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Extension and Outreach: Not a Question of If, but How

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Abstract

In this article, the authors develop a conceptual framework for effective extension and outreach. Based on both our experiences and research and those of leading scholars and practitioners in the field, we offer the following ten ideas for thought, debate, discussion, and implementation. Effective extension systems must: be institutionalized, well-defined, and well-funded; address important/contemporary issues/ problems; be sufficiently nimble and flexible in order to address emerging issues; be a credible and unbiased source for information/education and solutions/research; understand the needs of its customers; embrace participatory and integrated approaches; recognize that little happens in isolation and create regional/global sustainable partnership/linkages with governments, NGOs, researchers and educators; be excellent stewards of resources acquired; recognize that return on investment (ROI) from its research and outreach must be well-documented; and allow for decentralized decision-making and action when warranted.

Keywords

Extension Systems, Advisory Services, Managing Change, Perspectives, Marketing

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Extension and Outreach: Not a Question of If, but How

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Abstract

In this article, the authors develop a conceptual framework for effective extension and outreach. Based on both our experiences and research and those of leading scholars and practitioners in the field, we offer the following ten ideas for thought, debate, discussion, and implementation. Effective extension systems must: be institutionalized, well-defined, and well-funded; address important/contemporary issues/problems; be sufficiently nimble and flexible in order to address emerging issues; be a credible and unbiased source for information/education and solutions/research; understand the needs of its customers; embrace participatory and integrated approaches; recognize that little happens in isolation and create regional/global sustainable partnership/linkages with governments, NGOs, researchers and educators; be excellent stewards of resources acquired; recognize that return on investment (ROI) from its research and outreach must be well-documented; and allow for decentralized decision-making and action when warranted.

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A few years back, the Editorial Board of JIAEE decided to start an annual Seminal Article Series. The purpose of this Series is to stimulate thought and discussion of issues important to our profession. We think this Series has done just that and are pleased to continue this tradition with our contribution herein. In the first article in this series, Jim Christiansen (2005) wrote about "Addressing the Right Issues and Raising the Right Questions in AIAEE" (p. 5). Chief among challenges presented to the reader was using our professional talents to make a difference in the world. Burt Swanson (2006) wrote about "The Changing Role of Agricultural Extension in a Global Economy" (p. 5). He challenged readers to embrace new approaches to extension systems and emphasized the type of leadership needed to ensure this happens. Barbara Ludwig (2007) wrote about "Today is Yesterday's Future: Globalizing in the 21st Century" (p. 5). She writes about planning for the future of extension and not just letting the future happen as a passage of time. Gary Wingenbach (2008) wrote how the "Journal of International Agricultural and Extension Education Scholarship" was our "Passport to the World" (p.7). He, perhaps, would know better than most as he served as editor of this Journal for six years. He provides the reader with thoughtful suggestions to improve the focus and quality of writing in our profession. Don Meaders (2009) wrote "A Brief Review of the History of the AIAEE" (p. 7). He was invited to write this article to help us remember our past as we celebrated our first 25 years as an organization. We see a lot of commonality in these seminal articles: We have a lot of really smart people thinking about some very important problems; we have some serious contemporary issues facing agricultural and extension education that we collectively need to address; and we have a strong organization in AIAEE that can act as a catalyst to help our memberships' professional development goals. Our contribution to this Seminal Series draws from much advice provided by these authors as we thought about how to conduct extension and outreach in the future.

The genesis of this paper comes from an invited talk we gave at the International Congress on Tropical Agriculture held a few years back. A shorter and refocused version of this ongoing conversation between the authors was provided by James Lindner at the opening ceremonies of the 2012 AIAEE conference in Bangkok, Thailand. While we have both worked extensively internationally, many of our examples are a set within the geographical context of the United States and the Caribbean. In such instances we encourage the ready to critically discern the applicability within their own geographical context.

Introduction

Food security, food safety, food production, and food marketing are contemporary issues necessitating strong and vibrant extension and outreach programs in developing countries. The authors of this paper agree with Rivera's (1990) statement that the appropriate extension model or system is situational in context, content, culture, and politics. Despite these constituents of extension currency, all systems are influenced by past experiences. The most essential feature of the past is a perception of free advice, state-run management and delivery and a head start from research initiatives. The purpose of this paper is to develop a conceptual framework for effective extension and outreach. Much has to be considered regarding a suitable model for extension systems and outreach programs.

