The Future Is Here:

A Management Information Systems that Fuels Adaptive Management

Context Overview

While the demand for more rigorous data from monitoring and evaluation systems has grown, data collection and MIS systems are still far behind. For example, in Bangladesh, projects continuously collect monitoring data on paper forms. Furthermore, the data collection processes are unstructured and decentralized across project teams such as Monitoring and Evaluation (M&E), Operations (Finance, Grants, Procurement etc.), Gender and so forth (see figure 1 below). Field updates and feedback are also on an ad hoc basis or at intervals such as during monthly meetings or annual work plan. Consequently, this leads to failure to identify intervention challenges and modification areas to manage adaptively. Real-time monitoring systems are even more important for market system development projects that use facilitation techniques and short-term (6-12 months) adaptive partnerships with private sector companies. Access to immediate feedback from partners and program teams allows for continual improvement and more effective programs.

In response to these challenges, the USAID Bangladesh Feed the Future Rice and Diversified Crops (RDC) activity developed a digital adaptive management tool that increases the speed, organization, and access to field monitoring data for the project.
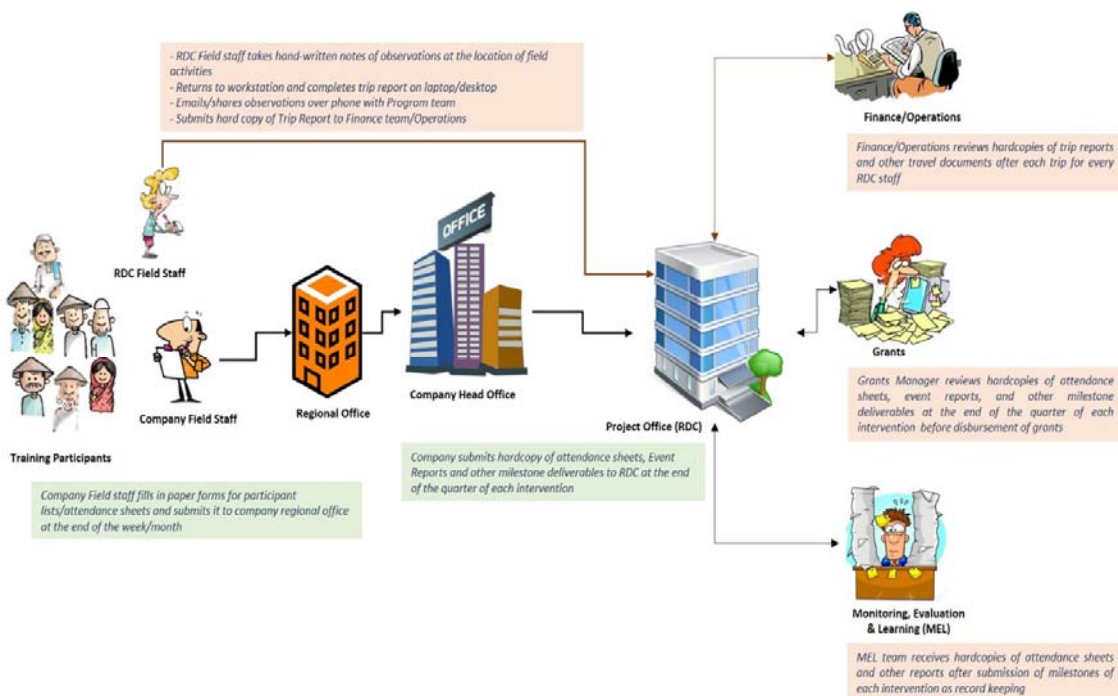
Traditional Data Management System

Figure 1: The Traditional Data Management System was paper and time intensive, bureaucratic, decentralized and non-standardized

Problem Definition and Stakeholder Need

RDC works across diverse agriculture sectors (rice, maize, pulses, oilseeds and mechanization) in a dynamic and constantly changing environment with a range of partners. Most of the interventions are seasonal and short duration (6 -12 months) so regular feedback mechanisms are necessary to ensure RDC's interventions are following its designed causal logic. It is therefore, important that RDC generate measurable, relevant and timely

data for effective monitoring and decision making. Similarly, in the private sector, in many instances both large and small companies suffer from access to real-time and documented data to measure quality of activities and identify discrepancies in the field.

