RURAL ECONOMY

Reframing Agricultural Extension Education Services in Industrially Developed Countries: A Canadian Perspective

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1. Extension's Odyssey

Some of the material discussed in this paper was initially presented to a group of professionals in the Cooperative Extension Unit of the American Association of Adult and Continuing Education. In keeping with the theme of the session 'Extension's Odyssey to the Future' it became necessary to start with a definition of the term odyssey. As you all know, Odyssey was the title of 8th Century B.C. Greek poet Homer's epic poem recounting the adventurous journey of Odysseus on his way home from the siege of Troy. In modern day usage, the word *odyssey* is used to denote any of the following: "a long wandering, a series of adventurous journeys usually marked by many changes of fortune, or an extensive intellectual and spiritual wandering or quest" (Webster's Third International Dictionary).

As one reflects on the history of the development of extension one concludes that extension has had an interesting past -- something in the nature of an odyssey. The identifiable roots of extension activity perhaps go back to the renaissance period (Swanson, 1990:9) in European history and similar events in other cultures, when concerns about relating education to human needs were expressed. Historically, there has been an interest in the application of knowledge to problems of daily life. The more recent and specific expressions of this activity were embodied in the efforts of Cambridge University in 1873 (Blackburn and Vist, 1984:2) when the term *extension education* was first used. The origins of agricultural extension education in North America are diverse. Blackburn and Vist (1984:2) report that in 1606 Marc Lescarbot grew the first experimental seed plot in North America at Port Royal, Nova Scotia. Quebec, according to these authors, already had its first agricultural school in 1670. True (1928) and Scott (1970) have documented the early history of the development of agricultural extension services in the United

States. The Canadian experience in this respect needs a detailed compilation. Blackburn and Vist (1984:9-10) have taken the initial steps in this direction by providing some source material on the history and development of extension services in the Canadian provinces. From the information available, it is clear that the early efforts of individuals, farmers' organizations, chambers of commerce, banks and railroads led to the development of publicly supported institutionalized agricultural extension services both in Canada and the U.S. Hagarty's data on manpower and financial resources[1] invested in Canadian agricultural extension services in 1991 and information presented by Warner and Christenson (1984:5)[2] and Ameur (1994)[3] are indicative of the way in which the extension enterprise has flourished in North America.

In the post WWII period, the extension principles and methods were transferred to developing countries for application to problems of food production and agricultural development. In December 1989, the FAO of the United Nations held a global consultation on agricultural extension "to debate about the future of agricultural extension, especially in developing countries". Based on an international survey of 113 countries, they estimated that "in excess of six billion U.S. dollars are expended annually on extension worldwide, involving more than 600,000 trained workers... reaching about 1.2 billion people" (Swanson, 1990:1). If one compares the mid-1800s humble and ad hoc efforts to establish extension in Canada and the U.S.

[1] According to Hagarty there were 2,185 professional persons involved in extension work in 8 of the 10 Canadian provinces. Operating expenses for 7 provinces were 66.86 million dollars.

[2] According to Warner and Christenson in 1984 the US Extension Service had a budget of 800 million dollars and a staff of 17,000.

[3] According to Ameur the U.S. Federal Extension Service had a staff of 15,000 extensionists with a budget of 1.2 billion U.S. dollars.

with the size and extent of the spread of extension services worldwide today, and reflects on the trials and tribulations involved in such a phenomenal growth and development, one cannot escape the conclusion that extension has truly been on an exciting odyssey.

Many professional workers, I am sure, have personally experienced the highs and lows of this odyssey as I have done. I am, of course, reflecting on my personal experience in Punjab, India, of the 1950s when extension was newly introduced and I worked as a young extension agent. I often used to reflect, in the evening, on a day's work with illiterate and poor farmers, trying to unfold to them the mysteries of NPK, and wonder if I had made any appreciable difference to their well-being that day. My faith in extension was reinforced during an extended visit to the same area in 1983, after 25 years of absence, when I noticed the positive effects of the power of education on their thinking processes, farm practices, incomes and well-being. These illiterate and poor farmers, with extension's assistance, had mastered the mysteries of scientific agriculture so well that every time I asked a peasant why was he using a given technology at a given time and crop phase, I received a very coherent and logical answer.

