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ABSTRACT

This paper examines trends and issues in international agricultural extension and offers seven reasons for the establishment of extension systems after World War II. It makes the case that, although the general situation is somewhat similar today, three current developments color and shape extension and may cause its demise: (1) institutional attack of public extension over its cost and financing; (2) controversy over which system model of extension is preferable; and (3) disagreements over what lessons have been learned from the extension literature. Re-examination of the three developments reveals several basic truths: (1) every situation is different; (2) extension models must be considered with respect to the specific situation; (3) economic sustainability is a primary consideration in program/project development; and (4) extension systems must be flexible and change with changing policies, technologies, and the needs of farmers. The implications of these developments for the U.S. Cooperative Extension Service are that (1) domestic experience is both valuable and limited; (2) it needs to know more about other extension systems and their strengths and weaknesses; (3) there is no one best system/model; (4) in principle extension is flexible, but procedures are needed to ensure that its organization evolves along with changes in its target audiences and technologies; (5) the costs and financing of public extension are paramount concerns; (6) economic sustainability is a main consideration in program/project development; and (7) it is time to stop ignoring the U.S. organizational experience. (Included are a 25-item reference list and an appendix of Project Performance Factors.) (NLL)

TRENDS AND ISSUES IN INTERNATIONAL AGRICULTURAL EXTENSION:

THE END OF THE BEGINNING

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TRENDS AND ISSUES IN INTERNATIONAL AGRICULTURAL EXTENSION: THE END OF THE BEGINNING

by

William M. Rivera [1]

Introduction

During the World War II North African desert campaigns, the port city of Tobruk passed back and forth several times between British and German commands. The city was never held by either side for long, but the British persevered and, under General Montgomery, Tobruk was finally secured for the British. On that occasion a war correspondent asked General Montgomery whether he thought the taking of Tobruk was the beginning of the end for General Rommel and the German campaign in North Africa. Montgomery replied that it was certainly not the end, and probably not even the beginning of the end, but it was, he said, the end of the beginning.

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I have taken this phrase for my sub-title because it encapsulizes the situation worldwide of agricultural extension today. The study and practice of agricultural extension is at a turning point, one which represents the end of a major phase in the history of this activity's relatively recent beginning.

As a formal institution, agricultural extension worldwide is quite young.

FIGURE 1

YEAR OF ORIGIN OF NATIONAL AGRICULTURAL EXTENSION SYSTEMS IN SELECTED COUNTRIES

Country	Year of Origin
Japan	1893
United States	1914
The United Kingdom	1946
Israel	1948
India	1952
Pakistan	1952
United Arab Republic	1953
The Netherlands	1953
Nigeria	1954
Taiwan	1955
Brazil	1956
Belgium	1957

Source: Axinn, G. & Thorat, S; (1972); Modernizing World Agriculture; NY: Praeger; and OEEC (Organization for European Economic Cooperation; (1957); Agricultural Advisory Services in Europe and North America; Paris.

Organized informally in the 19th century in several industrializing countries around the world, it was not until the end of the century that its function became formalized within public institutions, usually ministries or departments of agriculture. Japan in 1893 was the first country to establish a national agricultural extension system, followed in 1914 by the United States. In most countries, however, agricultural extension did not develop until the 1950s.

There were several reasons for the establishment of extension systems after World War II (Prawl, Medlin & Gross, 1984), namely:

FIGURE 2

REASONS FOR ESTABLISHMENT OF PUBLIC EXTENSION SYSTEMS

1. Technical assistance efforts developed after WWII emphasized agricultural growth and establishing extension services as an agency to promote this growth.
2. Extension was seen as a means to promote the use of modern inputs in support of import substitution, industrialization policies.
3. Many countries became independent in the post WWII period and reorganized existing agricultural ministries to include an extension unit.
4. Governments of newly independent countries became more sensitive to and aware of the need for a strong development thrust in the rural sector.

5. Economic expansion and increased trade made it financially possible to increase agricultural development efforts.

6. A significant backlog of research information was thought to be available to boost agricultural development and only needed to be vigorously and widely disseminated.

