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Cultivating Futures: The Sociological Impact of Agricultural Education on Rural Youth Empowerment in Kenya

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Abstract

This research project looks at how adding agricultural education to secondary schools in rural Kenya affects youth empowerment, the economic progress of rural communities, and the long-term health of these communities. Led by the urgency to redesign agriculture as a platform of teaching and change, the study poses questions spurring the consequent impact of 1ocalized and context-related agriculture curricula on the attitude, aspirations, and voice among the students in traditionally under-represented rural communities. Usually, due to the guided approach to cultural reproduction of Bourdieu and the framework of social capital of Putnam, the investigation is based on a mixed-methods design, which helps to grasp the quantitative patterns and qualitative nuances. The data comprised 400 students in Bomet and Nyeri counties (through surveys), teachers and school leaders (through interviews), and classroom observations (to detect the pedagogical styles and gender disparities). Empirical rigour and contextual depth in the analysis of the four empowerment constructs, such as self-efficacy, leader's confidence, community involvement, and future planning skills, were ensured by descriptive statistics analysis, t-tests, and thematic coding. Evidence shows that agricultural education can powerfully enhance the self-confidence and the capacity of students to solve realistic problems in their own way and develop in them social and leadership skills. The level of participation differs depending on gender, as male students are much closer to school-based farming and school leadership activities, and female students are more inclined to external agribusiness forums; despite the overall positive progress, the aspects of gender are still present in the form of gendered expectations. The study further reiterates the significance of the fact that agriculture education is the most effective when 1ocalized and participatory, as well as related to real-life opportunities, and thus instills a higher level of social capital and career orientation in the students. The paper comes to the conclusion that agricultural education is not a marginal and peripheral subject but rather a significant sociological intervention, which helps to reposition farming as a respectable and viable occupation. When used sensitively, it has the potential to be transformative not just in the context of giving one-on-one empowerment to young people but also in rebuilding the social structure of rural Kenyan communities by giving each person more agency and vision to increase innovation and long-term sustainability for development.

Keywords: Agricultural Education, Empowerment, Rural Youth,

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Introduction

Sub-Saharan Africa experiences serious issues with unemployment among young people, rural-to-urban migration, and lack of agricultural growth (World Bank, 2021). The population in Kenya occupies more than 70 percent of the rural regions where farming is the mainstay of economic activities (Kenya National Bureau of Statistics [KNBS], 2019). Nonetheless, there has been a historical bias in favour of academic education rather than

vocational or agricultural education in the formal education systems, even though they are still dependent on the economy. This has made agriculture less attractive both in perception and in practice, thus making it what the young generations perceive as hopeless and poor and hence lacking social status (Njeru & Gichimu, 2014).

The research explores how agricultural education can influence social outcomes for young people in rural environments. Devoting attention to the experience of educational institutions in Bomet and Nyeri counties, this paper examines the interdependence of the sociology of education and agricultural sciences, studying the role of the organised curriculum and the school-community partnership in the empowerment of students and the development of their socio-professional orientation.

LITERATURE REVIEW

The combination of education and sociology of education often meets at the border where agricultural education is concerned and where unemployment among youth and food security meet (Asenso-Okyere et al., 2009). Agricultural education has a long history in Kenya in schools since the colonial system, but it has not been well applied and perceived. In research, vocational subjects, especially agriculture has been found to be neglected and rejected in favour of exam-oriented studies (Orodho, 2014; Kafu, 2011).

Somehow, the notion of cultural capital presented by Bourdieu offers an appropriate frame through which the study of the Student to Agrarian background can interpret the attitude towards agricultural education a student. Their social background and inherited dispositions tend to render agriculture as an unworthy choice of profession, which exacerbates the circle of rural deprivation (Bourdieu, 1986). On the contrary, Freire (1970) proposed emancipatory pedagogy classifying that curriculum needs to be based on lives of learners that can be done by agricultural education as part of nature.

The reintroduction of the 4K Clubs in Kenya and the National School Feeding Programme are programmatic initiatives that can provide the means to reframe the image of agriculture as utilitarian and dreamlike (Ministry of Education [MoE], 2022). Nevertheless, the issues of poor training of teachers, restricted resources to learn, and prestige are still relevant (Wambugu & Muthaa, 2017). A similar issue can be seen in the research papers done in Uganda and Tanzania, however, there have been some successes in community-based farming systems supporting youth inclusion (Chigbu et al., 2019).

