting at the heart of the problem in enduring or efficient fashion. Meanwhile, the development planners and international assistance agencies are resisting departures from pre-established

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[1/] For some interesting points along this line, see Wallace S. Sayre, Organizing for innovation within government, Indian Journal of Public Administration 8(2): 137-152, April-June 1962. (Also summarized in AID's Development Digest 2(3):23-30, January 1964.)

goals and commitments.

So the challenge to creative ministry officials and advisors is: How to buffer such immediate problems and at the same time use these as opportunities to move a step forward toward longer-run policy objectives? Or at least, how to minimize the extent to which these stop-gap solutions are in conflict with the broader aims?

This isn't always easy, for an action that carries direct, quick benefits for a particular group is hard to retract in favor of more effective but less visible solutions for the longer run. And, once a precedent is set, the temptation will be for other groups to seek similar temporary helps when they are confronted with similar situations. Cases in point would be pressures for a government to stockpile a commodity to stabilize farmer prices during an unusually large harvest year, or to release farmers from loan-repayment obligations following a bad crop year.

But constructive things can be done in the midst of such pressures. It may be possible to establish a cut-off date for the temporary measure, so that the whole approach will soon be subject to fundamental reassessment. Or flexibility to make substantial modifications later may be sought. If it is a problem that is likely to recur in another place or in subsequent years, advantage can be taken of public concern to set wheels in motion for formulation of a more enduring solution or, at least, to build up more facts to provide a better basis for making decisions the next time.

Can Imbalance Be a Good Thing?

Indeed, it can be convincingly argued that it is from crises, pressures, and imbalances that the significant steps forward in agricultural development and stabilization take place...that, if everything were planned in completely balanced

fashion, there would never be the critical mass of public concern and policymaker attention needed to expedite funding and institutional innovation...that, if all possible complications were analyzed in advance, many productive actions would never be undertaken in the first place. Moreover, it can be argued, trying to avert all bottlenecks or adverse side effects can blunt the "cutting edge" of any particular endeavor by diffusing efforts in too many directions at once. Here, of course, we get into the whole question of "balanced" vs. "unbalanced" strategy that has received considerable attention in the literature of economic development.[2/]

This kind of issue comes to the forefront when thinking about "Green Revolution" strategies. In India, for example, there are those who say that the "second generation" problems--food marketing and input supply systems, spread of benefits to disadvantaged farmers, price and unemployment effects, etc.--should have been anticipated and dealt with simultaneously with the promotion of high-yielding production packages. Others say "no," the Green Revolution in India would never have come about if there had not been so concentrated a focus on food grain production during the 1960's. They would say further that the current concern in India with basic improvements in commercial agriculture infrastructure, commodity stabilization, and ways to help disadvantaged rural people would never have really been faced up to had not the massive breakthroughs in food grain production been generated.

Similar balance/imbalance issues arise in connection with other aspects of agricultural policy--for example, the question of whether to go ahead with land tenure reform without being prepared to provide farmers with companion extension help, credit, marketing services, etc...or to undertake a massive commodity stabilization scheme before administrative details have been worked out...or to

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[2/] See, for example, the writings of Albert O. Hirschman--The Strategy of Economic Development (Yale, 1958); Journeys Toward Progress (Twentieth Century Fund, 1963); Development Projects Observed (Brookings Institution, 1967).

start an irrigation scheme even though adequate funds to complete the project have not yet been obtained.

Whether it is better to prevent all anticipated problems beforehand than to move ahead and cope with bottlenecks and side effects as they arise is not something that can be determined definitively for all situations. In any one instance it's a matter of weighing the likely outcomes of a balanced approach--and the odds of getting it accepted in the first place--against the anticipated results and repercussions of a more disjointed approach. Comparing these kinds of strategy alternatives can become very complex, for it entails projection of not only interrelated technical and economic results, but also likely reactions of policymakers and affected groups. Here is an area of policy decision-making to which systems analysts may be able to make helpful contributions in years to come.

