GFA CONSULTING GROUP NEWSLETTER 03▲2021

DIGITAL SOLUTIONS FOR REMOTE MONITORING

EDITORIAL

GFA's transition to a digital company got a big push last year. We worked intensively on our digital innovation strategy, building on the strengths of our thriving Digital Innovation Unit and our three IT companies – GFA Syscom, GFA B.I.S. and TolaData – and focusing on new business models for data-driven services and digital learning. The Covid-19 pandemic accelerated this process as we had to manage and monitor our projects with very little physical contact to our teams, political counterparts and beneficiaries, and we also had to verify incoming data and control the quality of our deliverables without being on-site.

In any case, digital M&E solutions play an increasingly important role in our day-to-day work, be it collaborating with our teams, monitoring success or upcoming risks, or reacting to changes. New data sources and combinations of data from multiple origins help us verify critical information and fill information gaps. We have now further developed and added standardized procedures for data quality management. Without these we would not be able to make perfect sense of the rapidly growing amount and complexity of data.

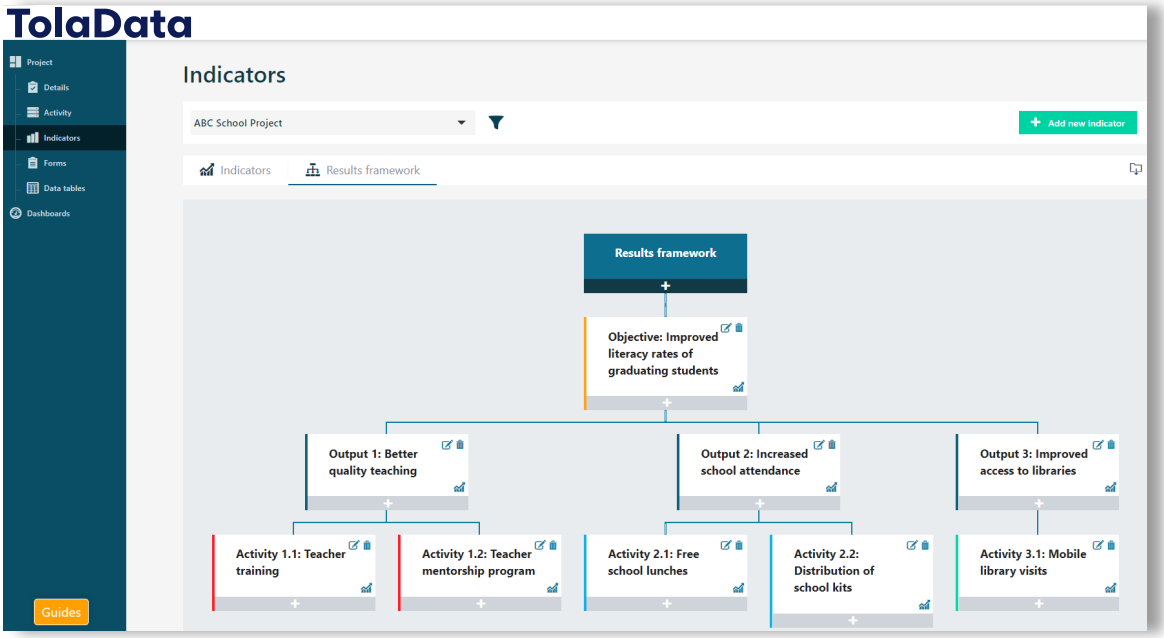
We are proud to have been able to digitize our M&E systems faster than expected. This was only possible because we can rely on the constructive and innovative collaboration in our teams between technical experts, data scientists and IT developers, and on strong digital tools. The technical staff in our ten strategic business areas invested in and are embracing new data competence skills. We experience a steep learning curve. We have gained tremendous know-how and now have a great set of tools at hand for a variety of contexts that our projects around the world will benefit from. This newsletter gives proof of this future-oriented success story.

Anja Desai
Managing Director

For remote monitoring the reliability and timely access to data is the key need. GFA broadly distinguish between two types of requirements. In the first case, GFA wants to track the progress of a project with well-defined milestones, output and outcome level indicators. In this case, the process is highly standardized and the purpose of the monitoring is to ensure and verify the timeliness, status and quality of operations. In the second case, GFA wants to track implementation and progress of a partner's project activities at a particular location or in a sector. In this case, GFA develops a customized monitoring system that often draws upon multiple data sources. GFA may, for instance, monitor the progress of construction works, the sustainability of agricultural supply chains, or the reversal of soil erosion in dispersed project sites.

