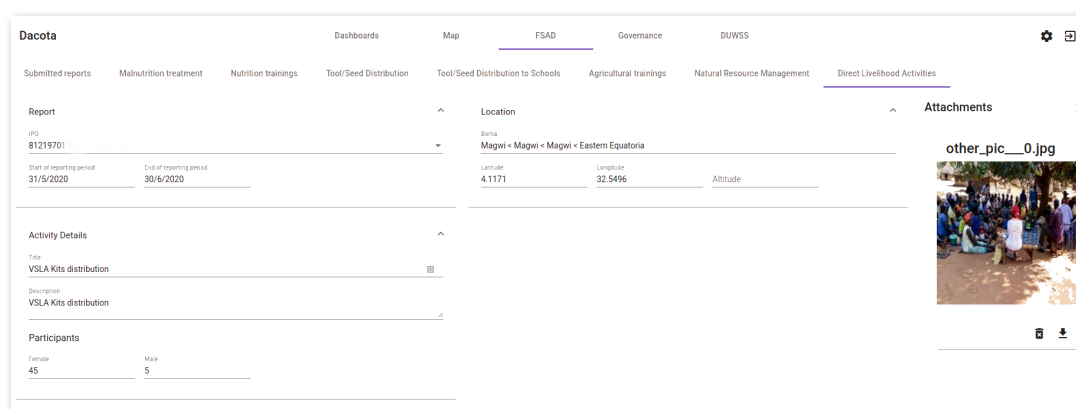# DACOTA: REMOTE MONITORING SYSTEM

In close collaboration with experienced project managers, GFA B.I.S. developed the remote monitoring system **DACOTA**. The digital tool enables an effective management of decentralized project data while visualizing Key Performance Indicators (KPIs) and trends on a customized dashboard and map.

As **DACOTA** is made up of interchangeable open-source components, it can be individually adjusted to the needs of the specific project at no license costs. Providing a high level of user friendliness, DACOTA permits a fast and intuitive access for multiple user groups or stakeholders.