A major point that I would submit in connection with this balance/imbalance question is that PLANNING and IMBALANCE in policy execution are not necessarily incompatible with one another. An official may fully anticipate the bottlenecks or negative side effects that a proposed action will generate, yet still find it rational to let these come about intentionally as a strategy to generate threshold level of attention and/or to avoid excess dispersion of effort at any one time. And, if prospects are dim for gaining approval of a cohesive proposal, it could make sense to plan on introducing these actions in patchwork fashion, as adjuncts to responses to more immediate pressures that have some bearing on the same problem. But he needs to be very aware of the possible consequences of such planned imbalances should expected responses fail to materialize.

Utilizing Sources of New Ideas and Insights

Selection of ways to solve an immediate problem or to progress toward broad policy goals involves two elements: (1) formulation of appropriate action proposals and (2) some notion about what their likely outcomes would be. And these outcomes need to be viewed in the eyes of the specific groups who would be affected by the action and how they would actually react...not in terms of ideal response by some vague entity. In this policy design process several sources of creative thought and insight are usually available. Among others, these include:

1. Creative ability and technical insight in one's own agency.
2. Feedback from previous experience with similar programs.
3. Ideas and reactions of persons who represent, or who know, the groups that would be affected.
4. Proposals, and actual experience in other countries with similar problems.
5. Studies and expertise in universities and research institutes that have addressed themselves to the problem at hand.

Effective utilization of such sources can greatly enhance the design and evaluation of innovative action proposals. In this connection, let me mention just three points that may not have been covered elsewhere in this seminar.

First of all, one ought not overlook valuable sources of ideas and insight right in one's own organization. The temptation sometimes is to call in a panel of "experts" or to sponsor research when quite a bit of the needed information and analytical ability is already available. Getting the relevant persons together--without regard to their position in the hierarchy--to do some creative brainstorming about the problem and its feasible solutions can be a big step forward. This will often lead to much clearer pinpointing of the kinds of additional insight that need to be sought from outside sources, with resultant savings of time and expense.

Secondly, in looking to other countries for innovative policy ideas, the features of programs actually implemented are not the only things worth noting. For in the process of formulating or reassessing such programs there may have been much analysis that never was fully reflected in the actions chosen. Whereas for one reason or another some well-considered proposals may not have been accepted in that country, it could be that they embody elements very apropos for your own situation. For example, in the earlier decades of the 20th Century there was some very creative thinking among U. S. agricultural economists and leaders about fundamental approaches to take in coping with such problems as weak farmer bargaining position, land-use planning, and commodity stabilization...problems at the forefront in many other countries today. There were also some mistakes made that carry useful lessons for other countries.3/ Similarly, in the analytical attention that has been devoted to more recent U. S. issues--consumer protection, rural-urban adjustment, welfare reform, environmental quality, etc.--there may well be ideas of present or future relevance to your situation. By the same token, we ourselves are probably not doing as much as we could to learn from the ideas and experiences being generated outside the U. S.

3/Some references that discuss these earlier proposals, analyses, and actions are:

1. Earl W. Hayter, The Troubled Farmer, 1850-1900: Rural Adjustment to Industrialism (Northern Illinois Press, DeKalb, 1968).

2. George McGovern (ed.), Agricultural Thought in the Twentieth Century (Bobbs-Merrill, Indianapolis, 1967).

3. Henry C. and Anne Dewees Taylor, The Story of Agricultural Economics in the United States, 1840-1932 (Iowa State Press, Ames, 1952).

4. U. S. Department of Agriculture, Farmers in a Changing World, 1940 USDA Yearbook of Agriculture.

See also various issues of Agricultural History (a journal published by the University of California, Davis), as well as The Journal of Farm Economics (now called the American Journal of Agricultural Economics).

A final point on this matter of utilizing others' potential contributions: What about involving professors and advanced students in agricultural economics and related fields? If your country is like many, there are increasing numbers of such persons in the universities who have analytical skill to offer, time available, and genuine interest in doing research that is of practical value. Yet, because they are not close to policy-making circles, the theses and other studies that they undertake may not focus on the most critical questions or rest on relevant assumptions. You in the action and planning agencies, on the other hand, may be short on technical staff but have a better feel for the political and administrative realities. So, seemingly there could be mutual gains by encouraging informal collaboration in the analysis of policy problems...especially those related to longer-run concerns.

