

Implementing biodiversity data flow on the national level by creating data structures between BBS, NZCS/CMO and NIMOS within the Suriname Environmental Information Network (SMIN)

Programme:BID

Project ID: BID-CA2020-008-USE

Project lead organization: Anton de Kom University of Suriname - National Herbarium of Suriname

Project implementation period: 1/7/2021 - 30/6/2023

Report approved: 15/9/2022

| Na | arrativ | e Midt | erm re | port |
|----|---------|--------|--------|------|
|----|---------|--------|--------|------|

Executive Summary

The workflow and protocols for data production and data dissemination on national level and through GBIF are in progress. The protocols are continuously being reviewed and adjusted to comply with the data management plan. Development of the Protocol Data Management BBS and Workflow BBS&NZCS&NIMOS are in progress. Accommodation for the Data Manager BBS will be postponed until co-funding becomes available. Construction is scheduled from June 2022 to December 2022. The delay has little effect on the project outcome. The required IT equipment has been purchased and support with infrastructure set-up is being provided by the IT department of the AdeKUS. The Specify databases at BBS and NZCS/CMO are still being developed and a meeting with the SPECIFY provider has been requested to discuss creation of the forms. At the moment records from the collections are already being entered in MS Excel spreadsheets. Therefore, the delay in the development of the databases has little effect on the project outcome. The National Database (IBOSS) has yet to be developed. 80% of BBS collections are already photographed and additional collections are continuously being imaged. NZCS/CMO collections are not yet photographed. The training workshop Data Mobilization has been held in January 2022. This activity was completed earlier than scheduled, because the Data Managers needed the knowledge and information to perform their tasks and to deliver the results. The first dataset has been published through GBIF. The Ministry of Spatial Planning and Environment of Suriname has sent the Letter of Intent to become a GBIF Country Participant to the GBIF Secretariat.

| - | | | | | |
|---|---------|---------|----|---------|--------|
| ч | rogress | adainet | mı | I D C 1 | Onde |
| | 1041633 | ayanısı | | 60 | LOTTES |

Has your project published at least one dataset through GBIF.org?: Yes

Dataset published:

| Dataset | DOI |
|---------|-----|
| | |
| | |
| | |
| | |
| | |

Has at least one member of your project team received certification following the BID capacity enhancement workshop?: Yes

Name of the workshop participant: Anielkoemar Gangadin

Certification obtained: Basic Badge

Report on Activities

The workflow and protocols for data production and data dissemination on national level and through GBIF are in progress. Although the workflow will be completed by June 2022, the protocols are continuously being reviewed and adjusted to comply with the data management plan.

Construction to accommodate data management has been delayed, due to the limited availability of co-funding. The start of the construction is scheduled for September 2022 and is planned to be completed by December 2022. The delay has little effect on the output of the project.

The required infrastructure for data management has been completed and the required IT equipment has been purchased.

Set-up of the databases (Specify) at BBS and NZCS/CMO is in progress. A virtual meeting with Specify-providers has been requested by NZCS/CMO to develop forms for the database. The delay will have little effect on the output of the project.

The Capacity enhancement workshop for Data Mobilization has been completed by NZCS/CMO Curator Anielkoemar Gangadin and he has received the Basic Badge.

BBS Data Manager, Weerin Kalpoe, and NZCS/CMO Data Manager, Samentha Aarland, have attended the Data Use workshop in December 2021.

The training workshop Data Mobilization has been held in January 2022. This activity was completed earlier than scheduled, because the Data Managers needed the knowledge and information to perform their tasks and to deliver the results. The trainers were Anielkoemar Gangadin, Gunovaino Marjanom, and Vanessa Kadosoe. The Data Managers from BBS and NZCS/CMO as well as two employees from BBS, three employees from NZCS/CMO, and a representative from NIMOS have attended the training workshop. The Data Manager at BBS has published one data set through the LAC IPT, and will train the Data Manager at NZCS/CMO to publish data sets.

The workshop on Species Red Listing using GBIF mediated data on February 17, 2022 has been attended by NZCS/CMO Data Manager, Samentha Aarland.

The first dataset within the project has been published through GBIF. The national IBOSS database is being developed.