In addition, data authentication, duplication and task repetition across the project such as Finance, Grants, programs and MEL lead to inefficiency and time loss. For example, staff were required to submit separate reports and documents to different departments such as trip reports to Finance and event reports to Grants and MEL teams separately for each field visit.

Consequently, the Adaptive Management Tool was developed to address the following issues to improve project management of RDC for its key users - program teams, MEL, Grants, Finance/Operations, Head Office, partners:

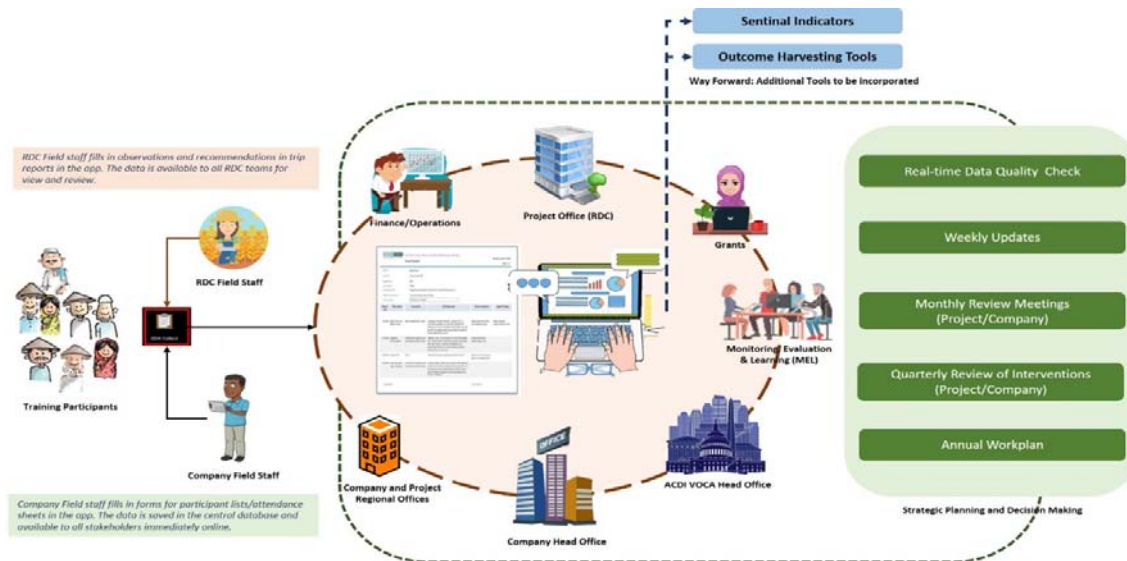| Intervention Planning:	Collaboration:
- Prioritizing tasks, - Agile task management, - Shared intervention pathway of sector teams;	- File sharing and team communication, - Team/intervention dashboards illustrating project's Key Performance Indicators (KPIs), - Sharing intervention data across key and relevant stakeholders while maintaining confidentiality;
Documentation:	Reporting:
- All data accessible in one place, - Quick access to data;	- Customizable reports, - Project KPI dashboard;
1. Resource Management: a. Scheduling resources and intervention design	

Innovative Solution

Figure 2: Adaptive Management Tool is a standardized, structured, centralized, and real-time project management software

Key Features of the Adaptive Management Tool for Project Management

RDC Adaptive Management Tool is a cloud-based feature-rich project management software developed in-house by ACDI/VOCA's MIS Specialist and MEL Team Leader based on feedback from RDC staff and private sector partners. The Adaptive Management tool has formalized the process of monitoring, evaluation and learning to ensure collaboration and strategic decision-making that supports the RDC Activity's adaptive management information needs.