This may be true not only for faculty and students in your own universities, but also for your nationals who are completing graduate work abroad in the U. S. or elsewhere. By calling their attention to emerging policy analysis needs, you might encourage them to undertake thesis studies that would be of help to your agency. Even though such students are away from home, it could be that they have access to library facilities, computers, and resource persons that would enable them to make unique contributions.

Thinking of the scholars from various places who no doubt come to your country each year, this might also work in reverse. Instead of their doing studies of largely academic interest that tax your time and patience, many of them might be steered into lines of inquiry that are of direct assistance to your agency.

Putting Innovative Ideas into Action

Of course, effective design and selection of new policy proposals is only part of the task. Innovative achievement depends also on skill in legitimating, organizing, and phasing the new undertaking...the kinds of things that sociologists,

political scientists, and development administrators talk about. Here again it may be useful to draw upon outside sources of insight and ideas to augment those availab in your own agency.

One of the special difficulties in designing and introducing ideas that have never been tried before is that considerable degree of uncertainty about the outcomes will always be present. So, it may be expedient to test a new proposal on a limited scale before launching a major undertaking. This does not necessarily mean that all innovative changes have to be "frozen" in order to evaluate a particular idea in a rigid research setting. In fact, too much experimental control can lead to misleading conclusions. As pointed out by Arthur Mosher[4/] much can be gained by trying out innovative proposals as an integral and continuing part of on-going programs, with flexibility to improvise and improve on the idea as one proceeds.

The decision about how quickly to launch a major new undertaking entails a compromise. The more that one does in the way of fact gathering, analysis, and testing beforehand, the more effective the action and the more certain the results are likely to be. But this may be at the expense of delayed implementation and diversion of agency resources from other activities. So, it becomes necessary to make a subjective decision about the point at which to stop studying and to start doing. The urgency of alleviating the problem, the uncertainty of effects, and the consequences of making a mistake all are important elements in such a decision.

A Concluding Note

Hopefully all the attention that has been given in this seminar to systematic analysis, planning, and program balance doesn't unduly dampen your enthusiasm for moving ahead with creative undertakings. Nor should the impression be left that

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[4/] See Arthur T. Mosher, Administrative experimentation as a "way of life" for development projects, International Development Review 9(2): 38-41, June 1967.

persons like myself see it necessary for plans to be developed to the nth detail and adhered to in rigid, hard-boiled fashion. Quite the contrary. I sometimes think that, if change-agencies did all the analysis that economists and planners encourage, nothing would ever get off the ground. For the capacity of humans to "muddle their way through" unexpected difficulties is often surprising. There does need to be flexibility to take advantage of opportunities as they come along, even though information may be scanty. And, midst the concern for ultimate accomplishment, one would hope that there is empathy for, and responsiveness to, the immediate needs of people who find themselves in dire straits.

Nonetheless, an agency can't do everything at once, and responding to needs and pressures in helter-skelter fashion can carry serious consequences. Indeed, one's very compassion for alleviating the plight of hungry and poverty-stricken people makes it all the more imperative that a sense of overall priority and continuity of endeavor be retained.

So, hopefully in the final sessions of this seminar and as you return home on the plane, you will be stimulated to do some renewed thinking about the needs and opportunities in your own situation. What are the problems that deserve priority attention? Do you have some ideas that could usefully be brought to bear on these problems? What opportunities in the near future will there be to make at least a dent into these problems? What are the specific things that <u>you</u> can do something about in your leadership, advisory, or analytical capacity?

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INTERNATIONAL DEVELOPMENT HELPS U. S. AGRICULTURE

Summary

1. United States agricultural trade is growing. We are participating in a world-wide expansion of agricultural trade, and our share of the total has been increasing. United States exports of agricultural products have been going up by 6% a year, while the growth rate for total world agricultural exports was 4%. Imports of farm products into the U. S. have expanded also, but have been less than our exports for the past several years.

