

## Higher education and COVID-19 pandemic: Case study of the Sustainable Integrated Rural Development in Africa (SIRDA) Programme

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### ABSTRACT

The need to document how the Sustainable Integrated Rural Development in Africa (SIRDA) programme has been differently or similarly affected by the COVID-19 pandemic when it is compared with most conventional higher educational programmes informed this study on higher education and COVID-19 pandemic: case study of the SIRDA programme. The study was carried out in two West Africa Universities namely, the University of Ibadan and Kwame Nkrumah University of Science and Technology. Data was collected from 56 SIRDA students using structured questionnaires which were administered online using google forms. The 56 SIRDA students were selected using a census sampling technique. Data was analysed using percentages. Respondents (83.3%) were mostly male and 50.0% of them heard of the programme from friends/relatives. Goal 17 of the SDGs reflected the most in SIRDA-taught courses and learning involving mainly course work, research projects, and seminars/conferences. Knowledge delivery for the SIRDA programme was modified to accommodate virtual methods (83.3%) during the COVID-19 crisis, while some essential components such as field practicum could not be implemented. Students were generally poorly involved in the Education for Sustainable Development (ESDA) governance issues and were mostly uncertain (66.7%) of what would be the long-run effect of COVID-19 on the SIRDA programme. The study concluded that COVID-19 caused major disruptions to SIRDA programme, especially in implementing some components such as fieldwork. It is recommended that SIRDA curriculum review process should focus attention amongst others, on developing a flexible curriculum that can be taught in person or online and that can switch between face-to-face and remote learning.

**Keywords:** COVID-19 pandemic, West African universities, Integrated rural development, Higher education

### INTRODUCTION

The emerging coronavirus disease which was first reported in Wuhan, China in December 2019, has swept across the world with impacts felt in more than 200 countries and regions (Alanagreh, *et al.* 2020). COVID-19 is recognised as the third coronavirus to result in a large-scale epidemic in the current century after the Severe Acute Respiratory Syndrome Coronavirus (SARS-COV) in 2003. Unlike the SARS-COV, the COVID-19 virus is said to have originated in bats and was transmitted to humans through unconfirmed intermediate hosts in the Wuhan seafood market. Hadi *et al.* (2020) argued that COVID-19 was generated from seafood in the Wuhan seafood market as samples from objects and animals in the market tested positive during earlier efforts to confirm its origin. The COVID-19 symptoms present different signs in different people, including fever, fatigue, dry cough, aches and pains, sore throat, nasal congestion, cold, diarrhea, and loss of smell and taste (Hadi *et al.* 2020).

The impact of COVID-19 is believed to affect countries of the world disproportionately with a more

severe impact felt in the African region (Ozili, 2020). Nicola (2020) noted that social distancing, self-isolation, and travel restrictions have led to a reduced workforce across all economic sectors and caused many jobs to be lost. In Nigeria and Ghana, the several containment measures imposed by local authorities have resulted in a hike in food prices as a result of panic buying, forceful relocation, and decongestion exercises to enforce physical distancing (Asante and Mills, 2020; Obi, *et al.* 2020). Similarly, the nationwide lockdown has resulted in financial losses in India and affected all segments of society including citizen's health, healthcare and nutrition (Gopalan and Misra, 2020).

The education sector is not left out of the negative impacts of the COVID-19 pandemic. Arguably, the various lockdown measures implemented by most governments in Africa due to COVID-19 brought important disruptions to teaching and learning, especially in the formal educational systems. While efforts to overcome the pandemic are well appreciated, it is imperative that experiences from the crisis be documented and analysed in order to become better prepared for future crises. Most studies (Daniel, 2020;

Oladipo *et al.* 2020; Pokhrel and Chhetri, 2021) have documented the impacts of COVID-19 on the higher educational systems. However, the peculiarity of the SIRDA programme in terms of structure, focus, and implementation which makes it different from most conventional higher educational programmes is anticipated to result in dissimilar responses in terms of effects. While research has been conducted on the performance of the SIRDA programme across the partnering institutions (Nyerere *et al.* 2021), a gap, however, exists in terms of how the programme has been differently or similarly affected by the COVID-19 pandemic when it is compared with most conventional higher educational programmes. This necessitates the need for this case study.

