

Institutional Factors Limiting Progress in the Less Developed Countries

ERVEN J. LONG

*Director, Rural Development Service,
Office of Technical Cooperation and Research,
Agency for International Development,
United States Department of State,
Washington, D. C.*

Reprinted from AGRICULTURAL SCIENCES FOR THE DEVELOPING NATIONS,
Publication No. 76 of the American Association for the Advancement of Science,
Washington, D. C., 1964, pages 3 to 14.

A.I.D.
Reference Section
Room 1656 HS

Institutional Factors Limiting Progress in the Less Developed Countries

ERVEN J. LONG

Director, Rural Development Service, Office of Technical Cooperation and Research, Agency for International Development, United States Department of State, Washington, D. C.

THE TOPIC originally assigned for this paper was "Institutions for Agricultural Science, Technology, and Service in Developing Nations." With the consent of Dr. Moseman, who developed the program for this symposium, and our Chairman, Dr. Renne, I have changed the title to "Institutional Factors Limiting Progress in the Less Developed Countries," and in so shortening the title, enlarged the topic. I did so deliberately because, in the less developed countries, the special characteristics and problems which influence the effectiveness of institutions of agricultural science and technology derive principally from the general social and economic institutions of the country. By and large, in these countries the institutions of agricultural science and technology, and even the so-called "service" institutions, are historical transplants from a more advanced country, either directly borrowed by self-governing countries, or inserted into those countries under colonial rule. Therefore, the extent to which these institutions are less effective than in their parent countries results primarily from the fundamental characteristics of the country of which they are a part.

In the more advanced countries such as our own and those of western Europe, the institutions of agricultural science and technology are, inherently, genuine participants in their respective countries' national development processes, because they themselves grew directly out of those development processes. They were

The views expressed in this paper are those of the writer and not necessarily those of the Agency for International Development.

born out of the labor of development, took their shape and role from the needs of development, have been judged and supported in accordance with their contributions to development. In short, they are, and have been from the first, a central dynamic, organically internal part of the agricultural development process.

Not so, unfortunately, in the underdeveloped countries. There, such institutions have been developed to serve different roles, have been a part—largely an almost extraneous part—of a totally different type of society.

For these countries, the present is a period of profound transition. This must be a transition in the relationship of these institutions to their societies, not just changes in the institutions of science and technology themselves. This transition will call for the creation of some new, and radical modification of many existing, social and economic institutions, not normally considered a part of the formal institutions of agricultural science, technology, and service. Without such changes institutions of science will remain external skin grafts, adhering to, but not participating effectively in the development of, the societies of which they are a part. In short, in the absence of fundamental institutional changes throughout these societies, agricultural science will continue to preach its sermons to an empty house.

I believe that we must address ourselves to this basic issue, otherwise we shall be concerned with symptoms, not causes—with peripheral, not central issues.

I wish now to assert two underlying, basic propositions—propositions which I believe can be well supported but which time does not permit me to validate fully today:

The first proposition is that *economic underdevelopment is itself largely a consequence of institutional underdevelopment*. It is a result of institutions' being either nonexistent, inadequate, or improperly oriented to meet the needs of economic progress. In fact, there appears to be virtually no correlation of either the rate or the level of development with the resource endowments of a country. And there is even little, if any, correlation between development rates and the availability of hard currency capital. A glance at the underdevelopment of the petroleum and mineral rich countries of Africa and the Near East will confirm this observation. Indeed, the

type and level of institutional and human resource development appear to be about the only reliable indicators of progress.

On the subject of the present discussion, wisdom begins with the recognition that the institutional structures of the truly underdeveloped societies were evolved through the centuries to accommodate social objectives other than progress. Though it is an oversimplification, it is probably not greatly inaccurate to characterize the prime objective of such institutional structures as being *survival*—survival of the group, the society, the tribe, rather than of the individual.

I believe it is an axiom of biology that no species can survive unless it has achieved an accommodation to its ecological environment, and that this accommodation results in a system of restraints upon the species which keep it from getting out of hand. We often cover this concept under the term "nature's balance." Similar accommodations to their environments have been made by human societies. Since humans are intelligent, these accommodations are not purely biological; they have grown out of usage, and take the form of customs, sanctions, and laws of the society and of attitudes, motives, habits, and practices of the people. The entire institutional structure of a typical truly underdeveloped society, thus evolved to ensure survival of the group, does so by discouraging individual initiative which might risk survival of the group, by discouraging change which might threaten established order, by limiting decision making to the few conservative ruling elders rather than spreading it broadly or entrusting it to those young enough to be apt to try out new and dangerous ideas. In short, most institutions in underdeveloped countries are characterized by a specific forfeiture of progress in the interest of survival.

