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Keywords

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Agricultural development in Morocco relies on the economic strength of the country's rural regions. Recently, government programs have focused special attention on actions encouraging farmer associations and strengthening value-chains for agricultural commodities. Small rural producers, however, lack the leadership skills and strategic planning capabilities to accomplish this initiative. The Morocco Rural Leadership Program connects University of Minnesota Extension staff with faculty at the National School of Agriculture, Meknès (ENA) in Morocco to co-design and teach a leadership cohort program for farmers. Its intent is to build social capital for sustainable value-chain development. Program evaluation revealed that the program not only increased leadership capacity but also grew farmers' social capital and led to behavioral and procedural change in farmer associations.

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Introduction

In Morocco, as in many countries, agricultural development relies on the economic strength of its rural regions. During the past several decades, the emphasis on agricultural development in Morocco and beyond has shifted from commodity production to value-chain development (USAID, 2013). A value chain is a model developed by Michael Porter (1985) used to describe the series of activities by which businesses receive raw materials, add value to the raw materials to create a finished product, and then sell the end product to customers. The value chain approach emphasizes the relationships among the chain of organizations that add value to raw agricultural products. The transition to supporting value-chain development accompanied a programmatic shift to positioning farmers for export markets. The Morocco Green Plan (Agence pour le Développement Agricole, 2013) strengthens value-chain efforts by aggregating small-scale farmers into cooperative associations, as well as integrating commodity production with the processing and marketing industries of local commodities. As a result of this plan, rural systems were restructured, creating the formation of more than 250 farmer-based, value-chain associations in rain-fed areas across the country. In December 2013, the 12,022 cooperatives in the country mobilized 440,372 individuals.

Through collective action, farmer associations and cooperatives can be highly successful at leveraging resources, cutting input costs, accessing financial and marketing services, and solving common challenges. The difficulty in achieving success for these associations, however, is a lack of leadership, planning, and collective decision-making skills.

The Morocco Rural Leadership program was designed to strengthen the

leadership and strategic planning capabilities of farmer associations in several value chains in the Meknès-Tafilalet region. The program connected University of Minnesota Extension staff with faculty at the National School of Agriculture, Meknès (ENA) in Morocco to co-design and teach a leadership cohort program for farmers to build social capital for sustainable value chain development. The leadership program developed a cohort of trainers, as well as a cohort of decision makers with common responsibilities to govern, manage, and operate strong associations and affiliated enterprises. Funding for this program was supported by the U.S. Agency for International Development (USAID) and supported through the John Ogonowski and Doug Bereuter Farmer-to-Farmer Program through the Volunteers for Economic Growth Alliance (VEGA).

The context for this program is built on the relationship between the University of Minnesota and higher education and research institutions in the Kingdom of Morocco. Over four decades, Moroccan citizens were educated through a program coordinated through the University of Minnesota that focused on agricultural sciences. A network of alumni provided a link for continued collaboration in the country, including a 30-member cohort group of Minnesota citizens visiting Morocco as a part of their own leadership training program in March 2011.

In support of the Morocco Green Plan to establish and develop a value chain approach across the agriculture sector, continued growth has occurred in farmer associations and cooperatives. The long-term viability of the associations was important for sustained development of agriculture. From this initiative, the Morocco Rural Leadership Program was proposed.

This article presents a literature review examining the scholarly influences of the program, a detailed description of program design, including implementation and evaluation efforts, and evaluation results. The study concludes by highlighting the implications and applications of this type of leadership program for international Extension professionals.

Literature Review

The Morocco Rural Leadership Program is a new type of international Extension program informed by, and contributing to, literature on the role of farmer associations in sustainable development, leadership development, and social capital. The literature influencing this approach to agricultural development differentiates from much of the existing literature, which has tended to emphasize the role of NGOs and the private sector in agricultural development (Swanson & Samy, 2002), workforce development (Barrick, Samy, Gunderson, & Thoron, 2009), and internationalization of agricultural and Extension education curriculum (Ricketts & Morgan, 2009).

Sustainable Development

While multiple perspectives of sustainable development exist, this rural leadership training program was developed to build capacity within farmer associations in Morocco. This effort was intended to contribute to long-term sustainable development through skill development to strengthen rural associations and cooperatives. According to the Food and Agricultural Organization (2007), farmer-based associations (FBAs) are instrumental in promoting empowerment and equitable development. Through FBAs, farmers can strengthen their political power as a group and ensure that their needs and voices are

heard by policymakers and the public (Birchall, 2004; IFAP, 2004; Marsh, 2003).