Also, comparing the effects of COVID-19 across different countries and educational systems can highlight effective strategies and lessons that can be adapted to various contexts. While most studies have looked at COVID-19's impact on higher education from different country perspectives, this study has taken a deeper dive by examining two countries (Nigeria and Ghana) implementing a joint master's programme.

To this end, this study was carried out to understand how COVID-19 has influenced changes in the implementation of Sustainable Integrated Rural Development in Africa (SIRDA) programmes in Nigeria and Ghana. Apart from the benefits of building resilience capacity, it is thought that insights from this study can be useful in deciding on what degree of flexibility is required for the SIRDA curriculum (for the possibility of both virtual and physical delivery) in the Education for Sustainable Development in Africa (ESDA) Phase II implementation. Therefore, this study was guided by the following objectives which include to:

1. examine the linkage between the SIRDA programme implementation and the SDGs in the West African sub-region,
2. determine how COVID-19 has shaped changes in the strategies or approaches for the SIRDA curriculum delivery in the West African sub-region; and
3. identify measures for improving the ESDA programme in the face of the COVID-19 pandemic.

#### About SIRDA and ESDA

Since 2008, the Education for Sustainable Development in Africa (ESDA) initiative has managed to build a foundation and structure for capacity training of African professionals through an inter-university collaborative programme of graduate

training and research by eight African partner universities running three Master's level programmes. The master's programme in Sustainable Integrated Rural Development in Africa (SIRDA) is one of the three Masters' programmes. The unacceptable paradox of Africa's rich natural resource endowments and the obvious incidences of widespread poverty and poor human living conditions, especially in rural Africa necessitated the SIRDA programme. The SIRDA programme is now part of a consortium of four West African universities namely, University of Ibadan (Nigeria), the University of Ghana, the University for Development Studies (Ghana), and Kwame Nkrumah University of Science and Technology (Ghana) [Nyerere *et al.* 2021].

The approach and implementation of the SIRDA programme in the participating four West African universities in Ghana and Nigeria were largely uniform. Similarities exist in terms of course structure, field and classroom orientation, collaboration with young researchers, and internship exposure as follows:

1. The programme runs on the tripods of coursework, workshop series, and field practicum/internship within a minimum of three semesters.
2. All the activities are graded and used for the final computation of students' performance.
3. Core and affiliate faculty members are practitioners with a long history of working with rural communities in the region.
4. Faculty members are pulled from different disciplines which are comprised mainly of the social sciences, health sciences, and agricultural/environmental sciences.
5. Core faculty members are sourced mainly from the universities while affiliate faculty members comprise ESDA consortium members, especially from the West African partner universities.
6. Courses and capacity-building workshops are usually taken in the first session while the second session is devoted to an intensive internship plus field practicum in rural communities.

#### METHODOLOGY

The University of Ibadan (UI), Nigeria, and Kwame Nkrumah University of Science and Technology (KNUST), Ghana were purposively selected for the study due to their frontal roles in the SIRDA master's programme implementation in the West Africa sub-region. The population of the study comprised all graduate students who commenced the SIRDA programme before the COVID-19 pandemic and completed same during the pandemic. This enabled

the researcher to compare the programme implementation before and during the pandemic from the perspectives of the students to give insights into the overall perception of changes in the programme structure and delivery. Thus, a census sampling technique was used to select all the students that were within this category giving a total of 56 respondents (42 from UI and 14 from KNUST). A descriptive research design involving the use of a semi-structured questionnaire was used to collect data for the study. The semi-structured questionnaire was administered to the respondents through an online form (google form). The contacts of the target respondents (e-mail, cell, and WhatsApp) were obtained from the SIRDA coordinators at the sampled institutions. Changes in the strategies/approaches for the SIRDA curriculum delivery elicited information on teaching and learning processes, students' fieldwork, internship, and community engagement components of the programme. Linkage of the programme implementation with SDGs was measured by asking the respondents to indicate on a yes or no basis which of the 17 SDGs are reflected in taught courses and learning at their universities. Quantitative data collected were analysed and summarised using descriptive statistics such as frequencies, percentages, and mean.