2. The Canadian Extension Systems

Before speculating about extension's odyssey to the future it is important to understand the context in which the Canadian systems exist today. At the outset, one needs to note the diversity of extension patterns in different provinces of Canada because of varied institutional and historical factors involved in each case. Any single description of the Canadian systems risks the omission of some significant fact, event or detail of a given provincial system. Baker (1987) provides an excellent overview of the prospects and problems of the contemporary Canadian extension systems. The focus in the present description, therefore, is on general patterns and

structures.

The similarities and differences between the Canadian and the U.S. systems, in terms of legal base and institutional arrangements, need to be discussed in order to arrive at some common understandings necessary for discussing the future. In Canada our extension systems do not have the legal base of the Morrill, Hatch, and Smith Lever Acts that defines federal and state relationships and promotes the coordination of teaching, research, and extension activities in the U.S. Instead, we in Canada have the British North America Act which defined education as the provincial responsibility, but is not so explicit about research. The Federal government operates a large network of experimental stations, but some provincial governments and all faculties of agriculture are also involved in agricultural research.

In Canada the Federal Government has never been directly involved in extension education except for efforts under the general euphemism of “technology transfer” through its Regional Development Branch and from its agricultural research stations. Similarly, the Federal involvement in “training”, particularly through employment and job creation programs, is noted. Educational and developmental work is usually undertaken through the federal-provincial agreements as illustrated (for example) by the Agricultural and Rural Development Acts of the early 1960s, and subsequent efforts through the selected activities of the Department of Regional Economic Expansion (Schramm, 1976), Farm Financial Management Training, Canadian Job Strategies and the soil conservation efforts, etc. Since the mid 1980s there has been more federal involvement in these programs, relatively speaking.

The Federal Government has, however, also involved itself in various indirect educational efforts which have provided support for extension work. Examples of these efforts include the

publications program of Agri-Food Canada, radio programs of the Canadian Broadcasting Corporation, notably Radio Farm Forums during the 1940s and 1950s, the National Film Board programs for rural people, and through the mobile rural libraries in some parts of Canada.

The bulk of the extension work in agriculture, home economics, and with youth has been undertaken by the provincial departments of agriculture through their field extension services. The organizational patterns of these services are often unique and vary from province to province, depending upon the local situation and need. The seven faculties of agriculture may involve themselves in extension activities at a level defined by each institution usually through the respective faculties of Extension and Continuing Education of their Universities. For example, at the University of Alberta, the Faculty of Agriculture, Forestry and Home Economics has a Faculty Extension Committee that defines the sphere of its extension activities and promotes such activities through the agricultural program in our Faculty of Extension which has a formal agreement with the provincial Department of Agriculture, Food and Rural Development. Individual staff members in the Faculty are encouraged to engage in extension activity depending on interest. The level of faculty participation is, however, fairly specifically defined. The grassroots extension programs are delivered by the extension service of Alberta Agriculture, Food and Rural Development and other agencies and institutions, but the role of the Faculty is to provide specialist input at the trainer level, and for the most innovative farmers and support agencies.

As indicated earlier, the provincial patterns of organization vary from province to province. Generally speaking, the delivery points for extension inputs are the district offices with staff to undertake agriculture, home economics, and youth programs. The regional offices provide

support and subject matter specialist input. The provincial level provides backstopping and specialized subject matter services. The line organization for extension is usually under the direction of a Director whose job title designation may vary from province to province and from time to time. In addition to the provincial departments of agriculture and the faculties, other players in extension and agricultural training include regional and community colleges, agricultural firms, general and agricultural media, farm organizations and commodity groups, and community organizations. In Alberta these include the Further Education Councils, Agricultural Societies, and Agricultural Services Boards in Alberta. The Canadian extension system is not a unified system. It will perhaps be correct to say that each province has its own unique system of extension where all public and private stakeholders cooperate in the delivery of information necessary to fulfill the needs of users. In this sense, it is a cooperative system where cooperation is not mandated by legal provisions (such as the Smith-Lever Act in the U.S.) but is necessitated by similar goals, of various stakeholders, which point in the same direction.

