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# HELPING NEEDY COUNTRIES DEVELOP THEIR AGRICULTURAL RESOURCES

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As will be revealed in the discussion which follows, I hold three convictions with respect to the U.S. role in helping needy countries develop their agricultural resources. These are:

1. While many of the major problems of developing countries are structural, our obvious comparative advantage in assisting these countries is in the technical area.
2. Success in technical agricultural assistance through research, education, and training provides an entree for meaningful research and analysis in structural and policy areas. While regional and international centers can work in the technical areas and gain acceptance of their findings across national boundaries, structural and policy matters have their roots and their solutions within individual countries. Thus, alternatives for solutions of major policy problems must come from indigenous institutions.
3. The United States has not yet created appropriate institutional arrangements whereby the potential contribution of land-grant colleges and universities can be brought fully to bear on development problems overseas.

As a point of departure so that our propositions may be fitted into perspective, I list the following factors which may be limiting agricultural resource development in nonindustrial nations. This listing is neither original nor discrete. Categories of items overlap each other. Priorities differ among countries. You will recognize that this draws upon the work of Arthur Mosher, F. F. Hill, and others.

## **Factors Which May Be Limiting Agricultural Resource Development in Nonindustrial Nations**

1. *Stability*—political and economic. This may be overriding. It cannot be assumed.
2. *Technology*—development, testing, dissemination of adapted production technology. Important also is capability to generate a sustained flow of such technology.

3. *Inputs*—cost and availability of purchased items. Especially critical are such items as fertilizer, seeds, chemicals. The role of the private sector here is generally inadequately understood. I regard the black market in such inputs in India as a favorable sign.

4. *Incentives* for farmers

Product prices (real), level and stability, market structure

Export market fluctuations; terms of trade. (U.S. farmers may be sensitive to this point, too, as exports approach \$7 billion annually.)

Domestic markets, consumer orientation. The industrialization push dictates cheap food to assure low-cost labor in expanding urban areas. The productivity route to lower food prices is less well understood or appreciated.

Taxes on marketings as revenue source. Before we condemn such policies, we must conceive of alternative sources of essential public revenue.

Factor prices.

Share of product to owner, tenant, laborer—tenure, one of the most generally recognized institutional problems.

Level of living of rural household—consumer goods, services, education. Is it possible to have the “good life” in rural developing countries, even if one is financially successful?

5. *Transportation*—a visible, yet important need if a commercial marketing structure is to develop.

6. *Processing* and marketing facilities. Involved here, again, is a potentially large contribution from the private sector.

7. *Extension* education. Important when adaptive research has advanced to the point that useful knowledge is available to extend.

8. *Education*—general opportunity to go to school; to capture this opportunity for mobility.

9. *Credit*—properly suited to farmer needs.

10. *Institutions*—conducive to modernization, growth.

Structural, policy “rules of game” under which production and consumption take place.

Resource ownership, tenure.

Group action by farmers—cooperatives, pressure groups.

### Some Propositions for Consideration of Those Who Would Help

1. Were time not a factor, principal assistance could be in education—development of the human resource. Prospective urgency is such that more rapid resource development is called for. The key factor here is not that thousands face starvation. Famines have been averted in recent years. But the world now *thinks* that a population-food problem exists. Hence the call for action.
2. Because it is physically and financially impossible to assist on all fronts, the *strategic input* approach has merit—given analysis which can identify bottlenecks amenable to solution. What are the strategic inputs? Have analysts the ability to identify them and assign priorities?
3. Outside assistance agencies—U.S. Government, universities, foundations—appear to have comparative advantage in:
  - Graduate level training of foreign students in the U.S.
  - Direct technical involvement in developing educational institutions overseas.
  - Physical and biological research of both adaptive and more fundamental types if requirements of *career service*, *continuity*, and *relevance* are met.
4. Outside assistance agencies can over time most effectively influence structural and policy change through involvement in research, education, and training (versus direct involvement in policy-making bodies of foreign countries). We have to reflect here on our own experience. Who makes policy in the U.S.? Just as we do not delegate this to foreign advisors or experts, so do developing nations properly reserve for their own citizens the key policy-making roles.
5. The productivity of outside assistance, in terms of short-run net additions to world food supplies, might be greatest in temperate-like areas. For example, total agricultural output of Argentina in 1962-64 is estimated to be only 14 percent above 1935-40 levels (crop output up 4 percent, livestock up 25 percent).
6. While significant opportunities do exist in Africa and in South America to bring new lands into cultivation, principal advances in agricultural output are likely to come by increasing the productivity of both the land now under cultivation and the people now on the land. Roughly two-thirds of the crop output

increases in Latin America during the last decade came from acreage expansion.

7. Direct transfer of agricultural technology, policies, and institutions, even to temperate-like areas, is limited. Indigenous continuing adaptive and primary research, analysis, and education are necessary.

Extension production education efforts in the absence of high-payoff, research-generated, tested technology is often disappointing. When a payoff of 2 or 3 to 1 is fairly sure, change appears to take place.

Given their environment and knowledge, producers usually have a rational reason for performing as they do. F. F. Hill puts it this way: "Even though the farmer may be illiterate, he can figure."

8. Trade and agricultural policies of industrialized nations are not optimum if our goal is acceleration of resource development in less industrialized nations. For example:

Domestic self-sufficiency via subsidized or protected high-cost domestic production (sugar).

Importation of raw materials rather than manufactured or semi-manufactured products.

Import quotas or threat of same (beef).

Food aid on concessional basis a deterrent to indigenous production.

### **Improving U.S. Effectiveness in Helping Needy Nations Develop Their Resources**

1. Insert the variable of *impact upon developing countries* into analysis of U.S. trade and agricultural policies, recognizing that in any given situation other considerations may be overriding.
2. Stress educational assistance for human resource development. Most developing countries have a substantial pool of capable manpower and underutilized natural resources. Expanded research and training opportunities, indigenous institutions oriented toward problem identification and solution, are needed.

Quality training in agricultural sciences to M.S. level and beyond, in the countries. A few good institutions which ap-

proximate international standards of excellence are of high priority.

International or national research and training centers focused on food production problems. The success of the International Rice Research Institute does not suggest this approach as the only model. But it, and a few more carefully planned centers, may be important in the world's kit of agricultural development tools.

Research, analysis within countries on structural, policy problems in alternative-consequences framework. Here my plea is that the research be narrowed to obtain understanding of essential building blocks. Neither the freshly trained Ph.D. citizen of the country nor the mature foreign technician can start at the global level. Yet this is the tendency. Those of us who would be advisors must *earn* the right to be heard. This requires personal, sustained submersion in root problems where they are.

3. Structure assistance to provide for sustained collaboration—decades, not years—by North American institutions, including AID, U.S. Department of Agriculture, colleges and universities, private foundations.

U.S. academic, educational community decide what type of involvement it wants. Are there frontiers of ignorance which sustained work overseas can help to push back? Is such work deserving of approval by one's "sophisticated" academic peers? If so, some changes are called for at home.

Articulation of capabilities, desires to electorate, U.S. Congress for appropriate legislation, fundings. This is a direct challenge to U.S. policy education. Nationally, no consensus seems to exist.

4. Reorient policies of international lending agencies to emphasize loans for building and equipping research and training centers; rapid development, perhaps with private sector, of input and marketing industries.
5. Improve communications, understanding of who is doing what, insights into strategic inputs. In the Manhattan project and in our space effort the U.S. mounted coordinated efforts directed toward defined objectives and has demonstrated her ability to perform. In the population-food problem, we have yet to give our efforts similar focus or direction.