Internal Documentation: Internal Project Risk Assessment

1) Use a MOST analysis to conduct background research on the client's organization.

Roots Africa's mission is to end hunger and poverty in Africa through resilient agriculture and entrepreneurship development, focusing on the philosophy that "Africa doesn't need charity, it needs changemakers." Their primary objective is to create sustainable transformation by training farmers and developing agricultural entrepreneurs who can continue spreading knowledge and skills independently. Their strategies include training changemakers who then train farmers, connecting African changemakers with global mentors, and fostering community-led agricultural initiatives that emphasize resource optimization rather than dependency. Their tactics involve conducting detailed community assessments (using tools like the Community Readiness Survey and Resource Mapping), implementing targeted training programs, and measuring impact through systematic data collection at both community and individual farmer levels.

Regarding DEI values, Roots Africa emphasizes local autonomy and empowerment, with special attention to including women and youth in agricultural leadership. They focus on respecting existing community resources and structures rather than imposing external solutions. The data dashboard project aligns perfectly with their approach by enabling them to track progress, demonstrate impact, and make data-informed decisions about resource allocation, ultimately supporting their mission of sustainable, locally-driven transformation.

2) Identify and define the objective or purpose of your project.

The data dashboard project addresses Roots Africa's critical need to systematically monitor, evaluate, and communicate the impact of their community transformation efforts in Liberia and Uganda. Despite having trained over 11,000 farmers through 648 changemakers across multiple institutions, the organization currently struggles to track progress and measure success effectively at both community and individual farmer levels. The project matters because it will provide Roots Africa with a comprehensive data visualization system that transforms their collected field data into actionable insights for decision-making and resource allocation.

This system will help Roots Africa demonstrate their impact to donors and partners, identify which interventions are most effective, track community progress through different maturity stages, and make evidence-based decisions about where to allocate resources. By implementing a robust monitoring and evaluation dashboard, the organization can better understand which communities are thriving, which need additional support, and how factors like leadership structures, farming practices, and market access affect overall transformation. Ultimately, this project will enhance Roots Africa's ability to fulfill their mission of creating sustainable change by allowing them to measure, optimize, and scale their most effective strategies.

3) State the project stakeholders and the impact of the project on these stakeholders.

The primary stakeholders for this project include Roots Africa's leadership team, particularly founder Cedric Nwafor, who will use the dashboard for strategic decision-making. Field agents in Liberia and Uganda will benefit from streamlined data collection processes via Kobo Collect and clearer visualization of their impact. The 648 trained changemakers will gain visibility into their effectiveness and areas for improvement. Donors and funding partners will receive more transparent reporting on program outcomes, potentially increasing financial support.

The 11,000+ farmers and their communities are ultimate beneficiaries, as more effective monitoring will lead to better-targeted interventions that address their specific needs rather than generic solutions. University partners and agricultural experts who provide mentorship will see how their knowledge transfers into practical impact.

Some stakeholders might initially be adversely impacted by the transition to digital data collection, particularly field agents with limited digital literacy. We should consider communities with very limited internet connectivity, ensuring the system functions effectively offline. We've identified youth with digital skills within communities as potential stakeholders the client may have overlooked—they could become local dashboard champions, creating additional leadership opportunities while addressing technical support needs.

4) **State the constraints that your project might operate under.**

The project faces several significant constraints. First, technological limitations in rural areas of Liberia and Uganda may restrict real-time data collection and synchronization. Many communities have limited internet connectivity, requiring offline functionality for the dashboard. Second, varying digital literacy levels among field agents and changemakers will impact user adoption and data quality—training materials must accommodate diverse skill levels.

Resource constraints include Roots Africa's limited technical infrastructure and potential budget restrictions for ongoing system maintenance. The geographical distance between our team and end-users creates challenges for testing and feedback collection. The timeframe constraint of completing this project within the academic semester limits the scope of what can be realistically delivered.

From a DEI perspective, we must ensure the dashboard doesn't inadvertently exclude stakeholders by designing an interface that works across different devices, accommodates various literacy levels, and potentially supports multiple languages. We must also consider data sovereignty issues—ensuring communities maintain appropriate control over their own data. Finally, we must avoid designing solutions that might unintentionally prioritize certain types of measurable outcomes while overlooking equally important qualitative impacts that align with community values.

5) **State the resources that you may need to complete the project.**

To complete this project successfully, we'll need both technical and substantive resources. On the technical side, we require development tools for dashboard creation, likely including data visualization libraries and frameworks compatible with Kobo Collect's data structure. We'll need access to API documentation for Kobo Collect to ensure proper data integration. Cloud hosting services may be required for the dashboard, with considerations for security and access control. Design tools for creating

user-friendly interfaces that work across various devices and connectivity scenarios will be essential.

Substantively, we need access to Roots Africa's existing data collection forms and samples of collected data to understand the information structure. Subject matter expertise from Roots Africa staff regarding their specific KPIs and metrics will guide our design. Documentation of current data collection workflows will help us identify pain points and opportunities. Access to field agents or changemakers for user testing and feedback will ensure the solution meets their needs.

If certain resources become unavailable, we have contingency plans. For instance, if direct API integration isn't possible, we can design manual data import workflows. If cloud hosting is unfeasible, we can explore local hosting options or simplified dashboard tools that work with exported data formats. We'll leverage university resources, open-source tools, and potentially reach out to external experts in agricultural data visualization if specialized knowledge gaps emerge.

6) **Consider your project transition and closeout plans.**

Our transition plan will focus on ensuring Roots Africa can independently maintain and expand the dashboard after project completion. We'll provide comprehensive documentation including a detailed user manual with step-by-step instructions for data input, visualization interpretation, and troubleshooting common issues. Technical documentation will cover system architecture, data flow processes, and integration points with Kobo Collect.

We'll develop training materials tailored to different user roles—administrators who manage the system, field agents who collect data, and leadership who interpret results. These will include video tutorials and written guides addressing various technical comfort levels. A knowledge transfer session will be conducted with key Roots Africa staff to demonstrate the system's capabilities and answer questions.
To support future expansion, we'll include a roadmap document outlining potential enhancement opportunities and integration possibilities. We'll also prepare handover documentation for potential future student teams, explaining design decisions, technical debt, and areas for improvement.

For sustainability, we'll identify internal champions within Roots Africa who can serve as local experts and trainers. We'll establish a 30-day post-handover support period where our team will remain available to address any issues or questions that arise during initial independent use. Given the importance of this system to Roots Africa's operations, we'll also explore whether a maintenance agreement with technical partners is appropriate for long-term support.