Coordination of teaching, research and extension is the guiding principle of the American cooperative extension system. In Canada this need is felt and efforts are made to provide communication between various groups and jurisdictions involved. In this respect the roles of the Agricultural Institute of Canada, the Provincial Institutes of Agrology, the Canadian Society of Extension, the Canadian Agricultural Extension Council, Extension Advisory Councils, and the Expert Committee on Agricultural Extension, Education, and Information (one of the many sub-committees of the Canada Agricultural Services Coordinating Committee) and their provincial counterparts are important. These coordination mechanisms are in place, but the system is not as streamlined and standardized as under the land grant university system and, as such, does not have

similar coherence and order.

3. Looking to the Future: The Task of Reframing Canadian Extension Services

3.1 The Need

The last fifty years have witnessed considerable growth and development in the Canadian extension services. Alberta's case is illustrative of what may have happened in the rest of the country. Starting with the appointment of a single District Agriculturist (county extension agent) in 1920 at Sedgewick, the extension service of Alberta Agriculture, Food and Rural Development has by now developed into a well differentiated and sophisticated educational agency which services Alberta farmers and rural residents through some 66 offices. Programs in agriculture, home economics, and rural youth work are supported by a network of regional offices with the headquarters services backstopping the field organization through specialists and specialized services (e.g., communications).

Technological changes promoted by the extension services have not only impacted the structure of agriculture and rural community but they have also been consequential to the functioning of the extension services themselves in various provinces. To cope with the consequences of change and to respond to the political exigencies, the provincial extension services, during the last 25 years, have gone through frequent reorganizations, role changes, changes in the organizational structure accompanied by changes in title, both of the service as well as of its managers. Baker (1987:12) reports that in 1984 only four of the provincial extension services had the word *extension* in their titles. Others were called field services or rural services, etc. These frequent changes, often ad hoc in nature, have created confusion in the mandate, ambiguity in the role and low morale and frustration among extension workers. Furthermore,

these changes may have had the effect of increasing the emphasis on providing “services” at the expense of the “educative” underpinnings of the extension function. The need for a comprehensive reframing of the extension organizations stems from the above described historical experience.

3.2 The Areas that Require Attention in Reframing

Baker (1987) defines four major areas of concern to the future of Canadian agricultural extension services. These include the clarification of the role of extension, extension-research linkages, competence of extension personnel, and extension clients. There is no doubt that these areas are significant. However, a major reframing effort must consider other areas such as resources available to extension, program areas, organizational development, extension methods, and leadership for the development of extension services.

3.3 The Theoretical Framework for Reframing

Bolman and Deal (1991) in their book, *Reframing Organizations: Artistry, Choice and Leadership*, provide a set of four frames for use in organizational renewal and reframing. The four perspectives (structural, human resources, political and symbolic) discussed by the authors have their roots in the respective literature of applied social science traditions. On examination, each one of them appears to contribute an appropriate share of the understanding in the organizational analysis. The concepts are thus suitable for understanding and reframing extension services. The combined power of the four frames has the potential of informing a manager what needs to be done and how in undertaking organizational renewal. The authors recommend that rather than using single frames to view reality one should use a multiframe perspective. The assumption is that single frame observations provide simplistic, shallow and partial view of the organization’s

life and that a complex organization, such as an extension service, requires more sophisticated tools for study, observation and development.

The **structural** frame, derived from structural-functional sociological tradition, has been used in organizational analysis work for a considerable period of time now. It treats organization (such as the extension service) as a social system. The application of this frame will deal with extension's goals, role structure, authority levels, organizational structure, and related concepts of span of control and chain of command, etc. The application and use of this frame will also provide us with an understanding of the processes of communication, decision making, coordination, specialization, boundary maintenance and social control.

The **human resources** frame concentrates on interactions between the organization and the individual. It views people's knowledge, attitudes, skills, insights, ideas, values and other characteristics as critical resources of an organization and recognizes the interaction between a person's needs and organizational needs. The emphasis in this frame is on the proper fit between the person and the organization because a poor fit will produce alienation, dehumanization, frustration and a waste of human talents. The salient measures suggested by this perspective are participation of the individual in organizational decision-making, goal setting and job enrichment.