## RESULTS AND DISCUSSION

### Respondents' background information

Table 1 shows that most of the respondents were male (83.3%) while 16.7% were female. This suggests a gender imbalance in the student's enrolment for the SIRDA programme during the COVID-19 pandemic. This may be a result of the additional responsibilities of tending to the family thereby causing a strain on the academic activities of females as asserted by Aristovnik, Kerzic, Ravselji, Tomazevic, and Umek (2020). The respondents were aged  $33.3 \pm 8.2$  years. This finding is in tandem with the finding of the OECD (2020) which asserted that COVID-19 disproportionately affects the youth from attaining education thereby exacerbating intergenerational inequalities in education. On the respondents' source of information about the SIRDA programme, 50% asserted that they got to know about ESDA Master's Programme from friends/family, while 33.3% got to know about the programme from online sources. This suggests a relatively low online presence and calls for the exploration of different online sources for publicising the ESDA Master's Programme. Additionally, the current COVID-19 pandemic obliges the world particularly the educational system to adopt other substitutes beyond face-to-face information dissemination as sometimes presented by the dissemination of information from family/friends.

**Table 1:** Respondents' background information

| Variables   | Responses                         | Percent          |
|-------------|-----------------------------------|------------------|
| Sex         | Male                              | 83.3             |
|             | Female                            | 16.7             |
| Age (years) | 30-39                             | 33.3             |
|             | 40-49                             | 33.3             |
|             | $\geq 50$                         | 33.4             |
|             | Source of information about SIRDA | Family & friends |
|             | Online                            | 33.3             |
|             | Others                            | 16.7             |

### Implementation of the SIRDA Programme and Links with SDGs

#### Components of ESDA programme in UI and KNUST

Figure 1 shows that all the respondents indicated that coursework (100%), research project (100%), and seminar/conferences (100%) components were reflected in the teaching and learning process in the participating universities. This is because these components are mandatory requirements in the fulfilment of the award of the SIRDA degree. Other components such as international field trips and local

field trips (33.3%), field-based practicum (33.3%), and workshops (33.3%) are likely to decline with an upsurge of COVID-19 cases. This is anticipated because these components allow for close social interaction which is in contrast to the COVID-19 containment protocols. The relatively low implementation of the field practicum component of the programme is however contrary to the original design of the programme which was to prioritise field exposure through practicum and other related activities above classroom orientation since the programme was focused on community development professionals and practitioners.