With both types of requirements, the ultimate purpose is to improve decision making in the steering of activities or projects, to communicate success and learn from possible failures. Data quality is the key aspect in this regard. For most monitoring systems, we rely on a mixture of existing third party data (e.g. satellite data, user data from apps or official statistics) and data that we collect through questionnaires and forms. GFA is therefore investing heavily in data quality management as part of the data preparation process. Digital monitoring tools have greatly aided us in visualizing and analyzing results for steering, reporting and learning – with interfaces that are user-friendly and accessible to non-technical staff. The use of digital monitoring tools allows GFA to reduce complexity for decision makers, while maintaining access to the raw data for verification and analytical flexibility.

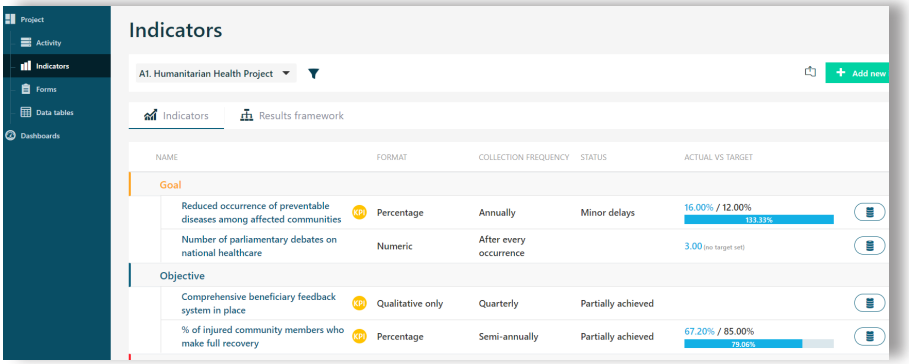
In recent years, GFA has developed two complementary digital monitoring tools that address these use cases from different angles.



TolaData´s comprehensive results framework and indicator plan

TolaData – DIGITAL SOLUTIONS FOR REMOTE MONITORING

TolaData is a Berlin-based start up with offices in Nairobi. In 2020, GFA became the majority shareholder of the company. It offers an easy-to-use, web-based monitoring and evaluation (M&E) software. Created by experienced development professionals, M&E experts and digital innovators, TolaData's mission is to help development organizations thrive and create positive impact by simplifying the process of project monitoring and evaluation.



TolaData's end-to-end indicator support enables users to track progress against targets

TOLADATA HAS MANY VERSATILE TOOLS AND FEATURES

EASY DATA IMPORT feature from any machine-readable online or offline data source or the custom form builder to collect and consolidate data from multiple sources.

It has en EASY TO SET-UP results framework and indicator plan to track progress against targets.

TOOLS to aggregate results of multiple indicators to track outputs and outcomes and get an overview of an organization's overall impact, which can be visualized and shared on configurable DASHBOARDS in real-time.

IATI TOOLS AND TRAINING SUPPORT help organizations produce and publish fully compliant and high-quality IATI datasets.

These features make it easier for organizations to track, monitor and report their end-to-end indicator workflow in real-time, enabling staff to spend less time processing data and more time using the insights and conclusions from their results to improve their projects.

The Bilateral Cooperation Programme (BKP) of the German Federal Ministry of Food and Agriculture (BMEL), managed by GFA, uses TolaData. The BKP supports partner countries in establishing a productive and resource-conserving agricultural sector by promoting bilateral relations and mutual understanding at the technical, economic and political level. BKP projects from five different countries enter their log frames, activities and indicator data into TolaData. Furthermore, a process for the approval of short-term expert (STE) assignments and a reporting option via automatically updating dashboards are available.

In addition to supporting GFA projects, TolaData clients also include NGOs, public sector and multilateral agencies, social welfare organizations, international cooperation projects, foundations, social enterprises and others. More than 700 organizations worldwide have tried the platform and an average of 124 new users join every month. For instance, the International Budget Partnership (IBP) uses TolaData to track and report its global advocacy activities. IBP works in collaboration with multiple actors, including civil society, state and international institutions, and the private sector to empower citizens' participation in open, inclusive budgeting processes. This is intended to shape policies and practices that promote equity and justice on a sustainable basis. With eight offices in eight countries and many local partners, IBP uses TolaData to stay on top of their projects at the national level by presenting all results in one space, and allowing for effortless sharing of the latest results across teams and between implementing partners. By using

