Extension Strategies for Poverty Alleviation: Lessons from China, India and Egypt

Burton E. Swanson and Mohamed M. Samy

Department of Agricultural and Consumer Economics
University of Illinois at Urbana-Champaign
1301 West Gregory Drive, Urbana, IL 61801
Fax: 1-217-244-1873; Email: swansonb@uiuc.edu

Abstract

This paper highlights the transition from a national extension system focus on production-oriented agriculture and food security during the last half of the 20th century toward an emerging focus on supplying urban consumers with higher-value products within an increasingly integrated global economy. Although most developing countries now have food surpluses, many nations have not solved the problem of rural poverty and hunger. It is now being recognized that “hunger is not a food problem, but a money problem.” Therefore, if national research and extension systems are to address rural poverty, then they must reallocate some programmatic resources from “increasing food production” to “increasing rural incomes and employment.”

This paper draws lessons from China, India and Egypt as these national extension systems have directly or indirectly addressed the problem of improving farm incomes and rural livelihoods. The lessons learned from these experiences suggest that three major institutional and/or programmatic changes are needed to enable extension to effectively alleviate rural poverty. First, both research and extension will need to refocus some of their program resources toward higher-value, labor-intensive crops/products that are specifically designed to increase farm income and rural employment among the rural poor. Second, for small-scale producers to effectively serve urban and/or foreign markets, they must get organized into groups (social capital) to achieve economies of scale and become linked with “supply chains” that serve these markets. Third, to enable extension programs to become more farmer-centered and market-driven, extension planning and management must become more decentralized.
Introduction

During the post-Second World War (WWII) period, the primary focus of public research and extension systems was largely on developing and transferring technologies associated with the major food crops, with the goal of achieving national food security. Therefore, national research and extension systems (NRES) focused on the major cereal crops, roots and tubers, plus oilseeds and protein crops. To help address these technology needs, a system of international agricultural research centers (IARCs) was created by the international donor community to provide technical support and backstopping to these national agricultural research centers (NARCs). The current system of 15 IARCs was built on the early successes of the International Maize and Wheat Improvement Center (CIMMYT) and the International Rice Research Institute (IRRI) that created the so-called “Green Revolution” across much of Asia.

By the 1980s, the Green Revolution, which began in the early 1960s, had successfully solved the food security problems in most developing nations, especially those in Asia. As a result, by the 1990s, government support for public research and extension in most developed and developing countries began a slow decline. Also, with a few notable exceptions, donor support for extension systems in most developing countries came to a halt by the mid-1990s.

During the 1980’s, changes in U.S. and international patent law gave life-science companies increased patent protection and intellectual property rights (IPR) for new plant varieties and other biotechnologies. As a result, there has been increasing private sector investment in research and development (R&D) in Europe, North America, and Oceania. In the process, large transnational corporations (TNCs), such as Monsanto, Novartis and DuPont, began investing heavily in both R&D and the “transfer” of these “proprietary technologies” to farmers worldwide, especially large commercial farmers. In the process, public research and extension systems in Europe, North America and Oceania have become increasingly marginalized and, partially or wholly, privatized.

As TNCs increased their research capacity and technological dominance for the major food and feed crops in North America, Europe, and Oceania, their influence has quickly spread across many developing countries. Developing country governments were encouraged to liberalize their economies and to open their doors to increased foreign trade and investment. As a result, many TNCs have established or have entered into joint ventures for the production and/or sale of seed, chemicals, machinery, and other agricultural technologies.

During this period, many developing country governments began reducing their investment in public research and extension. For example, as a result of Green Revolution and other agricultural technologies, many governments gained confidence that they would be able to maintain food security over the near term. Second, with the arrival of foreign life-science firms in many developing countries, farmers had alternative and, possibly, better sources of agricultural technology. Third, since the cost of private sector R&D and technology transfer is passed on directly to farmers, governments soon realized that public funds being used for research and extension could be reallocated to more immediate
priorities, such as education and health services. Fourth, public research and extension were slow to recognize that they were being incrementally displaced by the private sector and that they needed to identify a new mission that could justify the continuing investment of public funds.