The Ministry of Spatial Planning and Environment of Suriname has sent the Letter of Intent to become a GBIF Country Particpant to the GBIF Secretariat.

Both Data Managers at BBS and NZCS/CMO participate in the Data Camp Training 'Career Track Data Analyst with R'. The courses Introduction to R and Intermediate R have been completed.

Completed activities

Activity: Develop workflow and protocols

Description: Develop workflow and protocols for data production and data dissemination on national

level and through GBIF

Start Date - End Date: 1/11/2021 - 27/5/2022 Verification Sources: Protocol_Databeheer_BBS;

Workflow BBS&NZCS&NIMOS

Activity: Set up a Common Data Storage System

Description: 2.2 Procure relevant IT-equipment **Start Date - End Date:** 20/12/2021 - 4/3/2022 **Verification Sources:** Mid-term Financial Report

Activity: Train personnel

Description: Train Project Partners in Data Mobilization

Start Date - End Date: 12/1/2022 - 19/1/2022 Verification Sources: Attendance list

Activity: Publish data

Description: Publish data through GBIF - First Data Set

Start Date - End Date: 20/12/2021 - 11/3/2022

Verification Sources: https://doi.org/10.15468/vhkjc4

Activity: Evaluations

Description: Quarterly evaluation of the implementation plan

Start Date - End Date: 29/10/2021 - 12/5/2022

Verification Sources: 1st Evaluation meeting with Project Partners on October 29, 2021 to discuss

the Early Progress Report.

2nd Evaluation meeting with Project Partners on February 22, 2022 to discuss the progress of the

project.

3rd Evaluation meeting with Project Partners on May 12, 2022 to discuss the Mid-term Report.

Report on Deliverables

Deliverables progress summary

A. Expected deliverables - Planning phase

A1. Workflow model and Protocols

Description: Data mobilization and data management Workflow model and Protocols The workflow and protocols for data production and data dissemination on national level and through GBIF are in progress. Although the workflow will be completed by June 2022, the protocols are continuously being reviewed and adjusted to comply with the data management plan.

Development of the Protocol Databeheer BBS and Workflow BBS&NZCS&NIMOS are in progress.

A2. Accommodation and Infrastructure

Description: Accommodation and Infrastructure for Data Management

Accommodation for the Data Manager BBS will be postponed until co-funding becomes available. Construction is scheduled from June 2022 to December 2022. The delay has little effect on the project outcome. The required IT equipment has been purchased and support with infrastructure set-up is being provided by the IT department of the AdeKUS.

B. Expected deliverables - Data mobilization phase

B1. Dataset Title: Databases

The Specify databases at BBS and NZCS/CMO are still being developed and a meeting with the SPECIFY provider has been requested to discuss creation of the forms. At the moment records from the collections are already being entered in MS Excel spreadsheets. Therefore, the delay in the development of the databases has little effect on the project outcome. The National Database (IBOSS) has yet to be developed.

B2. Dataset Title: Images

80% of BBS collections are already photographed and additional collections are continuously being imaged. NZCS/CMO collections are not yet photographed. The first dataset has been published through GBIF and other datasets will follow the next quarter.

C. Expected deliverables - Evaluation phase

C1. Environmental data

Description: Environmental data e.g. mercury pollution data and habitat description data from several areas

Environmental data will be available once they have been uploaded to GBIF and the National Database

C2. Metadata

Description: Metadata for flora and fauna, including images of collections specimens. Meta data will become available once the data has been uploaded to the GBIF website and the National Database

Progress towards deliverables

Deliverables - Project planning phase

Workflow model and Protocols

Description: Data mobilization and data management Workflow model and Protocols

% complete: 90%

Status update: The workflow and protocols for data production and data dissemination on national level and through GBIF are in progress. Although the workflow will be completed by June 2022, the protocols are continuously being reviewed and adjusted to comply with the data management plan. **Sources of verification:** Protocol Databeheer BBS; Workflow BBS&NZCS&NIMOS.

Accomodation and infrastructure

Description: Description: Accommodation and Infrastructure for Data Management

% complete: 25%

Status update: Accommodation for the Data Manager BBS will be postponed until co-funding becomes available. Construction is scheduled from June 2022 to December 2022. The delay has little effect on the project outcome. The required IT equipment has been purchased and support with infrastructure set-up is being provided by the IT department of the AdeKUS.

