Realising the potential of youth in the development of sustainable grasslands

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Abstract. The declining interest of youth worldwide to remain in rural areas and pursue careers in agriculture and grasslands is a threat to all human welfare. Ways and means must be found to redress the decreasing interest of youths in grassland development. Ironically there is a lot of untapped potential for rewarding careers but the youths do not have the skills needed to exploit it. This cannot be corrected by providing occasional and piecemeal training opportunities. The perilous consequences of allowing the rangelands to degenerate are sufficiently serious to warrant a comprehensive approach to developing the wide range of skills needed for grassland communities to be interested and committed to sustainable development.

Keywords: Biomass, visual vigor, relative water content, rain-fed, irrigated.

Introduction

Despite the renewed commitment of the world community through UN Millennium Development Goals (MDG) to halve hunger by 2015, only two years from now, this will not be achieved. There are many parts of the world, especially in regions where population growth is fastest, in which the challenges to food and nutrition security are stubbornly persistent (Bidogeza 2012). The Food and Agricultural Organization (FAO) of the United Nations has projected that global food production will have to triple just to meet the needs of the projected population of 9 billion by 2050 (Ejeta 2009) and the number of mouths to feed will continue to grow over the next four decades (Falkenmark et al. 2009). This will raise the pressure on arable land and fresh water resources which, coupled with climate change, will threaten the sustainability of these resources. At the same time the accelerated migration to urban areas will reduce the proportion of the population that will remain engaged in food production. The consequences of this are aggravated by the disproportionate out-migration of youth leaving ageing agricultural producer communities.

It is improbable that a proportionately reducing and ageing workforce will be able to meet the increased food targets. However, to convince more youths to stay in agriculture will require changing the negative perceptions of low incomes and hard labour associated with farming (Paisley 2013). This is even more difficult in grasslands contexts because they have lower potential for generating incomes and tend to be more remote from the social and cultural amenities that youth crave.

The world map of agricultural productivity (Fig. 1), expressed in monetary terms, tends to confirm the perception that it will be hard for youths in Africa and Asia to find attractive careers because in countries like Malawi, Mozambique, Angola, Ethiopia and Burkina Faso the average earnings are less than 300 dollars per year (Geest 2010).

In summary, there are a number of severe challenges that must be addressed simultaneously to attract young people to pursue their careers in grassland development. Ways must be found to reverse the downward spiral of ageing workers leading to lower returns that are even less attractive to youths. This is not an enterprise that the world can allow to fail because the present trends of declining grassland productivity will worsen global food insecurity, degrade watersheds and accelerate climate change by reducing carbon sequestration over huge tracts of the world’s surface. Kaufmann (2013) has affirmed the vital capacity of grasslands to contribute to food supplies, livelihoods, watersheds, conservation, biodiversity and ameliorating climate change through carbon sequestration. Grasslands are also critically important for in situ conservation of plant genetic resources (FAO, 2005).

With the above background, this paper proposes ways and means to redress the declining interest of youth in agriculture in general and grasslands in particular. The paper discusses the opportunities for young people to find careers in grassland production and strategies, programs and policy incentives to address this very critical issue.

Opportunities for youth in the field of grasslands

The first step in seeking to engage the interest of youth in grassland careers is to demonstrate that there is a huge diversity of opportunities and many of them have high potential to be scaled up into well-paying businesses. These range from traditional and commercial livestock production, trading in livestock and livestock products, processing of livestock products such as meat, milk and milk products (yoghurt, cheese, butter, ghee), hides, skins, leather, wool and woven products. There are also business opportunities in providing inputs for livestock production such as feeds and veterinary services (professional and paraprofessional).
and products. Moreover livestock is not the only grassland industry. Tourism is a major industry that still has great room for expansion in areas of wildlife and scenic diversity and developments in ecological and cultural tourism have the potential to access new categories of paying tourists and local holiday makers. To date the expansion of enterprises in these areas has mostly relied on Western customers but the increased number of middle income people in the crowded countries with large-population countries; China, India, Indonesia and the Philippines, is a largely untapped market for areas with attractive wide open spaces. There are many other grassland based businesses that have scope for expansion such as honey, gum Arabic, cochineal, handicrafts (Kaufmann 2013).

The obstacles to youth seizing grassland opportunities

The most serious constraints to encouraging our youth to seek careers in grasslands, which have been mentioned above, are the negative perceptions of life and work in remote rural areas. Changing that will require changes in the attitudes of policy makers and change agents so they will, not only convey positive messages, but will convey them convincingly based on their own genuine conviction that grasslands and grassland producers and entrepreneurs are not lost causes. Scientific research must continue to solve the constraints to productivity and conservation, but at the same time, there is an urgent need to tease out and raise awareness of the positive attributes of grasslands. Without the latter the persistence of doomsday scenarios will become self-fulfilling by helping to accelerate the migration or youths out of the grasslands.

Among the negative trends that must be addressed is the increasing severity and frequency of extreme weather events such droughts and floods because they are increasing the risks and reducing the attractiveness of grassland enterprises. Erratic and inadequate rainfall is estimated to account for about 50% of crop failures where there is over-dependence on rainfall, with little or no irrigation systems (Zaney 2013). This is crucial even in grassland areas where households depend on grain and vegetable production to secure their families diverse nutritional requirements. However there are emerging innovative insurance products that are better able to cope with weather related risks. Cately et al. (2012) cited by Kaufmann (2013) suggested that, to avoid introducing perverse incentives, insurance payments systems should be based on rainfall and biomass cover rather than on numbers of deaths to encourage good husbandry and timely sales. There are several such schemes being piloted by Equity Bank and ILRI in Kenya’s arid lands (Macmillan 2012; SPORE 2013).