Finally, Fritschel points out in the IFPRI Forum (December, 2003), the globalization of the world’s food system represents both an opportunity and threat for small-scale farmers. Without immediate assistance from public research and extension, small-scale farmers will be increasingly marginalized by globalization and will soon lose access to even their traditional domestic markets. At the same time, the growing demand of urban consumers worldwide for high-value fruits, vegetables, fish, and livestock products throughout the year has created new market opportunities for high-value, labor-intensive products from developing nations. The critical issue is “Who will capture these domestic and global markets for high-value, labor-intensive products?”

To summarize, although most countries are now self-sufficient in basic food staples, many nations are still struggling with the problem of large numbers of malnourished people. For example, India is considered self-sufficient in food, yet over 200 million people or one-fifth of the population continue to suffer from malnutrition. It is clear that achieving food security does not eliminate hunger. Or, to put it most succinctly, “hunger is not a food problem, but a money problem.” Therefore, some national extension systems are beginning to shift their focus from “increasing food production” to “increasing rural incomes and employment,” especially among the rural poor. However, this transition is occurring too slowly, since most extension leaders have spent their entire careers pursuing the goal of food security and they are reluctant to reallocate extension resources to new program priorities.

**Purpose: The Rationale for Poverty Alleviation as an Extension Strategy**

This rational for national extension systems to allocate more resources to the task of poverty alleviation is based on the following assumptions. First, that achieving food security does not mean the end of hunger and malnutrition among the rural poor. Second, that hunger is a money problem and not a food problem; therefore, more attention must be given to increasing farm incomes and rural employment. Third, that public research and extension organizations must focus on those technical, social and human resource problems that will not be addressed by TNCs and other private sector firms. And fourth, the global food system is rapidly changing and, without immediate assistance, economic situation of small-scale producers will likely worsen. On the other hand, if small-scale farmers can be properly organized and supported, they may have a comparative advantage in supplying high-value, labor-intensive crops and products to expanding domestic and global markets. In short, these assumptions suggest that research and extension must become more “farmer-centered” and “market-driven.” Jointly, they need to refocus more program resources on those high-value crops/products that can be successfully grown by small-scale farmers and that will increase farm income and rural employment (i.e., poverty alleviation). A growing body of experience in China, India and Egypt suggests that small-farm households can be successfully mobilized to service these expanding domestic and international markets. This paper will outline the elements of an extension strategy that will help reduce rural poverty and malnutrition.
Conceptual Framework and Lessons from China, India and Egypt

As noted above, significant changes are occurring in the global agricultural economy. As a result, public investment in national research and extension systems is declining. At the same time, very limited progress has been made in reducing the numbers and improving the livelihood of the rural poor. Given the forces and opportunities being created by the global economy, there appears to be an urgent need for national extension systems to redefine their mission to focus more directly on increasing farm income and rural employment. In addition, although not discussed in this paper, there is an equally urgent need for public research and extension to focus on natural resource management. If this redefined mission can be properly carried out, then it could bring small-scale and marginal farmers more fully into the global economy. Elements of such an extension strategy, including lessons from China, India and Egypt, are briefly described in this section.

Refocusing the Efforts of Research and Extension

The first step in assisting small- and medium-scale farmers to produce high-value crops and products is to refocus the efforts of research and extension. First, the research system needs to develop, test, and/or disseminate both production and post-harvest technologies that will be suitable in supplying these high-value markets. Second, extension needs to redirect its efforts toward organizing and mobilizing small-scale farmers and rural businesses to successfully produce and market these crops and products. To do this will require careful analysis and strategic planning. In this section, we will describe two different approaches being used in India and Egypt, respectively, to refocus research and extension.

Integrating Research and Extension Programs in India

The strategic planning process being followed in India was developed in connection with two World Bank-funded projects, including the Diversified Agricultural Support Project (DASP) that was implemented in Uttar Pradesh and the National Agricultural Technology Project (NATP) implemented in seven states across India. A similar approach was followed in both projects. First, research and extension personnel in each project district jointly conducted a participatory rural appraisal (PRA) and then analyzed the findings using a modified SWOT analysis (strengths, weaknesses, opportunities, and threats).