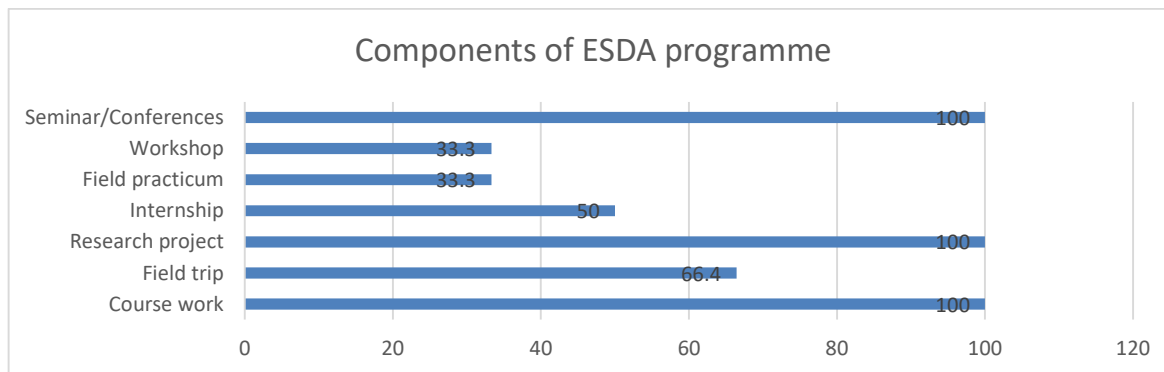


Figure 1: Components of the SIRDA programme

**Course contents and links with the SDGs**

Respondent asserted that all the Sustainable Development Goals (SDGs) reflect in their taught courses and learning (Figure 2). Additionally, all the respondents indicated that out of the 17 SDGs, Goal 17 which is about partnership to achieve the SDGs reflected the most in their taught courses and learning. The reason for this is not far-fetched as the SIRDA master programme was birthed by a partnership of 8 African universities (Olaniyan and Fadairo, 2019) and has continually relied on the same partnership in its implementation. This is a pointer to the fact that the realisation of the SDGs is hinged on Goal 17 which is based on the global implementation of the development agenda, strengthening global solidarity, enhancing intercultural understanding, tolerance,

mutual respect, and shared responsibilities (United Nations, Undated). Apart from Goal 17 which topped on the assessment of the SIRDA links with the SDGs, goals 3, 4, and 5 which focused on good health/wellbeing, quality education, and gender equality, respectively which were indicated by 83.3% of the respondents also gained traction in the SIRDA taught courses and learning in Nigeria and Ghana. Olaniyan and Fadairo (2019) argued that these goals (with the inclusion of SDGs 1 and 2) directly speak to the development challenges of rural areas. Therefore, the relatively higher attention paid by the SIRDA programme to these goals can be justified since the programme’s overarching aim is to build the professionals needed to promote an enduring and sustainable rural development process in the African continent.

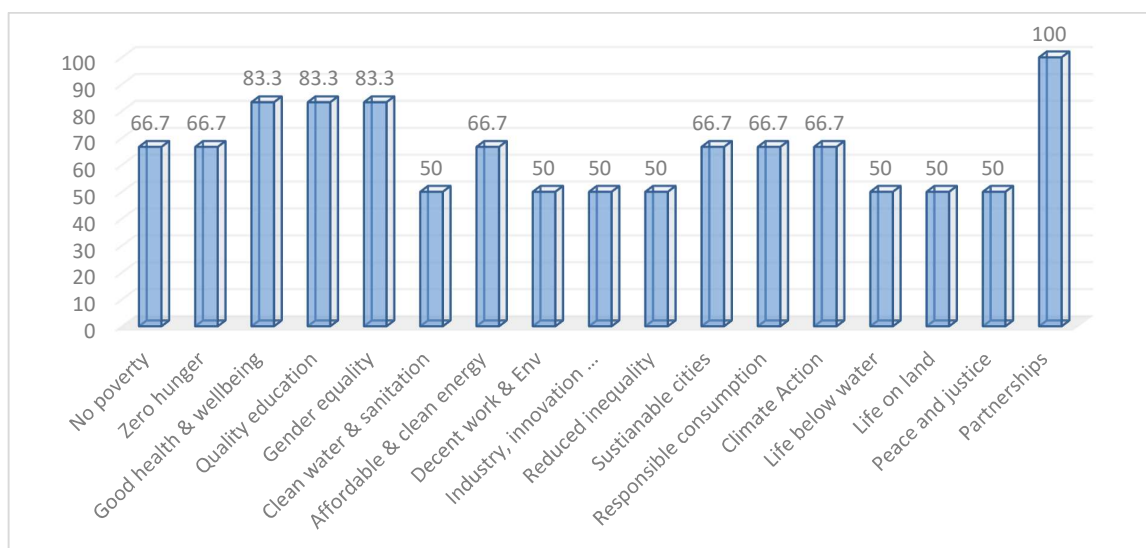


Figure 2: SIRDA course contents

**COVID-19 Pandemic and the SIRDA Programme**

**How the COVID-19 pandemic affected SIRDA universities**

Figure 3 shows that 67% of the respondents noted that their universities were partially open or completely closed during the COVID-19 pandemic. This implies that normal school activities were not at their peak as