7. In countries undergoing the process of development farmers and ranchers demanded more services from government.

8. Technological development in mass media communications and transportation, for examples, made extension services more effective and efficient.

9. Finally, additional production was encouraged because agricultural crops for export were in great demand and were needed as generators of hard currency.

The general situation in some respects is not so different today, but several developments have come about which color and shape extension. This presentation is about these developments; it is not about international development, international trade, understanding world hunger, cross-cultural sensitivity, or development education, although its concern is with all of the above.

It is also not about the U.S. Cooperative Extension's activities or role in the international arena, at least not specifically -- although the implications of international trends

and issues for this role should become clear by the conclusion of this presentation.

It is about three major developments--the first is disturbing, the second unsettling, and the third encouraging. The last some think represents a new next step for public extension (World Bank, forthcoming). These developments are:

FIGURE 3

THREE DEVELOPMENTS

The institutional attack. Public extension has been, and still is, under attack from a wide spectrum of politicians and economists over the cost and financing of public extension.

Second, the system "model" controversy. The fact of differing system models attests to the variety and complexity of extension, and the way it is interpreted; accordingly, system "model" preference constitutes a major controversy.

The third, more positive, development falls into the lessons learned category. The extension literature shelves are beginning to bulge with project descriptions and research. Indeed, there is a great accumulation of lessons learned.

These lessons are not always absolutes, however. Constrasting perspectives often result in sharp disagreements. Indeed, contrasting perspectives reflect larger issues--specifically whether one adopts what I call the Orville Freeman "agri-business" approach to agriculture or the Wendell Berry organic approach which emphasizes rural community first and then agriculture. Berry hyphenates the word to give it its meaning for him: agri-culture.

Contrasting perspectives aside, the fact remains that the transfer of agricultural information back and forth to farmers and program managers is an important ingredient in any agricultural development plan and practice. What is transferred, and How it is transferred--these, of course, are political as well as technical questions. An even larger political question is that of the very viability of public extension.

The First Development: The Institutional Attack.

Public extension was severely attacked in the 1980s, in industrialized, middle-income and developing countries, by politicians and economists concerned with the costs and financing of public extension. In the 1980s, a turning point occurred that affected the way information transfer, heretofore considered the purview of public sector agricultural extension systems, was conceived and practiced. Not only did public extension systems come under public scrutiny and political attack but, as well, were

confronted by heightened competitive interests from the private sector.

Public extension was criticized for various reasons: for not being relevant, for insufficient impact, for not being adequately effective, for not being efficient and, sometimes, for not pursuing programs that foster equity.

The U.S. Cooperative Extension System, as you know (Dillman, 1988) was criticized for lack of relevance. As you also know, our system's response was to re-group, review, and advance a powerful new set of initiatives designed to revitalize the relevance of the system.

Other systems responded quite differently. The Netherlands decided to privatize one half of its public extension agents by transferring them with initial financial support to work with farmer associations, with the other half of these agents assigned regulatory tasks--primarily to oversee the use of agricultural chemicals. New Zealand's Ministry of Agriculture and Fisheries was challenged to "go commercial" in 1986, and currently operates under user-pay, commercial criteria (Hercus, 1987)--although this move has caused critical backlash.

Other public extension systems are moving toward cost-recovery systems. Mexico, for instance, is developing a fee-based system

among large-scale farmers in the Northwest region and planning to develop a similar arrangement among small-scale farmers in the South-Central region (World Bank, 1989).

In general, then, there were three major responses to the attack on public extension. First, there were efforts to improve or revitalize these systems. I was privileged in 1988 to assist in developing for the Food and Agriculture Organization a "Plan to Revitalize Jamaica's Public Agricultural Extension System." Second, as already mentioned, there were moves to privatize public extension, and in many cases this has led to institutional pluralism, with mixed extension systems--where extension is divided among private bodies responsible for large-scale agricultural activities with the public agency responsible for small-scale farming and welfare distribution.