2. U. S. agriculture is vitally concerned with international markets. In 1971, 16% of all cash receipts from farm marketings came from exports, and for all crops, the export share was 35%.

3. An increasing proportion of U. S. exports of farm products are regular commercial transactions. The proportion moving through commercial sales rose from 65% in 1951 to 86% in 1971.

4. While a major part of world agricultural trade is among developed countries, the most rapidly growing sector is with the less-developed countries and is correlated with their economic growth. With economic development, countries can become better trading partners for the United States.

5. A major deterrent to expanded consumption of farm products in the developing countries is low income. With a given percentage increase in per person incomes, poor countries will use a large share of it for food. In rich countries, only a small proportion will be so used. Food exporting countries, like the United States, have a direct economic interest in improving the incomes of people in poor countries.

6. U. S. exports of farm products to the developing countries are expanding, while agricultural imports from them show little if any total growth. At present, we import more farm products from these countries than we export to them, but the gap is narrowing. Also, a large share of imports from these countries is non-competitive with U. S. production (bananas, tea, spices, rubber, etc.) and, since most of the developing countries are in tropical or sub-tropical areas, non-competitive "complementary" imports will continue to be an important part of our trade with them. It is true that there may be increased competition for some U. S. farm products, and U. S. producers will need to be alert to needs for production shifts to take advantage of new trade opportunities, and for increased production efficiency to remain competitive.

7. Because demand of U. S. consumers tends to be "inelastic" for farm products, a moderate amount of exports can result in a substantial improvement in U. S. prices of a product.

8. U. S. commodities with the greatest share of production exported in 1971 are: dry edible peas, 79%; rice, 62%; soybeans and meal, 53%, wheat and flour, 53%; cattle hides, 44%; tallow, 41%; raisins, 39%; cotton, 36% and tobacco, 35%.

9. Agricultural improvement in the less-developed countries requires new production inputs. These are creating expanded markets for U. S.-produced fertilizers, pesticides and farm machinery.

INTERNATIONAL DEVELOPMENT HELPS U. S. AGRICULTURE

(Prepared for the Council of U. S. Universities for Rural Development in India by David Brown, Univ. of Tennessee & O. J. Scoville, CUSURDI)

Will technical and economic assistance to developing nations help or hurt U. S. agricultural interests? As less developed countries become more productive and prosperous, what happens to their imports of farm products? What commodities will they want? Will "green revolutions" in these countries make them competitors with the U. S. for world markets?

These kinds of questions--along with humanitarian and national security considerations--come to mind when U. S. foreign aid programs are being reassessed. The notes that follow attempt to boil down data and analyses from USDA, FAO, and other sources that bear on these issues.

The Overall Picture

It is becoming increasingly clear that help to less developed nations not only is a key element in alleviating poverty among the people of these countries, but is also good business from the viewpoint of U. S. agriculture. Populations in developing countries continue to grow rapidly. People in these countries place high priority on eating more and better as their incomes increase. So, food consumption grows at a faster pace than agricultural production. People start to demand a wider spectrum of commodities than can be efficiently produced in their own countries. This often leads to more imports of basic staples during the "take-off" stage of development at least. And--as witnessed by the dramatic case of Japan and its imports of feed grains to meet new demands for meat--there may be a sustained growth in imports of commodities related to "luxury" consumption. Europe and other "developed" areas continue to account for the major portion of agricultural exports, but the rate of expansion is greatest among the newly developing nations.

World Agricultural Trade is Growing, and the U. S. is Expanding Its Share

The volume of world agricultural trade has been growing. Since 1955, world agricultural exports have increased at the rate of 4.2% a year. Over the same period, United States exports of farm products have gone up by about 6% a year.

Value of Agricultural Exports (Dollar equivalent)

Year	World	U.S.
1955	$30 billion	$3 billion
1960-64	39 billion	5 billion
1965-69	49 billion	6 billion

Imports of agricultural products into the United States have increased also, but the value of U. S. agricultural exports usually exceeds the value of imports.