a result of the COVID-19 pandemic containment measures which necessitated the activation of remote learning (Zitoun, 2020; Alshehri, Mordhah, Alsibians, Alsobhi, Alnazzawi, 2020). However, virtual teaching activities are being carried out in addition to the

traditional classroom method of teaching in the universities because of the challenges of adapting swiftly to the demands of remote learning as affirmed by Ebohon, Obienu, Irabor, Amadin, and Omoregie (2021).

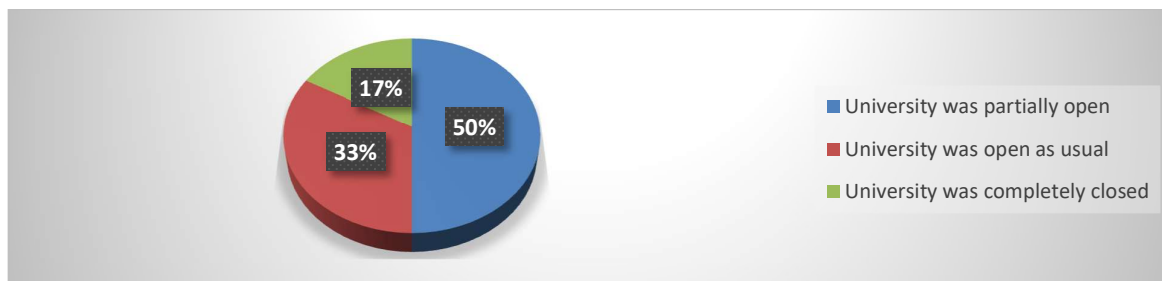


Figure 3: Effects of covid-19 pandemic on SIRDA universities

**How the COVID-19 pandemic changed university strategies/approaches for the ESDA programme**

Majority of the respondents asserted that the delivery mode of the ESDA graduate study programme has been revised to accommodate virtual methods (83.3%) in response to the effects of COVID-19 pandemic [Figure 4]. This finding is similar to the finding of Iseolorunkanmi, Adebola, Adebola, Rotimi, Nweke-

Love, Adebisi, and Lawal (2021) who established that as a result of the COVID-19 pandemic, alternative teaching methods are being utilised to prevent the collapse of the educational sector. Furthermore, due to the COVID-19 protocols that strongly encourage physical distancing to curb the spread of the disease, activities such as fieldwork that necessitate close interaction were dropped.