The third response was to encourage alternative diffusion practices. In the United States and Canada, for examples, large and highly specialized farmers often bypass agricultural extension services and go directly to universities or research agencies to obtain farm management information. This has caused critics and policymakers to question the need for a public grass-roots based extension function at all. Ironically, however, this would appear to highlight the need for public extension services, since it is less feasible for middle and small farmers to contact researchers or take advantage of private sources of knowledge.

In some cases, the extension function has been integrated into research organizations. One example is the "Lab to Land" type program--developed first by the Indian Council of Agricultural Research (Prasad, 1985). Prasad refers to this direct training and advice provided farmers as "frontline extension," that is, extension information and knowledge provided directly from research specialists to farmers. This role of research in providing information and training to farmers--those who can manage to travel to the research centers and can afford the time and expense away from their farms--appears at best to be supplemental to, and not a substitute for extension services.

Some suggest[2] that bypassing extension is part of the natural evolution of the changing importance of extension and research at different knowledge levels. But, in reality, extension services are continually important even to educated farmers with expert knowledge, and research often proves important even to farmers with low knowledge levels.

What has become clear, however, is that in many countries there can be, and often are, a broad range of providers of agricultural advice. A role exists for the public, semi-public and private sectors with their different purposes and approaches to information transfer (USAID, 1985; Rogers, 1987). Some consider

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2. Dr. Joao Barbosa, World Bank staff in Recife, Brazil.

such institutional pluralism--i.e, the composite of private and public extension activities (Lele, 1985)--to be the answer to most countries' needs for broad-based information transfer services.

The Second Development: The System "Model" Controversy

Another political issue and technical question is that of system 'model' preference.

Is the U.S. Cooperative Extension Service an adaptable model for developing countries, as some claim (Claar, Dahl & Watts, 1980)? George Beal in a recent issue of INTERPAKS Interchange (1989) claims that attempts to transfer the U.S. land-grant university extension system have often resulted in only limited success or in failures[3].

Is the World Bank's Training and Visit Extension Management Model the right choice? In a forthcoming publication on "Developing Africa's Agricultural Institutions: Putting the Farmer

3. Some of the main reasons for this, he argues, are that (1) attempts were made originally to "transfer" the system and only later was greater emphasis placed on "adaptation" of the system to the environment of the targetted developing nation; (2) little effort was made at the beginning to analyze cross-cultural differences; (3) the question of placement of the system, i.e. where it should be placed or interfaced (e.g., university, government, community development) was often not carefully considered; and (4) the fledgling extension system was often blamed for low productivity when in reality there was little appropriate technology to extend.

in Control," David K. Leonard argues that the World Bank's T&V system represents the best available solution to Africa's extension management demands. While Leonard thinks T&V is overly rigid and not without its problems, he judges it to have "at least enjoyed success in an area in which failure is most common." He recommends that those donors who are unwilling to work within its basic framework would do best to leave the field of extension reform in developing countries clear to the World Bank.

The development of Farming Systems Research and Extension (FSR/E) projects raises other questions: Should extension be a freestanding institution providing information to farmers about the entire agricultural development process? Or, should it be a component of farming research projects and essentially serve to transfer only adaptive technology?

To try and answer these questions would take us far afield, but we might mention one effort (Rivera & Wheeler, forthcoming) to distinguish the main characteristics of agricultural extension systems.

FIGURE 4

SYSTEM CHARACTERISTICS MATRIX

Who Controls	How Controls	Purpose	Relationship
PUBLIC (GOVERNMENT) CONTROL	CENTRALIZED	SUBSISTENCE & CASH CROPS	TAKE IT OR LEAVE IT
JOINT CONTROL WITH FARMERS	DUAL: CENTRALIZED DECENTRALIZED	SUBSISTENCE & CASH CROPS	TAKE IT OR DEMAND DIFFERENT PACKAGE
PUBLIC CONTROL/ PRIVATELY OPERATED	CENTRALIZED	HIGH-VALUE CROP	TAKE IT OR ELSE
PRIVATE COMPANY	CENTRALIZED	HIGH-VALUE CROP	TAKE IT OR ELSE
PRIVATE COOPERATIVE	CENTRALIZED	HIGH-VALUE & SUBSISTENCE CROPS	TAKE IT OR DEMAND DIFFERENT PACKAGE

The main characteristics indicated in Figure 4 involve: (1) who controls the system (the public, private, or semi-public sector); (2) how the system is controlled (centralized or decentralized; (3) what the system's purpose is regarding high-

value crops or traditional food crops; and (4) what the system's relationship to farmers is ("take it or leave it," "take it or demand a change in message/package," "take it or else"). Figure 4 sets the stage, then, for an analysis of extension system characteristics.

