WFP
World Food Programme

SAVING LIVES
CHANGING LIVES

Innovative Monitoring Approaches in Southern Africa

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Overview of WFP Monitoring

WFP uses monitoring to demonstrate progress against results it plans to achieve and provide objective information on what works best and why, and to bring attention to any challenges in programme implementation and allow adoption of corrective actions. The Corporate Results Framework (CRF) guides the monitoring of WFP programmes. Three types of monitoring; process monitoring; output monitoring, and outcome monitoring are distinguished in WFP, and the distinction across them is largely explained by the differences in data collection and data analyses. **Figure 1** shows WFP monitoring tools, systems, and guidances that monitoring officers refer to support delivery of results.

Process monitoring: Quality checks done regularly to monitor programme implementation at distribution and activity sites to detect and escalates issues for correction. Answers questions: **Were we efficient and in compliance with corporate standards?** Monthly monitoring plans ensure that all sites are adequately monitored.

Output Monitoring: Records, aggregates, and reports the number of beneficiaries reached, transfers distributed, and other outputs generated through WFP planned activities. Answers the questions: **Who did we reach? With what? When and Where?**

Outcome Monitoring: Measures and demonstrates programme change and impact on saving and changing lives and aims to answer the question: **Have we made a difference?** For example, are food security and nutrition outcomes improving among the population assisted by WFP? Have the targeted communities benefited from the assets built through WFP's intervention?

FIGURE 1: MONITORING TOOLS, SYSTEMS AND GUIDANCES

This paper, therefore, highlights innovative monitoring approaches that the WFP Southern Africa has successfully adopted to enable timely, faster, and more effective process, output, and outcome monitoring.

Investments in Evidence Generation and Use

The Southern African region is rich in natural resources and human capital, however, 57 million people face food insecurity due to poverty, unemployment, inequality, and climate change. To respond to the food insecurity challenge, WFP is implementing various programmes in the region. In order to implement these programmes, WFP **collects and uses reliable, up-to-date, and relevant evidence to design its programmes.**

This evidence is gathered through assessments, quantitative and qualitative data, real-time and remote monitoring technology.

WFP continuously refines its assessment and analysis methodologies to enhance evidence-based decision-making when assisting beneficiaries, as well as national and local governments. This is in line with the WFP 2022-2025 Strategic Plan, which emphasizes investments in generation and use of evidence.

As part of WFP's response to food security challenges across the 12 countries, RBJ established the Evidence Generation Block (EGB) in 2021, comprising of Knowledge Management (KM), Monitoring, Vulnerability Analysis and Mapping (VAM) (**Figure 3**).

EGB strengthens the Regional Office Southern Africa's evidence collection by **transforming raw data into information and knowledge** to facilitate strategic decision making and optimise response during emergencies (as indicated in **Figure 2**). This is done by ensuring that much-needed data is available in real-time.