Unfortunately, until recently, the social dimension has been widely perceived as “the weakest ‘pillar’ of sustainable development” (Lehtonen, 2004, p. 199). For a long time, sustainable development was thought to address mostly environmental issues regarding the integration of environmental concerns into economic decision-making. Socio-political and economic changes in the past two decades, however, have created a renewed interest in the role of the social dimensions of development (Woolcock, 2001; Lehtonen, 2004).

According to Lay (2007), sustainable development has two main pillars; “learning for sustainability” and “leading change towards sustainability” (p. 1052). For an organization to prosper and have a sustainable future, it must be purposefully managed rather than spontaneous. A critical part of accomplishing this is to involve a group of social actors who internalize sustainability, life preservation, and survival as the ultimate value and special interest. They also systematically “feed themselves with new knowledge” (p. 1053).

More recently, Missimer and Connell (2012) discussed social learning within education for the sustainable development field based on the idea that we learn best through learning with and through others. They argue that, “When people learn together, the collective knowledge and skill are far greater than what can be achieved by an individual” (p. 174).

Leadership Development and Social Capital

Community leadership development literature influenced the design of the program, specifically its emphasis on the importance of both human and social capital in leadership development. Human capital

refers to the collective power of individual knowledge, skills, abilities, and social competencies. Communities can enhance their human capital by improving the skills of individual leaders. Social capital, on the other hand, refers to the collective power of relationships, connections, and networks among and between people. Individuals and communities acquire social capital through relationship-building among people who are similar, people who are different, and people with varying levels of political power (Rasmussen, Armstrong & Chazdon, 2011).

Aspects of human and social capital are also central to the distinction between “leader” and “leadership” development. Day (2000) asserts that leader development emphasizes human capital—the skills and abilities of individuals associated with formal leadership roles. Leadership development, on the other hand, focuses on resources that are embedded in relationships, bearing more resemblance to social capital. Day notes, “The primary emphasis in leadership development is on building and using interpersonal competence” (p. 585). According to Day, interpersonal competence has two distinct skill sets: (a) social awareness, which includes empathy, political awareness, and service orientation and (b) social skills, which includes the ability to collaborate, manage conflict, and catalyze change. Bantilan and Padmaja (2008) support this notion of leadership development by stating: “...social capital plays an important role in fostering the social networks and information exchange needed to achieve collective action and sustain a social and institutional environment that is ready to adapt and change” (p. 63).

When reviewing the literature on social capital, the distinction between bonding, bridging, and linking social capital is also relevant. Bonding networks refer to strong connections among individuals and

groups with similar backgrounds, while bridging networks refer to weaker connections among individuals and groups with diverse backgrounds. Organizations with strong bonding but weak bridging networks tend to exclude new or non-traditional leaders. The potential drawback of emphasizing bonding over bridging social capital is also highlighted in several articles about farmer associations that point out the limited benefits they provide to smaller producers. A small group of larger producers tend to control and benefit the most from the associations (Attwood, 1987; Fox & Hernandez, 1989; Lele, 1981). Chamala and Shingi (1997) argue that, “The traditional approaches to organizing farmers and forming cooperatives need to be revised to meet the development challenges of the twenty-first century” (p. 193).

In addition to bonding and bridging networks, linking networks are crucial in rural development contexts. Based on the work of Szreter and Woolcock (2004), linking networks are defined as “networks and institutionalized relationships among unequal agents” (Szreter, 2002, p. 579). Compared with bridging networks, which connect individuals who are not alike yet are more or less equal in terms of status or power, linking networks are based on explicit “vertical” power differentials. Linking networks are considered strong when residents trust leaders of public and private institutions and are able to engage with those leaders. Leadership programs, therefore, should focus on the strengthening of bridging, as well as linking networks by promoting wider engagement among program participants with stakeholders (Abbey, Tomlinson, & Branston, 2016).

Purpose and Objectives

The purpose of the Morocco Leadership Program was to increase networks and social capital among farmers while also providing leadership skill training

to build leadership competencies. The intention to build social capital was to help Moroccan farmers learn about working cooperatively as a way to strengthen value chains and enhance their incomes. By linking a large number of small farms to market as a group, small producers would be able to sell to a national or even international market.