"Thank you very much for sharing TolaData with us! It's an excellent monitoring visualization tool, which includes gender-disaggregated data, regions, online/offline statistics, targets vs actual data etc. Just click on it and use it, it's available online and updated regularly. I wish all projects would use it to manage the outcomes of their activities and visualize progress for development partners, beneficiaries and stakeholders."
Petro Ilkiv, National Programme Officer,
Embassy of Switzerland,
Swiss Cooperation Office in Ukraine

TolaData IBP can easily aggregate results across all of their programs to monitor progress globally against the organization's strategic objectives. In addition, TolaData enables the IBP team to present their performance assessments to multiple stakeholders in a clear, responsive and graphical manner through configurable dashboards.
More information on the TolaData software can be retrieved at: www.toladata.com

Contact:
Chandani Lopez Peralta, chandani@toladata.com

"TolaData's responsive, constant, and very accommodating approach to supporting us to get our knowledge management system up and running in the past year has been a beacon of what is still possible despite the various crises unfolding around us. Their support has enabled all the progress we have made in the past year."
Rose Nierras,
International Budget Partnership

DACOTA – TAILORED REMOTE MONITORING SYSTEM

GIZ AgriChains aims at improving the sustainability of agricultural supply chains, e.g.in coffee cultivation in Ethiopia

DACOTA was developed by GFA B.I.S. to track, manage and visualize project activities based on complex data. The remote monitoring system consists of interchangeable open source components and is tailored to the specific needs of each donor and project.

Depending on stakeholders involved, monitoring requirements within a project may vary. A project manager needs to control progress and quality, and reports to donors while a centralized steering unit seeks to track implementation by analyzing indicators and trends. National agencies want to make data available to the public in order to inform about and promote initiatives. DACOTA is adaptable to this variety of requirements, and is implemented in KfW and GIZ projects ranging from the construction of school buildings to the preservation of a biosphere reserve. How DACOTA meets the respective stakeholders' remote management, monitoring and verification needs is demonstrated below.

GLOBAL AGRICHAINS

The GIZ global program Sustainability and Value Added in Agricultural Supply Chains (AgriChains) works along the entire supply chains of selected commodities, and supports sustainable agricultural practices in eleven partner countries. DACOTA helps each country manage and track supply chain activities while permitting the program's headquarters to analyze global indicators and trends. Data is imported into DACOTA by each country office. To ensure high data quality, DACOTA includes an optional approval process. If so configured, uploaded data as well as changes to the dataset made by users need to be authorized prior to import. Each country office can manage and filter its own data and track historical values. Tailored country dashboards enable users to monitor the status and progress of each activity and regional indicator. Aggregated data as well as global indicators and trends can be easily tracked and evaluated by the program's headquarters on separate dashboards. In addition to applying DACOTA for internal progress and quality control, as in the GIZ AgriChains program, the remote monitoring system can also be used to make data available to external stakeholders such as the general public.