FIGURE 2: TRANSFORMATION DATA AND INFORMATION INTO KNOWLEDGE FOR WFP DECISION MAKING

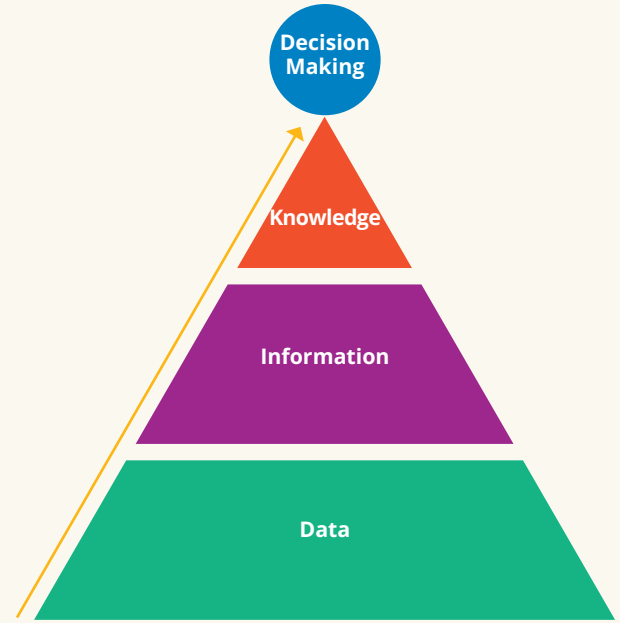
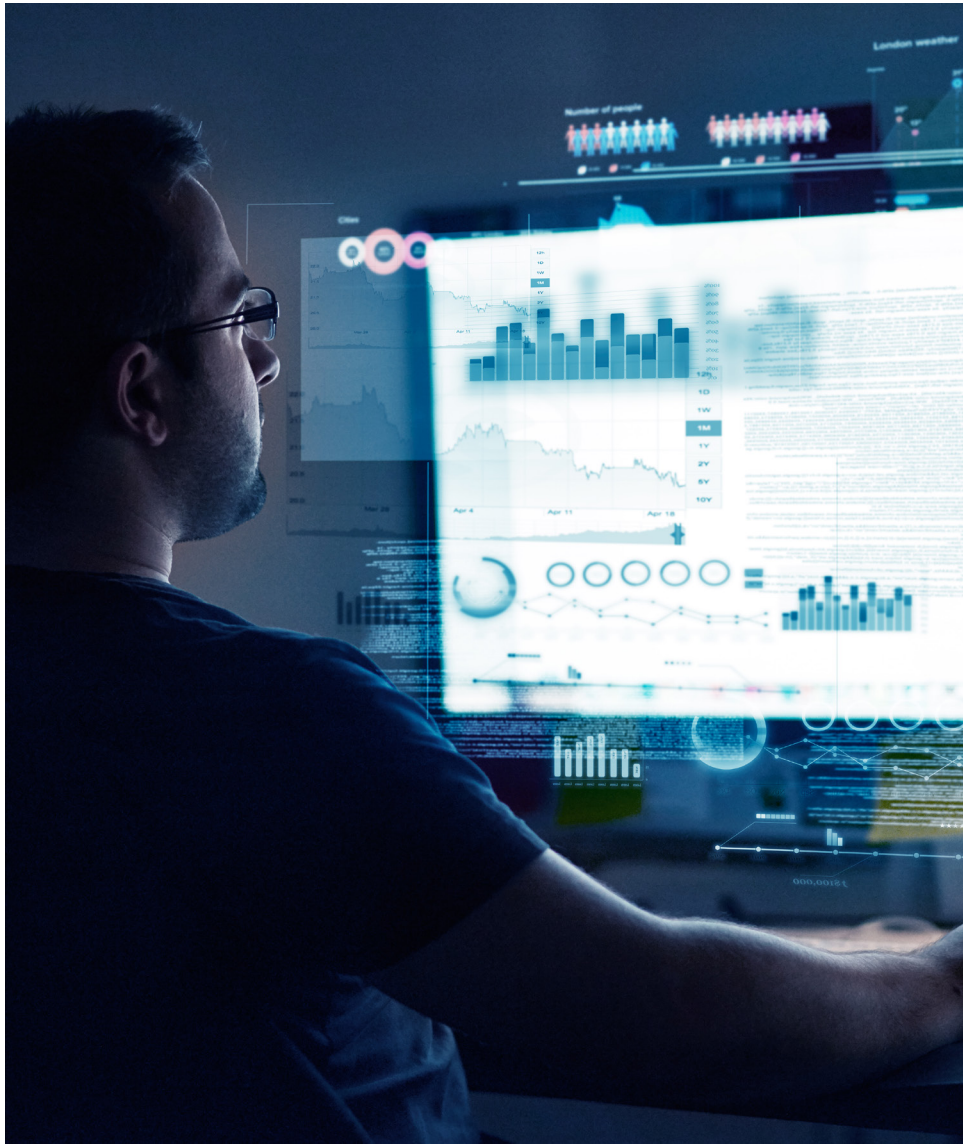


FIGURE 3: THE ROLE OF EVIDENCE GENERATION BLOCK IN THE REGIONAL OFFICE SOUTHERN AFRICA

Innovative Monitoring Approaches in Southern Africa

Innovative Monitoring Approaches in Southern Africa

WFP is leveraging advances in digital innovative approaches - such as mobile technology, artificial intelligence, big data, and blockchain. As such, WFP has piloted and scaled up various innovative approaches aimed at transforming the way WFP serves vulnerable communities across the world, in turn achieving its mandate of Zero Hunger.