A key aspect of each PRA was the identification and analysis of “success stories.” These success stories represented the efforts of entrepreneurial farmers who had already identified markets for high-value products and who were already successfully supplying these markets. In each case, the entrepreneur had already acquired and adapted the production technology so he/she could successfully produce the crop/product in response to market demand. In addition, they had worked out a functional supply chain (i.e., transportation and logistics) to move this product to market. The question that was addressed by the research and extension team regarding each success story was whether it could be replicated to include a larger number of farmers within a specific district given the potential size of market for this product at the district, provincial, national and/or international levels.
In addition, success stories for high-value products sometimes involved innovative ideas or technologies that might transcend specific products and/or markets. For example, one group of farmers in a district of Maharashtra found that by packing perishable squash and similar horticultural products individually in low-cost plastic sleeves or bags, they not only reduced product loss due to bruising during shipment, but consumers were willing to pay more for products that were attractively packaged. Many other success stories were identified by these research-extension teams as they conducted PRAs in each target district. For example, some farmers began producing flowers for special festivals at nearby temples, and landless women farmers began producing mushrooms for sale in local markets.

There are important lessons that research and extension can learn from these success stories and their subsequent replication by groups of farmers within each district, province, or nation. First, researchers and extension specialists need to integrate technical and market information if they are to enable small-scale farmers to successfully produce and supply high-value products to domestic or global markets. Specifically, before providing technical support to small-scale producers about a particular commodity, researchers and/or extensionists need to investigate the following aspects of each success story (Swanson, 2004):

- Compile and disseminate information on the minimum quality standards that are essential to satisfy consumer demand for specific products in different target markets.
- Compile and disseminate information on competitors who are supplying different markets; wherever possible, identify possible “windows of opportunity” where local producers may have a competitive advantage over other suppliers.
- Develop and/or test production technologies (e.g., varieties, planting dates, agronomic practices) that are appropriate in producing high-quality products for specific production windows in these different markets.
- Develop and/or test appropriate post-harvest handling technologies (e.g., pre-cooling, drying, packaging, and/or storage) that can maintain product quality and increase shelf-life.
- Investigate and advise producer groups on the types of investments that may be needed to develop an efficient supply chain to supply this high potential markets.
- Compile and disseminate information on the quality assurance (QA) and food safety procedures that are desirable or mandatory in supplying different markets.

Refocusing Research and Extension Programs in Egypt

The approach being followed in Egypt is being implemented under the auspices of the USAID-funded Agricultural Export for Rural Income (AERI) project that is specifically designed to assist small-scale farmers in Upper Egypt to export horticultural crops to the EU and other countries. However, to do so, research and extension workers need to be reoriented and trained regarding how to grow and handle specific high-value horticultural crops. In addition, researchers, extensionists, and farmers need detailed information about minimum quality specifications in each market, as well as information about alternative marketing channels so they can successfully partner with reliable exporters.
In the Egyptian case, the procedure began by identifying potential export crops that could be successfully grown by small-scale producers, without major capital investment or risk. First, basic production factors were considered, such as natural resources and climatic conditions, including soils, availability of irrigation, temperature, and humidity—factors that would affect the most optimum growing seasons for specific crops. A second set of concerns were supply chain factors, such as the availability or access to pre-cooling facilities, the distance from different production areas to grading, packaging, and shipping facilities, as well as transportation and logistical options, both within Egypt and to different export markets. All of these factors were carefully considered and compared for each governate in Upper Egypt when selecting the first set of crops that would be pursued by small-scale farmers. The crops selected were green beans (bobby & fine), onions (green & dried), garlic (fresh & dried), cantaloupe, and herbs and aromatic crops, such as basil, chamomile and fennel.

The next step was to determine which of these promising crops had the most export potential in likely markets. This analysis was done on a “crop by crop” and “country by country” basis. For example, Egyptian farmers may be able to successfully grow cantaloupe for the winter market in the EU, but can they successfully compete with other global suppliers, such as Morocco, Mexico or Brazil, during their optimal growing season? This decision is based in part on when demand exceeds supply in specific markets, as well as which markets can be supplied most efficiently, based on transportation costs and logistics.

Product quality and taste standards differ from country to country, and some countries have higher quality standards. For example, German consumers prefer table grapes with higher sugar content (e.g., > 16% sugar) than UK customers (13–14% sugar). In addition, they prefer a slightly yellow or “golden” white grape (reflecting the higher sugar content), while UK consumers prefer a white grape that is light green in color. Also, farmers and exporters must satisfy and adhere to specific food safety standards in supplying particular markets. For example, major retailers in the EU will only procure horticultural products from farms that are EurepGAP certified. Therefore, small-scale Egyptian farmers must not only utilize the correct technologies, but they must be trained to meet minimum EU food safety standards, including traceability.

