

## PROJECT REPORT

<b>Project Name</b>	Crop pest and disease data API development
<b>Description</b>	<p>AgDx is a newly formed alliance initiated by several CGIAR centers, PlantVillage and EDDMaps which are publicly funded, non-profit organizations dedicated to research for development and education in agriculture with the aim to improve plant health globally through ICT tools.</p> <p>As an alliance of individual platforms, tools and databases aimed at supporting agricultural health in different aspects, AgDx has committed to address these shortcomings through the development of Application Program Interfaces (API's) to facilitate sharing of data between platforms and/or by providing links between complementary ICT tools where appropriate.</p>
<b>Author(s)</b>	Munywele Sammy Barasa, Software Consultant
<b>Date</b>	Feb 09, 2021

## PROJECT RESULTS

<b>Scope</b>	
<b>Original</b>	<b>Actual (To Date)</b>
Determine minimum data elements for exchange between alliance databases and applications and harmonize these with existing data standards and ontologies to develop and document a standardized web service API specification	Scope remained unchanged
<b>Explanation of Variance</b> There was no notable variance that impacted the project timeline in terms of scope	

## PROJECT OBJECTIVES

Objectives
Review data structures in existing pest and disease databases and applications and recommend a minimum set of data for interoperability and exchange
Participate in requirements gathering via agile methodologies to define functional and non-functional requirements
Review existing data definition standards and ontologies from the CGIAR, Academia, and development organizations like FAO for reuse in defining data exchange attributes for the AgDxAPI
Develop guidelines for data attribution and citations
Create a draft version of the AgDxAPI standardized web service API specification for data exchange
Lead the review of the specification in a (virtual) workshop of all stakeholders. The workshop will provide feedback and provide input for the finalization of the first version of the specification
Document the AgDXAPI using widely accepted API documentation standards

## PROJECT SUCCESSES

Name	Description
Identification of common data elements	The stakeholders of the alliance were available to provide details information and reference sources for the common data elements
Support from alliance members	There was immense support from the alliance members in terms of reviews, suggestions and also availability schedule despite it being a holiday season

## PROJECT CHALLENGES

Description	Impact	Actions Taken
Original delivery timeline was too short due to it being a holiday season and many key persons were on leave	Delivery timeline was extended to end of January 2021	Meetings were rescheduled with key persons so as to allow more time for discussions and requirements review

## LESSONS LEARNED

Description	Recommendation
Better data analysis is required to further understand naming conventions	Involve data managers so that they can advise on the data storage structure to give a better understanding of existing limitations and any naming schema if available

**NB: This being a new undertaking there will be several lessons to learn from as it moves on the implementation stage**

## PROJECT PERFORMANCE

<i>Meeting Project objectives</i>		
Success Criteria	Criteria Met	Comments
List of minimum data elements suitable for exchange between the pest and disease databases and applications	☒	
Harmonization of the minimum data elements with existing data standards and ontologies	☒	
AgDxAPI standardized web service API specification published on the AgDx Alliance GitHub	☒	This will be provided by the technical team and the files moved to the relevant location
Documentation of the AgDxAPI including on online API documentation systems such as Apiary and Swagger	☒	

## TRANSITION TO OPERATIONS AND ARCHIVES

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### TRANSITION TO OPERATIONS

Next step is to identify the piloting partners to kickstart the implementation of the API standard as this will help in identify areas of improvement or changes in design that will suit the bigger objective better.

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### PROJECT DOCUMENTS LOCATION (ARCHIVES)

The specification document is published on swagger: <https://app.swaggerhub.com/apis/masgeek/agdxapi>

The other documents and initial source code are hosted on GitHub repository and will be available to invited persons as needed: <https://github.com/masgeek/agdxapi>