Specific objectives that were measured and evaluated in building social capital and the leadership capacity of the farmers were:

1. Increase of networking capacity among the members of farmer associations;
2. Increase of effective communication between members of different associations;
3. Increase of leadership competencies of individual farmers; and
4. Increase of leadership capacity of farmer associations through project implementation.

Although not evaluated for this article, it is important to note that a train-the-trainer model was used for the purpose of ensuring the program's sustainability. The objective was to develop the leadership skills and capacity of the ENA faculty in order for them to lead and sustain future cohorts. Furthermore, the give and take discussions following the sessions with the farmers promoted mutual cultural understanding between Minnesota educators and ENA faculty.

Methods

Cohort Model

The Morocco Rural Leadership program was based on a cohort model that also takes into consideration the context of small, rural Moroccan cooperatives. The cohort model is preferred for leadership development programs because, both explicitly and by design, it helps achieve

learning and social capital building goals. For one, knowledge and skills are more efficiently acquired and readily retained when information is distributed over spaced time intervals rather than disseminated all at once. This was especially helpful with the long-distance logistical nature of the program. Additionally, a cohort model encourages exploration and exchange of views with others while also enabling people to develop broader individual networks. This was magnified in the program, as each individual farmer also represented a network of individuals connected through their association. These connections, both pre-existing and formed in the cohort environment, make it easier for participants to move outside of their comfort zone and further engage in the program material. Cohorts also build the trust and support necessary for the depth of group reflection and meaning-making following disorienting dilemmas that individuals experience in these kinds of programs. Along with these benefits for program participants, the cohort model encourages the sustainability of the program as a whole.

While using the cohort model for structure, the program applied an integrative leadership content model that included four core competency areas to build both leadership skills and social capital: Linking Engagement, Contextual Understanding, Leader Attributes, and Relationship Building. Twelve specific leadership competencies were identified to integrate throughout the training to reinforce the four core areas. Table 1 lists the themes and competencies woven throughout the three sessions.

Program Design

The program design was developed using an iterative, three-tiered process. The first tier involved University of Minnesota Extension educators preparing drafts of

agendas and activities to present to the team of four faculty from the National School of Agriculture, Meknès (ENA).

The second tier was a train-the-trainer component in which Extension educators and alumni from the Minnesota Agriculture and Rural Leadership (MARL) program provided training and shared farmer association experiences with four Moroccan professors from ENA. This process included both virtual and in-person working sessions to develop the curriculum. Working together, Minnesota educators and Moroccan faculty incorporated Moroccan examples (i.e., educational videos, field trips, and local guest speakers) to ensure that concepts were introduced in the correct order and reinforced throughout the training.

The third tier of the program design was the give-and-take that occurred when ENA professors delivered the curriculum to farmers. The 22 farmer participants represented 17 different associations across eight value chains: honey, milk, apples, olives, seeds, dates, medicinal plants, and meat. The training sessions were delivered in Arabic and Berber. Members learned and practiced a number of tools, including group

decision-making, preparing and facilitating a meeting agenda, creating a shared vision, and developing action steps to reach their vision. Between the workshops, cohort members were given assignments to practice the tools they learned, including the application of a strategic planning process to lead their cooperative or association.

Training Sessions

The program was conducted during three consecutive sessions implemented over nine months: June 2014, October 2014, and February 2015. The same scheduling format was used for each session. The first three days focused on Tier 2 of the design process. Through a collaborative process, the University of Minnesota and ENA faculty revised the agenda and activities to better target the farmer participants. The following three days focused on Tier 3 in which the ENA faculty implemented the training for participants. After each set of six days, there was a debriefing to identify what was working well and what needed to be changed for future sessions. Table 1 presents an overview of the content and focus of each of the program sessions.

