

RFP FOR CONSULTANCY SERVICES TO DEVELOP A GEOSPATIAL MICRO-PLANNING TOOLKIT  
ORGANIZATION: COLUMBIA UNIVERSITY  
CLOSING DATE: 5 JUL 2021

## BACKGROUND

GRID3 (Geo-Referenced Infrastructure and Demographic Data for Development) works with countries to generate, validate, and use geospatial data on population, settlements, infrastructure, and subnational boundaries. GRID3 combines the expertise of partners in government, academia, and the private sector to design adaptable and relevant geospatial solutions based on capacity and development needs of each country. The Center for International Earth Science Information Network (CIESIN) at Columbia University acts as the managing partner for GRID3 activities. GRID3 is currently providing technical support in various countries in Africa.

## OBJECTIVES OF THE CONSULTANCY

GRID3 is looking for a supplier that can provide technical expertise to develop a micro planning toolkit in the form of a web app using geospatial data for decision-making. Specifically, the toolkit will aim to support local teams in Nigeria to plan and conduct field activities related to routine immunization (RI) as well as supplementary immunization activities (SIA) using available geographic information: health facilities/ health posts, settlements, boundaries, and population estimates.

The expected start date of the consultancy is August 1, 2021.

The consultancy has the following overarching objectives:

Lead the development of a micro planning toolkit using geospatial data that automatically provides a baseline map using existing data and current RI and SIA implementation strategies. Once the baseline map is established, the toolkit will enable manual edits and correction, directly incorporating feedback into the main geodatabase with offline capabilities. In addition, the toolkit will allow the data collection and integration of missing geographic information using ODK, and seamless synchronization into the main geodatabase.

Leverage existing data infrastructure and capabilities via the GRID3 Nigeria data portal and geodatabase.

Provide a way to seamlessly capture and integrate feedback from local teams in the field, who may not have stable internet access, on a continuous basis.

## SCOPE OF WORK

The supplier will be responsible for the following work packages:

### Work package 1: Automatic delineation of baseline micro plans

The supplier is expected to gather all existing data available, as well as obtaining a deep understanding of how RI and non-polio SIA activities are being planned and implemented in Nigeria. In addition, the supplier will develop a geospatial algorithm to automatically delineate an RI and/or non-polio SIA baseline micro plans, based on feedback obtained from consultations with stakeholders and end users. Furthermore, the supplier is expected to parallel-program the automatic delineation of baseline micro plans for the whole country of Nigeria, considering issues along border lines and/ or catchment areas. Finally, the supplier will expose the geospatial algorithm against a web user interface, and obtain initial feedback.

### Work package 2: Development of web application, allowing local teams to adjust baseline micro plans

The supplier is expected to design and implement internal geospatial micro planning toolkit

geodatabase, which will integrate push-pull capabilities alongside the GRID3 Nigeria geodatabase containing the geodata required to initialize the geospatial micro planning toolkit (e.g. administrative boundaries, settlement polygons/names, health facilities locations, etc). In addition, the supplier will develop online-offline capabilities, to allow users to take the geodata and web app functionalities offline on a laptop and/or tablets, and sync their changes back when online. Furthermore, the supplier will develop base map and baseline micro plans manual editing tools, to allow users to manually edit data layers (i.e. settlement names, health facilities location/name, health facilities catchments); as well as base map and baseline micro plans automatic editing tools to allow users to upload ODK forms/submissions which will automatically edit the base map and baseline micro plans. Finally, the supplier will develop/ provide offline support tools and capabilities to allow users to save, reload edits from/to local disks, as well as batch printing (i.e. printer, pdf).

#### Work package 3: Geo-referenced field data collection tools

The supplier is expected to design and develop ODK forms to support field data collection and allow integration into the micro planning geodatabase and web interface. Likewise, the supplier will develop integrations with external data systems such as field tracking systems (e.g. GTS), which allows passive tracking of field data collection, host/ serve ODK forms, and other data processing capabilities.

#### Work package 4: Project management, troubleshooting, and project support

The supplier is expected to plan, convene, and attend scoping and progress meetings with relevant stakeholders and project participants, taking into consideration various time zones; produce and circulate minutes. Likewise, the supplier will review and leverage existing project materials, data, and relevant background information. The supplier will also provide written user guidelines, technical documentation, training material as well as other outreach components (e.g. short webinars and/or videos) in English. The supplier is expected to provide troubleshooting while testing is ongoing, and will respond timely to technical questions and/or concerns. Finally, the supplier is expected to work in a collaborative manner, alongside project team members and other relevant stakeholders.

#### TERMS

CIESIN/ Columbia University reserves the right to cancel this solicitation at any point and is under no obligation to issue a contract as a result of this solicitation.

CIESIN/ Columbia University will not reimburse any expenses related to the preparation of any proposal related materials, or delivery.

#### HOW TO APPLY

Offers must be submitted by email to [grid-consultants@ciesin.columbia.edu](mailto:grid-consultants@ciesin.columbia.edu) by Monday July 5, 2021, 11:59 PM EDT (UTC -4)

The supplier is expected to submit the following documentation:

A signed cover letter presenting the supplier's capabilities and relevant prior experience (2 pages, maximum).

A quotation for services with an estimated number of person days per work package and a daily rate (in USD), at a minimum. The supplier should indicate if other reimbursable expenses such as travel, hardware, or data hosting costs are to be considered. Total costs should be provided exclusive of taxes, duties, or VAT.

The CV of the project manager or team leader who may be in charge of this consultancy.