The Renaissance in Europe, culminating in the industrial revolution, shifted the goals of the human enterprise in Western societies—from survival through order, to progress through change. It is important to recognize that, even though centuries were required, the rupture of the institutional fabric of those societies necessitated by this shift in goals was so profound that history records it as an industrial "revolution."

The acceptance of *progress* as the central organizing ideal of human endeavor swept across western Europe and into much of

the New World with amazing speed and thoroughness, two and more centuries ago. Strangely enough, however, it left almost untouched until the last few decades the great masses of people living in what we now refer to as the underdeveloped societies. The prevailing attitudes and institutions of these countries are still largely pointed toward realization of ancient objectives.

But the concept of progress as an ideal has now caught hold in even the most remote nations. It is awakening the consciousness of the people in the huts, and even the consciences of the people in the palaces. As a political imperative, this commitment to progress by most underdeveloped societies is irrevocable. It remains to be seen, however, whether the depth of this commitment is fully understood by the emerging nations which have thus changed their primary objectives and, in so doing, their national values—whether, as Dr. José Marull has put it, they fully understand the price they must pay for the progress they seek.¹

For this leads to our second general proposition, that *countries wishing to jump into the stream of economic progress must be willing fundamentally to alter their institutional structures*. By its very nature, this proposition cannot be stated as a categorical imperative; it is relative, and meaningless apart from a specific reference. Nevertheless, it is clear that social, economic, and political institutions developed through an ageless past to achieve accommodation to an environment are ill equipped to serve as vehicles of controlled and creative transformation of the environment to serve human ends. It is important that those of us concerned with the development process face this issue squarely and choose sides, as it were, between the view that American and other so-called Western institutions cannot be transplanted, and the view that economic development of the less developed countries requires essentially this very process.

It is popular to say that our institutions must be "adapted, not adopted." This is, of course, true on its face. But what does it mean? Does it mean that we start from the premise that existing institu-

¹ José Marull, in "Discussion" of the writer's paper "The world agricultural situation as related to political and social trends," *Proceedings, World Food Forum, Commemorating Centennial U.S. Department of Agriculture, 1862-1962*, p. 104, Washington, D. C.

tional structures in underdeveloped countries are essentially sound and require only a little tinkering? Or does it mean merely that, obviously, we must properly accommodate the institutional transplants to their new settings in order to make them take root and grow into viable structures?

In my opinion, much of our country's success as a stimulator of progress depends upon the proper resolution of this basic decision. For if the earlier analysis is sound, *the institutional transformations and development called for in a typical underdeveloped country will be deep, profound, and far reaching*. To be sure, what will emerge will not look much like the U.S.A.; but if progress is to be the objective, the resulting institutions will differ even more profoundly in their fundamentals from those which now characterize those countries. It is not for us to say whether or not other nations should pay the price which such profound institutional reconstructions will demand. This is their choice. But intellectual honesty requires the recognition that economic progress has its price, and that this price is the deep-going transformation of inherited institutions, developed for other purposes, into a new set which will serve as effective vehicles of change and development.

THREE CATEGORIES OF INSTITUTIONAL IMPEDIMENTS TO RURAL PROGRESS

Space does not permit a cataloguing, much less an analysis, of all the institutions which must be either created or changed in order to achieve the necessary transformation of a typical underdeveloped society. Instead, I shall attempt merely a simple classification, with illustrations, of some of the types of institutional impediments to rural development of typical underdeveloped countries.

Institutions Which Inhibit the Play of Incentives

It flows almost as a conclusion from the foregoing discussion that institutions typical of an underdeveloped country inhibit the play of *incentives* in encouraging individual initiative—incentives to work hard, to save, to invest, to innovate, to take risks, to acquire

skills. Pointed as they are toward the survival of the species, these institutions place the emphasis on stability and security for the group rather than on rewards for innovations to the individual. This emphasis is not achieved by any single institution, but by an interlocked system of institutions which work in concert to achieve this one general result.

Land tenure institutions are, classically, considered to be at the heart of this basic problem in many of the underdeveloped countries. Labor is so plentiful, and off-farm job opportunities are so limited, that ownership of land carries with it almost complete control over the lives of the landless. If the tenant chooses to work a little harder, or invest some of his savings in his farm, he must share heavily with his landlord the fruits of his extra labor. This if he is lucky; if he has some economic or political bargaining power. More often than not, and given a little time, the landowner finds ways of absorbing virtually all the extra production for himself. Thus the tenant learns not to smile, lest the landlord raise his rent; as the Eastern proverb has it, "A smile on the face of a tenant speaks of the stupidity of his landlord."