Pros and Cons of Innovative Monitoring

- Technology can improve efficiency by enabling real-time monitoring and data collection, allowing for quick analysis and decision-making. Automated monitoring systems can provide more accurate and reliable data than manual methods. Unmanned aerial vehicles and remote sensing can speed up monitoring, which is beneficial when monitored environments are dangerous or inaccessible. Although associated with substantial initial investments, automated monitoring systems are more cost-effective in the long run.
- However, these advantages come with an array of complex challenges and risks: Increased monitoring often raises privacy concerns, especially when the technology used for monitoring is perceived as intrusive. Depending solely on technology for monitoring may lead to over-reliance on technology. Technologies can malfunction and break down, creating gaps in monitoring ability. As monitoring systems become more connected, there is an increased risk of cybersecurity threats, such as unauthorized access or manipulation of monitoring data, which often leads to negative consequences, such as data leakage, loss, and misuse.

Enabling Systems and Technologies

Output Monitoring

Partner Connect - Mozambique Country Office

Partner Connect is a digital online and real-time web-based reporting platform jointly developed by WFP's NGO Partnership Unit and TEC division to improve Country Offices (COs) and Cooperating Partners (CPs) reporting experience and validation of distribution data from in-kind food assistance distributions, as well as the efficiency of WFPs engagements with CPs. Partner Connect aids digitisation of paper-based functions, elimination of several manual steps, improvement of data quality, and encourage the use of reliable and timely reporting processes.

Partner Connect is currently being used for reporting output monitoring data in Cabo Delgado, Mozambique CO. CPs enter and edit data, through webform or an excel template **(Figure 4 & Figure 5)** after distribution and share with the WFP approver for validation and approval. Once approved, data automatically reflects in COMET as partner connect is linked with COMET.

FIGURE 4: PARTNER CONNECT - Reporting Through Webform

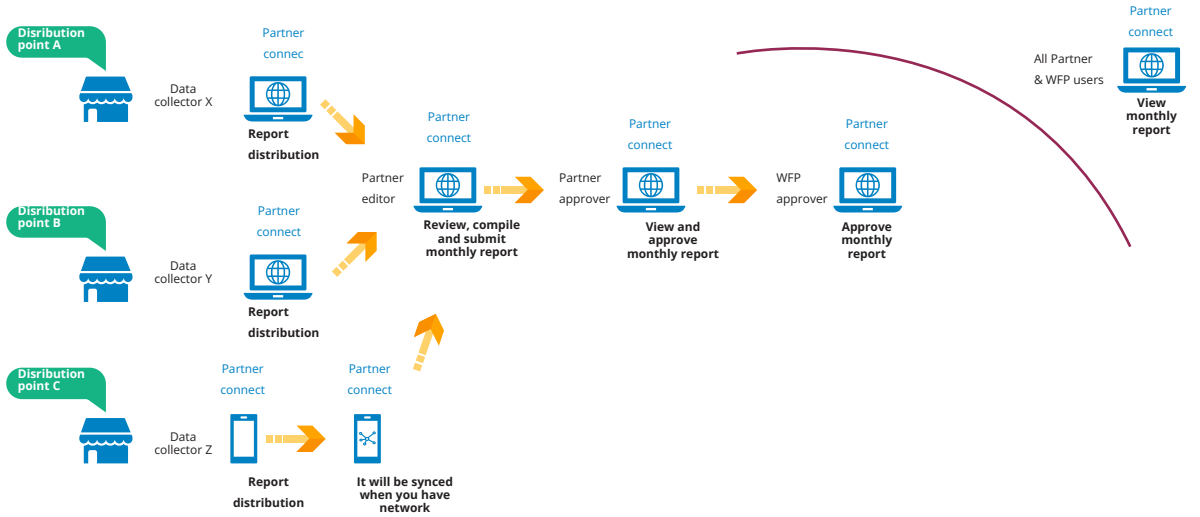
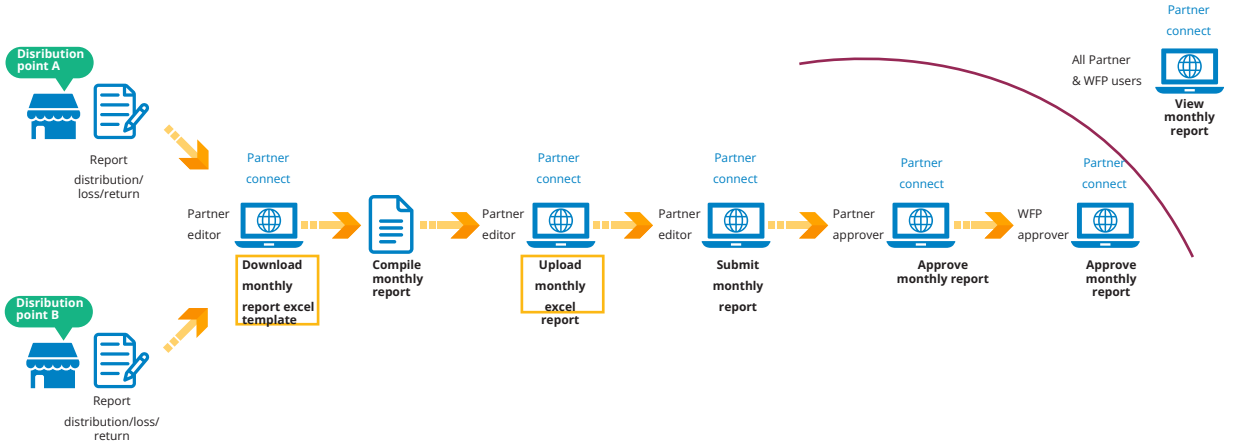


