

## Youth Engagement in Agricultural Education and Training Systems

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### Problem Statement

Youth development for citizenship, employment and leadership is a crucial topic for addressing and overcoming the challenges posed to agriculture education and training (AET). Today's group of young people is the largest in history and much of these youth have abandoned agriculture as a way of life (World Bank, 2008). The growing food crisis, climate change and increasing global unemployment and underemployment rates disproportionately affect the world's youth population (Bennell, 2010; FAO, 2009). They are the next generation of farmers, yet most have limited opportunities or declining interests in continuing in agriculture (World Bank, 2008). Youth represent a massive untapped potential to improve the rural agricultural system of developing countries, if appropriately equipped with the necessary skills, training and education to enter society as competent, empowered and capable citizens.



### Current State of Knowledge

Youth are a heterogeneous population defined as those transitioning from childhood into adulthood. Youth needs, interests, perceptions and aspirations vary depending on gender, locality, region and socio-economic status (Bennell, 2010).

Currently, there is a significant lack of data for understanding the determinants, causes and effects of the global "youth crisis" (Bennell, 2010). Key indicators of this crisis include high youth unemployment or underemployment rates, high rates of youth internal migration (predominately from rural to urban areas), rising average age of farmers, and the almost universally negative views youth have towards agriculture as a way of life (Bennell, 2010; FAO, IFAD & CTA, 2014; Leavy & Smith, 2010).

Youth's negative perceptions of agriculture and agricultural related occupations stem from stereotypes reinforced by cultural beliefs and/or the media (Kusis, Miltovica, & Feldmane, 2014).

Youth are three times more likely to be unemployed than adults (ILO, 2015). Youth unemployment and their increasing inactivity makes them exceedingly susceptible to extremism and/or high-risk behaviors, accepting precarious work in developed countries and intense working poverty in developing countries (Bennell, 2010; Leavy & Smith, 2010).

Agriculture and agricultural-related activities are not included in formal education settings and are also not encouraged, driving youth (particularly rural youth) away from these careers (Amadi, 2012). Thus when youth leave formal education, they are not skilled for agricultural work; however, due to lack of available employment and opportunity, they cannot acquire jobs elsewhere (FAO, IFAD & CTA, 2014). The deskilling of youth exacerbates the issue of youth unemployment and inability or disinterest for seeking employment in the agricultural sector.

Globally youth populations face limited or no access to essential resources that would enable their participation in agriculture or agricultural related occupations (Bennell, 2010; FAO, IFAD & CTA, 2014). Women receive less support, have access to fewer resources, and are likely more marginalized than their male counterparts across all sectors, but particularly in agriculture (Agarwal, 2011; Deere, 2005; FAO, IFAD, & CTA, 2014; Lastarria-Cornhiel, 2006; Leavy & Smith, 2010). Women workers are more dependent on agriculture for survival than their male counterparts due to their lesser access to non-farm jobs (Agarwal, 2011). These gendered constraints impact women’s productive potential, particularly as they are increasingly responsible for agricultural activities.

Facilitating and encouraging youths’ participation in agriculture has the potential to reduce rural poverty levels across all demographics. The agricultural sector is crucial to supporting global rural economies, has significant potential to address the disproportionately high levels of youth unemployment and poverty, and can serve as a venue for untapped development and employment (Bennell, 2010; FAO, IFAD & CTA, 2014).

## Expected Next Steps

### Integrated Approach

The agricultural sector must work in tandem with government, development initiatives and organizations, media outlets and the educational system for ultimate success in promoting knowledge and opportunity dissemination, and dismantling negative perceptions of the agricultural sector. An integrated approach includes partnerships with:

- Primary and secondary schools to utilize shared resources and incorporate hands-on experiential learning to build skill development
- Popular and social media to disseminate knowledge and opportunities within the agriculture sector, to ignite youth interest, and to shift popular perception of agriculture from negative to sexy
- Private organizations to share resources such as funding, research capabilities, networks, and capacity