There are, however, other institutions which work with equal effect to deaden the play of incentives. The *credit system* often holds farmers in total bondage to the moneylenders, sometimes for money borrowed by long-dead ancestors of the indebted farmers. Interest rates often run 100 per cent or higher per year. Illiterate villagers frequently have to rely on the moneylender's calculations, which are not always made with scrupulous honesty. Worse still, very little of the credit serves the useful purpose of making the farmer more productive. Most underdeveloped societies accord high esteem to ceremonies; in some countries over half the money borrowed by farm families is spent on weddings, funerals, and the like. And of that which is spent for so-called "production" purposes, rather little really finds its way into improved farming, so that the credit does nothing but keep the farmer in debt. A study with which the writer was associated in India indicated that not more than 5 to 10 per cent of the short-term investment—what economists call "variable capital"—was used in a way that increased the farmer's productivity, and hence his total income. This heavy burden of indebtedness for unproductive credit obviously discourages

the farmer from making productive investments, or any kind of innovation which requires even a little capital, by soaking up his potential savings and cutting off possibilities for additional borrowing.

The *pricing and marketing systems*, or lack thereof, also destroy the play of incentives for the farmer to work, to invest, or to innovate. Most underdeveloped countries have only rudimentary pricing and marketing systems. Prices for identical products often vary widely from village to nearby village. They vary even more widely from village to city, and more widely still from time to time. Farmers commonly do not know of higher prices in other nearby areas or more distant cities. If they do know, they often cannot take advantage of higher prices elsewhere, as they are bound by prior understandings, socially more compelling than contracts, to sell to the moneylender in whose debt they are. And their resources are far too meager, even if they had storage facilities, to await the higher prices which will come when today's production gluts give way to tomorrow's famine. Thus the entire marketing and pricing system works against inducing proper investments at and before planting time, as the promise of future gain beckons only weakly and from great distance through the fog of uncertainty which enshrouds the typical farmer's price expectations. The problem is not, in most countries, so much that of prices' being too low or of marketing margins' being too high; it is primarily that of the farmer's uncertainty as to what the prices will be and, especially, as to who will get the higher prices—he, the landlord, or the moneylender.

The type of social organization—the greater family or the tribe—also profoundly affects the play of incentives. We Americans take for granted a concept of family organization which applies powerful leverage upon the primary family head to strive on behalf of himself, and his wife and children. This is not, however, the norm in the underdeveloped countries. Rewards for unusual effort do not normally go to the man who makes it, even though he receives the money in the first instance, but to an elder or chieftain who distributes it through a tangled skein of family or tribal relations. Indeed, extreme social censure is brought to bear on anyone who holds for himself any appreciable portion of the rewards for his

own extra effort. True enough, in some societies the individual appears to be motivated to work for the greater family or tribe rather than for himself or his immediate family; but this motivation is probably more apparent than real. In any event, the entire greater family or tribal structure places emphasis upon the individual's having carefully assigned responsibilities to the larger group, discouraging any imaginative deviation from these responsibilities. For deviation by the individual invites only censure from the group if he fails, and rewards for others if he succeeds.

The problem of risk taking must be given special attention. Not only all the institutions discussed above, but also the very nature of his economic situation discourages the farmer from taking the risks inherent in innovation. "Nothing ventured, nothing gained" is a true adage of the human enterprise, but a dangerous principle for the farmer in an underdeveloped country. Living as he does at the very margin of subsistence, what he ventures is different in kind from what he might hope to gain. The difference between 50 and zero is much greater than that between 50 and 100 if 50 is the minimum necessary to survival. And although the greater family or tribe shields the individual from losses caused by circumstances accepted as beyond his control, it does not normally do so for losses caused by his playing with new and therefore unsanctioned ideas.

Thus, the greater family or tribal organization of society is, in the least developed countries, probably the most potent single inhibitor of the play of those incentives necessary for inducing progress.

Institutional Factors Which Inhibit the Development of Capabilities of Rural People

As stated earlier, development appears to depend primarily upon the development of human resources and capabilities. Several of the subsequent papers will deal with the relation of education to development, and I shall touch upon it briefly later. Here, however, we are interested in another factor affecting the development of human capabilities: namely, the opportunity for individuals to acquire meaningful experience while they are young enough to try new ideas and to learn from this experience. Our society deliber-

ately provides children with opportunities for developing self-reliance, to prepare them for their self-determining roles as young adults. This is not true in most underdeveloped countries: decision making is restricted to family elders long after the offspring have reached full adulthood. Even such decisions as whom and when to marry, what vocation to follow, how to spend their earnings, and the like, are made for, not by, the young and even the middle-aged adult. Also, in our rural society the family farm system of agriculture develops entrepreneurial and management skills, by requiring every farmer to think and act for himself, rewarding him for his good judgments, penalizing him for his mistakes. Most other systems of land tenure do not provide this built-in device of self-education. This may well be a fatal weakness, in the long run, of the collective or cooperative farm, or other modern forms of group tenure. They may be responsive in the short run to the introduction of new knowledge and technology, but they so limit the numbers of people who acquire managerial and entrepreneurial skills that, in time, they become rigid and sterile of new development potential.