Table 1

Workshop Session Framework by Themes and Learning Objectives

Dates	Theme	Learning objectives
June 4-6, 2014	Introduction to Leadership and Mapping the Environment	To understand cohorts and get to know one another To develop ground rules and shared values To better understand the association's strengths, problems, opportunities, and threats
	What is Leadership and the Value of Vision	To analyze the characteristics of leaders To explain the importance of a group having a clear vision To learn a process of developing a vision for the association To identify action steps for change

	Creating a Vision and Steps for Action	- To understand the skills needed for effective planning - To identify high-level strategies and actions steps for reaching a shared vision - To use a process to gather facts and reactions of others to a group's vision and strategies
October 15-17, 2014	Reconnecting with the Leadership Cohort	- To understand different communication styles - To build communication with others, mindful of individual talents and strengths - To understand and practice having a focused conversation (or construct questions that encourage responsibility for action) - To determine how to will move forward with 5 Bold Steps
	Mapping Your Strategy	- To analyze what information or tasks are needed to achieve a goal – one of the 5 Bold Steps - To practice improving communication and listening skills - To compare and contrast various principles of leadership and management
	Meetings that Work	- To understand some group decision-making methods - To understand principles of effective facilitation - To apply techniques for making meetings productive - To plan an effective meeting agenda
February 4-6, 2015	Communicating Your Strategies	- To analyze what information or tasks are needed to achieve a goal - To identify leadership strengths and opportunities for growth
	Leading Group Decision Making	- To seek out different perspectives to be informed - To practice using various decision making processes - To determine the value of working with a diverse group of people - To practice conflict management skills
	Taking the Next Step	- To use a critical thinking tool to seek out different perspectives - To identify immediate next steps in order to take action - To practice the skill of reflection to build new insights - To celebrate accomplishments
During each session, educational content and activities were used to teach both leadership skills and strategic planning while also taking into consideration the context of the Moroccan farmers and the area's small rural cooperatives. Because of challenges raised by language and cultural differences,		the curriculum was taught using creative teaching methods rather than traditional ones (i.e., PowerPoint presentations, handouts, or lectures). Content delivery was selected based on simplicity, use of graphic illustrations, experiential learning, and applicability to the farmers' small rural

cooperatives. The flexible, interactive nature of the tiered design process was vital to ensure materials developed by Extension staff were translated and presented in an accessible way to the Moroccan farmers.

Program Evaluation and Results

The evaluation of the Morocco Rural Leadership Program was designed to measure achievement of leadership competency outcomes, changes in behavior among farmers in their associations, and changes in bridging networks among farmer

associations. Evaluation data based on a mixed methods design were collected at three points in time during and after the program. One key component was a leadership capacity survey administered to each farmer participating in the program. The survey included 14 Likert-scale survey items measuring leadership competencies across each of the four core focus areas of the program curriculum. These competencies and the questions used to address them are listed in Table 2.

Table 2

Leadership Competency Scales and Associated Survey Items

Competency scale	English translation of competency statement
Linking engagement	I am comfortable approaching local authority representatives.
Linking engagement	I have people in my community who look to me for advice.
Linking engagement	I actively participate in other organizations in my community.
Contextual	I identify key developments and trends that are likely to have an impact on my organization.
Contextual	I plan and take strategic action to move my association forward.
Contextual	I break down large projects into manageable tasks.
Leader attributes	I seek and invite different ideas from others.
Leader attributes	I encourage leadership by women in my community.
Leader attributes	I communicate a positive image about my association.
Leader attributes	I encourage leadership by men in my community
Relationship	I adapt how I communicate to different audiences.
Relationship	I serve as an effective group member.
Relationship	I am good at dealing with conflict in group situations.
Relationship	I support others in identifying and using their strengths.

Leadership Competency Change

Leadership competency data were collected during the baseline session in June 2014, at the final session in February 2015, and at the one-year after program completion

in February 2016. Figure 1 shows the farmers' self-reported leadership skills at the three points in time. During the baseline session, the strongest area of self-reported leadership skill was in Relationship (see

Table 2 for the specific items used to measure these competencies). The weakest self-reported skills were Linking Engagement competencies. At the end of the program, the strongest area of self-reported skill was in Leader Attributes, which likely reflected the leadership content of the program. Interestingly, self-reported skills in Contextual Understanding fell from the baseline measurement, suggesting the farmers may have overestimated their understanding of the larger strategic environment affecting their cooperatives.

One year after the program, all four competency areas showed marked improvement from the baseline measurement. Linking Engagement skills increased from a mean of 4.2 to a mean of 5.4 (a 29% increase in the mean). Contextual skills increased from a mean of 4.5 to a mean of 5.6 (a 25% increase in the mean). Relationship skills increased by 14% from the baseline measurement to the one-year follow up. Self-reported Leadership skills leveled off between the end of the program and the one-year follow-up but still increased by 13%.

