

Organization: ETI BioInformatics

Project Location: Tanzania

Web address: www.eti.uva.nl

Title of Grant: “A Species Information Authoring Tool Underpinning Distributed, Collaborative Information Harvesting and Sharing in Tanzania.”

Grant Amount: \$ 198,000 over 3 years

Principal Investigator: Peter H Schalk

Organization Background:

ETI BioInformatics is a NGO in operational relation with UNESCO. Its mission is to promote access to and worldwide sharing of biodiversity information by promoting biodiversity informatics. Core activity is to develop and implement information management systems that support standardization, integration, interoperability, accessibility and dissemination of biodiversity information and expertise. Scientific focus is on ‘intelligent’ webportals dynamically integrating information from heterogeneous distributed sources and interoperability solutions (BioPortal, CoL), computer aided taxonomic identification systems (Linnaeus II), and web-based and mobile species information systems (EDIT, KeyToNature). ETI provides the taxonomic community with software tools to document biodiversity knowledge, and a free epublishing service to share the information worldwide.

Grant Description:

This project to work with the Tanzania Commission for Science and Technology (COSTECH) on a locally sustainable biodiversity information system for Tanzania polling distributed sources is at the core of ETI’s mission. The project is also a logical continuation of the collaboration sponsored by GBIF- CEPDEC to create the TanBif portal. ‘Tiling’ the projects warrants efficiency and continuity, and assists the Tanzanian biodiversity community with tools to generate their own content.

The Problem:

Countries that join GBIF set up national Nodes, connect their national collection and observation databases to the GBIF network, and create national biodiversity information portals. GBIF and its participants promote broad use of electronically shared biodiversity information. However, creating a biodiversity portal does not automatically warrant a broad use and integration of the new information sources in science, education, eco-management, policy-making and public awareness.

The unlocked data are ‘thin’ and generally consist of lists of scientific names and locations; important to scientists but too abstract for broader use. Also there is a gap between modern information technologies and (reaching) user communities, hence substantial investments are often not optimally used.

The Solution:

By adding descriptive and multimedia data at the species level, providing computer guided identification keys, and visualisation (mapping) tools make the information served by GBIF portals broader applicable, and thus capable of targeting more user groups. Promoting active involvement of information users (e.g. education, eco-managers, policy-makers) can make GBIF portals a functional part of the information society.

ETI Bioinformatics and the Tanzania Commission for Science and Technology developed a national biodiversity webportal with GBIF/CEPDEC funds (www.tanbif.or.tz). The portal was launched July 2008 and gives access to dynamically harvested primary biodiversity data (e.g. collections, observations) in the GBIF network and local data sources. Tanzania wants to use the national biodiversity portal to: a) facilitate scientific work, b) promote general awareness and education, c) support a sustainable eco-management, and d) to assist in public outreach (tourism).

These goals can be met by: 1) creating a mechanism to harvest and add 'rich' species content (e.g. descriptions, illustrations, videos), 2) making the portal interactive with users, and 3) promoting actual use cases for the portal. This project will work with local organisations and sources (biodiversity scientists, park managers) for generating 'rich' species content.

It will build a harvesting mechanism upon a proven, user-friendly species information authoring tool (Linnaeus II). It will create and manage species information systems in a distributed, collaborative way with outputs to the national biodiversity portal (TanBIF) but also other national websites (e.g. parks and nature reserves). Stand-alone applications (CD-ROMS) or output on paper will be supported as well. The TanBIF portal acts as the central national on-line biodiversity information source. Pilot projects on selected schools with an existing ICT infrastructure will stimulate the use of the TanBIF portal in educational activities. The TanBIF portal will be extended with a feedback function, engaging locals and tourists to submit digital photographs and observations.

Global Impact:

Tanzania is building its capacities to document and efficiently manage its national biodiversity. It will share the information with the international science community through the TanBIF portal and wants to actively participate in the international GBIF initiative. This project is a step towards a sustainable biodiversity information infrastructure building on existing projects and infrastructure elements. It may be expected that the project will act as example and demonstrator to other countries in the region.