An increasing proportion of U. S. agricultural exports are regular commercial sales:

	Total U.S. farm exports	Commercial $ sales	Under government programs
	-----Billion dollars-----		
FY 1951	3.4	2.2	1.2
1956	3.5	2.2	1.3
1961	4.9	3.4	1.5
1966	6.7	5.3	1.4
1971	7.8	6.7	1.1

Much of the World's Agricultural Trade is Between Developed Countries

The most important trading partners of developed countries are other developed countries. As a country develops, it becomes more active in international trade.

Of all the world's agricultural trade:

42% is between developed countries
24% is from low-income countries to developed countries
10% is from developed countries to low-income countries
6% is between low-income countries
18% is carried on with or among the Communist countries

Details of these transactions, for the 1965-69 period are shown below:

Exported from	Imported by: Developed nations	Less Developed nations	Central Plan nations[a]	World
	------% of world agr. trade------			
Developed nations	42	10	3	55
Less developed nations	24	6	4	34
Central Plan nations	5	1	5	11
World	71	17	12	100

[a]Includes USSR. Eastern Europe (except Yugoslavia), Mainland China, North Vietnam, North Korea, and Mongolia.

The Developing Countries are Increasing their Agricultural Imports from the Developed Countries

As incomes improve, the developing countries expand their international trade. Even though development increases agricultural output in these countries, imports of farm products usually expand. FAO figures show that, compared with the 1957-59 period, agricultural imports by the less-developed countries in 1968 had increased 59%, as against 34% for the developed countries. The rate of expansion was greatest in the Far East (up 66%, even excluding Japan) and the Near East (up 73%).

Imports by some developing or "recently developed" nations have tripled or even quadrupled during the past few years. For example, between 1962 and 1969, agricultural imports by Libya grew by 308%, South Korea by 290%, Taiwan by 194%, and Japan 103%.[1]

People with low incomes have a strong desire for more food, and a large part of any increase in income is used for farm products. Well-to-do people tend to use most of increased income for non-food items, or investment. So a rise in income in a poor country can result in a dramatic increase in demand for food, even though some of it must be imported.

A USDA study of the 1957-64 experience of 66 countries documents this statement.[2] According to this analysis, as per capita incomes rose 10%, agricultural imports increased:

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1. FAO. Trade Yearbook, 1968 & 1970.

2. Arthur B. Mackie, Foreign Economic Growth and Market Potentials for U. S. Agricultural Products, USDA/ERS For. Agr. Econ. Report 24, April, 1965. John R. Schaub and Arthur B. Mackie, U. S. Agricultural Exports and Foreign Economic Growth, Agricultural Economics Research 19(2):51-59, April, 1967.

25% in low-income countries (under $200 per capita per yr., such as India, Korea, Taiwan)

11% in medium-income countries ($200-600 per capita per yr., such as Argentina, Greece, Spain)

8% in high-income countries (over $600 per capita per yr., such as Canada, France, Sweden)

In other words, agricultural import growth was more than proportional to income gains in the poorer nations and less than proportional in the richer nations.

Several low-income countries, including India, Pakistan, Philippines and others, are reporting large increases in production of food grains from the use of new, high-yielding varieties of wheat and rice and better practices. Does this imply that the less-developed countries will be making serious inroads into the exports of farm products from the United States and other developed countries? USDA projections for 1980 are that less developed countries can potentially make modest contributions to world trade of wheat, coarse grains, and rice. But--with the possible exception of coarse grains--they as a group would probably still be net importers of these staples.[1] As a group, the rapid expansion of farm production in these countries is barely sufficient to keep up with population growth. (See Figure 1 and Table 1.) Between 1955 and 1965-69, total value of farm exports from the less-developed countries increased only 22%, and their share of the world farm export market declined from 45% to 33%.

Benefits to U. S. Agriculture from Increased Trade with Developing Countries

U. S. agriculture is vitally concerned with international markets. In 1971, 16% of all cash receipts from farm marketings came from exports, and for crops, the share was 35%. From 1951 to 1971, the value of U. S.

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1. For more detail See:

Arthur B. Mackie, Patterns of World Agricultural Trade, op. cit.