Institutional Factors Which Inhibit the Development and Utilization of Science and Technology

I shall close with a few comments on the institutional factors surrounding the development and utilization of scientific knowledge and technology in the agriculture of a typical underdeveloped country.

First, we glance at the *extension and service* institutions which carry science and technology to farmers. In great part, as in our own country, this function, as well as research and education, must be carried out in the so-called "public sector." This point is seen to be important when we recognize that in the underdeveloped countries government has been evolved largely for the purpose of maintaining order and collecting revenue. Although this is most apparent in a colonial system, it is inherent even in a politically independent country to the extent that that country has pursued static rather than dynamic ends. As such countries begin actively to pursue progress as a central goal of policy, an entirely new role is demanded of government and of public service. Rural develop-

ment, as distinct from the mere maintenance of order in rural areas, requires not only that public officials have technical rather than merely administrative competence, it requires that they assume a servant rather than a master relationship to the farm people with whom they work. This is a difficult transition to make, especially since in these societies the deepest cultural values inhere in status relationships. But a democratically oriented, progressive agriculture appears to require a complex system of government *services* to farmers—research service, extension service, credit service, marketing service, price-supporting service, and so on. And although names of these functions can be changed, the fundamental *service* relation between the public agent and the individual farmer is probably essential to development. At least, this is my hypothesis, as any other system, based upon authority rather than upon enlisting the informed self-interest of the farmer, has never appeared to work well anywhere. It simply requires too much overhead.

Institutions of formal education and research which have been developed during the essentially static past of the typical underdeveloped country must also make profound adaptations to their new roles as participants in the development process. Listed below are some of the more basic changes which will commonly be required.

In *research*, a change of attitude as to the basic purpose is required, anchoring it solidly in the development needs of the country's agriculture, rather than treating it as an end in itself. This requires more than a recitation of the right words. It must lead to careful analysis in selection of research problems. For the numbers of problems are legion, and the research resources and competences extremely limited. Selection of problems for research must be based on criteria such as relative importance to development, probability that research may find a solution, probable usability of the solution by farmers, and probable cost of the research. The present criterion, namely the probability of publication in a prestigious foreign journal, must give way to those of relevance.

For research to participate in agricultural development there must be new administrative and scientific alignments, a breaking down of barriers which separate related scientific disciplines, in order to reflect the analytical requirements of the problems needing solution. In most underdeveloped countries now, effective re-

search on animal production, for example, is almost impossible because of the administrative and scientific separation of animal husbandry from crop production. Similar barriers, almost as high and impenetrable, separate soils from crop production, forestry from soil conservation—and economics from almost everything relevant to farming.

The new orientation of research toward development objectives will require much closer relationships with *extension and educational efforts*. And, especially, extension efforts must be anchored much more in such processes as exist, or can be stimulated, through which farm groups can make their wishes known. Much too commonly research findings are shot out at farmers from the research bastions, through a top-down administrative bureaucracy called Agricultural Extension or Community Development. Much more effective means of farmer participation, and indeed control—which is the real heart of our own extension system—must be evolved if research and extension are to become truly at one with the agricultural development process.

The *agricultural colleges* will also undergo substantial change as they adapt themselves to developmental roles. The subject matter of courses will be based upon local research and experience, rather than material from foreign sources. Teaching methods will adjust to emphasize the creative use of science to achieve specific rural development objectives, rather than rote memory of scientific principles unrelated to practice. Examinations and other student appraisal devices will be modified to identify potential agricultural development capabilities of students; and faculty will be promoted in accordance with their performance.

One could go on indefinitely; the task of institutional development is not simple. But though the task is huge, we cannot be pessimistic. The margin for potential improvement is great. National annual growth rates in agricultural productivity of 6 to 8 per cent are rare; and yet in virtually all underdeveloped countries the best farmers get three or four times as much production as the average farmer from the same basic resources.

Agricultural scientists and administrators in the United States can, through their advice and example, contribute importantly to the effectiveness of the institutions for agricultural science, tech-

nology, and service in the developing countries. They are, in fact, already doing so. They will be effective, however, only in so far as they come deeply to understand the changing role which the institutions must play as the country they serve sets its course toward development. For those Americans who are privileged to participate in the process, as for all who really care what happens to mankind, it is one of this generation's most exciting tasks.