Different approaches are being used to train and reorient research and extension workers to the demands of the market. First, impact grants are being used to fund short-term, low-cost research projects that will quickly address specific technical and/or management constraints that affect agricultural exports. Second, in-country and international training is being used to change the attitude and focus of research and extension workers. For example, researchers who receive impact grants are candidates for a two-week study tour in Europe to learn more about these markets, including consumer preferences, the distribution networks within the EU, and the dominant role of the transnational supermarket chains.

**Building Social Capital**

Building social capital is the second element of an extension strategy aimed at poverty alleviation. Social capital is the ability to facilitate collective action for mutual
benefit through the organization and participation of farmers and rural people. Putnam (2000) has differentiated social capital into two primary categories: bonding and bridging. “Bonding” is the process of creating a network of people who come together for a common purpose, for example, a self-help group or a farmer association. The focus is on group formation, building trust or a type of glue that holds a group of people together. “Bridging” social capital is the process of creating linkages with outside groups for a common purpose. In short, bridging social capital is externally oriented and seeks to add value through linkages with other groups who share a common interest. In this paper, the concern is with both types of social capital, but especially in linking producer groups to external groups that can open up new market opportunities. In this section, we will illustrate how producer groups in different countries have been organized to pursue new markets, sources of technology, and political support.

Organizing Small-Scale Farmers in Egypt

In Egypt, CARE International, a partner on the AERI project, has developed a very successful model for organizing and linking producer groups with reliable exporters. CARE first organizes farmers into a village-based nongovernmental organization (NGO; i.e., bonding) for the specific purpose of producing export crops and then linking these local groups to reliable exporters (bridging). These NGOs start with relatively simple crops, such as regular or “bobby” green beans, that small-scale farmers can grow without difficulty. Each NGO contracts with one or more exporter for a specific production area (e.g., 80–100 fedans) for delivery within a 4–6 week window. The NGO, in turn, contracts with its individual members to produce the required number of fedans following specific management practices as detailed in the export contract. In some cases, the exporter supplies the seed to the NGO that, in turn, distributes the seed to its contract growers, deducting seed costs at the time of harvest. It is the responsibility of the NGO to monitor the performance of its members and, where needed, to sanction those producers who fail to follow the required management practices.

Farmer Associations in China

As China moved toward a market economy, the structure of its agricultural sector changed to reflect these new market opportunities. Over the past 15 years, specialized farm households (SFHs) have formed to focus on higher-value crop and livestock enterprises, such as vegetables, apples, pigs, ducks, mushrooms, and so forth. Most of these new SFHs have been initiated by younger (<40 years of age), better-educated farmers (many with nine years of technical education) who have specific interests in different high-value enterprises. To assist these SFHs in gaining access to new technologies and markets, the World Bank financed Agricultural Support Services Project (ASSP) supported the cost of studies, study tours, and conferences to determine the most effective ways of organizing these SFHs into Farmer Associations (FAs).

In most cases, these specialized FAs started at the village and/or township level with a “bonding” type of social capital. Given the legacy of the communal system, organizing these village and township FAs was not difficult. However, since these local-level FAs were
interested in marketing their products, they soon affiliated or merged with other FAs at the county, prefecture, or provincial level (i.e., bridging social capital), to develop commodity-specific supply chains that could supply different urban markets. By 2001, the ASSP project office reported that 13,360 new FAs had been organized in the 700+ project townships. The Ministry of Agriculture estimates that there are over 100,000 FAs engaged in high-value crops and enterprises throughout China.

Women's Self-help Groups in India

India has been successful in creating social capital, especially among rural women. The process generally begins by organizing rural women into self-help groups. These self-help groups are a type of “savings club” whereby each member contributes an agreed upon amount regularly to the club’s account, so that individual members can take out a small loan to start some type of economic activity. These self-help groups would be a bonding type of social capital. Once organized, these groups can also be effectively linked by extension to new market opportunities. The following success story is illustrative of how women’s groups can be mobilized to produce high-value crops/products.