Its key features and benefits are:

a. **Mobile and/or tablet functionality** that allows authenticity through GPS location tracking (figure 4) and field visit pictures;

b. **Easy and immediate capture and communication of implementation progress** (figure 5) which will provide early signs of outcomes from the types and number of events conducted to the profile of participants (figure 4). Dashboards provide progress against larger outcome level targets (figure 8).
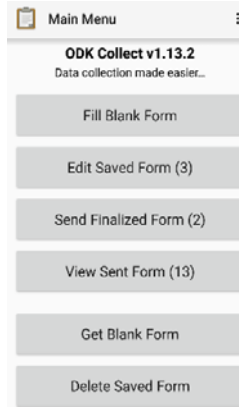

Figure 3: Main Menu

Figure 4: Types of forms, trackers available

c. **Standardized and structured process for data capture** through a central data management system; e.g.: Data collection forms are standardized, centralized and in real-time as seen in figure 5.
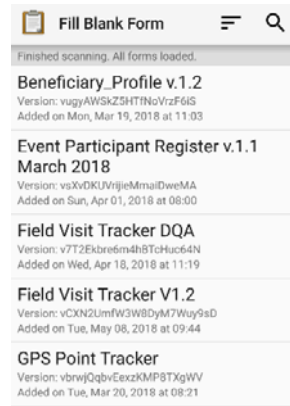
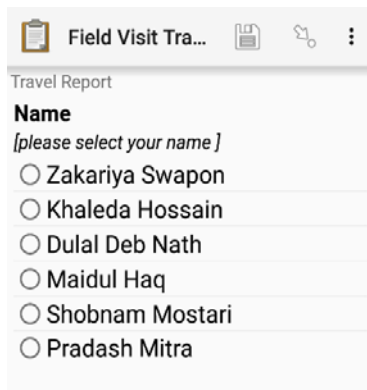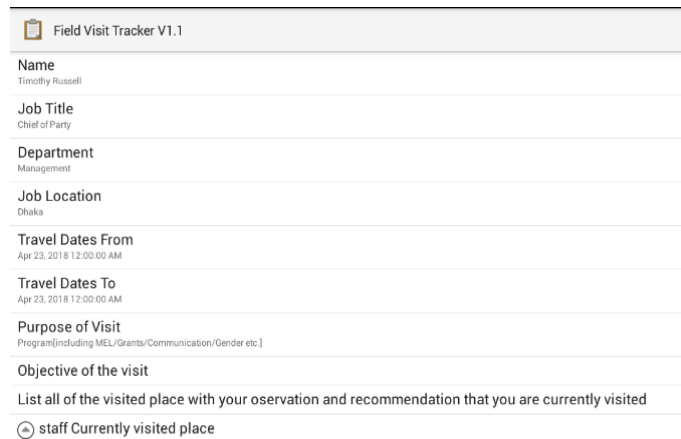

Figure 5: Central Data Management System

d. **Customized electronic field logs** for interventions that allows automatic report generation and electronic sign off as seen in figure 6 and 7.

Figure 6: Structured and easy to use data entry features
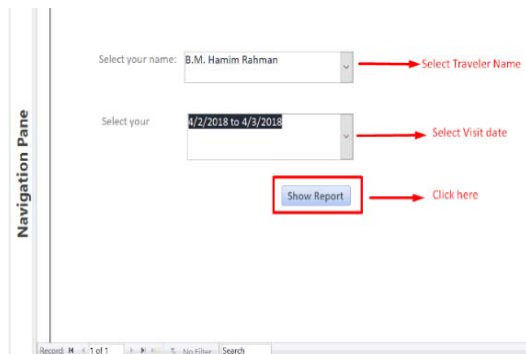