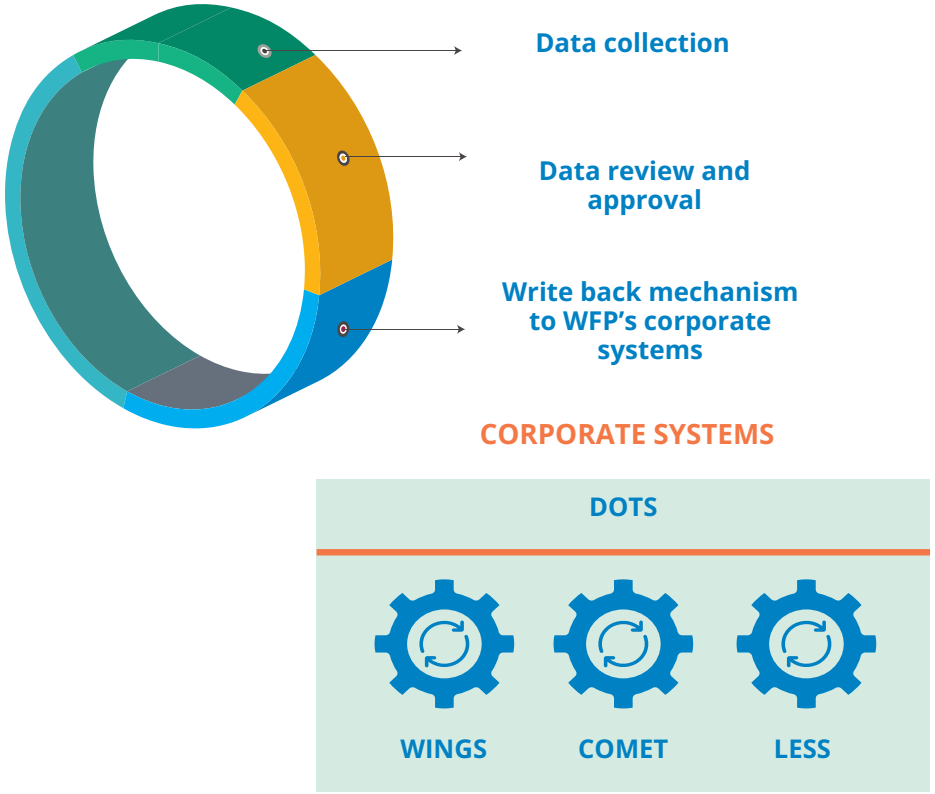
FIGURE 5: PARTNER CONNECT - Reporting Through Excel Template



Before the adoption of Partner Connect, CPs used manual paper–based data collection methods which were associated with delays, poor data quality, and lengthy and costly reporting processes. Because Partner Connect aids the digitisation of paper-based data collection functions, eliminate the number of manual steps, improve data quality and gaps in the information flow at the sub-office and country level, and encourage the use of a reliable, timely reporting processes, Partner Connect brings value to both WFP and CPs.

Benefits of Partner Connect to Mozambique Country Office and its Partners:

- ✔ Collect data of daily distributions done at the final distribution points, both offline and online.
- ✔ Increased reliability in data collection.
- ✔ Flexible monthly reporting either through Partner Connect web form or Partner Connect excel template.
- ✔ Better visibility and control over stock availability.
- ✔ Created operational links between WFP and its partners, enabling WFP to manage CPs access and profiles.
- ✔ Reduce time required for data reconciliation as these processes are conducted in a system which is connected to other WFP systems such as WINGS, COMET, LESS, thus saving money and time.