The authors of this paper contend that for any extension system to be effective it must: (a) be institutionalized, well-defined, and well-funded; (b) address important and contemporary issues/problems; (c) be sufficiently nimble and flexible in order to address emerging issues; (d) be a credible and unbiased source for information and education and for solutions and research; (e) understand the needs of its customers; (f) embrace participatory and integrated approaches; (g) recognize that little happens in isolation and create regional/global sustainable partnership/linkages with governments, NGOs, researchers, and educators; (h) be excellent stewards of resources acquired; (i) recognize that return on investment (ROI) from its research and outreach must be well-documented; and (j) allow for decentralized decision making and action when warranted.

Historical Contexts

Historically, extension and outreach programs focused on adoption and diffusion of technological advances (Swanson, 2008). The classic example of this is the study of adoption and diffusion of hybrid corn in Iowa (Ryan & Gross, 1943). The Iowa State University Extension Service had a primary role in diffusion of this technological advance (Rogers, 2003). Swanson (2008) wrote that much of the development of new agricultural technological advances and the diffusion of such are being taken over by privately held companies. He further wrote that extension needs to take advantage of the opportunity to create partnerships with those privately held companies that are developing and diffusing technological advances.

Swanson's statement reflects a distinct separation of responsibility between traditional state-run mechanisms for extension and those initiatives by private agribusinesss companies and non-governmental organizations. There is a weakened impact of state extension throughout global agricultural systems. Yet the state extension system is an indelible feature of agriculture systems globally. Appropriate state partnerships with private companies and nongovernmental mechanisms must still be considered for the future. As extension's role changes in the diffusion of technological advances, opportunities to expand into human resource use and development are presented.

Reflections of an Effective and Efficient Extension and Outreach Program

Be institutionalized, well defined and well funded

While there is general consensus regarding an institutionalized outfit for effective extension, there is much concern about systems that are not well defined and well-funded. Invariably, many services lack adequate clearly defined extension objectives that can become operational in specific short-term and long-term arrangements. Objectives do not process through participatory approaches that derive suggestions from all the participating elements. With respect to funding, allocations to entire Ministries and Departments of Agriculture are generally smaller than those to other state Ministries. Within the extension services, most funds can only support the cost of personnel resource, with little remaining for extension program development.

There are numerous extension systems models used throughout the world, some with great success and others with less success. The unfortunate problem is that successful models do not appear to have global transferability. Issues such as relative advantage, compatibility, complexity, trialability and observability (Rogers, 2003) affect the ability of countries and regions to effectively adopt extension models that are successful in other countries and regions. It

could be argued that over-adoption of extension models, based on limited success in other countries, weakens the ability of a country or region to develop an institutionalized, well-defined and well-funded extension system.

Consider for example the Training and Visit extension system (T&V). Once touted by the World Bank as an extension model "designed to overcome some of the inherent weaknesses of public extension systems," (Anderson, Feder, & Ganguly, 2006, p.12), T&V was widely adopted by many countries and regions, but ultimately failed to become a sustainable and transferable model.

According to Roseboom (2004), most developing countries have not meet the "investment target of 2% of agricultural GDP in agricultural research and extension" (p. 33). Roseboom further wrote that:

> Supported by economic impact studies that report on average high rates of return, there is a widely shared opinion that there is considerable underinvestment in public agricultural research and extension. In other words, the potential of agricultural research and extension in enhancing agricultural productivity and production is not being exploited fully. (p.33)

Address important/contemporary issues/problems

In the United States at the national level, National Institute of Food and Agriculture (NIFA) (www.csrees.usda.gov/) has developed 13 emphasis areas: Agricultural & Food Biosecurity, Agricultural Systems, Animals & Animal Products, Biotechnology & Genomics, Economics & Commerce, Education, Families, Youth & Communities, Food, Nutrition & Health, International, Natural Resources & Environment, Pest Management, Plants & Plant Products, and Technology & Engineering (NIFA). State-level extension programs are typically organized around agriculture and natural resources, family and consumer sciences, 4-H and youth development, and community development.

The recent categories which the Government of Trinidad and Tobago used to judge its national agricultural entrepreneurial awards indicate options for program emphasis. These include: Integrated Mixed Farming, Large Scale Crops, Small Scale Crops, Nursery Production/Plant Propagation, Livestock, Apiculture, Amenity Horticulture, Agro Forestry, Agro Processing, and Grow box/ Container/ Hydroponics. (Greenvine, 2008)

Extension must therefore address important contemporary issues in a leveled global arena.