Association Network Change

Along with collecting information on individual leadership capacity, surveys also evaluated the capacity and social networks of the participants' FBAs. Social Network Analysis (SNA) is a method for focusing on relationship patterns and potentially patterns over time. It helps visualize, as well as quantify, the depth and breadth of relationships within or among organizations (Borgatti, Everett, & Johnson, 2013; Durland & Fredericks, 2006). A SNA survey was conducted to examine the relationships and information flows among the various FBAs represented in the program. The survey asked farmers about the frequency of their contact with representatives from other farmer associations, as well as the frequency of their contact within their own association.

During the final two evaluation periods, an additional measure of behavior change was also included. While the first two areas focused on capacity building, the third focused on how farmers and associations were using this increased capacity in their work.

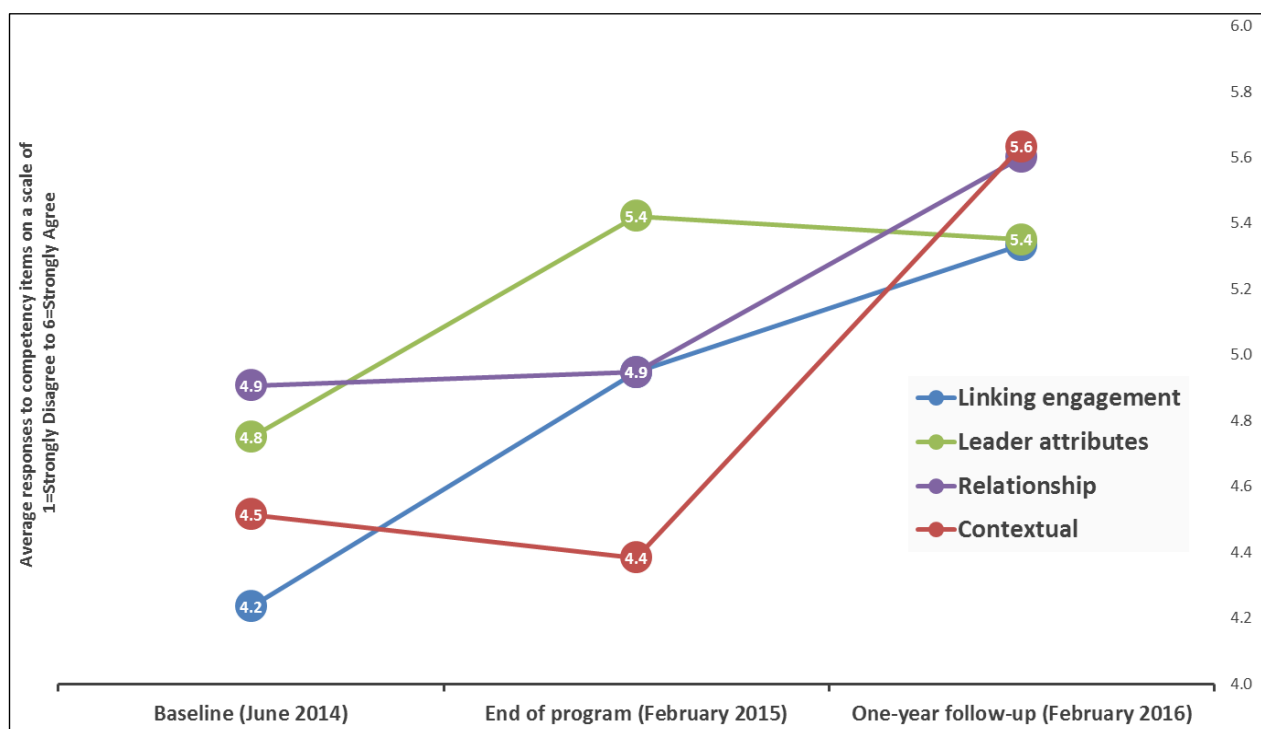


Figure 1. Farmer self-reported leadership skills at three points in time, by category ($n=22$)

The SNA survey visually displays the increase in network connections among the FBAs. Using the same points in time as the other assessments, participants were asked to rate the frequency with which they connected with members of other associations. Their options included the following: never, once or twice per year, about quarterly, about monthly, and weekly or more often. The network diagrams in Figure 2 show the relationships reported by members of 17 different associations in June 2014 at the beginning of the program, in February 2015 at the end of the program, and in February 2016 one-year after the program. The lines between the names represent reported connections between

thinnest lines represent once or twice per year, thicker lines represent quarterly to monthly, and the thickest lines represent weekly exchanges. For example, in the baseline network, APPM indicates an infrequent connection to Difat Ziz.