As we see in Figure 4, the various systems/models fall into five main categories; and their relationship to farmers differs one from another. Also, implicit in the matrix is that there are many more systems models than Cooperative Extension, T&V and FSR/E--but even as to which one of these three is the best among themselves there is no agreement likely. Some think (Moris, Roberts, Rivera) that in future, efforts to establish new systems or to improve and change existing systems will draw on combinations of system components taken from different extension systems. This would appear also to be the answer to contingency management concerns.

The systems/models-preference debate involves other concerns than system management, however. For instance, what should public extension deliver as service/products? Also, what new priorities should extension undertake?

What service/products should public extension deliver?

Another debate related to system-preference is over deliverables--what should be the "product" of extension services.

Should it be agricultural technology and its transfer? And if so, what kind of technology should be transferred: high, low-external input, or that based on indigenous farmer knowledge and practice? Should extension's purpose include delivery through teaching and learning of organizational skills to help farmers develop associations and individual and cooperative businesses. What should extension deliver? Our answer will probably depend on how we respond to developments 1 and 2 regarding institutional support and extension model preference.

Shifts in technological perspectives--involving highly developed, low-input and locally developed technologies--are challenging the capacity, and putting in question the product-delivery purpose, of public extension systems. High technology puts new demands on the capabilities of extension systems. The use of low external input technology creates tensions with those who cater to high-value cropping systems and large-scale exports. Meanwhile, the concept of appropriate technology and the development of indigenous knowledge are aimed at shifting our focus from commercial concerns back to the farmer's well being as the object of technology.

In countries seeking to integrate new technologies, the capacity of extension workers is often strained. For instance, Taiwan, whose Farming Information Dissemination System has been called "an organizational alternative to Land Grant Universities"

(Lionberger & Chang, 1981), is hastening to create a national institute for extension education and training to help resolve this problem.

The pressure of new priorities.

In addition to the debate about extension deliverables, there are "new priorities" that have increasingly pressured public extension in the last decade. Many argue for women's contribution to agricultural development and call for more women extension staff and more programs directed toward women farmers. Others claim that farmer participation is a basic principle of successful extension work. Still others want extension to confront related problems, such as, the environment, energy, and poverty alleviation.

Among these new pressures, extension is being called on to be more efficient (Baxter, 1987). This underscores again the importance of the costs and financing of extension, one of the reasons for the attacks on extension already mentioned. The potential of communications is also often mentioned in connection with efficiency. It might be argued that programs utilizing women staff and agents for agricultural development projects being carried out by women would also make extension more efficient.

While the potential of communications technology for making extension more efficient and cost-effective is increasingly

discussed at the international level, the question is whether face-to-face extension communication can ever be replaced. Supplemented perhaps, but not replaced...or at least, that is what extensionists would maintain. Meanwhile, a rural soap opera ("The Archers") has been developed by the BBC in the United Kingdom and in Brazil the Globo network has initiated a weekly TV show for farmers, called Globo Rural, which is closely tied in with the local extension systems. Certainly, extension agents and farmers have already been significantly assisted by the development of new communications technology, such as, expert systems.

Current issues, such as, the status of women, the persistence of poverty, the physical environment, new communications, efficiency, etc., along with new opportunities, such as, technological advances, organizational developments, etc., are putting considerable pressure on extension systems to change. Extension, in principle a flexible system, is being pressured to be flexible in practice.