Sources of verification: N.A.

Deliverables - Project data mobilization phase

Databases

Dataset type: Occurrences

Dataset scope: Databases at NZCS/CMO and BBS (Flora Database and Fauna Database) not

previously published through GBIF Number of records: 10,000 Data holder: BBS and NZCS/CMO

Data host institution: LAC IPT and IBOSS (NIMOS)

% complete: 10%

Status update: Updates from early progress report: The Specify databases at BBS and NZCS/CMO are still being developed and a meeting with the SPECIFY provider has been requested to discuss creation of the forms, since adding different columns to the forms is only possible with the licensed version of SPECIFY. At the moment records from the collections are already being entered in MS Excel spreadsheets. Therefore, the delay in the development of the databases has little effect on the project outcome. The National Database (IBOSS) has yet to be developed.

DOI: https://doi.org/10.15468/vhkjc4
Expected date of publication:

Images

Dataset type: Occurrences

Dataset scope: Images of plant and animal collections; other data sets will follow.

Number of records: 58,000 Data holder: BBS and NZCS/CMO

Data host institution: LAC IPT and IBOSS (NIMOS)

% complete: 5%

Status update: 80% of BBS collections are already photographed and additional collections are continuously being imaged. NZCS/CMO collections are not yet photographed. The first dataset has

been published through GBIF. **DOI:** https://doi.org/10.15468/vhkjc4 **Expected date of publication:**

Deliverables - Project evaluation phase

Environmental Data

Description: Environmental data e.g. mercury pollution data and habitat description data from several

areas

% complete: 0%

Status update: Environmental data will be available once they have been uploaded to GBIF and the

National Database

Sources of verification: N.A.

Meta Data

Description: Metadata for flora and fauna, including images of collections specimens

% complete: 0%

Status update: Meta data will become available once the data has been uploaded to the GBIF

website and the National Database **Sources of verification:** N.A.

Events

Training Data Mobilization

Dates: 2022-01-12 - 2022-01-19

Organizing institution: BBS and NZCS/CMO

Country: Suriname

Number of participants: 13

Comments:

Website or sources of verification: List of participants

The workflow and protocols for data management at the partner institutions are being developed in consultation with the project partners. The documents are shared digitally. Data sets (Collections Data, Environmental Data and Meta Data) will be published throughout the project through GBIF and the National Database (IBOSS) to reach the project stakeholders and the GBIF Community.

Monitoring and evaluation

Monitoring and evaluation findings

Certification following the BID capacity enhancement workshop and Development of workflow and protocols have been completed before the Mid-term Reporting.

Activities that have been delayed and have not been completed before the Mid-term Reporting will be continuously monitored. The progress of these activities will be mitigated by adding more resources without adding costs to the project budget. The end date for these activities is scheduled by April 2023.

For the efficiency of the tasks performed by the data Managers the activity Train Project Partners to publish NZCS/CMO & BBS data Nationally and on GBIF website has been implemented earlier than scheduled. The aspects of Data Mobilization have been covered by the training, whilst the aspects of Data Publishing must be continued. One data set from the Herbarium Collection has already been published. Three quarterly evaluation meetings have been held with the project partners.

Because of the relevance of the project on national level a MoU was signed between the Anton de Kom University and NIMOS. The Ministry of ROM has sent a Letter of Intent to the GBIF Secretariat to become an Associate Country Participant.

Although some activities have experienced a schedule delay, namely the development of the databases, the end dates of the remaining activities will not be changed. The salaries for the Data Managers will be divided among several persons, without adding costs to the project budget.

The Data Managers at BBS and NZCS/CMO perform their tasks complementary to each other. While the Data Manager at BBS focusses on data publishing, the Data Manager at NZCS/CMO focusses on the development of the database.

Impact of COVID-19 pandemic on project implementation

N.A.

GBIF leads the Biodiversity Information for Development (BID), a programme funded by the European Union. The programme provides supplementary support for activities addressing the needs of regional researchers and policymakers through mobilization and use of biodiversity data.