Be sufficiently nimble and flexible in order to address emerging issues

Extension needs to have organizational and structural mechanisms (policies, procedures, etc.) in place to ensure it is able to adapt and respond to changing situations. Extension, further, needs to have organizational and structural mechanisms in place to ensure it does not get caught up in fads and fashions. Just as many corporations dedicate a portion of their resources (both capital and personnel) to research and development, so too should extension dedicate resources to emerging issues and change. Local, regional, and national planning/action teams and continuous in-service and training is also needed to ensure extension can adapt to both planned and unplanned emerging issues.

An example of planned emerging issues is the National Invasive Species Management Plan, of which NIFA is an integral partner (National Invasive Species Council, 2008). Actions called for in the plan include: prevention, early detection, rapid assessment and rapid response, control and management, restoration, and organizational collaboration. An example of unplanned emerging issues is Texas Agrilife Extension's response to Hurricane Ike. Texas Agrilife Extension was called to coordinate efforts to locate, feed, water, transport and/or dispose of an estimated 40,000 displaced livestock (Fannin, 2008).

The Caribbean region has had its share of emerging issues. For instance, there are the occasional outbreak of new pests and diseases, new marketing arrangements, the fierce onslaught of hurricanes, flooding, and sometimes other natural disasters. Extension must successfully contribute to these challenges. There must be funding for these situations and planned resolve through appropriate stakeholder mechanisms and preventative operations. The case of the invasion of the hibiscus mealy bug is instructive. This pest had threatened food security as it attacked a wide berth of host crops. The region's extension mechanisms were able to mobilize all resources with the use of suitable institutional mechanisms in order to manage the invasion.

Be a credible and unbiased source for information/education and solutions/research

Being a credible and unbiased source for information/education and solutions/research is the hallmark of extension. The Food and Agriculture Organization of the United Nations (www.fao.org) lists nine global issues being addressed by its organization: avian influenza, biodiversity, bioenergy, climate change, food safety, millennium development goals, trade, water scarcity, and world food situation. Extensionists and researchers from around the world are involved with addressing these issues. The credibility of extensionists and researchers involved in developing and delivering solutions to these problems must be beyond reproach. Massey (1994, ¶ 10) wrote that "If extension is to maintain its reputation for being an objective and unbiased educational resource, we must discard the presumptuousness [of] thinking that we have the answers, learn from history that the best available research is transient and present all sides of the issue in as fair a manner as possible."

Understand the needs of its customers

In Chambers' (1995) seminal article, "Poverty and Livelihoods: Whose Reality Counts?" he highlights the need for professionals to better listen to the needs of the beneficiaries. No organization or institution can survive if it is not meeting the needs of its customers. Escalating food, oil and energy costs over the past couple years followed by the recent collapse of financial markets have many implications for extension. Increasing oil and energy costs were major factors resulting in increased food costs over the past several years. As oil prices rose, biofuels became a more financially attractive energy option, thus driving up food costs. In response to the increases in fuel costs, the Cornell Cooperative Extension Service (http://nyc.cce.cornell.edu/emerginginitiatives/energy-biofuels.php), as well as others, has identified biofuels development as an emerging issue that is supported with research and outreach. Coupled with increases in direct and indirect costs to farmers through transportation, agrichemicals, etc, farmers have been forced to increase their prices and consumers have been forced to pay more. The collapse of the

financial markets limits the ability of farmers to access needed lines of credit for input purchases, equipment maintenance and purchases, land purchases, etc. One could speculate, as well, that there will be lower levels of development aid funds available for extension and outreach. The above example presents a paradoxical challenge for extension. With increased interests in biofuels, farmers cultivating corn, for example, benefited from higher prices, while consumers were hurt by higher prices. With the global collapse of the financial markets, energy and oil prices have dropped, making cultivation of corn less profitable; those farmers that shifted to cultivating corn are now hurt by lower prices. The question that extension must continually ask is "Who are our customers and how to we best meet their needs?"