### Data Collection

There is an overall lack of reliable data regarding youth engagement with agriculture and related activities. There is a specific need to:

- Gather data on the determinants of youth aspirations, motivations and choices when pursuing (or not pursuing) a career in agriculture, youth land ownership and use, and youth perspectives of the agriculture sector
- Gather these data disaggregated by gender, locality and region
- Employ participatory approaches to capture and integrate youth voices in the research, and
- Gather data on best practices for teaching agriculture in primary and secondary education (Agarwal, 2011; Ball & Knobloch, 2005; FAO, ILO & UNESCO, 2009)

### Inclusion of Agri-Science in Early Education

Agriculture and agricultural science must be included globally in primary and secondary education curricula to:

- Generate awareness among youth of possible career choices within the agricultural sector,
- Spur interest through hands-on education,
- Equip youth with basic skills and understanding of agriculture and agricultural practices.

There must be a significant transformation for how agriculture is taught within the classroom, from passive-lecture style learning to active, self-regulated, and problem-oriented style that is responsive to a host of diverse learner needs and interests and with on-going assessment of both learner and teaching (Shelley-Tolbert, Conroy & Dailey, 2000).

Agricultural education must consist of classroom instruction, experiential learning through supervised experiences, leadership activities, and a core integration of agricultural science throughout the curricula. Training must also be available for agricultural teachers for content as well as pedagogy for teaching in primary and secondary schools. It must equip teachers with an understanding on how to employ effective pedagogy and teaching methods, such as:

- group discussion and cooperative learning,
- student led-lectures or discussions, demonstrations,
- supervised study,
- role play,
- laboratory activities and/or experiments,
- field trips,
- portfolios, and
- appropriate instructional media (Ball & Knobloch, 2005; Mangal, 2009; Newcomb *et al.*, 1993; Shelley-Tolbert, *et al.*,2000; Webster & Ganpat, 2014)

### Increased Access to Resources for Youth

Youth cite having a lack of access to necessary resources as a major hindrance for pursuing agriculture or a related career. Mobilizing resources in the following areas is critical for strengthening agricultural innovation systems.

**Training and Education:** Building and expanding training and skill acquisition centers specific for youth that are integrated with local government and education curriculum is an important step. These centers must:

- Provide opportunities for hands-on training through experiential learning, internships or apprenticeships
- Provide capacity and skill development in value-added or post-harvest activities, and
- Adapt existing education and training modules for youth audiences

**Government Support:** Youth report lacking financial support or encouragement from the government for entering the agricultural sector. Governments must support youth by:

- Providing access to loans, scholarships and grant opportunities to facilitate entrance into the agriculture
- Investing in and partnering with young farmer organizations to identify and fulfill their needs, and share resources, and
- Include and prioritize youth capacity development, particularly in agriculture, in strategy and policy

**Access to Land:** Gaining access to land is a significant challenge for youth that hinders their ability to enter the agricultural sector. In areas where access to land is a significant and sometimes ultimate barrier to engaging in agriculture, AET models should promote and provide education and training for value-added and post-harvest activities.

(Amadi, 2012; FAO, IFAD, & CTA, 2014; Mapila, 2014; Webster & Ganpat, 2014)

“A coordinated response to increase youth’s involvement in the agriculture sector is more important than ever, as a rising global population and decreasing agricultural productivity gains means that youth must play a pivotal role in ensuring a food-secure future for themselves, and for future generations.”

- FAO, IFAD and CTA’s report Youth in Agriculture (2014)

### Increasing Awareness and Knowledge of Agricultural Sector & Opportunities

Youth report the lack of awareness or information as a barrier to engaging with the agricultural sector. Substantial efforts must be made to increase the dissemination of knowledge regarding the many facets and areas for opportunity in the agricultural sector. Installing a “Careers in Agriculture Day” at primary and secondary schools can highlight:

- Types of careers in agriculture, from production and technical support to postharvest and value added activities, as well as,
- Available opportunities for training, education, and apprenticeship in the area.