Comparing the initial and final SNAs, it is clear the density of the network and the thickness of lines are important metrics to measure program impacts. At the baseline measurement, the association network had a density of 20%. This means about 80% of the possible connections among associations either did not exist or were not reported. In the post-survey, the density of the network rose to 51%, and at the one-year follow up, the density had

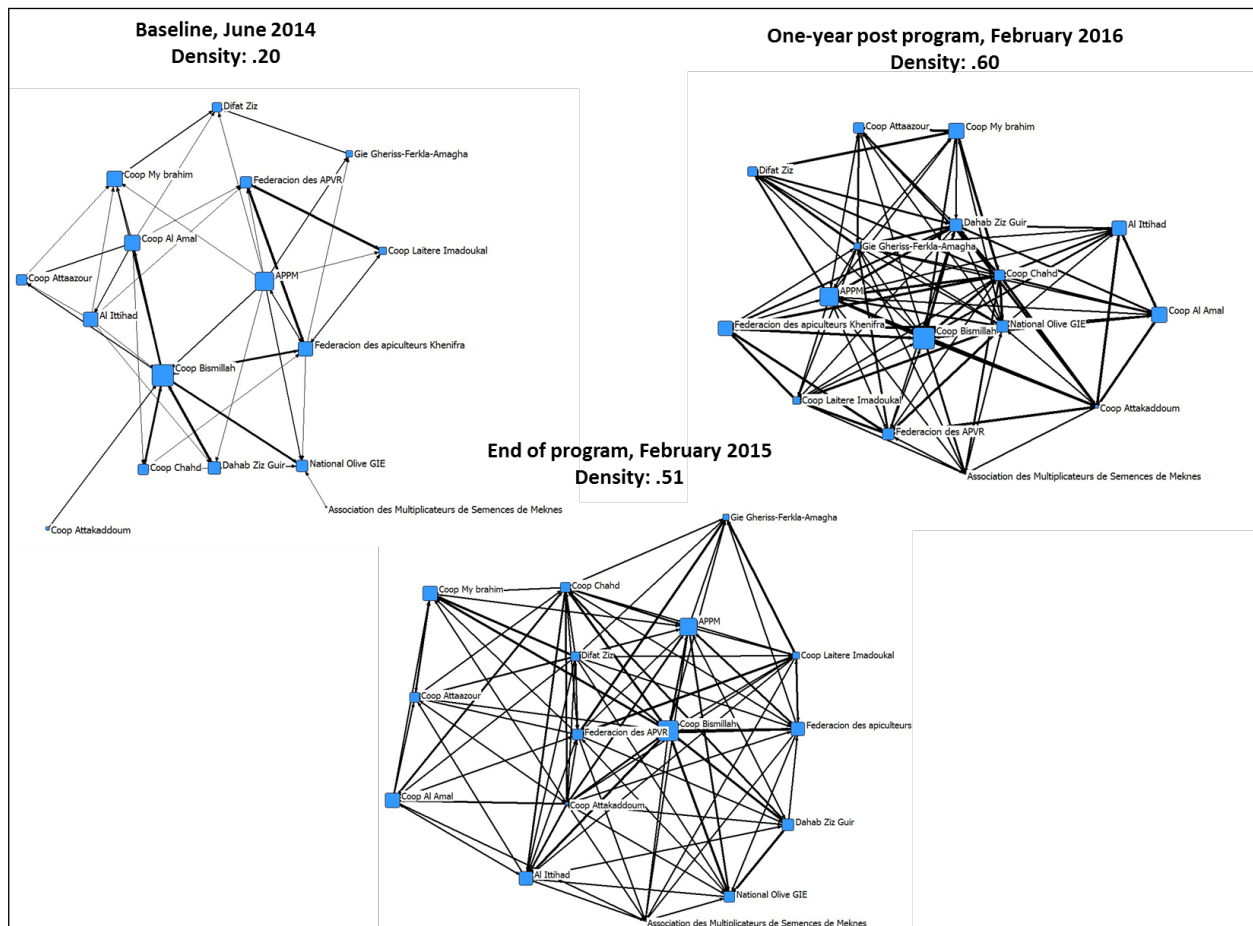


Figure 2. Connections among Cooperative Associations during the past twelve months ($n=16$) participants, and the thickness of the lines reflects the frequency of exchanges. The increased to 60%. In addition to an increase in density, analysis of the three network

diagrams shows an increase in the number of connections and the frequency of exchanges that cut across value-change and size of associations—an indicator of an effective leadership cohort. Along with the connection lines, the squares that anchor each of the association names are also an important metric. Square size is based on an association's strategic importance (Eigenvector centrality) in the association network. Eigenvector centrality specifically measures how well an association is connected to other well-connected associations in the network.