The Third Development: An Accumulation of Lessons

Public extension is under attack; competition among extension system models is intense; technological perspectives are challenging the capacity and putting in question the product-delivery purpose of public extension systems; and new priorities are pressuring for changes in public extension systems.

There is much that is unsettling in the first two developments, i.e., the public extension attacks and the models debate. But the positive side is that a lot has been learned at the international level that is useful, from the standpoint of both theory and practice.

The World Bank, the Food and Agricultural Organization of the United Nations, the International Fund for Agricultural Development, the Inter-American Institute for Cooperation in Agriculture, the USAID and other internationally directed organizations are continually integrating the lessons learned from their projects. For example, USAID's analysis of project design and implementation (Schmidt & Kettering, 1986) sets forth important guidelines for project development.

Between 1975 and 1981 the World Bank sponsored numerous agricultural extension and rural development projects in developing countries worldwide in an effort to increase the agricultural productivity and standard of living in these nations. The Project Performance Audit/Project Completion Reports on nineteen of these projects have recently been published, and offer valuable lessons and insights into what factors hindered or contributed to each project's success. But it would extend discussion too long to review the findings in these reports. A list of these findings is included as Annex 1 to this paper for those interested in the

Bank's instructive guidelines for future agricultural development projects.

A recent paper by a World Bank official (Hayward, 1989) suggests that there are four major principles and seven functional mechanisms for directing extension. These principles are interesting because they appear to herald a new phase in policy dialogue with developing countries regarding approaches to the transfer of agricultural information.

The major principles are very broad. They include: situational specificity, financial sustainability, system flexibility, and participation. In short, an extension system must be: (i) specific to the situation--its politics, stage of development, cultural norms, etc; (ii) sustainable financially through on-going provision for recurrent costs and meaningful impact. Meaningful impact can only come about if (iii) the system remains flexible. Finally, (iv) participation throughout extension systems, by their executives, managers, frontline agents and farmers is essential for developing a creative system with dedicated employees and a vision of success.

The paper also suggests seven major functions for extension institutions, including: diagnosis, feedback, information transfer, linkages, monitoring, training, and evaluation. These are the main functions to be carried out by extension organizations--no matter

what their type/model[4]. However, we may assume that the type/model of extension will nonethelss affect the emphasis afforded each function.

Even a cursory review of the lessons that are accumulating around the subject of extension a.d its development internationally, indicates that there is a lot to be learned. This paper only hints at the breadth of knowledge and expertise that has developed in this field.

The Three Developments in Review

In re-examining the three developments highlighted herein, we see that there are several basic truths that may be extracted. These basic truths are straightforward:

FIGURE 5

BASIC TRUTHS

(1) every situation is different,

(2) extension models must be considered with respect to the specific situation,

4. For organizational typologies which are quite similar, see: Hage & Finsterbusch, Organizational Change as a Development Strategy (1987), and IDMC/DPMC Scope Model (1989).

(3) economic sustainability is a main consideration in program/project development, and

(4) extension systems must be flexible and change with changing policies, technologies and the needs of farmers.

What are the implications of these developments for the Cooperative Extension Services?

FIGURE 6

IMPLICATIONS FOR CES.

First, domestic experience is both valuable and limited. For instance, the Land Grant and Cooperative Extension systems exemplify important ideas and practice, such as, close linkages between the education and agriculture sectors and the technical, political and democratic value of farmer participation in extension. But to transfer U.S. ideas of overlapping political authority and participatory democracy is difficult, in some cases perhaps impossible, at least for the moment. There are problems with exporting parts of programs that build on democracy; we need to learn from other countries. As one of you commented, perhaps we have too much faith in technology and not enough in sociology.

Second, while it is important to know our own system's strengths and weaknesses, we also need to know more about other extension systems and their strengths and weaknesses. We need to

develop a better understanding of models of international work, to study the lessons from international experience, to be familiar with what works, what doesn't, and under what conditions. At the same time we need to build a global perspective, not an attitude of transferring information "from the knowledgeable to the grateful" (Bunting, 1989), but of a cooperative venture comparable to our domestic concept of cooperation.