Arthur B. Mackie, Changing Patterns of U. S. and Worldwide Agricultural trade, op. cit.

Anthony S. Rojko and Arthur B. Mackie, World Demand Prospects for Agricultural Exports of Less Developed Countries in 1980, USDA/ERS For. Agr. Econ. Report 60, June 1970.

Raymond A. Ioanes, Implications of the Green Revolution on U. S. Farm Exports, Remarks for the Southwest Agricultural Forum, Tulsa, January 28, 1971. (Copies available from the Publications Office, Foreign Economic Development Service, USDA.)

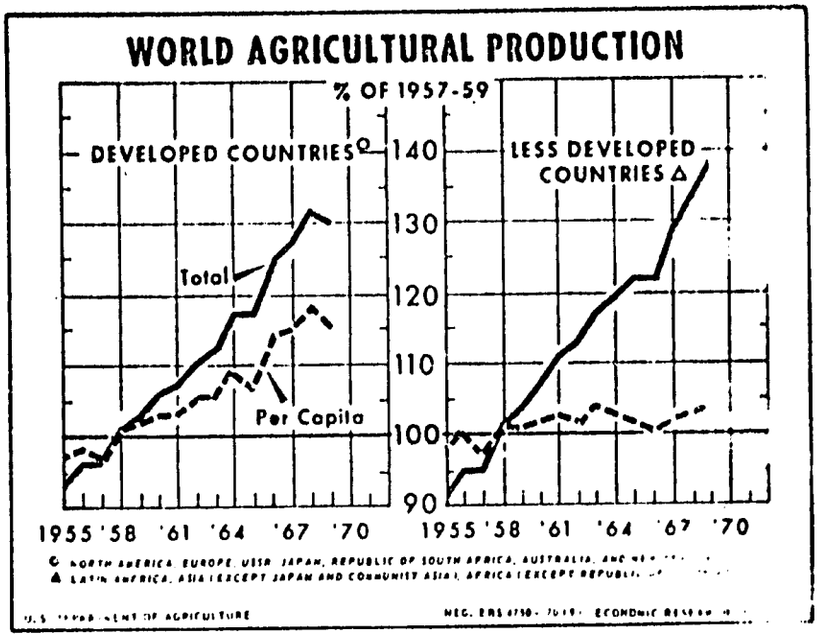

Figure 1

Table 1. World Agricultural Production, 1954-69

(1957-59=100)

Year	Total agricultural production					Agricultural production per capita				
	World[1]	LDC's[2]	Developed countries			World[1]	LDC's[2]	Developed countries		
			All[3]	United States	Other[4]			All[3]	United States	Other[4]
1954	88	89	87	93	86	95	98	92	100	90
1955	92	91	93	96	91	97	98	97	101	94
1956	96	95	96	97	96	100	100	98	100	98
1957	96	95	96	95	97	98	97	97	97	98
1958	101	101	101	102	101	101	101	101	101	101
1959	103	104	103	103	102	101	101	102	103	101
1960	106	107	106	106	106	102	102	103	103	104
1961	108	111	107	107	107	102	103	103	103	103
1962	111	113	110	108	111	103	102	105	101	106
1963	114	118	112	112	112	103	104	105	103	106
1964	118	120	117	112	119	105	103	109	102	111
1965	119	122	117	115	118	104	102	107	103	109
1966	124	122	125	114	129	106	100	114	101	118
1967	128	128	128	118	132	107	102	115	104	119
1968	132	133	132	120	136	109	103	118	104	122
1969	133	138	130	121	133	107	104	115	104	118

[1] Excludes Communist Asia.

[2] Less-Developed Countries: Latin America, Asia (except Japan and Communist Asia), Africa (except Republic of South Africa).

[3] North America, Europe, USSR, Japan, Republic of South Africa, Australia and New Zealand.

[4] Canada, Europe, USSR, Japan, Republic of South Africa, Australia and New Zealand.

Source: USDA Agr. Handbook 397, 1970. p. 48.

farm exports grew from $3.4 billion to $7.8 billion, and the proportion moving through commercial sales increased from 65% to 86%.