DESIGN AND COMPONENTS

Whether the project's need is to track geographically dispersed activities, receive updates from instable regions, or monitor environmental changes, **DACOTA** permits to manage and visualize data on three tiers:
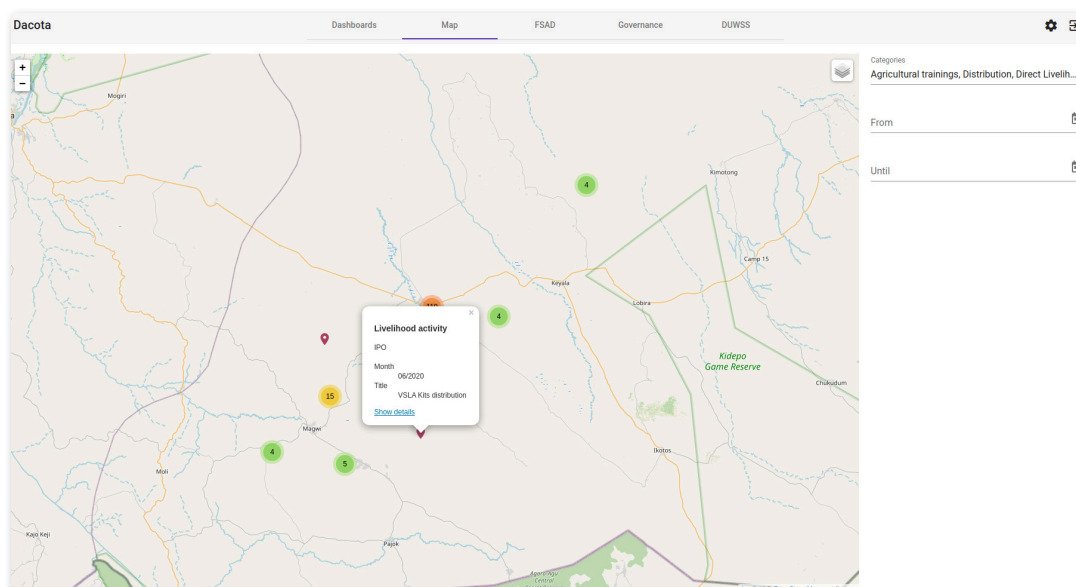
1. The **user interface** serves to filter and browse through all imported data. It allows editing of entries or adding new data and attachments. All data is always available for export (e.g. MS Excel and Word).
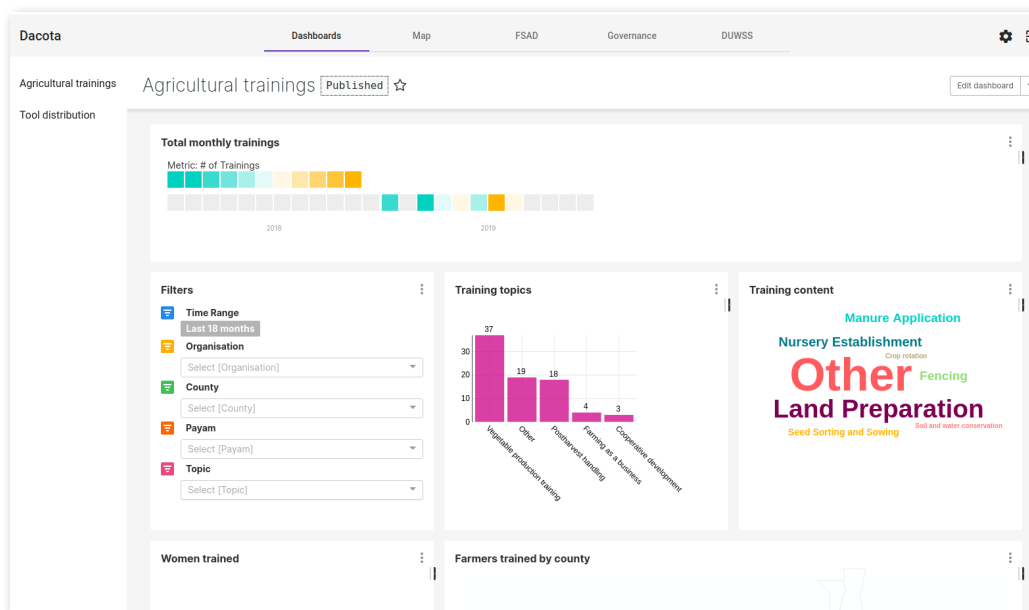

2. Using geo data, the project data entries are displayed and selectable on a customized **map**. Additional layers can be overlapped (i.e. national park boundaries, country borders) to put the location data into different contexts.
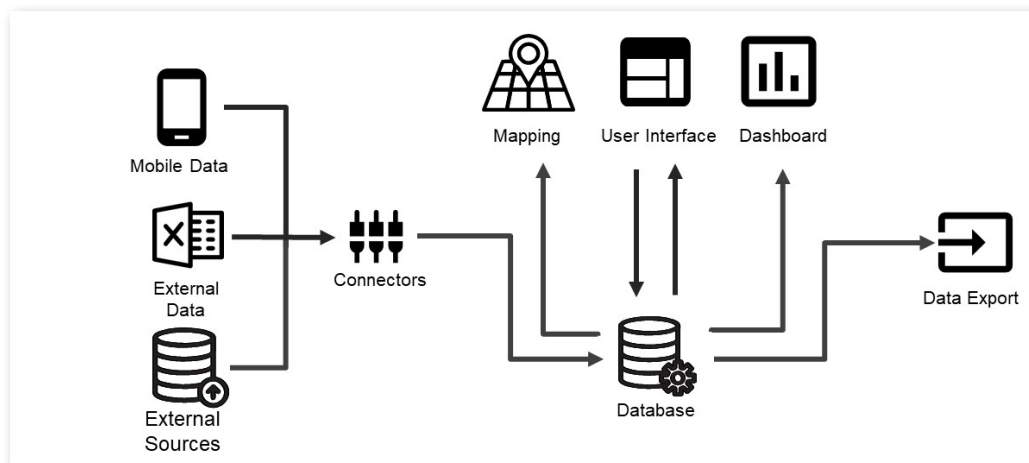
3. To present KPIs and trends, **DACOTA** includes a customizable dashboard with advanced charts and filtering capabilities. The components are individually adapted for an optimal visualization of the project data.