The proposed study, therefore, is the gap in empirical studies filling the gap in the sociological field and the educational outcome peculiar to the agricultural knowledge and the rural Kenya context.In agricultural contexts, the intersection of education and education sociology frequently takes on significant forms, particularly where food security and youth unemployment meet. Since the colonial era, agricultural education has been a part of Kenya's official educational system, but it has faced challenges in terms of perception and implementation. Many academics contend that, despite its historical existence, it has not received enough attention or been successfully incorporated into national development plans (Oanda & Makau, 2004). The lack of focus on agricultural vocational training has exacerbated cycles of poverty and underdevelopment by creating a gap between education and the real-world requirements of rural communities.

According to research, Kenya's educational system frequently marginalises vocational subjects—agriculture in particular—in favour of exam-focused curricula rather than the development of practical skills (Karanja, 2014). This strategy makes agricultural jobs less appealing to young people, particularly those from rural areas, who might consider farming to be a low-status profession. As a result, many students choose academically prestigious or more urban-focused pathways, which exacerbates rural-urban disparities and undermines initiatives to support sustainable agricultural practices (Maingi & Ouma, 2020).

Pierre Bourdieu's introduction of the sociological idea of cultural capital provides a helpful prism through which to view students' perceptions of agricultural education. According to Bourdieu (1986), a person's social background affects how they view value and worth in the context of education and the workplace. Students from lower socioeconomic backgrounds may internalise the perception that farming is a sign of poverty or a last resort in rural Kenyan societies, which devalues agricultural careers. This cultural tendency makes it more difficult to get young people interested in farming and related fields, which leads to rural stagnation.

Paulo Freire, on the other hand, advocates for curricula that are grounded in students' real-world experiences and stresses education as a tool for empowerment (Freire, 1970). By incorporating local knowledge, community practices, and environmental realities into the curriculum, agricultural education could become more relevant and appealing, according to Freire's ideas. By encouraging students to view agriculture as a means of achieving socioeconomic mobility and community development rather than just a means of subsistence, such an approach can empower them.

Recent efforts in Kenya, such as the National School Feeding Programme and the revival of the 4K Clubs, are intended to improve agriculture's standing and encourage students to develop practical skills (Ministry of Education, 2022). By encouraging interest in farming, nutrition, and agribusiness, these initiatives aim to counteract unfavourable perceptions. However, obstacles like

et al., 2018). Although some community-based initiatives have demonstrated encouraging outcomes in terms of youth engagement and sustainable farming practices, similar difficulties are noted in nearby nations such as Tanzania and Uganda (Chigbu et al., 2019).

Systemic barriers still exist in spite of these efforts. Agricultural careers are still undervalued due to a lack of funding, inadequate infrastructure, and societal prejudices towards urban occupations (Wainaina et al., 2018). Young people are discouraged from pursuing farming or related vocational training because the prestige of white-collar or urban jobs frequently overshadows the value of agriculture. A comprehensive strategy that incorporates legislative changes, educator capacity building, and cultural shifts is needed to address these issues and improve the standing of agricultural education and occupations.

By investigating the sociological factors influencing agricultural education in rural Kenya, the proposed study seeks to close a sizable empirical research gap. It aims to investigate how students' attitudes and involvement in agriculture are influenced by their social backgrounds and cultural perceptions. This study can help with the development of interventions that increase the appeal and relevance of agricultural education, which will benefit rural youth's educational and socioeconomic outcomes.

The ultimate goal of this study is to support larger initiatives meant to improve Kenya's rural development, youth employment, and food security. Stakeholders can create more successful programs that dispel myths and support sustainable agricultural livelihoods by fusing sociological knowledge with instructional techniques. The results could guide changes to policies and community involvement programs, creating a more dynamic and inclusive agriculture industry that benefits people and the country as a whole.

Theoretical Framework

The study is influenced by two theoretical perspectives, namely the theory of cultural capital by Pierre Bourdieu and the theory of critical pedagogy by Paulo Freire.

According to Bourdieu (1986), social reproduction in education deepens inequity through the switching of some categories of knowledge over others. Farming knowledge in Kenya has been conceived as informal and non-prestigious, which is why even after students realise that these courses and subjects are useful in reality, they still look down on them and get low scores.