In addition to questions about external connections with other associations, the SNA survey asked participants to report the frequency of contact with members of their own cooperatives. As with the other surveys, these questions were asked at three points in time to document changes. Figure 3 shows the change in frequency of internal connections during the evaluation periods.

At the baseline measurement, a substantial percentage of internal contacts were infrequent—only once or twice per year. At the end of the program, only 0.6% of internal connections were this infrequent, with more than 80% of connections occurring weekly or more often. At the one-year follow up, some of this frequency diminished but more than 85% of connections were still monthly or more often.

Behavior and Association Changes

Changes in individual behavior were measured at two points in time. The first time was at the end of the last session in February 2015. Farmers were asked to answer the following three questions on a blank card: 1) What is one thing you learned? 2) How will you apply it/use it? 3) What are some next steps? The majority of farmers stated they learned how to be a better leader as a result of gaining skills in strategic planning, listening, conflict management, and decision making.

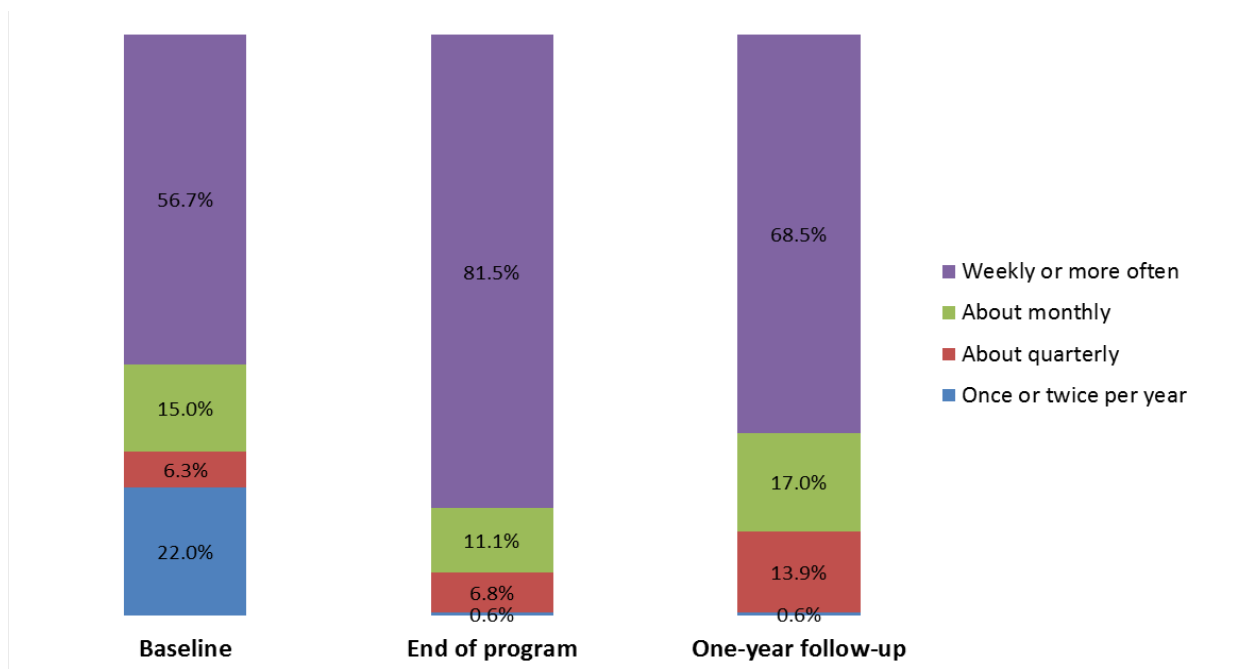


Figure 3. Frequency of contact with members of their own Cooperatives during the past twelve months ($n=17$)

The cards were collected and then mailed to the farmers three months later as a reminder of their commitment to action.