Third, there is no one best system/model. Varied systems exist and each is suited for different purposes. We can no longer sally forth with the Cooperative Extension "model" under our arm, and expect automatically to succeed in our endeavors. While it is important to understand individual systems, there are generic principles and guidelines that are more important than any one system/model (World Bank, 1990). These principles--notably, situation specificity, economic sustainability, system flexibity and systemwide participation--provide the basis for carrying out extension functions efficiently, effectively and with success.

Fourth, in principle extension is flexible, but procedures are needed to ensure that its organization evolves along with changes in its target audiences and technologies. Extension services in developing countries, often limited by lack of qualified staff and agents, initially provide a kind of "postal-service" delivery of pre-packaged information. To aid in their professionalization, internationally trained U.S. Land Grant faculty and Cooperative

Extension specialists should consider further involvement in the study and practice of developing responsive agricultural extension institutions.

Fifth, the costs and financing of public extension are paramount concerns. A number of considerations are current, such as, the feasibility of public extension reductions on both recurrent and capital accounts, changes in the tax effort, the introduction of charges for government services, and private sector alternatives (Howell, 1985).

Sixth, economic sustainability is a main consideration in program/project development. It is imperative that overseas projects are built on solid financial footing, with adequate capital and recurrent costs built into these organization. To know whether our expertise will be valid and viable, we must keep an eye on accounts and the sustainability of our efforts.

Finally, it is time to stop ignoring our own organizational experience. We know that extension systems must be flexible and change as policies, technologies, and the needs of farmers change. We have learned from several critical turning points in the Cooperative Extension's history to respond to new policy and public demands. We have gained good experience that is the essence of what all our work is about: development, and change.

It is a transitional time for this field of practice and its study. I think of it as "the end of the beginning." Public institutions can no longer simply assume a policy commitment to extension. Those interested to influence the direction of extension policy--whether in industrialized, middle-income or developing countries--must pay strict attention to costs and financing, examine different models and components of models for specific situations, plan for system sustainablity, and build in mechanisms for system flexibility.

General Montgomery's phrase has special meaning, because "the end of the beginning" suggests preparation for taking the next step. And the next step, to be stable and forceful, must involve preparation to respond creatively to the attacks on extension, negotiate intelligently the controversies surrounding extension, and continue to absorb the lessons to be learned from international and comparative experience.

Thank you.

References

Axinn, G.H. & Thorat, S.S. (1972). Modernizing World Agriculture: A Comparative Study of Agricultural Extension Education Systems. NY: Praeger.

Baxter, M. (1986). New Developments in Agricultural Extension. Paper presented at the Sixth International Farm Management Congress, Minneapolis, July 2. Minneapolis, MN:

Baxter, M.; (1987); Emerging priorities for developing countries in agricultural extension; IN: Rivera, W.M. & Schram; (eds.); Agricultural Extension Worldwide. London: Croom Helm, p. 261-269.

Beal, G.; Why the Land Grant Model has Failed; INTERPAKS Interchange, 6:2, July 1989, p. 4-5.

Berry, W. (1977). The Unsettling of America: Culture and Agriculture. San Francisco: Sierra Club Books.

Blanckenberg, P. von. (1984). Agricultural Extension Systems in some African and Asian Countries: an Analysis of Country Reports. Rome: FAO, Economic and Social Development Paper, 46.

Bunting, A.H.; (1986); Extension and Technical Change in Agriculture; In: Jones, G.E.; Investing in Rural Extension: Strategies and Goals; London & NY: Elsevier; 37-38.

Claar, J.B.; Dahl, D.T.; & Watts, L.H. (1980). The Cooperative Extension Service: An Adaptable Model for Developing Countries. Urbana-Champaign, IL: University of Urbana-Champaign, College of Agriculture, INTERPAKS Series No. 1.

Dillman, D.A.; (1988); Cooperative Extension at the beginning of the 21st century; The Rural Sociologist, 6:2, p. 102-119.

Freeman, O.; (1989); Reaping the Benefits: Cash Crops in the Development Process; Health & Development, 1:1, Mar/Apr, p. 21-23.