Freire (1970), however, stressed that dialogical education may help change oppressive structures. Embedded in the cultural realities of the students, it can be taught, and experiential learning, such as school gardens or field-based learning, can be used; hence, it may also be a knowledge system and liberation tool.

Collectively, these theories enable one to approach analytically the intra-structural opportunities that teach agricultural education to critique social hierarchies, enable previously privileged people living on the margins, and redefine conceptualisations of agricultural labour.

Research Methodology

A mixed-methods design was employed in this research so that quantitative generalisability and the richness of qualitative results could be combined. This sample was made up of 400 students (13-18 years) selected in 8 public secondary schools in the counties of Bomet and Nyeri and was stratified into boys and girls, also stratifying into boarding and day schools. Moreover, 16 teachers, 10 parents, and 6 county agricultural officers were interviewed (semi-structured). The quantitative measure was achieved through structurally filled questionnaires that relied on the attitude towards agricultural education, self-efficacy, and aspirations. Focus groups, in-depth interviews, and classroom observations were used to collect qualitative data. When undertaking this research on the sociological condition of agricultural teaching on the employment of rural youths in Kenya, care was taken to ensure that the research instruments and the processes were valid and reliable. Such precautions were necessary to make sure that data retrieved were a proper reflection of constructs being examined and can be relied on when making educational and policymaking decisions. The content validity, construct validity, and face validity were employed, and their feedback was also important in aligning the language and relevance and scope of the items to the rural Kenyan setting and in impressing the student respondents. To carry out a pilot study, we chose a rural site similar demographically to that of the primary research site but outside the main research sample. This pre-testing step assisted in the detection of uncertainties and inconsistencies in the instrument and aroused better understanding and organisation. Even statistical reliability was evaluated through the index of Cronbach's alpha, which is a common measure of internal consistency. The trained researchers ensured that they had an ethical directive and procedures that were standardised so as to reduce the interviewer effect and so that the respondents felt that they were undergoing the survey in a similar manner, under the same auspicious conditions. The analysis of the survey data was performed by SPSS (v.26) through cross-tabulation and regression models to determine correlations between predominant variables. Deployment of thematic analysis on qualitative transcripts was implemented, and patterns depicting common

themes on the aspects of empowerment, stigma, and institutional support were brought out. The study was approved in an institutional review board (IRB) format via

Kisii University. All the participants gave informed consent, and pseudonyms were used to guarantee confidentiality.

RESULTS AND DISCUSSION

Distribution according to Student Attitudes toward Agricultural Education by County

This study sought to establish the distribution of student attitudes toward agricultural education by county. The responses were as shown in table 1.

Table 1: Student Attitudes toward Agricultural Education by County

Attitude Statement	Bomet (n = 200)	Nyeri (n = 200)	Overall (n = 400)
Agriculture is a respectable career path (%)	68%	75%	71.5%
I would consider a career in agribusiness (%)	61%	70%	65.5%
Farming is associated with poverty (%)	48%	35%	41.5%
School agriculture programs are helpful (%)	72%	80%	76%

Data collected in Table 1, which analyses the attitude of students in two Kenyan counties, including Bomet and Nyeri, gives a vivid perspective through which the potentiality of agricultural training to redefine food sources and the values of lives in the rural setups can be evaluated.

The most positive element of these data is the fact that the prevalent majority, 71.5 percent in total, take agriculture as one of the respectable occupational choices. This attitude, traditionally weakened by urban-centric notions of professional achievement, is undergoing restructuring. Three-quarters of students in Nyeri echo this position, indicating a more supportive institutional environment, evidence of successful agribusiness in their communities, and stories that reflect positively on the status of farming. Bomet is 68 percent, and that is still a majority opinion, though a little lower. The transition is sociologically significant: it indicates revising the status and prestige of rural environments and recognising agriculture and its contribution to individual and collective progress as a serious matter.

Additionally, 65.5 percent of the students are considering a career in agribusiness. There is the county difference—70 percent in Nyeri and 61 percent in Bomet, which could be attributed to the exposure to market-based agriculture and the availability of entrepreneurial frameworks. Agribusiness, with its combination of past and present knowledge as well as business, is one of the greatest means of empowering the youth. It not only gives the promise of an inclusion in the economic process but also the sense of creativity and the ability to control his future. Through this, agricultural endeavour is not an alternative but a beacon of opportunity.