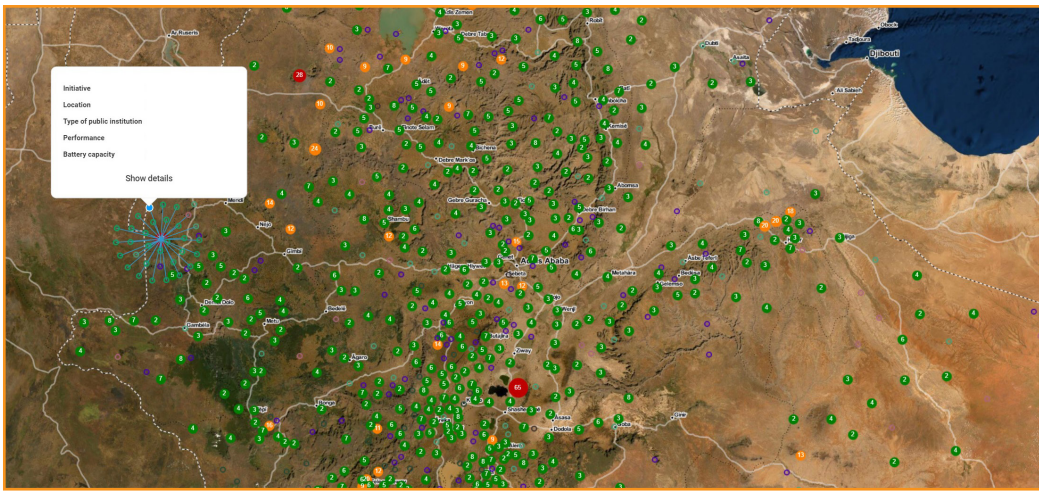
SOLAR ELECTRIFICATION IN ETHIOPIA

In close cooperation with the Ethiopian Ministry of Water, Irrigation and Energy, the GIZ Energizing Development program (EnDev) supports access to modern energy services in the country. As solar electrification of off-grid public institutions is one of the program's core, numerous electrification initiatives have emerged. The large number of activities and involved parties makes it necessary to provide a comprehensive overview and coordinate future opportunities and planning. GFA B.I.S. and GFA Consulting Group were contracted to develop a user-friendly digital mapping system that records electrification initiatives in Ethiopia. The collected data is regularly uploaded into a national database and will be accessible via DACOTA's map view on a public website. Users can filter or select specific solar electrification initiatives and installations for display on the interactive map. The ministry aims at visualizing electrification progress and making information accessible for policy makers, researchers and initiatives that coordinate future activities.

Contact:
Thorsten Schoel, schoel@gfa-bis.de

DIGITAL SOLUTIONS – CONCLUSION

The recent pandemic has accelerated the trend towards the digitization of remote project monitoring. At the same time, with ever-improving internet connectivity and digital literacy in developing countries, the volume of data available to facilitate evidence-based decision making is certain to grow. GFA stands ready to address its clients' existing and upcoming needs through TolaData, DACOTA, and its overall digital innovation strategy.



Map view of the Ethiopian Solar Electrification Portal in DACOTA

VALIDATION AND ANALYSIS OF COMPLEX DATA

"Garbage in - garbage out" is what you often hear with respect to data used digital systems. In a remote monitoring context, a key source for such "garbage" is bad quality data. Survey data collected by third parties is a particular risk. As the volume, complexity, and velocity of data used for remote monitoring is increasing fast, project staff also often struggle to keep an overview over data quality.

But only with sufficient data quality, the analysis and visualizations of digital M&E tools such as DACOTA and TolaData lead to valuable insights. Data quality from third party sources often differs widely between providers. GFA then has only limited options for improving data quality due to a lack of access to raw data or data sources, or knowledge about the data collection process. When data is collected in a project context, GFA has control over data quality in data collection planning, implementation, etc. In this case, challenges arise due to inadequate questionnaire designs or a lack of data context information and missing metadata.

GFA tackles these challenges by employing a structured data quality management process with regard to the validation and integration of complex data from multiple sources. These processes are highly automated and have a strong focus on data protection.

APPROACH IN CASE OF SURVEY DATA

As most projects involve some kind of survey data, GFA is showcasing the example below. GFA often uses form- or questionnaire-based mobile data collection tools such as World Bank's Survey Solutions or Kobotoolbox that allow for various types of data formats including GPS, time, audio and video.

When collecting data that is prone to having many outliers, GFA often integrates Survey Solutions. Its integrated two-stage verification process is very useful for complex and error-prone surveys. After the initial upload by the interviewer, a supervisor reviews and accepts or rejects new data. This step is repeated at the so-called headquarter level, usually by the project's M&E officer. In addition to this built-in validation process, GFA produces daily, standardized quality checks using R or STATA, and visualizes them in order to identify outliers and data gaps. The validated and corrected data is then reimported into the database or automatically transferred after final approval.

GFA's structured data quality management process puts a strong focus on data protection at all stages of the data collection and treatment process. In case personal data is collected, it is encrypted on the mobile device and deleted from the latter once uploaded to the server. During transfer to the final analytical database, all personal information is split off and stored in a separate area of the server with restricted access. Once the survey is complete and fully validated, it can be exported into a variety of digital tools such as DACOTA and TolaData, but also Power BI, Apache Superset, etc. GFA then combines it with other data sources, and subsequently analyzes and visualizes it to examine trends in analytical charts and dashboards.

Contact:
Dr. Linda Kleemann, linda.kleemann@gfa-group.de
Klaudia Michalek-Kursawe, michalek@gfa-bis.de
Chandani López Peralta, chandani@toladata.com

LEGAL NOTICE
GFA newsletter produced by GFA Consulting Group GmbH, Eulenkrugstraße 82, 22359 Hamburg, Germany,
phone: +49 40 603 06 100, e-mail: newsletter@gfa-group.de, www.gfa-group.de ▪ All rights reserved © 2021 ▪
Responsible for content: Anja Desai ▪ Edited by Manfred Oepen, ACT Assist GmbH ▪ Layout: Natascha Pleß ▪
Photo credits: istockphoto ▪ Printed by Häuser KG ▪ printed on recycled paper