The **political** frame deals with power and its role in organizational renewal and reframing. It deals with political forces, issues and aspects both within the organization as well as with political forces affecting the organization from the outside. Scarce resources, resource allocation, conflict, alliances, negotiation, power actors, authority, coercion and control of rewards, agendas, meanings, and symbols are some of the key concepts in the use of this frame.

The **symbolic** frame is drawn from symbolic interaction literature. It deals with meaning of

events, happenings, directives, and other messages. The concepts included for use with this perspective are faith, beliefs, symbols, rituals, ceremonies and myths in terms of their impact on organizational cohesion, solidarity, morale, sense of direction, mission and *espirit de corpse*.

All of the four frames are not equally applicable to every aspect of organizational reframing. Some of the frames will have a more salient application under a set of given conditions while others may be less applicable. In order to successfully employ these frames a manager not only needs a good understanding of his/her organization but also he/she will have to be able to understand the theoretical literature underlying each perspective represented by the individual frames. Once he/she understands the concepts theoretically, the next critical step is its application. Admittedly, some managers will be more skilled in the exercise of a particular frame than others. It must also be recognized that good managers of extension services in practice already use some of these frames in their day to day management either by unconscious habit or by conscious choice. The utility in presenting these frames formally is that the manager may make conscious choices and approach the task of reframing deliberately rather than in an ad hoc manner.

3.4 Reframing Areas

3.4.1. The Role of Extension

For reframing extension services for the future a clarification of what extension services are supposed to do is essential. The underlying assumption being that alternative role definitions lead to different reframing options and require different strategies.

Public extension services in Canada are all based in the provincial departments of agriculture rather than in the universities. The departments of agriculture view their extension staff primarily as disseminators of technical information, as administrators of public programs and

as involved in technology transfer in support of production activities in the agri-food systems. Home economics and youth programs have been based on broader objectives on home, family and personal development but they are also primarily focussed on the agricultural producer.

However, there are other, perhaps unofficial, interpretations of extension's role. Extension in other quarters is viewed as an educational agency with expertise in agriculture and natural resources-related areas. Here the role is defined as the promoter of the learning process as helpful in the development of capabilities of individuals, groups and communities so that people may develop the capacity to make appropriate adjustments to, or even influence, the social changes that impact their lives. This view assumes that information provision and dissemination are an essential part of the educational process, but it views information as a means to the larger objective of human resources development. Many field personnel in the extension services agree with this role definition of extension.

Extension's role, as defined by provincial departments of agriculture, tends to be unnecessarily narrow and vulnerable in the future. The changes in the structure of agriculture have produced fewer and larger production units. In the foreseeable future the farm size and enterprise specialization will continue to increase. The learning needs of such farm unit operators will be very highly specialized. Many of these farmers currently do not use extension services for their information needs because the field extension cannot offer highly specialized information and advice. If this situation is not corrected, the provincial extension services will continue to lose this constituency. The reframing process must, therefore, include measures, using **structural** and **human resources** frames, to upgrade staff, subject matter specialists and information communication services.

The evidence from the field personnel suggests that field agents spend a considerable amount of time doing general human resources development work in the rural communities using resource-related subject matter. In the reframing process, this educational role needs to be included in the mandates of extension services. The managers of extension services must negotiate with decision makers the recognition of this role of the extension organization, using **political** and **structural** frames.

3.4.2 Resource Constraints

Hagarty (1991) has collected and presented information on dollar costs and man years spent by the Canadian extension services. Baker's (1987) estimates show a total expenditure of about $100 million on extension and technology transfer activities in Canada. He (Baker, 1987:1) indicates that the cost of extension in the province of Alberta works out to be $150 per farm family per year. These expenditures do not appear to be excessive either in aggregate or on a per family basis.