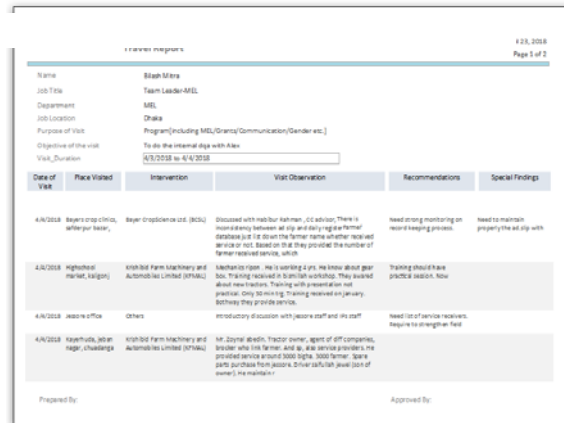Figure 5: Generate Reports from database
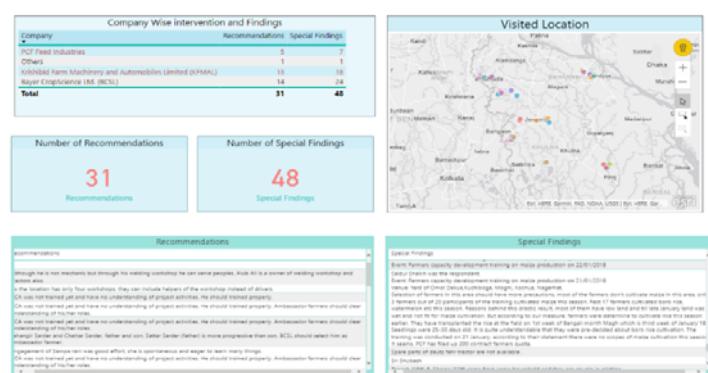
Figure 8: Electronic sign off

Figure 7: Dashboard Snapshot

The RDC Adaptive Management Tool provides a common platform that helps project managers, teams and stakeholders stay on top of tasks through real-time collaboration and seamless integration. It streamlines regular data collection and learning from the field, making it more organized, user-friendly and flexible. Real-time data, standardized reports and infographic dashboards help relevant internal and external stakeholders during data quality checks, weekly staff meeting updates, Monthly Review Meetings, Quarterly Intervention Reviews, and Annual Work Planning. Moreover, the application helps private sector partners such as national and regional input and procurement companies to monitor field activities and conduct strategic planning and decision making to ensure business growth.

Usability, Accessibility and Sustainability of Innovative Solution

The in-house designed Adaptive Management Tool is available via web, android and iOS apps on smart phones, tabs and laptops with GPS features and can be used by project staff as well as other stakeholders such as private sector partners to fill in forms and view dashboards. It gives the management a real-time picture on value chain and business growth, supporting them to take immediate and adaptive decisions for strategic alignment. It allows management the opportunity to monitor on-going interventions from remote places. Projects and companies can use it to improve collaboration, learning sharing, improve business models, communication, transparency and accountability for faster results.

ACDI/VOCA's RDC team has developed an operational guideline, which is aligned with the project's Market Actor Agreement clause that allows program team and partners to maintain compliance with Grants and MEL requirements during implementation. Moreover, RDC has conducted an orientation session among program staff and partners on the use and benefits of the tool.

The application can also be linked with partners' web sites where visual dashboard features, such as implementation progress and budget can be viewed. Furthermore, it can be customized as it has been developed using open-source technologies by ACDI/VOCA's in-house local MIS expert with advisory support from ACDI VOCA Head Office.

The Adaptive Management Tool is a comprehensive data management software that helps to streamline regular data collection, delivering real-time visibility and improve efficiency of decision making process through constructive and immediate feedback. Its ease of use and adaptability makes it valuable for implementers working in a dynamic and diverse environment.

Stakeholders and Eco-system encompassing the Innovative Solution

During RDC Collaboration, Learning and Adaptation (CLA) working group meetings different stakeholders expressed the need for a common and structured data management system for monitoring, evaluation and adaptive management. Members from Gender, MIS, MEL, Program/sector, Grants, Operations were involved in the concept and designing of the Adaptive Management Tool. In addition, learnings from DCED and USAID MEL systems/approach, CLA Approach, CLA Maturity Matrix were integrated for inclusivity and wider acceptance.

The Adaptive Management Tool has created the opportunity to resolve issues collaboratively. Documented learning provides the institutional memory for project and allows private companies to receive regular feedback. Through this application lead firms strengthen their monitoring process and address business needs as and when required.

For example, recent findings from the field showed that the mungbean plants were dying or withering before its harvest time. This in turn was causing panic and tension among the contract farmers of the procurement company. Based on the observation and findings from the field tracker, the project facilitated meetings between the procurement company and Bangladesh Agricultural Research Institute (BARI) scientists which led to a recommendation that farmers should harvest their crops early. The availability of information and collaborative effort prevented major crop loss and business cost for farmers and procurement company respectively as well as helped the project to effectively monitor, evaluate, learn and revise its intervention design.

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