In 1971, the leading commodities in U. S. export value were:

Soybeans	$1.9 billion
Wheat	1.2 billion
Corn	0.8 billion
Meat animals	0.7 billion
Tobacco	0.6 billion
Cotton	0.6 billion

The commodities with the greatest share of production exported in 1971 were:

Dry edible peas	79%
Rice	62%
Soybeans and meal	53%
Wheat and flour	53%
Cattle hides	44%
Tallow	41%
Raisins	39%
Cotton	36%
Tobacco	35%
Hops	32%

The volume of farm exports is growing, both to developed and less-developed countries (Figure 2). At present, the value of such exports to the developed countries is about double of that to the less-developed ones, but the latter are increasing their imports from us more rapidly.

We import more farm products from the less-developed countries than from developed countries, but imports from the less-developed countries tend to remain at a constant level, while imports from the developed countries have shown steady growth (Figure 3). It should also be noted that

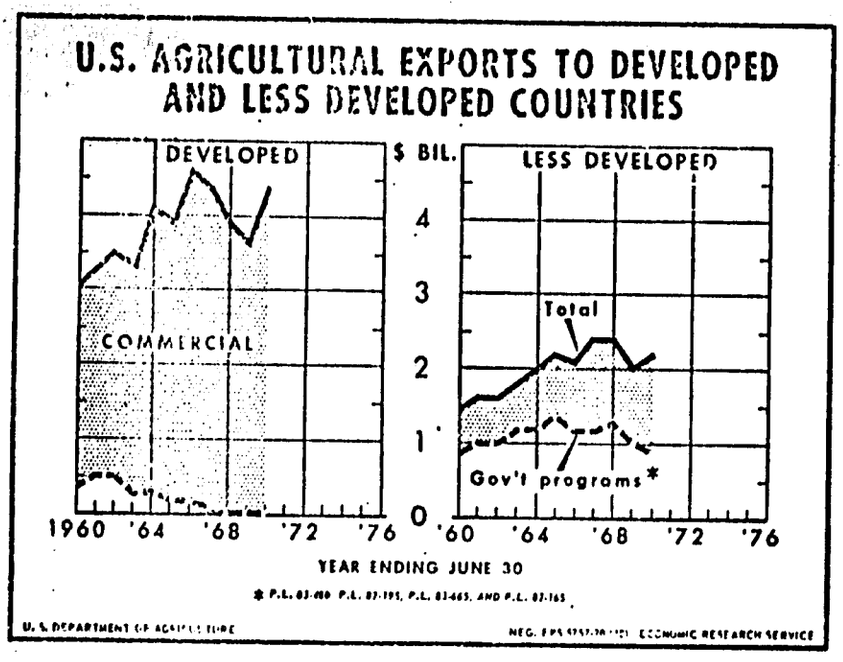

Figure 2

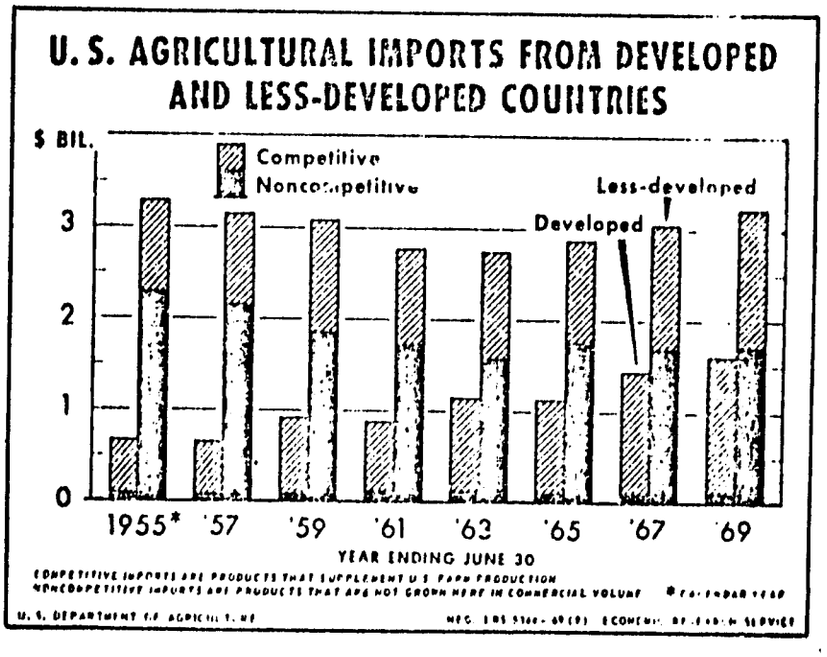

Figure 3

Source: USDA, Economic Research Service

a large share of agricultural imports from the less-developed countries is non-competitive with U. S. production--bananas, spices, tea and rubber, for example. In contrast, a very high percentage of agricultural imports from the developed countries is a competitive supplement to U. S. production.

U. S. agriculture stands to gain from accelerated efforts to help less-developed countries to improve their productivity and well-being. But such benefits will not come automatically. U. S. agriculture needs to be adaptable in two ways:

1. It needs to be responsive to the fact that the nations with the most dynamic import demands will be different from decade to decade, and that the pattern in any single nation will change from one development stage to the next.

2. It needs to foster adjustments and efficiencies within the U. S. appropriate for meeting these demand changes.

Both of these, of course are not unique to international trade. Similar elements of change confront U. S. agriculture in maintaining viable response to domestic changes, too.

As a nations's economy evolves, the character of its food supply-demand pattern also changes. At any one time its food imports will reflect some combination of three elements: (a) meeting basic subsistence needs during "emergency" periods; (b) augmenting supplies of basic foods when demand growth is outpacing domestic agricultural production; and (c) meeting emerging tastes for higher quality or new kinds of food not readily produced domestically. Some countries, like India, have been emphasizing (a), but are now primarily concerned with (b). Others, like Japan, have "settled down" to a sustained emphasis on (c). So the U. S. needs to be alert to shifting trade opportunities as a result of these changes. What used to be a dynamically expanding market may no longer be so; new development in other nations may be taking place that pave the way for expanding trade there.