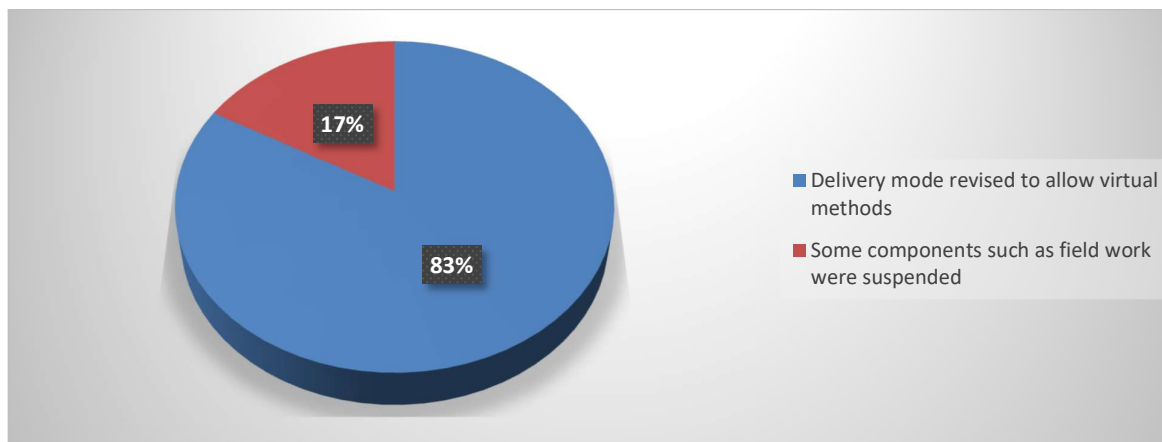


Figure 4: Effects of covid-19 on SIRDA approaches

**COVID-19 and ESDA-related community engagement activities**

Figure 5 reveals that more than half of the respondents (66.7%) noted that they did not know how COVID-19 affected ESDA-related community engagement activities in their universities. This suggests poor awareness of the ESDA governance issues among the

students or lack/poor communication from the local ESDA desk offices to the students on the issues that affect them. Students are essential stakeholders in any educational system and they should be involved in processes that affect them for a transparent and smooth governance process (Rodgers *et al*, 2011; Pabian & Minksová, 2011).

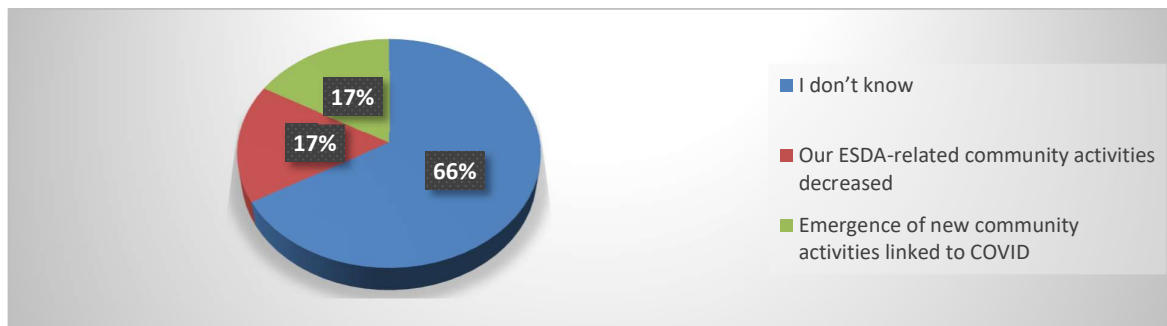


Figure 5: Effects of Covid-19 on SIRDA community engagements

**Perceived overall effects of COVID-19 pandemic on ESDA programme**

More than half of the students (66.7%) were uncertain of the impact of the COVID-19 pandemic on the attainment of the ESDA graduate study programme objectives. They opined that the crisis will both

accelerate and slow down the achievement of the programme objectives. However, 16.7% of the respondents expressed optimism that the impact will be positive for the SIRDA programme in the long run. Others (16.7%) indicated that it was too early to predict what the impact will be.