A major source of youths’ disinterest in agriculture and related occupations is their perception of agriculture as a labor intensive, primitive occupation with little to no opportunity for financial gain. Opportunities for financial success within the agricultural sector must be highlighted. Suggestions include:

- Inviting successful youth engaged in the agriculture sector as guest speakers in primary and secondary schools, young farmer organizations, and other youth organizations, and
- Integrating field trips, internships or apprenticeships in educational curricula.

The agricultural sector’s high potential for innovation, technological advancement, and entrepreneurship must be highlighted to trigger youth interest. Youth’s disinterest in agriculture reflects their “lack of understanding...of agriculture as a business” (Chinsinga & Chasukwa, 2012). Innovation and modern technology are associated with higher skilled, higher quality and higher productivity types of work. Suggestions for highlighting are to make use of ICT and social media, such as:

- Using mobile phones, blogging, video and online communication networks such as YouTube, Vimeo, Facebook, Twitter to share ideas and information, and highlight stories of successful agri-entrepreneurs;
- Establishing programs that provide support and guidance in business plan development, management and marketing for enabling success in entrepreneurship in agriculture
- Using video conferencing and online communication to link youth with professionals and practitioners, experienced farmers, extensionists or educators, and other youth globally;
- Utilizing readily available resources such as PlantVillage.com to join online community of farmers and exchange knowledge for free.

(Amadi, 2012; Chinsinga & Chasukwa, 2012; FAO, IFAD & CTA, 2014; PlantVillage, 2015; Webster & Ganpat, 2014)



## Development of Soft Skills

The development of soft skills, in tandem with AET, is equally as important in providing youth the necessary tools to realize their full capacity. Soft skills include confidence building, oral and written communication, strategic planning, critical thinking and problem solving abilities, teamwork, cultural acceptance and leadership.

- Farmer associations or organizations for youth farmers facilitate community, capacity building, leadership, and support networks.
- FAO's Junior Farmer Field and Life Schools serve as a best practice to provide space for youth to gain agricultural technical education and training as well as life skill development.

(FAO, 2010, 2012; Shaw, Brady, McGrath, Brennan & Dolan, 2014)

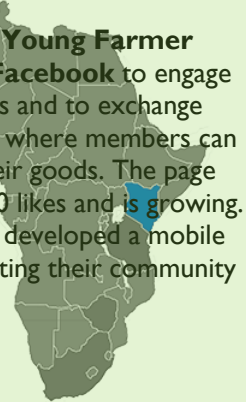
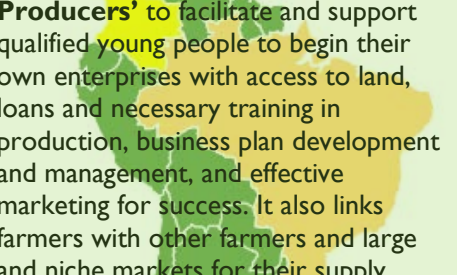
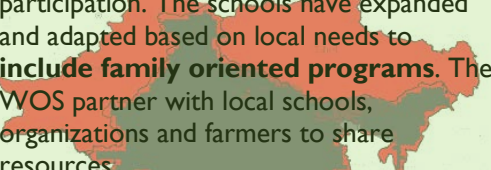
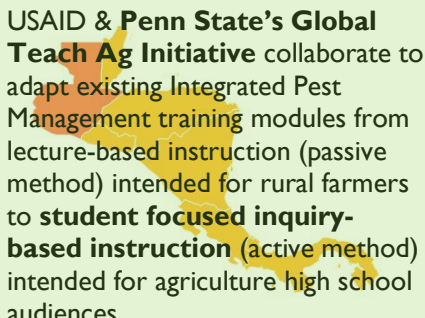
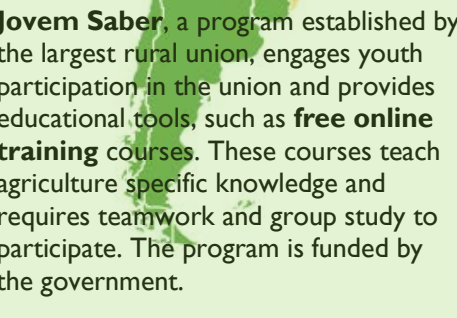
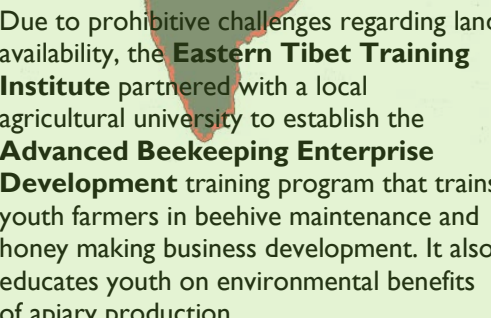
## Addressing Gender Disparity