In Khurda District of Orissa State, most village ponds lay idle, serving largely as a watering hole for village livestock. After landless women in 16 villages had been organized into self-help groups by extension, these groups were assisted by the fisheries extension officer (FEO) in leasing their respective village pond from the village panchayat for conversion into a fish tank. These different women’s groups worked under the guidance of the FEO to clean, prepare, and fill these tanks with water. In addition, the FEO arranged for the purchase and delivery of fingerlings from a reliable fish nursery. Four months later, the groups began selling their first crop of fish. As some groups gained more experience, they began diversifying into polyculture fish production, which resulted in the production of higher-value products, such as freshwater shrimp, for different high-end markets. Next, the profits from the sale of fish were used to diversify into other high-value products. For example, one group purchased dairy cows that improved nutrition within the family, with the excess milk being processed into cheese and sold in the local market. Other groups leased land to produce horticultural crops, thereby diversifying into different high-value crops/products.

Decentralizing Extension

The third element of an extension strategy aimed at poverty alleviation is the need to decentralize the national extension system. First, some form of decentralization of extension appears to be needed in achieving broad-based rural development. Second, decentralization leads to greater stakeholder participation in extension planning. Third, decentralization produces more efficient and equitable service delivery. Finally, decentralized extension systems have improved resource mobilization, reduced the strain on central finance, and created greater accountability within the extension system (Bird, 1994). Decentralization of extension systems can achieve three major organizational goals. (Swanson & Samy, 2002a):

- Serving the Interests of Rural People. Decentralization provides rural people with greater control over local extension programs in terms of planning, implementing, and
monitoring. It has the potential to be a powerful tool for improving extension services by seeking contributions from various groups at the local level.

- **Improving Extension Management.** An important goal of decentralizing extension is to strengthen managerial capacity by reducing administrative overload and congestion in the communication channels. Improving managerial capacity improves technical capacity to deliver services at field levels as well as permit timely reaction to emerging problems.

- **Improving Financial Performance of Extension.** Decentralization can contribute to improving the financial performance and maintaining the fiscal stability of agricultural extension systems at the local level. To achieve this goal, local extension administrators can use a number of financial and managerial tools to improve the efficiency and performance of the local extension system, such as balancing expenditures with revenues, improving personnel management, such as providing incentives and motivation, and increasing sources of revenue for public extension. The central government can help improve financial performance at the local level by providing clear financial guidelines and promoting transparency and accountability.

China and India have used different approaches and mechanisms to decentralize their respective extension systems. Each of these cases will be reviewed briefly.

**Decentralization of the Chinese Agro-technical Extension System**

In China, prior to the economic reforms that began in 1979, there were many separate agricultural development agencies serving farmers at the county and township levels, including the Extension Station, Agro-Research Institute, Crop Cultivation Station, Plant Protection Station, Seed Station, Soil and Fertilizer Station, and the Agro-Technical School. These individual agencies were weak, duplicated efforts, and were generally inefficient. To develop a strong, grassroots extension system, these different stations were integrated into a new County Agro-Technical Extension Centers (CATEC) that delivered extension programs through Township Agro-Technical Extension Stations (TATES). This new integrated approach created efficiencies and focused more resources on extension priorities within each county. This approach was pilot tested in 29 counties during the early 1980s and subsequently expanded throughout the country during the 1990s. At the present time, over 80% of the counties in China have adopted the CATEC model. (Swanson, et al, 2003, p. 19)

A second part of the decentralization process was enacted in 1993 when the “Law of the People’s Republic of China on the Agricultural Techniques Extension” was passed. This law made each level of government (national to the township levels) fully responsible for funding its extension system, including the provision of capital support for facilities and equipment and operating funds to cover staff salaries and program costs (Nie, et al., 2002). In addition, other county-level government offices began collaborating with CATECs to allocate funds for development projects and/or to provide training for farmers. For example, CATECs began submitting proposals to the County Department of Science and Technology (Nie, et al., 2002). If these proposals focused on promising technologies, addressed real needs and had the political support of farmers within the county, then they were likely to be funded. CATECs also cooperate with other government offices, such as the County Women’s Federation (CWF), in providing training for women farmers. By partnering with
these different government offices, CATECs were able to gain access to new sources of operating funds and to build strategic alliances within the county for the benefit of rural farm households. (Swanson, Nie and Feng, 2003, p. 19).