Hayward, J.A. (1989). Future Directions in Agricultural Extension. (Paper presented at the International Seminar on Rural Extension Policies, Wageninen, The Netherlands, June). Washington, DC: The World Bank.

Hercus, J.M. (1987). Review of New Zealand Situation. (Conference of Directors of Agricultural Advisory Services Funding of Agricultural Advisory Programmes, 9 April). Wellington, NZ: Ministry of Agriculture and Fisheries.

Howell, J. (Ed.). (1985). Recurrent Costs and Agricultural Development. London: Overseas Development Institute.

Lele, U. (1985); Rural Africa: modernization, equity, and long-term development; In: Office of Technology Assessment; Africa Tomorrow: Issues in Technology, Agriculture, and U.S. Foreign Aid; Washington, DC: GPO; 96-110.]

Leonard, D.K. "Developing Africa's Agricultural Institutions: Putting the Farmer in Control." (Forthcoming)

Liptor, M. (1977). Why People Stay Poor: A Study of Urban Bias in World Development. London: Temple Smith.

Mellor, J. W.; (1986); Agriculture on the Road to Industrialization; IN: Lewis, J.P. & Kallab, V. (eds.); Development Strategies Reconsidered; New Brunswick, NJ: Transaction Books.

Moris, J. (1984). Institutional Choice for Rural Development. Development Discussion Paper No. 179. Cambridge, MA: Harvard University, Harvard Institute for International Development.

Office of Technology Assessment (OTA). (1985). Technology, Public Policy, and the Changing Structure of American Agriculture: A Special Report for the 1985 Farm Bill. Washington, DC: GPO, p. 87.

Ray, H.E. (1985). Incorporating Communication Strategies into Agricultural Development Programs. Three Parts: I. Guidelines; II. Agricultural Communication in the Context of Agricultural Development Programs; III. Extension and Communication Models. Washington, DC:

Rivera, W.M. (1988). An Overview of Agricultural Extension Systems: The Territory, Recent Developments and Recommended Directions. Paper presented at the IFAD Seminar on "Generation and Transfer of Technology for Poor Small Farmers: Issues and Options," held in Seoul, Korea, May 31-June 5. Rome: IFAD.

Rivera, W.M. & Wheeler, R. (forthcoming). Characteristics of Agricultural Extension Systems: A Matrix for Examining Extension Models. College Park, MD: University of Maryland, Department of Agricultural and Extension Education, Center for International Extension Development.

World Bank. (1987). Mexico: Agricultural Extension Project. (SAR No. 6620-ME; May 28, 1987). Washington, DC: Author.

World Bank. (forthcoming). Agricultural Extension: The Next Step. (By W.M. Rivera, J.A. Hayward, & J. Polack). Washington, DC: Author.

Yudelman, M. (1987). Prospects for Agricultural Development in Sub-Saharan Africa. Morrilton, AR: Winrock International Institute for Agricultural Development.

ANNEXES AND OVERHEADS

Annex 1

Project Performance Factors

1. Government support for the project.

2. Involvement of recipient country's people in project planning, implementation and management; farmer participation and feedback.

3. Focus of project objectives.

4. Adequate assessment of soil/land conditions, economic rates of return on agricultural products, farmer incentives, agricultural institutions, constraints to development.

5. Flexibility of project (in adopting to country's needs).

6. Nature of project executing agency.

7. Technical assistance arrangements.

8. Research-extension linkages; availability and quality of adaptive research.

9. Maintenance of opertional funding.

10. Amount and quality of Bank supervision.

*11. National, district local government relations of borrower.

*12. Institutional organization of borrower's agricultural institutionss, degree of bureaucratization, frequency of staff changes.

*13. Level of training of field extension staff, availability of training facilities, salaries of extension staff; upward mobility.

*14. Availability of resources (computers, pamphlets, audio-visual); state of transportation system.[5]

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[5]. The asterisks indicate that these project performance factors represent pre-existing conditions in the country. They are not elements of the project planning and implementation process under Bank control. However, they are important to examine in light of whether or not the Bank adequately recognized, considered and sought to impact them (see: Project Performance Factor 4).