With the depression in the Canadian economy and with the rise of conservative political ideology there has been a tendency for governments to downsize public services. Canadian extension services, therefore, have suffered due to budget cuts and ceilings on expenditures. In political and budget decisions, extension expenditures, like other government services, are considered as service and consumption expenditures. The managers of extension services need to demonstrate to the politicians and provincial treasuries that expenditures on extension services are, in fact, investments which produce wealth.

Canadian politicians and policy makers, like their counterparts all over the world, do not understand the financial and economic contributions that extension services make. Until quite

recently there were no coherent data available on economic returns to extension work. This problem has now been partially solved with the publication of several economic studies from developing and developed countries indicating high monetary returns to extension activity (Gill, 1989). These studies provide extension managers with solid evidence of the value of extension activities as investment with high returns. The data in these studies make a strong case for public-supported information and educational systems for agriculture. This information should be used by the managers of extension services to negotiate higher level of funding for extension activity. The **political** and **human resources** frames are the useful tools in achieving financial reframing.

3.4.3 Extension Clientele

Traditional Clientele

The Canadian extension services are currently involved in information dissemination and technology transfer activities with an array of Canadian farmers including commercial and corporate farms, small, part-time and beginning operations, and hobby farms. The Canadian farm population of 280,043 (1991) farm units is highly differentiated and stratified due to size, enterprise specialization, and socio-economic and educational characteristics. In order to deal with this diverse clientele extension services use various organization, pedagogical and communication techniques. These include dispersed field organization, formation of farmers' groups to achieve higher participation rates and communication methodologies deemed suitable for diverse situations.

There is evidence that extension services do not reach a sizeable number of provincial farm populations. Those who are left out of the reach of extension services and are not properly being served may include small and beginning farmers and farmers with low socio-economic and

educational status. Evidence from other countries (Gill, 1987) indicates that the agricultural extension services do not serve women farmers' educational needs well. There are increasing numbers of women farmers in Canada (2.8% of Alberta farmers are women) whose educational needs should be looked at more closely. The reframing of Canadian extension services must take into account the unmet or partially met needs of these groups of farmers. The frames useful in this effort are the **structural, political,** and **human resource** frames.

As indicated earlier the present technology and scientific needs of commercial farmers are not entirely being met by the present extension programs. This is because of an ever-increasing rate of specialization on these farms and extension's inability to keep up with the fast paced technological changes. Many of these farmers are already bypassing extension services to seek out information and technology from original sources. Agricultural firms and consulting agrologists are increasingly beginning to fulfill these needs for specialized information on a pay as you go basis. This is even happening in the developing countries as well (Keen, 1991). This process results in an ongoing erosion in the extension's traditional clientele with the potential for an increase of pressure towards privatization of extension services. While the need for private and public extension to co-exist is recognized the reframing process of Canadian extension services must be aimed at regaining and maintaining the loyalty of this very influential clientele group which has the potential of providing a very strong and vocal support for extension. The relevant frames of action in this case are the **structural** and **human resource** frames.

Non-traditional Clientele

The post WWII period has seen a considerable decline in the Canadian farm population. Farmers at present consitute 3.2% (1991) of the total Canadian population and it is expected that

farm population will further decline leaving extension with a narrow and small base of population to serve. This presents a precarious situation for extension's existence in the future. The reframing process must, therefore, give consideration to extension's future involvement with non-traditional publics and constituencies.

Included among the potential sources of clientele is the non-farm segment of rural population which has been increasing in recent times. It is understood that a large majority of them will have resource-related educational needs. There is some evidence that in some provinces this is already beginning to happen.

There appears to be a considerable need for resource-related information and educational programs in the cities and towns of Canada. The feasibility of getting involved with urban clientele has already been looked into by more than one Canadian extension service. The urban people will welcome extension's expertise through educational programming in resources, family, and youth.

Agriculture and forestry interface at the farm level. Woodlot owners (at least in Alberta) are beginning to view woodlot management scientifically (James, 1991). In developing countries, extension programs in farm and community forestry are popular (Alavalapati, 1990). In the United States, many state extension services employ forestry extension agents on their county staff. Some provincial governments in Canada (Nova Scotia for example) are already taking steps in initiating forestry extension work but the departments of lands and forests, who have jurisdiction over forestry, do not have any expertise in extension work. The reframing options should, therefore, include involvement in forestry extension.