Structural Change and Decentralization of the Indian Extension System

In India, during the period of Training and Visit Extension, most extension activities, particularly at the block and village level, were carried out by the Department of Agriculture (field crops) through its “agricultural extension” service. Other departments, such as Animal Husbandry, Horticulture, Soil Conservation, Forestry, Fisheries, and Sericulture, have extension responsibilities, but lacked the field staff at the block and village levels to carry out these duties. Under the World Bank-financed National Agricultural Technology Project (NATP), the extension system was converged to include all subject matter areas within a unified extension system. Village-level extension workers (VEWs) became responsible for all subject-matter areas in their respective service area, with technical backstopping and training being provided by a “converged” Block Technology Teams (BTTs). The staffing composition within each block would reflect those subject-matter areas that are important to sustainable agricultural development, with agriculture (field crops) and animal husbandry officers being common to all teams. All BTT officers have a minimum of a university degree and some officers have post-graduate education. (Sharma, et al., p. 3).

In addition, Farmer Advisory Committees (FACs) were established at the block level in most project districts to establish formal stakeholder involvement in program planning and to increase accountability. The composition of these FACs is clearly specified to ensure that all socio-economic groups of farmers, including women, schedule castes, and tribal groups are represented in the program planning process. In addition, at the block level, BTTs develop extension program plans and these plans are reviewed, modified, and/or approved by block-level FACs. (Sharma, et al., p. 3).

Decentralized program planning and program integration is further strengthened at the district level through a new mechanism called the Agricultural Technology Management Agency (ATMA). ATMA means “soul” in Hindi; therefore, this new “bottom-up” agency is expected to address the broad-based interests of rural communities or to become the soul for agricultural development activities within each district. In each project district, ATMAs were created as “registered societies.” In India, registered societies are outside of the normal governmental structure, but these new quasi-governmental, autonomous institutions can receive, allocate, and spend government funds. The Heads of all governmental departments concerned with agricultural research and extension within a district make up each ATMA management committee. The ATMA Governing Board (GB), which is composed of a cross-section of stakeholder representatives from across each district, reviews all block-level research and extension plans, and approves all block- and district-level extension funding requests. In addition to funding extension programs within the district, the ATMA also provides modest funding for those research activities that the Governing Board considers to be a priority within the district. This combination of an integrated research-extension structure, combined with “bottom-up,” program-planning mechanisms and procedures,
represents a fundamental institutional and procedural innovation within the Indian extension system. (Sharma, et al., p. 3).

As a result of pilot testing the ATMA model under NATP, the Government of India has decided to expand this decentralized extension system to 252 districts during the remaining two years of the current 10th plan, including the 28 districts already developed under NATP and 37 additional districts established under the DASP. If this expansion is successful, then the Government of India is expected to adopt this new decentralized extension model nationwide in the 11th plan period. In addition, the Ministry of Agriculture has proposed that the current set of 27 centrally funded DOA programs be discontinued and that these funds flow directly to ATMA districts through a macro-management approach to decentralize extension programming.

Conclusions and Implications

As noted in the first part of this paper, governments in both developing and industrially developed countries are reducing their investments in public agricultural research and extension. At the same time, as a result of the consolidation of transnational life-science companies, investments in agricultural R&D are being focused on a limited number of production problems associated with the major crop and livestock enterprises that are being produced worldwide. In addition, to maximize profits, these companies are organizing input distribution and technical support systems that will directly transfer these proprietary technologies to large commercial farmers worldwide. This situation poses a major challenge for public research and extension, as well as for the 1 billion small- and medium-scale farmers that are being marginalized by the globalization of the world’s food system.

Public research and extension leaders need to recognize that TNCs have far more capacity and resources to develop and disseminate a range of technologies that will continue to increase the “production efficiency” of many of the world’s major crop and livestock systems. Therefore, these leaders should concentrate their limited resources on those crop and livestock systems that are economically important within the country and that will be largely ignored by the private sector. Based on these findings, it is recommended that policy makers refocus more of their public research and extension resources on more specialized, high-value, labor-intensive crop and livestock systems that can increase farm income and rural employment, especially for the rural poor. Large input supply firms are less likely to invest in these types of technologies, since the potential profitability is far less and technology transfer is more difficult.

In addition, public research and extension systems need to expand their programs in the area of natural resource management, since this area will continue to be ignored by the private sector. In following this “public goods” strategy, research and extension leaders can help alleviate rural poverty, maintain the country’s natural resources, and help improve the competitive position of the nation’s economy. In the process, the extension system can build social capital in rural communities and contribute to human resource development (leadership, technical and management skills/knowledge) that will enable more rural young people to secure off-farm employment and, over the long-term, escape rural poverty.
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