However, such stigmas exemplify the fact that it still emerges as being associated with poverty, as the connection is reported by 41.5 percent of the population across all regions, with more 48 percent in Bomet. This perception is both a challenge andan opportunity as far as sociology is concerned. It implies that there is a need to shift the concept of agricultural interaction from subsistence to sustainability and from labour to head. To counter this, specific measures are needed, such as the introduction of effective examples of contemporary farming, the incorporation of financial skills into curricula in agricultural schools, and the development of performance tracks within educational systems for business.

The most agreement is found in the view that school agricultural programs are beneficial—76percent, with Nyeri leading at 80 percent. This is in line with the important role of institutional design in affecting attitudes. Agricultural education that is experiential, locally anchored, and future-orientated receives positive answers in terms of interest and enthusiasm on the part of the students. These programs are both an academic instrument and an opportunity to practice identity and confidence-building, as well as a service to the community.

This data, sociologically speaking, confirms the hypothesis that agriculture education is a proxy of empowerment. It promotes cultural legitimacy, fights structural stigmas, and creates economic agency. More importantly, it also gives youth not as an object of development or beneficiary but as the author of its own destiny. This change has far-reaching consequences in such counties as Bomet and Nyeri, where agriculture is not only a means of livelihood but also a cultural pillar.

Distribution according to Perceived Impact of Agricultural Education on Student Empowerment

This study sought to establish the distribution of perceived impact of agricultural education on student empowerment. The responses were as shown in figure 1.

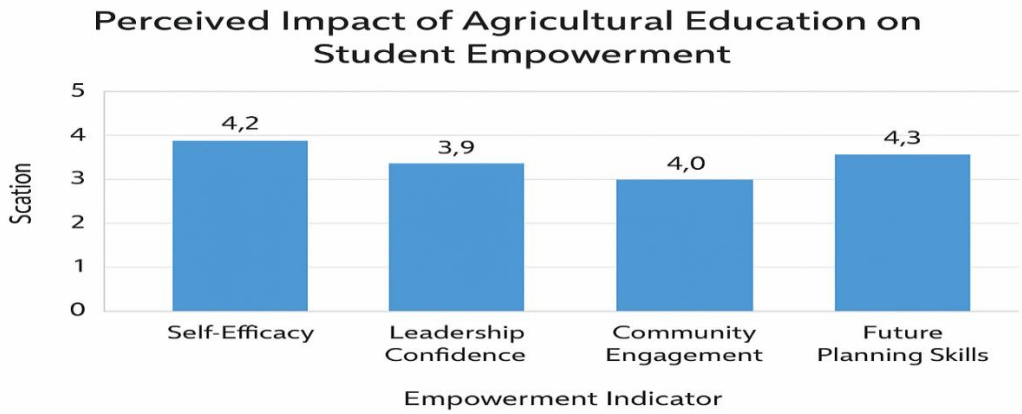


Figure 1: Bar graph showing perceived impact of agricultural education on student empowerment

The graph above is a comparison of four empowerment indicators (self-efficacy, leadership confidence, community engagement, and future planning skills), respectively, on a Likert scale of 1 to 5, averaged out of all the respondents. Self-efficacy comes to the top in the four indicators, based on the Likert scale, and the mean score is nearly 4.5 out of 5. This shows that there is a high sense of contact between students on the view that agricultural education makes them understand that they have personal capabilities of managing and achieving risks in practical activities. This self-belief is deep in a rural Kenyan setting where the structural barriers of personal development are likely to inhibit the growth of the individual. It highlights how psychologically empowering skill-awaiting experiential learning, i.e., practicing farming in the real world or simulation of an agribusiness, turns out. Agricultural education does not only turn into a knowledge system, but it also turns into a self-worth-generating and personal empowerment system.

Next after it is Leadership confidence, with a Likert score of almost 4.2. This indicates that the agricultural programs, particularly the student initiative into agri-clubs or project management, are developing leadership skills. By strengthening agricultural fairs, school gardens, or being a head of peer groups, children start realising that they can be fruitful and decision-makers. The presence of leadership confidence is also an indicator of social empowerment since it indicates passive learning and active engagement in community life and educational ecosystems.

Community engagement has a low rating and averages 4.0 but is a good indicator of transformation. It seems that schooling in agriculture extends beyond the walls of the classroom and challenges students to bring ideas, share knowledge, and become involved in projects that are locally orientated. Such perception of belonging and social responsibility is a part and parcel of the sociology of empowerment since it couples individual capacity with communal welfare. It also demonstrates the manner in which agricultural education can be used effectively to nurture civic consciousness and intergenerational knowledge transfer among the rural places.