The options for accessing microfinance and start-up capital are multiplying almost on a daily basis. The recent success through Kickstarter of raising capital for the BRCK equipment that enables access to the internet anywhere, anytime, with or without electricity (Ushahidi 2013) has very important implications for grassland enterprises both as a tool for their use and as a demonstration of the effectiveness of crowd sourced financing.

The increasing reach of mobile telephony has the potential to revolutionise, not only business in remote areas by linking them to market, but also the lifestyles of rural communities by keeping them informed and in touch with national and global events as well as with family and friends. The ability to overcome the pervasive discouraging sense of isolation promises to be a major factor in influencing the career choices of youths in favour of grassland careers.

However, the existence of opportunities is not an incentive for persons who do not know how or do not have the skills needed to be able to exploit them effectively. For example it is not easy to set up an ecotourism business without being able to find staff with skills in, for example, marketing, hospitality, catering and transportation. Keeping the supply chains for food, beverages, equipment and fuel functioning efficiently requires considerable business and organisational skills. In his reflection on revitalising the skill base in grassland research and practice, Kaufmann (2013) has demonstrated that there is a huge and urgent need to revitalize many skills to create a credible basis for a sustainable grasslands development. The absence of such skills in local communities has not only constrained the
exploitation of opportunities, but it also means that the businesses that are set up bring outsiders to staff their enterprises rather than creating many opportunities for the local communities.

**Promotion, marketing and packaging grassland as a viable business and career among youth**

Lawyers, medical doctors, pilots, financial analysts, accountants, economists, ICT experts are the kind of role models that African children prefer to follow. Farmers, and graziers in particular, are thought to be engaged in hard labour for low pay. Hence, there is a need to start right from the nursery stage though primary and secondary education to teach children that there are careers in agriculture and grassland production and the ancillary industries that can be as innovative, fulfilling and as financially rewarding as any other profession.

To create positive attitudes towards grasslands among the youth, it will be necessary to visualise its diverse potential for generating wealth and put in place training schemes for all the essential cadres of workers, technicians and professionals needed to sustain the wealth generating activities. The present piecemeal approach to providing sporadic training to cope with particular issues such as training community animal health workers to deal with specific livestock health issues will not suffice.

To turn grassland opportunities into viable businesses with an attractive allure to young people, it will be necessary to conduct research well beyond just grasslands production to encompass grasslands product development, grasslands market research, management of grasslands marketing, promotions, handling produce, packaging, distribution, customer relations and more. It will also be necessary to have comprehensive technical and vocational training to produce mechanics, masons, electricians and plumbers amongst others. In other words, the provisions for developing and acquiring the skills required for generating job opportunities in grassland areas should extend well beyond just livestock and rangeland production.

It will also be necessary to increase the business skills of graduates and their ability to foster collaboration between researchers, academics, business managers and community leaders because their collective knowledge and experience provides the best prospect for resolving the complex practical constraints to sustainable grassland production.

**Policy incentives to motivate youth to venture into grasslands research, development and business**

Many developing countries do not have policies that are very conducive to developing sustainable agricultural systems that will create jobs for youth. This is causing them to fail to take advantage of the vital energy of their youthful populations, whose interest in agriculture is declining with potentially drastic consequences. Paisley (2013) has highlighted that there is a critical threat to the food security for future generations when the youth, the biggest labour force, loses interest in agriculture. There is, therefore, an urgent need to provide incentives and initiate programs to attract and keep the interest of young people in agriculture with concrete agricultural youth employment policies. The processes of defining, designing and implementing these policies and programs should not be an abstract process but must involve young people to ensure that they are not only realistic and meaningful. Unfortunately, this is not an approach that underpins current policy formulation.

Another weakness is that, in most of the countries, there are weak links between tertiary education institutions and potential employers. This is even worse in grassland industries that tend to be very remote from cities where these institutions tend to be based (Kaufmann 2013). This results in grassland academics and researchers not interacting sufficiently with the intended beneficiaries (smallholder producers, pastoralists, rural technicians, extension workers) whose interests, decisions and actions affect the uptake of innovations (Kaufmann 2009).

The revision of past-secondary curricula should give priority to technical and vocational education to produce, within the grasslands communities, skilled people who can make, maintain and mend things (Kaufmann 2009). This will involve a more comprehensive approach to creating the skills needed for grassland development as illustrated in Figure 2. Accomplishing this will require due consideration for all the options for delivering such skills ranging from...
rural learning groups, farmer field schools, community colleges, to the traditional colleges and universities to ensure that the best options will be exploited to develop the different cadres of required skills.

There are other factors such as access to finance, business incubation and mentoring that need to be addressed in order to realise the potential of youth in the development of sustainable grasslands. These must be the subject of another paper but their effectiveness will inevitably depend on the capacity of youthful candidates to take advantage of them.

Conclusion

The objective of this paper was to discuss ways and means of addressing the decreasing interest of youth in agriculture and in particular grassland development. It is argued that there is a lot of untapped potential for rewarding careers but the youth do not have the skills needed to exploit it. It is also argued that it will not be effective to provide occasional and piecemeal training opportunities. The consequences of allowing the rangelands to degenerate are sufficiently serious to warrant much wider attention to the need to develop a comprehensive approach to developing the wide range of skills needed for grassland communities to be interested and committed to sustainable development.

References


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