Welcome and thank you for coming to hear about Mercy Corps’ endeavor to better manage our projects and improve M&E data for our field teams.

Today we are going to walk through a demo of an internally built, open source software called Tola. Tola is a pashto word for “all” or “complete”, translating to all or complete data. Tola was initially developed with our team in Afghanistan and our HQ IT team. Given the success it had in Afghanistan and the demand from other country teams, Mercy Corps recently made the decision to invest in Tola to roll it out globally. We are currently in the process of rolling Tola out to an initial five countries - Afghanistan, Pakistan, Ethiopia, Lebanon and Timor Leste - and aim to move into a global rollout by February with a better understanding of what it will take to scale globally.
Before we jump into the demo, let me talk about what led to the creation of Tola and the problems our teams were facing in the field.

- Duplicate, disaggregated and broken data - requires lots of time intensive, manual steps to do basic analysis
- No central, standard system for M&E - each program and team has to reinvent the wheel
- Data is not timely enough for decision making - going back to point one, field teams have a hard time just getting access to data and requires lots of time
- Plenty of solutions out there which makes it hard to centralize
- Its open source with constant upgrades.
- Built for MC but can be easily redesigned.
The goal of Tola is to support adaptive program management and enable experienced-based learning by providing tools that can improve the quality of program M&E data.

- Tola is a platform that allows for:
  - Traceability - the evidence and data to support results
  - Accessibility - all team members have access to the data and information in the system
  - Standardization - providing a common set of forms for project management
  - Timeliness of data - allowing teams to analyze new information from the field quickly to make informed decisions based on data for improved programming
  - Connections to various datasets - allowing teams to manage their data all in one place
  - Country-level portfolio analysis - giving teams the ability to track program performance easily and more efficiently

Tola currently has three primary components that can be adapted for each country context and need:

- Tola Tables – allows users to connect data collected in digital format (through tools such as ODK/Ona, iFormBuilder, Excel, etc and not on paper) directly into progress towards activity completion and indicator targets

- Tola Activity – consists of two of modules:
  - Workflow - is a set of standard forms that support project management workflow, breaking a program (or grant) into smaller concrete projects to manage and track all program activities and outputs including project-level budget versus actuals
  - Indicator – allows teams to track all program indicators and their targets vs. actuals

- Tola Report – Data warehouse that allows you to generate custom reports and visualize your data in Maps or Dashboards. That can be shared with donors.
It is NOT:

- a replacement for M&E structures or staff
- a detailed analysis tool (such as a statistical tool)
- a tool for record retention (such as Google Drive, DropBox, etc)
- program design tool or program logic (in its current form)
- A beneficiary Information Management system.
Security...
- All applications behind firewall
- Beneficiary data stored on internal servers
- Not encrypted, but users can anonymize or delete personal identifying information from tables, should keep original dataset separate
- SSL for uploads and downloads; token based authentication
- User roles and MC staff credentials required

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• Grant and Award Information Tracker (GAIT) serves for Program level information
• PM@MC provides framework for design (happens outside of Tola Activity)
• Design for Impact Guide (DIG) serves as standard library of indicators
Tola Tables is a data collection, aggregation and management tool for all types of data collection methods designed to track the impact of NGO programs and projects in the field. Designed initially to solve the problem of duplicate, disaggregated or broken data from mobile data collection platforms such as FormHub and iFormbuilder, it is now integrated with multiple data collection platforms and provides merge, auto download, cleaning, editing, sharing and analysis tools for all types of data. It also provides the data service back end for other Tola tools such as Tola Activity.

Tola Tables directly integrates with mobile data collection providers such as Ona to provide users with access to all of their forms and data for import and management in Tola. Each data set is then managed in its own silo that can then later be mapped and merged into any number of other data silos owned or shared with the user.

Each silo in Tola Tables can be shared as a public repository with other users or exported as a Google sheet, excel file, or through our external REST data service API for integration with other data platforms or analysis tools.

Tola Tables also provides direct record editing and clean up within the tool as well as a set of map and merge tools to allow the user to merge multiple data silos together into one.
iPython also known as jupyter Notebook will be used as the analysis tool, we have started integration with iPython Notebook, also supports data formats from R, SPSS, Julia, Ruby, JavaScript, C#, Perl, PHP, Java9
Tola Tables welcome page
Basic table operation, with sharing modules.
JSON feed available and the REST API which allows easy pull and push functionalities.
Merging Tables
When changing assessments with an added question or two, this proves to be very handy.
It’s funny how we keep hearing people calling a count function data analysis. It helps with Data Analysis, please note that this is a very technical tool, but at MC we thrive to be geeky.
Maps on (CartoDB)
Dashboard on Chart JS
Now, let’s actually take a look at the system starting with Tola Activity. Again, the purpose of Tola Activity is to break a program (or grant) down into smaller activities/projects to track and manage the status of a project through standard forms, workflow and process - facilitating traceability of data through documentation of evidence. Each stage of a project is tracked within program dashboards allowing managers to see progress at a glance and the ability to drill down to get details or enter more information.

The home page dashboard consists of a list of all active programs in a country, a map illustrating where we’re working, and two graphs showing indicator targets and the actual results, and a project status chart. By filtering on one of the programs, the map and graphs will update accordingly.

At the very bottom of the page you’ll see a list of all indicators used by the country or by the selected program you’ve filtered. MC is very oriented towards evidence based indicators, and a lot of thinking and testing is done to select the best indicators suitable for the current program.
From the home page, you can drill down to the program dashboard - this dashboard illustrates the status of smaller, discrete projects that make up a larger program (also referred to as a grant). You can see how many projects are under each program and the status of each.

*Click to next image*

From here, you can then drill down to a specific project dashboard. The project dashboard shows you the status of the project agreement and completion which we will look at next.
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<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.9</td>
<td>9,000 people benefited by home-based care in the past year.</td>
</tr>
<tr>
<td>2.1</td>
<td>4,500 people accessed health services in the past year.</td>
</tr>
<tr>
<td>2.2</td>
<td>6,000 people accessed mental health services in the past year.</td>
</tr>
</tbody>
</table>

Helpful resources:
- www.example.com
- www.example2.com
### Indicator Report

**Monthly Program: Strengthening Higher Education and Interactive Certificate (MEHs)**

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3rd</td>
<td>Reporting from mentors to students (expected)</td>
</tr>
<tr>
<td>2</td>
<td>10th</td>
<td>Reporting from mentors to students (actual)</td>
</tr>
<tr>
<td>3</td>
<td>17th</td>
<td>Reporting from mentors to students (expected)</td>
</tr>
<tr>
<td>4</td>
<td>24th</td>
<td>Reporting from mentors to students (actual)</td>
</tr>
</tbody>
</table>

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• Encourages user feedback and crowd consensus on fix/enhancement roadmap
• Also we have an interactive community working together using Slack.
Thank you

If you’d like to learn more about Tola, please go to our Github/splash page or contact tola@mercycorps.org