With the forthcoming changes in the status of native people it is expected that their dependence on federal government will decrease and the provincial governments will have

jurisdiction over their development in the areas now called Indian reserves. Since all native reserves have a land base with potential for agricultural develpment it will be advisable for Canadian extension services to consider the possibility of including native people in extension programs of the future.

The possibility of including non-traditional client groups in extension's programs can be realized only with political and policy level support. To gain such support and to negotiate the inclusion of non-traditional client groups, the **political** frame of action will be useful. The inclusion of these groups in extension's programs will also require structural changes within the extension organizations and the training and retraining of extension staff. **Human resource** and **structural** frames of action are relevant in this activity.

3.4.4 Extension Program Areas

Traditional Areas of Programming

Agricultural extension services in Canada have traditionally relied on farm family-based programs of agricultural production and technology, home making, family relationships, and youth education through 4-H programs. Within agriculture the emphasis has been on the production process with technological information and use of innovative agricultural inputs. The future programs in production will include the need for ever more complex and sophisticated technological information. The Canadian extension services will have to address this concern by upgrading and updating their programs of technological information through better linkage with federal and provincial agricultural research stations and the faculties of agriculture. Additionally, staff training in technological areas will be important to future reframing using *Human Resources* frame.

Improvement of management capability and decision making by farmers have received considerable attention in extension programs over the past 25 years. Instruction in management processes and marketing problems appears to be a continuing learning need of Canadian farmers in the future. Canadian agriculture today is part of the global economy. The changes and events in other countries often affect the income and well-being of the Canadian farmers. It is expected that in the 1990s and beyond events in Eastern Europe, the Common Market, Pacific Rim and developing countries will contiue to place high level of uncertainty into farm and rural community decisions (Rosson and Sanders, 1991:21). As an educational agency, extension's responsibility is that its traditional constituents understand the importance of international events and happenings that affect their businesses and daily lives.

Within the farm family the future need for programs away from traditional homemaking practices is indicated. The family and youth programs will have to emphasize psychological process, rights of the individual, the quality of relationships, leadership and general quality of life variables. Most of the reframing changes in extension programs described above will be aided by the use of **structural, human resource** and **symbolic** frames.

New Program Areas

The inclusion of new program areas into the extension programs of the future, of course, will depend on how successfully the extension managers can negotiate changes for extension's role and clientele. If an expanded program role is called for the managers of extension services will have to stake out new program areas including environmental issues, pollution on land and water, food safety, consumer concerns about food, agriculture's image among the general population and even areas like farm animal welfare. New program areas such as programs for

native families, farm forestry, and an expanded program need for horticultural information (for urban population) are envisaged. New program changes or emphasis will have to be introduced with careful planning and will require an accelerated training program to give the field staff knowledge and skills in the delivery of these educational services. Bolman and Deal's **structural, human resource, symbolic** and **political** frames are all applicable to reframing extension's programs for its odyssey into the future.

One important program area for extension services today and in the future concerns the images and understanding of the general public (97% of the population) about agriculture, its importance, potentials and problems. An increasing number of Canadians are growing up in urban centers with little firsthand experience of agricultural production processes. Many of them are more than one generation removed from the farm. As a result, the potential for misunderstanding about the position and the role of agriculture in society is great. Agricultural producers are a very small minority (3.2%) in the Canadian population and, as such, they cannot afford to be misunderstood. As an educational agency serving agriculture it is incumbent upon extension service to undertake educational activities to inform and educate the general public about the problems and prospects of Canadian agriculture. Some of the Canadian extension services already operate programs of agricultural awareness through schools (Alberta, Nova Scotia).