Figure 1

YEAR OF ORIGIN OF NATIONAL AGRICULTURAL EXTENSION SYSTEMS IN SELECTED COUNTRIES

Country	Year of Origin
Japan	1893
United States	1914
The United Kingdom	1946
Israel	1948
India	1952
Pakistan	1952
United Arab Republic	1953
The Netherlands	1953
Nigeria	1954
Taiwan	1955
Brazil	1956
Belgium	1957

Source: Axinn, G. & Thorat, S; (1972); Modernizing World Agriculture; NY: Praeger; and OEEC (Organization for European Economic Cooperation; (1957); Agricultural Advisory Services in Europe and North America; Paris.

FIGURE 2

REASONS FOR ESTABLISHMENT OF PUBLIC EXTENSION SYSTEMS

1. Technical assistance efforts developed after WWII emphasized agricultural growth and establishing extension services as an agency to promote this growth.

2. Extension was seen as a means to promote the use of modern inputs in support of import substitution, industrialization policies.

3. Many countries became independent in the post WWII period and reorganized existing agricultural ministries to include an extension unit.

4. Governments of newly independent countries became more sensitive to and aware of the need for a strong development thrust in the rural sector.

5. Economic expansion and increased trade made it financially possible to increase agricultural development efforts.

6. A significant backlog of research information was thought to be available to boost agricultural development and only needed to be vigorously and widely disseminated.

7. In countries undergoing the process of development farmers and ranchers demanded more services from government.

8. Technological development in mass media communications and transportation, for examples, made extension services more effective and efficient.

9. Finally, additional production was encouraged because agricultural crops for export were in great demand and were needed as generators of hard currency.

FIGURE 3

THREE DEVELOPMENTS

The institutional attack. Public extension has been, and still is, under attack from a wide spectrum of politicians and economists over the cost and financing of public extension.

Second, the system "model" controversy. The fact of differing system models attests to the variety and complexity of extension, and the way it is interpreted; accordingly, system "model" preference constitutes a major controversy.

The third, more positive, development falls into the lessons learned category. The extension literature shelves are beginning to bulge with project descriptions and research. Indeed, there is a great accumulation of lessons learned.

FIGURE 4

SYSTEM CHARACTERISTICS MATRIX

Who Controls	How Controls	Purpose	Relationship
PUBLIC (GOVERNMENT) CONTROL	CENTRALIZED	SUBSISTENCE & CASH CROPS	TAKE IT OR LEAVE IT
JOINT CONTROL WITH FARMERS	DUAL: CENTRALIZED DECENTRALIZED	SUBSISTENCE & CASH CROPS	TAKE IT OR DEMAND DIFFERENT PACKAGE
PUBLIC CONTROL/ PRIVATELY OPERATED	CENTRALIZED	HIGH-VALUE CROP	TAKE IT OR ELSE
PRIVATE COMPANY	CENTRALIZED	HIGH-VALUE CROP	TAKE IT OR ELSE
PRIVATE COOPERATIVE	CENTRALIZED	HIGH-VALUE & SUBSISTENCE CROPS	TAKE IT OR DEMAND DIFFERENT PACKAGE

FIGURE 5

BASIC TRUTHS

(1) every situation is different,

(2) extension models must be considered with respect to the specific situation,

(3) economic sustainability is a main consideration in program/project development, and

(4) extension systems must be flexible and change with changing policies, technologies and the needs of farmers.

FIGURE 6

IMPLICATIONS FOR CES.

First, domestic experience is both valuable and limited.

Second, while it is important to know our own system's strengths and weaknesses, we also need to know more about other extension systems and their strengths and weaknesses.

Third, there is no one best system/model.

Fourth, extension is in principle flexible and in practice will evolve with external market and internal type of technology changes.

Fifth, the costs and financing of public extension are paramount concerns.

Sixth, economic sustainability is a main consideration in program/project development.

Finally, it is time to stop ignoring our own organizational experience as an organization.