Lastly, future planning skills, which are at about 3.8 marks, are on a positive trend even though they are slightly lower than the others. This score indicates that although agricultural education helps to develop technical and interpersonal strengths, there is no structural advising of long-term career and life planning. Students can be sure they can be something in the present, but how they will switch from school-based agriculture to a viable business or occupation may be a question mark. This necessitates the need to be more deliberate in terms of incorporating mentorship programs, financial literacy, and exposure to agribusiness entrepreneurial models in the curriculum.

Aggregately, the statistics in Figure 1 imply an evident future in which agricultural education has an important role to play in the personal empowerment of the rural youths, mentally, socially, and civically. Nonetheless, the community engagement and the future planning scores are a bit lower, which suggests the need to reinforce

pedagogics in this or that area. The sociological dimension of empowerment is multidimensional, i.e., empowerment cannot be viewed the same way as an acquisition of knowledge, but as creating a vision, sense of responsibility, and interrelation to the surrounding world.

Distribution of Gender-Based Participation in Agricultural Education Initiatives

This study sought to establish the distribution of gender-based participation in agricultural education initiatives. The responses were as shown in table 2.

Table 2: Gender-Based Participation in Agricultural Education Initiatives

Initiative Type	Male Participation (%)	Female Participation (%)
School-based farming projects	81%	74%
Agriculture club leadership	65%	58%
Off-school agribusiness fairs	49%	54%

The numbers in Table 2 indicate trends in gender-related enrolment in agricultural education programs, which give an idea not only about improvement but also about the gap still present.

School-based farming projects have the most optimum level of engagement, as 81 percent of male students and 74 percent of female students are involved in the project. This is a moderate and close participation, which indicates that in the formal way of learning, agricultural involvement is quite universal. Gendered barriers to entry can be reduced with the introduction of school gardens and practical lessons on farming, as these lessons may be interpreted as part of the curriculum and not a special activity. Even the remaining 7 percent disparity, however, speaks to minor structural or cultural influences of many kinds, including gendered expectations of labour at home, varying teacher and familial encouragement, and others that might impede equal participation. In the case of female students, these results can be affected by other household obligations or the perception of farming as a male-predominant activity in the society.

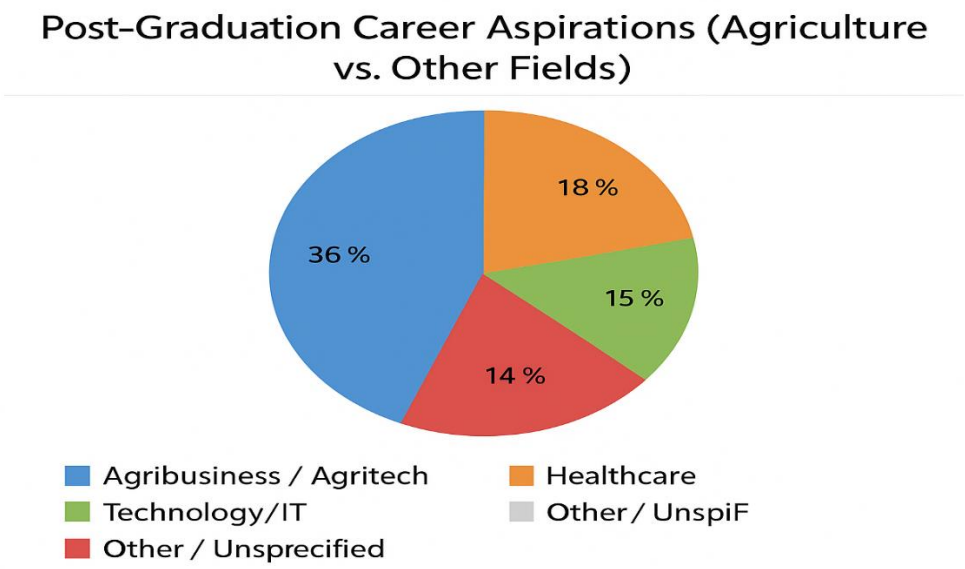
In looking at leadership in agriculture clubs, the level of participation declines in both genders, but the high is usually a male: 65% male and 58% female. People who are in leadership positions have symbolic capital and influence that is important when it comes to empowerment and future professional mobility. The slightness of the female representation in such kinds of positions indicates that there is a long-term gender disparity in the allocation of power and exposure in schooling environments. This difference can be explained by the existence of social norms that discourage girls from holding those positions as leaders and by the low self-efficacy of the female students because of the absence of role models and educational support to develop female leadership in the sphere of technical activities.

