

INTERNATIONAL ANIMAL AGRICULTURE IN TRANSITION;
THE U. S. AID VIEWPOINT*

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After World War II and the success of the Marshall Plan, the U. S. decided to give financial attention to less developed countries(LDCs), many with new political independence. There was considerable investment in development and adaptation of animal technology, alongside work with cereals, roots, pulses and other concentrated energy sources.

In more recent years, as the responsibilities of predecessor agencies and AID have broadened, relative investment by the U. S. in animal agriculture has declined. There are several additional reasons for the decline - - - accelerated population growth that intensified caloric need, breakthroughs in cereals production that might be replicated with other cereals and other regions, LDC cultures more friendly to cereals technologies and practices (less friendly to technologies and practices that would increase animal off-take), and higher visibility of increased cereals production.

Other reasons may be within the development agency. Impacts of investments in food crop systems come more quickly than with animals, making it easier to defend to administrators or Congress and more useful to support personnel promotions.

Today there are few animal scientists in the Agency. There are only two animal and three aquaculture professionals in the Science and Technology bureau and only two animal professionals assigned to animal support work among the three regional bureaus; one of them is on loan from USDA.

On the other hand, there are some very effective animal projects and strong interests in some missions. A recent review of mission documents in Washington by animal scientist Joyce Turk identified 27 animal projects among our approximately 70 target countries, and there are many more animal components in rural development and agricultural projects that carry other and broader titles.

The Small Ruminant Collaborative Research Support Project is very productive and eight missions recently asked that they be chosen to replace Peru as a participant.

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Our purpose here, however, is not to study project titles and classifications or lament relative lack of investment in animal effort in our overall economic development programs. Rather, it is to take a look at the future and what the animal sciences and especially the animal science societies can contribute to LDC economic growth.

First, I'll offer a glimpse of USAID. It is the lead U. S. agency for foreign aid, working closely with the Departments of State, Agriculture, Treasury, and others. A central purpose is to help developing countries achieve broad-based, sustainable economic growth. This means helping to increase household incomes and improve the human condition - - - that is, better nutrition, health, education, and physical and mental productivity of men, women and children.

USAID's programs contribute to world stability and advance U. S. foreign policy.

Within that USAID responsibility, the goals and directions of the food and agriculture programs have been clearly delineated.

The goals are: To increase the income of the poor majority and expand the availability and consumption of food while maintaining and enhancing the natural resource base. These three goals, you will recognize, are in the interest of both LDCs and the United States.

Because LDC economic growth is, to a considerable extent, the result of increased real family income, and because income is the major determinant of food consumption among low-income people, increased real family income is the primary goal.

When caloric intake goes from 1200 per day toward 1500 or 2000 and the diet provides adequate levels of quality protein, iron, Vitamin A and other nutrients, the health, physical productivity and mental productivity of men, women and children increase.

Food self-sufficiency for the LDC is not a U. S. goal. Most countries' comparative production advantages do not perfectly parallel their food demands. LDC and U. S. interests are better met by both using comparative advantage and free trade.

The natural resource base must be maintained and, in some cases, can be enhanced with prudent, sustainable food production systems.

The Agency has also judged that, in order to have most impact toward these goals, as countries advance, some shifts in programs are necessary. Though not all LDCs are making progress, many have and are. Family income has gone up in a succession of countries that have been recipients of development

investment - - Taiwan, South Korea, Indonesia, Thailand, India, Pakistan, and others

Among the shifts in food and agriculture programs delineated are:

Toward animal agriculture, aquaculture, and horticulture as consumer incomes and demand rise. In Taiwan, South Korea, and Thailand, swine and poultry production are advanced. Poultry meat and egg enterprises in Indonesia are growing rapidly. Even in Bangladesh, one of the lower family income countries with strong need for more calories, one sees delivery tricycles loaded with 30 to 35 frying chickens, legs tied and enroute to market.

Toward food processing, packaging and distribution as urbanization proceeds. More people are further from the raw food supply; this means more jobs in processing, preservation and distribution.

Toward consumption and nutrition enhancement as food supply becomes less limiting. When people get enough to eat, they then focus on quality - - putting emphasis on selecting or modifying foods for nutrition and acceptance, plus education and marketing.

These goals and directional shifts almost dictate that development efforts focus more on animal agriculture. Both LDC and U. S. interests are served.

Where demand exists for animal products, there is increased employment potential in animal production, in processing, and in the input industries. These jobs provide income to non-farm families, their demand increases, and the cycle expands. The higher economic multiplier of animal enterprises is well understood by economic planners and analysts in the developed countries; the same holds in developing countries that are making progress.

A fact that too few U.S. scientists or producers recognize is that in an advancing country, food demand outstrips supply even when per capita production is increasing. The reason is the more diverse diet - - largely the desired animal products that are produced by sharply increased use of feed grains and high protein feeds. Therein is a major illustration of mutuality of interest in LDC economic growth.

Not to be overlooked, of course, is the market that animals provide for grasses and other materials that humans can't or won't eat. It is important in the total LDC scheme, but because societal traditions in some LDCs are less friendly to adoption or adaptation of animal-related technology- - - no bank account to hold cash from offtake sales, prestige enhanced more

by herd size than offtake, communal grazing that limits reward to individuals for managed grazing - - - this biological feature of animals, alone, does not carry the day in persuading increased development investments in animal agriculture.