School Meal Programme - Malawi Country Office

In collaboration with the Ministry of Education (Dedza and Zomba education offices), WFP Malawi piloted the use of digital forms (ODK, MoDA application) to report Home Grown School Feeding (HGSF) output data (attendance, value and quantity of commodities bought from smallholder farmers). This innovative technique is aimed at minimising the challenges associated with using paper forms for reporting output data. Malawi WFP plans to expand this technique to the remaining HGSF schools in all districts by 2024.

Use of Digital Forms:

- ✔ Generated time savings - digital forms auto fill cells.
- ✔ Improved quality of output reports through elimination of the risk of incorrectly manual data analysis. Digital forms offer automated error-free estimation of indicators such as attendance rate and possible attendance days.
- ✔ Improved timely submission of monthly output reports. Reports now submitted before the deadline of 5th of the month.
- ✔ Enhanced quality control - digital forms prompts teachers to correct mistakes compared to the paper-based which led to wrong data entry and miscalculations.

FIGURE 6: MALAWI SCHOOL MEAL PROGRAMME – MODA SCHOOL ATTENDANCE FORM

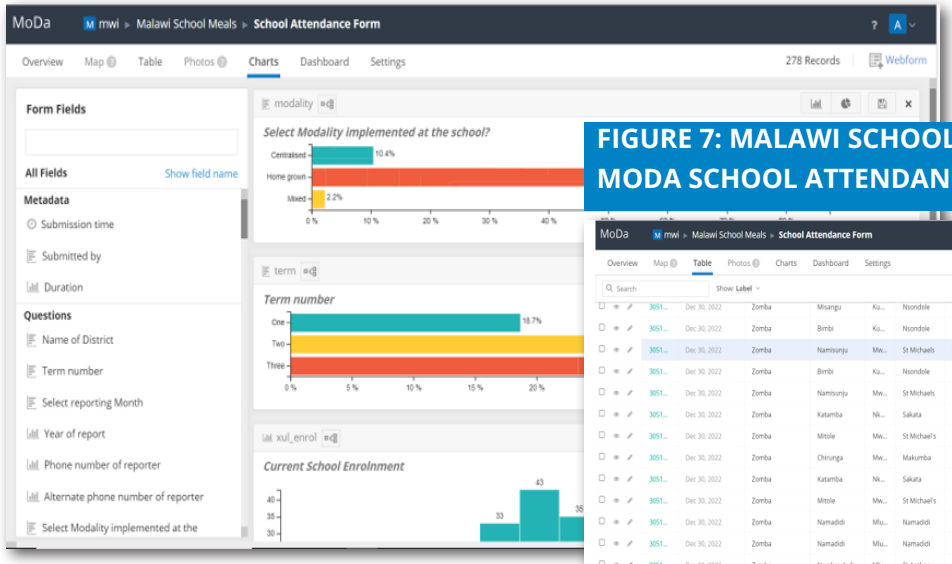
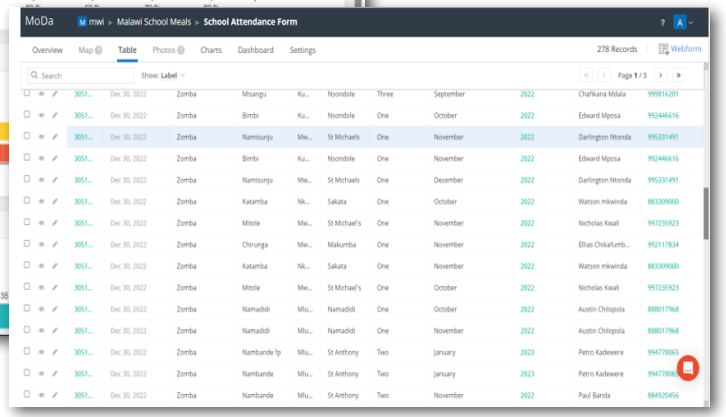


FIGURE 7: MALAWI SCHOOL MEAL PROGRAMME – MODA SCHOOL ATTENDANCE FORM



Remote Post Distribution Monitoring m(PDM) - DRC Country Office

Owing to a protracted complex humanitarian crisis caused by armed conflict, displacement, natural disasters, and chronic poverty, WFP initiated a Corporate Scale-Up of its programmes in eastern DRC which resulted in an expansion of both the duration and the number of beneficiaries assisted. To allow smooth implementation of the Corporate Scale-Up it was crucial that DRC CO Monitoring Systems be strentghened and expanded.