The ever-changing nature of world demand and competition can, of course, generate severe short-run adjustment problems to producers and handlers of some U. S. commodities from time to time. (e.g., the current competition from Mexico in tomatoes). But this challenge of keeping long-run comparative advantages in view and adjusting appropriately would have to be reckoned with even if there were no foreign trade. And such changes and competition abroad can sometimes be turned to U. S. producers longer-run advantage in that they stimulate greater efficiencies that not only retain foreign markets but open up new sales opportunities in the U. S. itself.

The foregoing has stressed the effects of development abroad on demands for agricultural commodities. In addition to the value of export sales, expanded shipments abroad will tend to strengthen domestic prices of many commodities directly concerned, and also the prices of substitute commodities

(e.g. export of corn will strengthen the price of other feed grains). The fact that demand for basic commodities tends to be "elastic" in low-income countries, whereas it is "inelastic" in the U. S. serves to amplify trade effects. A relatively small increase in exports of wheat, for example, can significantly strengthen its U. S. market price.

Other Benefits from Agricultural Development Abroad

Accelerated development of other countries carries additional benefits to U. S. agribusiness interests in that demands of agricultural inputs and services also increase. Between 1949-51 and 1966-68, fertilizer consumption in the LDC's grew from 0.8 to 6.7 million metric tons--an average annual increase of 13%, as opposed to 7% in the developed countries. During the same period, tractor use in the LDC's went from 197,000 to 906,000--a 9% increase per year. Though not large in absolute terms, growth in imports of fertilizers, insecticides, and farm machinery has in some LDC's been marked. For example, between 1962 and 1969 these imports expanded 475% in Cameroon, 466% in Libya, 298% in Pakistan, 288% in Turkey, 286% in Thailand, and 249% in South Vietnam.[1] U. S. agribusiness firms are sharing in the growth of markets generated by increased input demands.

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1. See:

FAO, The State of Food and Agriculture, 1970, pp. 141-42.

FAO Trade Yearbook, 1970, Vol. 24.