I submit that the emphasis in LDCs must be on family income, and the contribution to both farm and non-farm family income that animal agriculture and related business will make. Income is what increases human choices, enhances consumption (both quality and quantity), and creates demand. And, if we believe in free enterprise, we must believe in demand-driven businesses.

If demand is sufficient to suggest high reward, people will enter or expand the business.

In the case of animal agriculture, USAID, animal scientists, and other scientists with animal interests can give a lot of help.

Where are the technological, sociological, organizational, policy, or financial bottlenecks? The Agency organized an animal agriculture symposium in June of 1988, to identify the investment and program priorities for enhancing animal agriculture, for "breaking the bottlenecks." Excellent papers were presented by thoughtful and experienced scientists, some who are here today. We asked a small group to stay in session at the close of the symposium to record those priorities which AID should address.

I'll not repeat here the detailed conclusions or recommendations contained in the published proceedings. Rather, I will go a step beyond that; I will share with you the rather specific judgements made within USAID, largely as a result of that symposium, for its future work in animal agriculture. These judgements take into account the list of priorities from the symposium, as well as stated and unstated expectations of Congress and some unique skills and successes of the Agency.

It is our judgement that for animal enterprises to develop in advancing LDCs, the needs are, in general order:

A. Government policies that:

1. Free the price of milk, eggs, and meat.
2. Provide for dependable market reporting to producers and others (current prices, sales volume and supply).
3. Foster existence of efficient markets (perhaps auctions, terminal markets, local dealers, contract sales, and other).
4. Provide other incentives to maximize enterprise offtake, in preference to building herd or flock inventory.

B. Technology in:

1. Product quality and shelf life, to sustain or

increase demand, to insure consistent markets for producers, and to provide safe and nutritious food for an increasingly urban population.

2. Animal management and nutrition, to achieve good production levels and reproduction rates for both adapted and introduced stock. This includes pasture management, feed preparation and storage, and a feed pre-mix and manufacturing industry.

3. Animal health. The heat stable vaccine for rinderpest and the new vaccine for Newcastle disease in poultry will meet some of the needs. Parasite control is another major factor.

4. Animal reproduction and genetic improvement. This is exceedingly important, especially as investments in other areas cause progress. Genetic improvement is relatively permanent, can represent a quantum jump in production potential, both volume and product composition.

It is our judgement that development efforts should not exclude any major species, though type of investment may vary. We have this view of the specie groups, worldwide:

Poultry - Worldwide importance in development; accepted by all cultures. Adapted to both smallholders and large units. Both eggs and poultry meat provide cash flow.

Small ruminants (sheep, goats and others) - Important for meat, milk, and fiber in nearly all countries, predominant in some. Especially adapted to smallholders, in both intensive and extensive (open range) systems. Relative to cattle, provide quick cash flow.

Swine - Important in about half the LDCs. Their short generation time, prolificness, and rapid growth provide good cash flow. Adapted to both smallholders and large units.

Cattle - For both meat and milk. (With subsidized exports of dried milk from developed countries, however, dairy herds in many LDCs are not now competitive.) Accepted by all cultures. Less labor required per unit of production than for sheep and goats, but in some instances less adapted to smallholders.

Our judgement is that USAID should:

1. Continue to sensitize mission and bureau leadership and staff to the importance of animal agriculture in income generation and jobs, and how both policy effort and technology-related projects may help meet needs. The potential for policy impact is especially large.

2. Mobilize existing expertise (some Agency livestock and poultry specialists are now doing other things) and hire or contract with persons or institutions to provide expertise. Expertise available to missions should include:
 - a. Pricing policy for animal products.
 - b. Development of markets for animal products, both internally and external to the LDC. Market structures and types.
 - c. Market reporting systems.
 - d. Animal disease and parasitology.
 - e. Non-ruminant nutrition (swine and poultry) and feed manufacturing.
 - f. Ruminant nutrition (cattle, sheep, goats, water buffalo), including forage production and handling.
 - g. Animal reproduction and genetics.
3. Hold series of regional workshops for mission staff (and perhaps host country counterparts) designed to acquaint and reinforce staff with both policy and technology potential in animal agriculture.
4. Provide generous specialist support to missions for policy effort and also for project design and operations.
5. Publish two or three food and agriculture project reports (fact sheets) covering animal agriculture policy efforts or projects that have had positive impact on income and jobs, food availability (quality, in response to demand), and/or the natural resource base. These can be models for other missions and countries.
6. Arrange for some AID/W senior staff and U. S. industry groups, such as the U. S. Feed Grains Council and American Soybean Association, who are involved in animal agriculture development in LDCs, to visit two or three such country policy efforts or projects in order to share experiences and judgements and to discuss potential for complementary effort.

What is the role of the Animal and Dairy Societies? Should they consider a special unit or structure? USAID takes no position on the latter issue. I do encourage, however, continued active interest, involvement, thought and discussion by these societies and their members in international animal agriculture.