Remote mPDM was adopted to complement other tracking systems and ensure that distribution monitoring is complete, in-depth, and capable of providing actionable insights. Through the mPDM tool, household survey data is remotely collected using mobile technology. Once cleaned and verified data is uploaded to a Tableau dashboard (Figure 8) that visualizes survey results to enable programmatic decision-making. The dashboard is accessible to all relevant units, allowing fast generation of evidence that can be used by management at the sub-office, area, and country office levels to make rapid programmatic adjustment decisions.

FIGURE 8: mPDM DASHBOARD – DRC COUNTRY OFFICE

mPDM Tool allows the DRC CO:

- ✔ Complete in-depth distribution monitoring.
- ✔ Fast, flexible, and efficient remote data collection.
- ✔ Faster generation of evidence for rapid programmatic adjustments.
- ✔ Expand the coverage and consistency of monitoring data.
- ✔ Access of hard-to-reach areas.
- ✔ Data visualization to support communication/visibility and fundraising.
- ✔ Reduce the costs associated with traditional face-to-face surveys.

Outcome Monitoring - Data Visualisation - Tableau Dashboards

Data visualisation encompass the representation of monitoring findings graphically and interactively usually in the form of tables, tables, charts data dashboards, and maps in a user friendly and easily understandable manner. Previously heavily reliant on text to communicate outcome monitoring results, the use of data visualisation tools such as Tableau dashboards has improved data analysis and presentation.

This graphical and interactive presentation of data has the potential to increase the accessibility of complex data sets and, in turn, the use of the data. More-so real time data visualisations permit fast, efficient and effective response for programme improvements though trends, relationships and pattern identification. Both the DRC and Zimbabwe Country Offices have benefited from the use this data visualization innovative technique to report their outcome monitoring data.