DATA INTEGRATION

DACOTA supports a wide **range of data input sources** (i.e. mobile data collection with tablets or phones, MS Excel files, SQL databases, geographic shape files), allowing a frictionless import of existing monitoring solutions.

IMPLEMENTATION PROCESS

The Scrum derived process of **DACOTA's** adaptation to individual project needs is agile, iterative, user centric and test driven. Short development iterations give the customer frequent opportunities to examine the current state of the product and to provide constant feedback.

COSTS AND SUSTAINABILITY

Based on the integration of existing open source modules, **DACOTA** enables a customized development at low costs. A Minimal Viable Product (MVP) can be offered within 10 working days. As no license fees are charged, remuneration is limited to project specific adaptations. After its customized implementation, **DACOTA** is fully handed over to the client.

SERVER-LOCATION

Recognizing data privacy-regulations, requirements of donor organisations, and geopolitical shifts, **DACOTA** can be installed on any server worldwide.

DEMO VERSION

A demo version showcasing one possible **DACOTA** adaptation is accessible as video:
https://rb.gy/temwvn

GFA B.I.S. AT WORK: RELATED PROJECTS

BIOSPHERE RESERVE PRESERVATION IN ALBANIA
KFW, 2018-2021

Revised legal requirements determined that the Albanian National Agency for Protected Areas should digitize its operations. Answering to this necessity, GFA B.I.S. was commissioned by GFA Consulting Group to develop a monitoring solution capable of integrating multiple types of data in one system. These contain information on national parks, ecology, and tourism as well as reported law violations.

DACOTA is here designed to include various analytical dashboards and a customized map which visualizes the combined information (national parks, land use, plant or animal sightings and law violations) on a single map view.

SUSTAINABLE LAND MANAGEMENT IN ETHIOPIA
KFW, 2016-2023

As Ethiopia is seriously affected by land degradation, the project's objective was to increase food security by sustainably managing land use. In addition to data management capabilities and geo-mapping features, the need was to integrate data collection applications with a user communication system. Commissioned by GFA Consulting Group, GFA B.I.S. adapted DACOTA as follows: Field workers on site collect information on the current project status, including GPS coordinates and photos. The data is uploaded into a central database when internet connectivity is available, permitting project staff to track the current status of the operation. DACOTA enables direct access to this uploaded data as well as potential data modifications. Integrating a map view and a customized dashboard, the system can generate various reports, analysis and data (dis-)aggregations.

PROJECT MONITORING IN FRAGILE CONTEXTS
GIZ SOUTH SUDAN, 2018-2020

Due to a deteriorating security situation, the presence of international staff in South Sudan is limited and time-bound. GIZ projects are currently monitored via remote management from Germany. This modus of implementation involves serious limitations in terms of M&E-standards, accountability and learning. To overcome the challenges, GIZ South Sudan identified mechanisms for the monitoring of financing agreements in remote settings by including the use of digital tools. GFA B.I.S. was commissioned by GFA Consulting Group to develop such a digital monitoring tool for the GIZ South Sudan Portfolio. DACOTA is here adapted to integrate a particular system for data collection by local staff on site. Its modular architecture enables to monitor GIZ's national project activities in South Sudan as well as predefined KPIs on a customized dashboard and map.

CONTACT

We are happy to discuss how DACOTA can solve your specific project monitoring requirements.

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