There is an aggressive need to focus on supporting and encouraging participation of females in the agriculture sector. Suggestions include:

- Directly target female participants for enrollment in programs, training workshops and education;
- Female-targeted co-operatives or farmer associations to provide a platform in which females can access inputs, information and best practices from other female farmers as well as extension services, and
- Prioritize gender in policy and strategy development.

(Agarwal, 2011; FAO, IFAD & CTA, 2014)

## Global Examples of AET Youth Programs

<p><b>Kenya:</b></p> <p>The <b>Mkulima Young Farmer</b> group utilizes <b>Facebook</b> to engage young members and to exchange information on where members can buy and sell their goods. The page has over 54,000 likes and is growing. They have also developed a mobile app for connecting their community of farmers.</p> 	<p><b>Colombia:</b></p> <p>The <b>National Federation of Coffee Producers</b>, in partnership with several banks, launched the '<b>Innovative Models for Young Coffee Producers</b>' to facilitate and support qualified young people to begin their own enterprises with access to land, loans and necessary training in production, business plan development and management, and effective marketing for success. It also links farmers with other farmers and large and niche markets for their supply.</p> 	<p><b>Pakistan:</b></p> <p>The <b>Women Open Schools (WOS)</b>, founded by <b>WWF</b>, offers training and educational workshops to women engaged in cotton picking on various topics such as pesticide reduction, health and hygiene, and entrepreneurship. Literate local women are trained to facilitate programs and increase participation. The schools have expanded and adapted based on local needs to <b>include family oriented programs</b>. The WOS partner with local schools, organizations and farmers to share resources.</p> 
<p><b>Guatemala:</b></p> <p>USAID &amp; Penn State's <b>Global Teach Ag Initiative</b> collaborate to adapt existing Integrated Pest Management training modules from lecture-based instruction (passive method) intended for rural farmers to <b>student focused inquiry-based instruction</b> (active method) intended for agriculture high school audiences.</p> 	<p><b>Brazil:</b></p> <p><b>Jovem Saber</b>, a program established by the largest rural union, engages youth participation in the union and provides educational tools, such as <b>free online training</b> courses. These courses teach agriculture specific knowledge and requires teamwork and group study to participate. The program is funded by the government.</p> 	<p><b>Tibet:</b></p> <p>Due to prohibitive challenges regarding land availability, the <b>Eastern Tibet Training Institute</b> partnered with a local agricultural university to establish the <b>Advanced Beekeeping Enterprise Development</b> training program that trains youth farmers in beehive maintenance and honey making business development. It also educates youth on environmental benefits of apary production.</p> 

## Concluding Remarks

As the global population and demand for sustainable production rapidly increases, combined with high rates of youth unemployment and vulnerability to high risk behaviors, the youth crisis requires proactive responses and action. AET models and initiatives have a unique opportunity in the nexus of the youth and food crises to deploy effective best practices to reengage youth in the agricultural sector and equip them with necessary skills, training and education. They must work together with government, education systems, private and public organizations, and the media to effectively facilitate youth's ability to build capacity and achieve success.

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