FIGURE 9: POST DISTRIBUTION MONITORING DASHBOARD – ZIMBABWE COUNTRY OFFICE

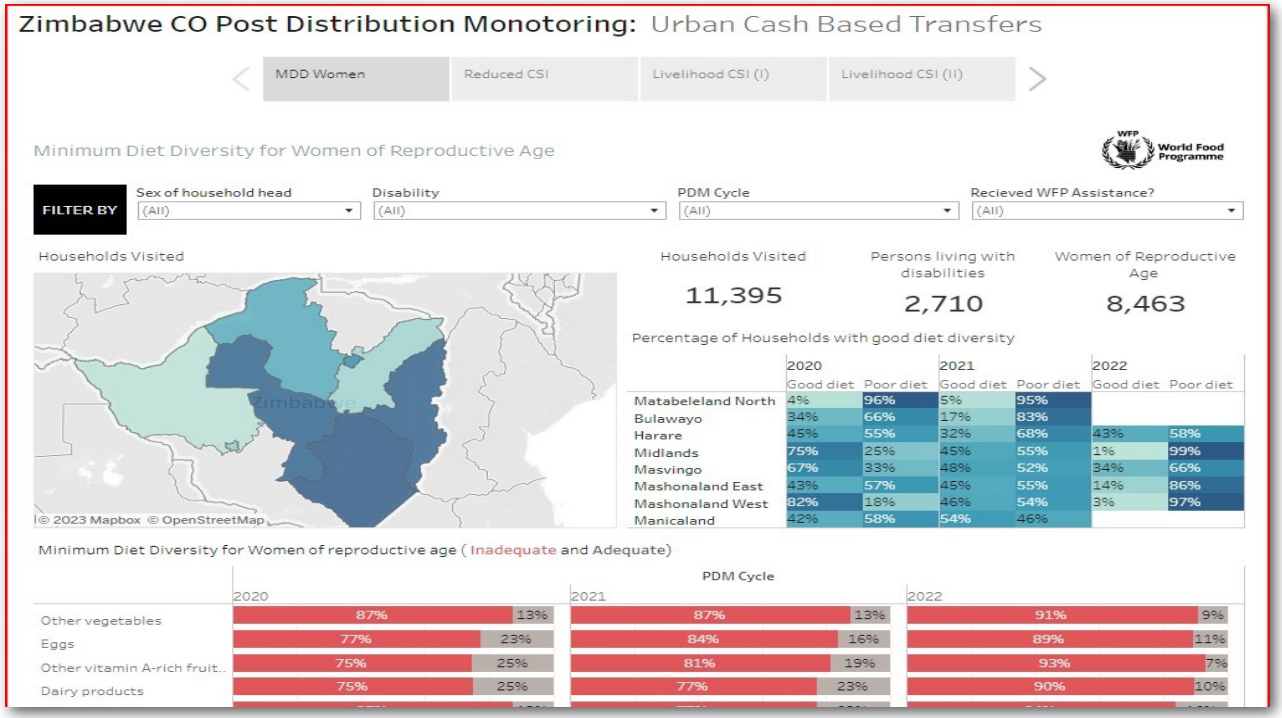


Tableau Dashboards have allowed:

- ✔ Automated/real time tracking of monitoring data.
- ✔ Quick and efficient programmatic and logistic adjustments.
- ✔ Complex information to be more accessible and understandable to a broader audience.
- ✔ Findings represented in an easily understandable manner.
- ✔ Illustration of the current situation with respect to programme activities.

Qualitative Monitoring

Qualitative data comprise non-numerical information that is usually difficult or even impossible to quantify, often represented as textual observations that portray attitudes, perceptions, or intentions. Qualitative monitoring thus aims to gather and analyse non-numerical data (through key informant interviews, focus group discussions, observations) to gain an understanding of individuals' experiences, including their perceptions, attitudes, and motivation.

Through qualitative monitoring WFP programmes generate deep insights that are used to strengthen programme design, make programmatic adjustments, or design new programmes, leveraging on the continuous contact with beneficiaries. Additionally, qualitative monitoring allows for triangulation or comparative analysis which is better suited to capture complex realities and to provide different perspectives on the effect of WFP programmes.

Qualitative Monitoring allow:

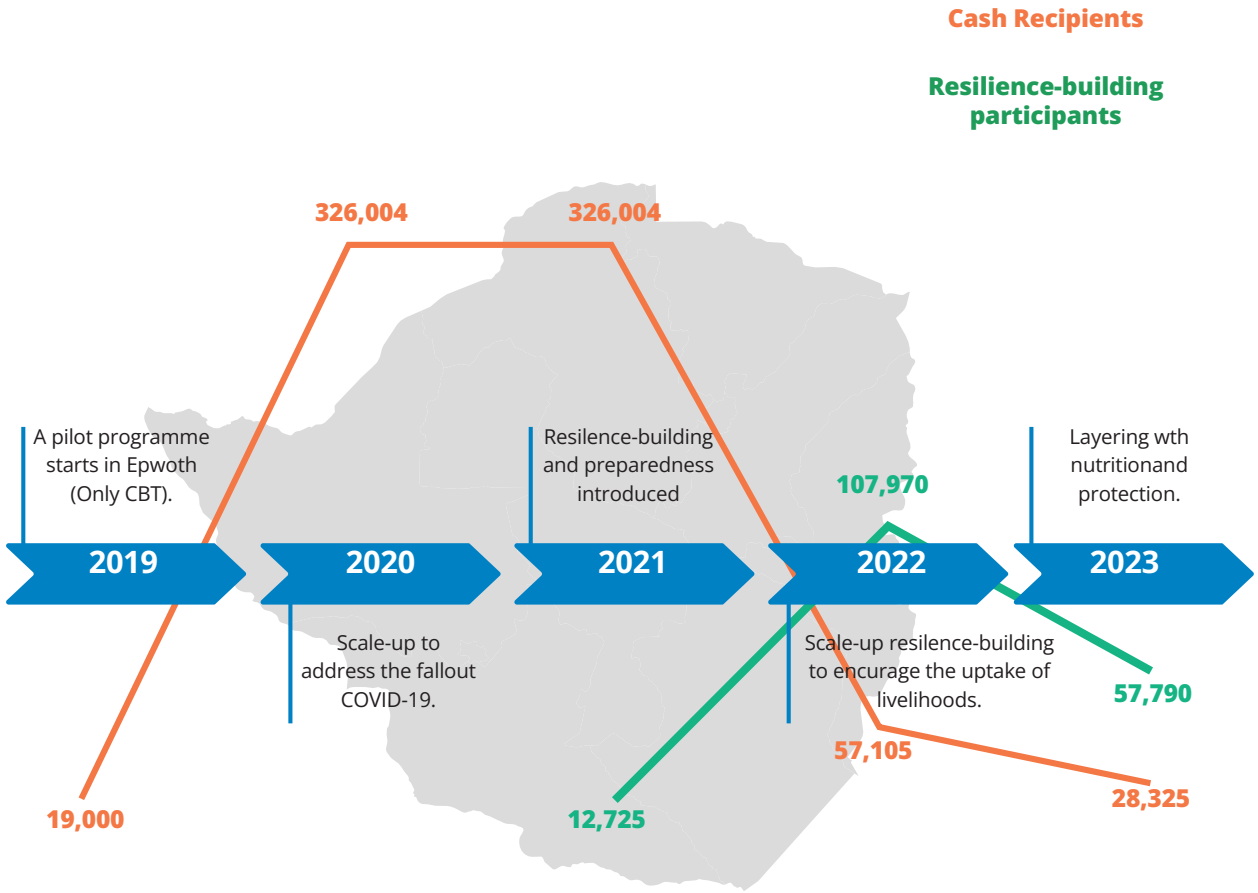
- ✔ Embedding of formative research in monitoring (to answer how, why and which).
- ✔ Participation of communities and engagement with various audiences.
- ✔ Filling of information gaps or complementing quantitative monitoring.
- ✔ Provision of insights into project activities as they are implemented.
- ✔ Inform the design of quantitative data collection tools.
- ✔ Beneficiary driven solutions and recommendation for programmatic adjustments.