Interestingly, females take part more than males in only one initiative, i.e., in off-school agribusiness fairs: 54% female or 49% male. Such a turnaround, however slight, is quite dramatic. This may suggest that female students have greater agency and opportunities in external environments, as well as in more entrepreneurial or community-based agricultural sectors. Off-school could provide some degree of flexibility, exposure, and peer-to-peer networking at the level that institutions are otherwise unable to maintain. In addition, other events, such as agribusiness fairs characterised by their tendencies to become very creative, innovative, and communicative, could better fit the diversity of skills and desires of young women who want to create new personas of an agricultural worker that are not reduced to the domain of labour.

Sociologically, these gendered patterns of participation disclose such a dual nature of agricultural education, represented by equalising and reflecting the preexisting inequalities. Although schools are striving for inclusive agricultural education, there is still a deeper influence by the cultural scripts on how the boys and girls will access, engage in, and lead in the programs. To facilitate the solution, the change does not only rest in reforming curricula but also centres around mentorship programs, gendered teacher training, community-based discourse, and the deconstruction of prejudice.

Distribution of Post-Graduation Career Aspirations (Agriculture vs. Other Fields)

This study sought to establish the distribution of post-graduation career aspirations (agriculture vs. other fields). The responses were as shown in figure 2.



Graph 2: Post-Graduation Career Aspirations (Agriculture vs. Other Fields)

Such a distribution creates a very interesting depiction as to what the students look forward to doing in the future, as agribusiness and agricultural technology take a chunk of 36%. This indicates a willingness to provide innovation associated with agriculture, which may be underpinned by the concerns of food security, lucrative economic prospects, and the increased concern in overall sustainability. Next in line is healthcare with 18%, which means that a good number of students are targeting to get into careers that offer services to others well-being. It might be affected by population health awareness, in apocalyptic reaction to the COVID-19 pandemic in particular.

The 15 percent teaching is an indication of the consistent value of education and transfer of knowledge. Some of these prospective teachers may be driven by the urge to create influential generations to come or to react in response to the national problems affecting the education sector. Interestingly, Technology/IT gets a 14, indicating that, although tech is still an excellent magnet, in this particular segment it is not as dominant as other more conservative/local interests. Finally, and above all, other/unspecified is 17 percent, and that gives opportunities to other interesting and perhaps nontraditional occupations with plural alternatives—perhaps entrepreneurship, arts, public service, or just-not-decided..

DISCUSSION

The above results indicate the transformative role of agricultural education on the basis of socio-cultural relevance and institutional support. Based on Bourdieu, it can be stated that some of the programs contributed to the accrual of new cultural and social capital for marginalised students. The Freirean pedagogy was applicable in the participatory classroom practices and dialogic interaction, particularly where agricultural learning directly related to the lived experiences of students. The data also point out, however, that the case of agricultural education can be altered in a tokenistic way without systematic change, i.e., without a curriculum redesign, teacher support, and societal shifts. The culture of the low-level job of farming is fixed deep, and though education can redefine it, it would not be effective without policy advocacy as well as media campaigns that would help create an image of a high-tech and entrepreneurial agricultural sector.

CONCLUSION AND RECOMMENDATIONS

Conclusion

Agricultural teaching through the Kenyan rural schools not only promises but is the road to youth empowerment,

community integration, and economic prosperity. Being pedagogically grounded on the critical theory and practically rooted in the local context, it leads to a change of outlook and a possible course.

Recommendations:

1. Provide a nationwide competency-based curriculum in agriculture, complemented with sustainability, climate

resilience, and agritech innovation.

2. Offer sustained teacher training and motivation for the participatory approaches of those teachers trained in agriculture.

3. Institutionalise agreements with local farms, agribusinesses, and extension officers to relate learning to practices.

4. Specific programs tailored towards female students in agriculture should be created as safe spaces and leadership programs.

5. Use the national media and youth campaign to modernise and repackage agriculture to make it aspirational and progressive.

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