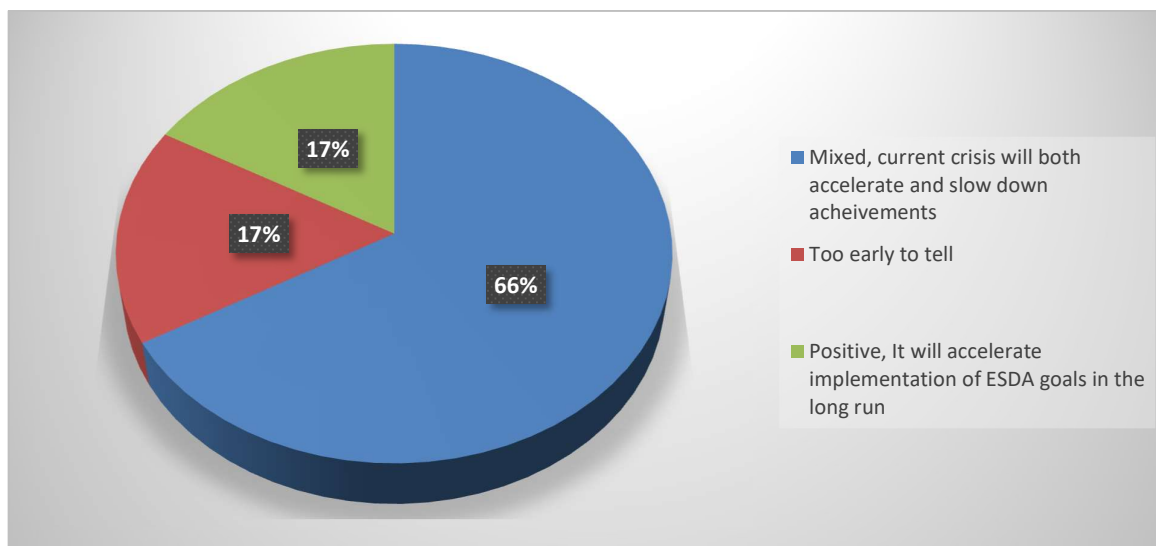


Figure 6: The perceived overall effect of covid-19 on the SIRDA programme

**3.4 Suggestions for improving the ESDA program in the face of the COVID-19 pandemic**

The following were the major opinions expressed by the respondents on how the SIRDA programme can be improved in the wake of the COVID-19 era:

1. Teaching and learning process to be sensitive to adult learners. The SIRDA programme targets professionals who are mainly adults. Adult learners differ from youth learners in terms of self-concept, physical ability, life experiences and motivation and these characteristics are noted to be given more priority attention in the second phase of the project implementation. Adult learners' independence and self-direction can vary

based on their familiarity with the topic being taught. With a new or unfamiliar topic, adult learners may be more dependent on the facilitator and need more direction from him/her. Generally, adult learning psychology plays a significant role in designing effective educational programmes and training. Understanding the differences between adult and children's learning styles, psychological factors that affect adult learning, strategies for effective adult learning and their implications for education and training can enhance the effectiveness of the SIRDA programme.

2. More emphasis on field orientation. Incorporating field orientation into SIRDA programmes would ensure that rural

development practitioners who are mainly targeted are well-prepared, empathetic, and effective in their roles, ultimately leading to more sustainable and impactful development outcomes. This is because (i) field orientation provides practitioners with hands-on experience, allowing them to apply theoretical knowledge to real-world situations, (ii) it helps practitioners build trust and establish deeper relationships, (iii) working in the field hones essential skills such as problem-solving, adaptability, and communication, (iv) exposure to rural environments during training can influence practitioners' decisions to work in these areas long-term.

3. Involvement of more instructors who are vast in sustainability studies in the programme teaching.
4. Provision of small grants or scholarships for students. The programme started with a promise to include a funding support component for students. However, the funding support was only provided for the earlier cohort of students through the Africa Development Bank/Japanese Trust Fund (AfDB/JTF) for promoting knowledge exchange between Early Career Researchers in Africa and Asia. The latter cohort was unable to access any funding support which affected the quality of the field orientation component of the programme. The sustainability of the programme and the preservation of its quality would depend a lot on charting a pathway for a sustainable funding model for its implementation in the partnering institutions.

## CONCLUSION AND RECOMMENDATIONS

COVID-19 caused major disruptions to the SIRDA programme, especially in implementing some components such as fieldwork. However, the various universities have managed to sustain learning by the introduction of virtual learning mode especially during the period of partial close-down. The SIRDA curriculum review process should focus attention amongst others, on developing a flexible curriculum that can be taught in person or online and that can switch between face-to-face and remote learning. Also, an effective SIRDA programme implementation requires improved funding. Given the importance of field orientation to the effectiveness of the programme, the phase II implementation should make provisions for virtual field orientation for the trainees especially where physical orientation is challenging due to funding or any future pandemic. The virtual field orientation can be achieved through a

combination of digital tools and interactive methodologies such as virtual tours and simulations, case study analyses, interactive webinars with community leaders, and online collaborative projects.

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