Embrace participatory and integrated approaches

In the classic text, "Pedagogy of the Oppressed," Freire (2003) cautions against educational systems in which the teacher is the holder and transmitter of all knowledge and the students are knowledge repositories. Rajesekaran, Martin and Warren (1994) wrote that extension must take into account indigenous knowledge when developing and delivering programs. Participatory rural appraisal (PRA) and participatory action research (PAR) are two promising approaches that extension can use to address the needs of its customers. A study conducted by Tuttle (2003, p.177) using PRA and PAR in Puentes and Lo Roca, Mexico found that "the people were able to articulate their extension programming needs in a participatory manner quite different from methods employed in the past." Tuttle further noted that by using participatory approaches and taking indigenous knowledge into account, relationships between the community and extension were enhanced.

Recognize that little happens in isolation and create regional/global sustainable partnership/linkages with governments, NGOs, researchers and educators

It would be easy to compile a list of thousands of organizations – government and NGOs, – that provide aid for agricultural development and support extension programs. Some that come immediately to mind are: Food and Agriculture Organization of the United Nations, United States Agency for International Development, the World Bank, Consultative Group on International Agricultural Research, World Cocoa Foundation, International Center for Tropical Agriculture and Fundagro. Extensionists and researchers must develop long-term strategic relationships with these organizations as well as governments rather than looking to them merely as funding sources.

Partnering does occur throughout the world with varying success. There are established local, regional and international organizations that integrate their outreach efforts in order to collaborate on current field challenges. A major problem with the effort concerns the inability to sustain these collaborative efforts for long-term resolve. Institutions easily revert to isolation at the expense of completing extension assignments. Invariably, front-line extension agents are left bereft of support to continue programs that have begun.

Be excellent stewards of resources acquired

There is a saying that "We must be good stewards of our trees or one day we will be without forests" (author unknown). As agriculturalists we must be good stewards of the resources that we have. Farmers must be good stewards of their

land, livestock, equipment and financial resources if they are to be profitable. Extensionists must be good stewards of the resources available to them to carry out their work and maintain the trust of their customers. Many extension systems are using logic models to help document how resources will be used and what the intended outcomes are. NIFA along with many other funding agencies have recently adopted the position that funding requests must be support by a logic model. According to NIFA a logic model:

> "Clarifies the linkages between investments and activities, outputs and expected outcomes of policy, program or initiative; communicates externally about the rationale, activities and expected results of the policy, program or initiative; tests whether the policy, program or initiative "makes sense" from a logical perspective; and provides the fundamental framework on which the performance measurement and evaluation strategies are based …"

Recognize that return on investment (ROI) from its research and outreach must be well-documented

According to Richardson (1996), extension and outreach programs must provide quantifiable measures of impact including calculations on return of investments. Everson's (2002) research has shown that direct economic impacts from extension justify additional investment. For extension systems and advisory services to attract additional resources for agricultural development, evaluation and accountability must be pervasive throughout an extension system. Those systems, services, programs, etc. that can document gains in excess of costs will likely see additional investment.

Allow for decentralized decision-making and action when warranted

The goal of decentralization should not be to push financial responsibility to the community level, but rather to get communities more involved in decision-making. Decentralization has been at the core of extension reform since the mid-1980's (Rivera, 1996). According to Swanson and Samy (2003), while some countries have historically embraced decentralization with great success, other countries have only recently enacted reforms, with limited success, to decentralize extension (Seepersad & Douglas, 2002). Seepersad and Douglas (2002) offered suggestions based on their case study for others wishing to implement decentralization plans. These suggestions focus on: realistic goals, stakeholder involvement, flexibility, focusing, pilot testing, monitoring, pre-planning, and following sound organizational development practices.

Alex, et al. (2000, p. 13) provided eight good practices appropriate for decentralizing extension programs: "Centralize or decentralize programs as appropriate to the service;" "adapt strategies to local institutional environments;" "strengthen central support services for extension;" "provide mechanisms for policy formulation in mixed systems;" "expect to continue public sector financing;" "fiscal transfers for research and extension;" "plan for transition and local capacity development;" and "ensuring monitoring and evaluation of decentralized systems."

Final Thoughts

As extensionists grapple with how best to develop and administer effective and efficient extension and outreach programs,

the authors of this paper provide a conceptual framework from which discussion can flow. We doubt many would argue the ten ideas offered are ground-breaking or particularly insightful. To wit, we ask why then has implementation of such been so problematic? Clearly, there is work to be done. With a world population of over seven billion people, extension systems and advisory services are "on the clock" to address food security, food safety, food production, and food marketing problems that will only increase as our global population increases.

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