One year after the program, in-person interviews were conducted with the

farmers in Arabic and French to measure individual, organizational, and cohort impact, as well as the training process and content. Table 3 shows the questions that were asked to evaluate these impacts.

Table 3

Interview Questions for One-Year Post-Training Evaluation

Impact	Questions
Individual	• How have you applied what you learned during the past 12 months? • Within the association, what different activities are you doing since you completed the program? • What do you think has changed most about you after participating in the farmer-to-farmer rural leadership training?
Organizational	• As a result of your leadership training, what, if any, procedures does your cooperative or association do differently now? • What change do you see in how your cooperative or association makes decisions?

Results revealed that individual changes among farmers centered on their individual self-awareness and abilities, critical thinking, and communication skills. The majority of farmers indicated improved communication skills, specifically listening. After improved communication, the farmers identified the following changes in order of frequency: better understanding of the importance of a strategic plan, seeking different points of view, and meeting management. A few farmers also indicated an increase in their confidence. One farmer said, "I am less shy than before; before I did not share my opinion in front of people and now I can talk easily and spontaneously."

During the follow-up interviews, changes were reported in procedural matters as well. Farmers reported a change in how their association communicates, makes decisions, and solves problems. The number one change concerned meeting management, specifically in creating agendas, encouraging members to participate, and recording meeting minutes. One participant explained, "There is a change in attitude;

there is an importance. I plan for meetings now."

Individual and organizational changes converged for many farmers who mentioned that after the leadership program, there was a major change in the decision-making process their association uses. Reflecting on the application of critical thinking and leadership skills, farmers reported an increased participation in meetings via discussion and active listening. Of the farmers interviewed, 15 of the 20 stated a change in discussion among members. A common sentiment was, "Everyone participates in discussions. This is a big change." If they could not reach a consensus by discussion, many organizations voted on the matter at hand. This reflects an entirely new way of making decisions, because for many associations, decision-making power used to rest in the hands of presidents and boards of directors. Making this change required an increase in organizational and member leadership

capacity to absorb a new way of doing business.

Educational Importance, Implications, and Application

The importance of this program rests on concrete outcomes identified above. Farmers are making changes in their organizations and associations due to increased leadership capacity developed in the Morocco Rural Leadership program. This targeted program accomplished its objectives while also bridging the gap across culture and language to introduce curriculum and experiences that allowed farmers to grow in their leadership and strategic planning capacity. The leadership program also created an environment, through the use of a cohort model, that resulted in increased social capital both within and across the associations represented in the program. The focus on building social capital will certainly have long-term impacts as these networks continue to be used by farmers going forward.

As a whole, this model of leadership and sustainable economic development is one of the first of its kind. The success of this initial cohort suggests implications for other Cooperative Extension Services and international Extension partnerships going forward. The Morocco Rural Leadership program was successful, and a large part of its success rested on the three-tiered design process. Curriculum was developed based on best practices that University of Minnesota Extension had developed in their domestic community leadership programs, which was collaboratively adapted and then passed on to participants and faculty at ENA. Not only did this ensure material was culturally applicable, it also created a built-in method of sustainability for ENA faculty to provide this kind of training for other farmers in Morocco.

More study and development is needed in this area moving forward. One area for further research is refining the curriculum design and adaptation process. The cross-cultural, three-tiered process evolved naturally throughout the course of this project. More research into the theory and best practices for international cross-cultural curriculum development would bring clarity and introduce a stronger model for this process. Along with process-focused research, additional output-focused research would be useful, specifically on the economic impact of this program. Follow-up studies demonstrated that leadership capacity and social capital remained higher than the baseline measurement even one year after the program was completed. It is unknown at this time, however, how that increased capacity translates into the economic output of the farmers' associations.

Without the addition of future research, though, this study is immediately applicable to other international Extension professionals. An observation from the program revealed that similar tools can be used in both domestic and international leadership programs, so long as they are adapted for local culture and context. Furthermore, the tools used in both settings increased leadership and strategic planning capacity among individuals and organizations. Along with building specific skills, this kind of model also creates and strengthens social capital among individuals in one association, as well as across different associations and organizations. Extension professionals from both countries contributed key roles in facilitating this process, and by working together with the targeted population, are ultimately able to strengthen the capacity of the agricultural sector in rural regions. Furthermore, the same strategies created and implemented in the Morocco leadership program can be

modified to work in multiple cultures around the globe.

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