Urban Resilience Programme - Zimbabwe Country Office

Objective Targeted urban communities have strengthened resilience capacities to absorb and adapt to economic and climate shocks and stressors through participating in community-led interventions to build their capacity, promote livelihoods and socio-economic empowerment.

Qualitative Monitoring Enabled:

- Filling of information gaps on shocks and stressors and resilience building in urban contexts.
- Exploring of resilience capacities that scored highest (e.g. human capital/ learning) and lowest (e.g. financial capital) in quantitative monitoring of the Resilience Capacity Score.
- Obtaining insights into how different interventions affect the resilience of households and communities.
- Generation of learning on which Income Generating Activties (IGAs) could most effectively build resilience in urban contexts.



Emerging Trends in Monitoring

Advances in technology hold great promise and hope for new and improved ways to implement monitoring programmes. Tools and mechanisms that can collect, coordinate, analyse, and communicate monitoring data using up-to-date technology means are continuously emerging. As such, the use of methods that allow for real-time feedback and adaptation will continue to be given attention, for example artificial intelligence will have increasing prominence in data analysis and reporting. Moreover, demand driven real-time monitoring, big data and advanced analytics will continue to drive innovative approaches to monitoring.

Remote sensing and satellite imagery:

Remote sensing satellite imagery involves the observation and analysis of distant target using information from the electromagnetic spectrum of satellites, aircraft or other airborne devices (drones). It can be used to:

- Overcome access restrictions by enabling collection of data in areas previously inaccessible due to physical barriers or security concerns. Satellites can also track population groups that would otherwise be difficult to locate or contact (e.g. refugees).
- Ensure that observed objects or people are not disturbed.
- Improve the quality of information available about remote and inaccessible areas.
- Allow a more in–depth analysis of the contextual factor affecting programme outcomes.
- Complement survey and key informant data.

Big data and advanced analytics:

Big data can provide real–time and continuous data, which is helpful for observing the processes through which a programme evolves. Mobile devices can capture video and audio records of meetings, work groups, and different aspects of a project to the community life that can be helpful. Big data leverages advanced analytics, like machine learning, to extract insights from large datasets in order to:

- Help identify trends and optimize resource allocation for maximum impact.
- Allow observation of programme processes.
- Provide large volumes of data quickly and can be cost effective. Data can be delivered in real-time and updated continuously.

Conclusion

Innovative monitoring approaches offer countless opportunities to improve data collection and analysis. While WFP Southern Africa has made significant progress in innovative monitoring approaches, significant gaps, such as the use of remote sensing and satellite imagery, big data, and advanced analytics, remain. Additional investments in these new technologies could further support data-driven decision-making and improve planning, design, implementation, monitoring and evaluation of programmes.

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