3.4.5 Extension's Linkage With Research

In the United States legal framework governing the landgrant university complex has provided for an adequate coordination of teaching, reseach and extension functions. As explained earlier this histroical development and institutional placement of these functions is vested in different entities and jurisdictions in Canada. This arrangement has proved to be not so conducive

to the flow of information on agricultural technology from the research through extension to the farmer and back to the researcher. The weakest links in this chain are the interactions between the researcher and extension educator and, more particularly, between the farmer (who often modifies and adapts and integrates research findings for his own use) and the researcher. Without well-defined institutional relationships and without a clearly defined path for passage of information to and from the farmer, this link in the Canadian system remains somewhat ad hoc and dependent on individual and institutional inclinations. The result has been a one way flow of communication with considerable inefficiency in the generation, transfer, adaptation, and integration of specialized research based knowledge. The lack of a meaningful interaction between the researcher and the extension educator on a regular basis has further weakened the technological capabilities of Canadian extension services. The reframing process agenda for Canadian extension services must include measures for an improved to and from linkage between the researcher, extension educator and the farmer. The **structural, human resources, political** and **symbolic** frames are all helpful because reframing of this relationship involves structural changes, training, negotiation, resource allocation and cultural aspects.

3.4.6 Extension's Identity

The information presented earlier refers to frequent reorganization of extension services and changes in agency title accompanied by the elimination of the word *extension* from the agency title and/or from the position titles of the manager of extension services. It has already been reported that in 1984 there were only four Canadian provinces which retained the word *extension* in their agency titles. Others were changed to *field services, rural services,* etc. These changes, according to Baker (1987), have created confusion and ambiguity about extension's role and a

loss of morale on the part of extension staff. An essential part of the reframing process of Canadian extension services should, therefore, include the restoration of the word *extension* in the agency titles and in position titles, of the managers. The **political, symbolic, human resources** and **structural** frames are all applicable to this aspect of the reframing process.

3.4.7 Staff Development

Four professional roles within the Canadian extension organizations appear to be significant to the reframing task and for extension's odyssey to the future. They are: the director, the regional director, the subject matter specialist, and the district level extension educator. Thoroughly professional conduct at the management level guided by professional values will go a long way in guiding the reframing process. In this respect the directors' and regional directors' roles are very crucial and critical.

There is a need to develop the subject matter specialist role properly in most Canadian extension services. Not only more positions may be necessary but also the level of technical training of subject matter specialists should be high. Provision for effectively linking the subject matter specialists to research need to be made to promote a meaningful interaction between them and the researchers. Some training in teaching methods will improve their performance.

The need for specialized subject matter training for the grassroots extension agents has already been highlighted. Discussions with field personnel indicate that there is considerable appreciation among the field staff about their educational responsibilities. However, many of them are handicapped by the lack of formal training during their undergraduate years in communication methods, educational methodology and management techniques. There is now considerable interest in fulfilling this learning need through further training at the Master's level. Appropriate

training programs for this purpose now exist in some Canadian universities as they have existed in the American universitites for a long time. Encouragement, leave arrangements, and financial assistance need to be made available for staff development necessary for the reframing task. **Human Resources** and **Political** frames are applicable here.

Many of the field staff carry a heavy load of delivery of government support programs to farmers, some of which are of a regulatory nature. Separation of regulatory and educational functions will help in removing the role ambiguity and role conflict. **Structural** and **Political** frames will provide guidance in pursuing this activity.

4. Conclusion

In the preceding pages, observations about the role, identity, clientele, programs and other pertinent matters concerning the Canadian agricultural extension systems have been made. The purpose was to look into the possible role of extension services in the future. It appears to the writer that the Canadian extension services are now at the crossroads of their odyssey. Up to this point, the public and private objectives for extension agencies, i.e., of food production and security, were consistent. Now that these objectives have been eminently achieved, extension services are entering a new era where farmers' objectives of agricultural production and public perceptions of resource conservation, pollution and the environment, food quality and safety, and even of animal rights, are not so consistent.

In their programming, the public extension services will have to find a balance between the farmers' needs and the needs of the society. All of this will have to be done in the face of food surpluses at home, an increasing global competition and public subsidization of agricultural production aborad. These conflicting and difficult tasks will have to be achieved in a period of

depressed economy, fiscal restraint and an ever-increasing accountability for resources used. On top of that, the Canadian extension services will have to contend with the constraints of federal provincial jurisdictions, political considerations, vested interests and long established traditions. This then is the challenge facing Canadian extension services on their odyssey to the future.

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