GBIF Position Paper on investing in a Strategic Application to mobilise primary biodiversity data associated with EIA studies

Background:
Environmental Impact Assessment (EIA) generates biodiversity records with almost every project. Utilisation of EIA (in various forms) to improve decision-making is widely recognised today as being a 'mainstreaming tool' with the potential to improve the integration of environmental, and thus biodiversity, considerations in the planning of developments in all key economic spheres. However, these data are seldom captured in forms and formats which make them accessible and re-usable. These states of inaccessibility to the underlying dataset often raise doubts about reliability and verifiability, as well as credibility of these studies. Furthermore, it hampers free and open-access to primary data.

Strategic Application:
Through the Global Biodiversity Information facility (GBIF), digital biodiversity data are being made freely and openly available on the Internet for scientists, researchers and the general public, as mandated by the Convention on Biological Diversity's (CBD) Decision VIII/11, with the ultimate objective of providing the means for improved decision-making[1]. In 2008, the Board of the International Association for Impact Assessment (IAIA) accepted a proposal from the Global Biodiversity Information Facility (GBIF), submitted through and endorsed by the Biodiversity & Ecology (BD&E) Sector of IAIA, to initiate a project to utilise the GBIF experience, data standards and architecture to develop protocols, processes, and tools for mobilising all biodiversity data gathered during Impact Assessment exercises worldwide. In June 2009, GBIF signed a Memorandum of Cooperation with IAIA to provide a technical, infrastructural, socio-cultural, policy-political and recognition framework that would make the publishing of impact assessment-associated biodiversity data a mainstream activity.

This directly assists in implementing the recommendation in the 2006 CBD Impact Assessment guidelines[2], developed by IAIA's BD&E Section in collaboration with the CBD Secretariat, that: *'Biodiversity data generated by EIA should be made accessible and useable by others and should be linked to biodiversity assessment processes being designed and carried out at the national and global levels*.' In addition, the principles of *in situ* and *ex situ* conservation advocated in Articles 8[3] and 9[4] of CBD, and Article 14[5] of the CBD, provide a strong case for promoting biodiversity-inclusive impact assessments, as biodiversity information is vital for both good assessments and sound decisions.

To advance progress in this area, GBIF is launching an initiative under our Strategic Applications portfolio.

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[1] http://www.cbd.int/decision/cop/?id=11025

[2] http://www.cbd.int/impact/guidelines.shtml

[3] http://www.cbd.int/convention/articles.shtml?a=cbd-08

[4] http://www.cbd.int/convention/articles.shtml?a=cbd-09

[5] http://www.cbd.int/convention/articles.shtml?a=cbd-14

Expected Outcomes:
As shown in Figure 1, this Strategic Application aims to develop:

- Tools for EIA biodiversity data capture, management and archiving;
- Best Practices, processes and protocols for capture of biodiversity data during EIA studies;
- Data Transformation Tools for making EIA biodiversity data interoperable and exchangeable as per globally accepted standards;
- Discovery of EIA-generated biodiversity data through the GBIF GBRDS (Global Biodiversity Resources Discovery System) and global, national and thematic metadata catalogues;
- Publishing of EIA-generated biodiversity data through GBIF-promoted tools such as the Integrated Publishing Toolkit (IPT), and data hosted environments;
- Data Evaluation services such as tools, web services, standards and protocols.

In addition to the above tools and services, GBIF-mobilised data can be used to assess the state of biodiversity prior, during, and after impact assessment studies.

Benefits to EIA practitioners:
By accessing and publishing data through the GBIF infrastructure and global standards, the Environmental Impact Assessment practitioner will benefit in the following way:

- Improve reliability, verifiability and credibility of the EIA exercise;
- Comply with the statutory requirement of maintaining the transparency of the EIA exercise;
- Increased visibility through free and open access to EIA-generated biodiversity data;
- Data Paper for describing metadata to facilitate the discovery of datasets;
- Scholarly recognition in the form of 'Data Usage Index' for data publishing.

Activities and Timelines:

Activity	Description	Timeline
Community consultations	This concept note will be circulated to major stakeholders to seek inputs and refine various activities planned as part of the strategic application initiative.	Nov. – Dec. 2009
Tools and Infrastructure Development	• GBIF currently offers the following tools for data capture: o Excel template for occurrence data o Excel template for species and vernacular names list o File Maker Pro application for occurrence data o File Maker Pro application for species and vernacular names list • GBIF has also released the 'Integrated Publishing Toolkit (IPT)'[6] to facilitate publishing of primary biodiversity data. • GBIF's Danish National Node (DanBIF) is launching a DanBIF Data Hosting Centre (DanBIF DHC)[7] to facilitate the long term archiving, hosting and publishing of unhosted primary biodiversity data through the GBIF network. • GBIF intends to develop tools, processes and	Jan. 2009 – Dec. 2011

[6] http://ipt.gbif.org/index.html

[7] http://datahosting.danbif.dk/

	protocols specific to satisfying the requirements of EIA practitioners, e.g. Data Transformation Tool for making EIA-generated biodiversity data interoperable and exchangeable as per globally accepted standards • Development of Best Practices Guides and Frequently Asked Questions (FAQ) manual • Implementation of the GBIF Data Publishing Framework Task Group recommendations would offer incentives to EIA practitioners to discover and publish their data through the GBIF network	
SANBI pilot project	The South African National Biodiversity Institute (SANBI)[8], whose mandate includes the responsibility of collating, managing and making available information on South Africa's biodiversity, is embarking on a project to collate biodiversity data gathered as part of EIA work in South Africa, for further use and dissemination. This pilot project is expected to address several generic issues such as IPR, auditing and verification, technical tools and standards development, as well as inter-agency and inter-personal collaboration. SANBI is also the host of SABIF, the South African national GBIF node[9].	Dec. 2009 – Apr. 2011
India pilot project	The Wildlife Institute of India (WII)[10], which is the National GBIF Coordinating Node in India, is promoting best practices for EIA practitioners in South Asia. This pilot project will use the lessons learned from the SANBI pilot project to kick start a similar process in India. Additionally, it will aim to create awareness, and outreach amongst EIA practitioners for publishing their data through the GBIF Nodes in India. A South Asian EIA practitioner's workshop will be held to build consensus and common understanding towards capturing, using and publishing EIA-generated data within the South Asian context.	Jan. 2010 – Apr. 2011
Marine EIA pilot project	To address requirements of marine EIA practitioners, and encourage publishing of marine EIA-generated data through the GBIF infrastructure, a workshop will be organised in collaboration with ICES[11], OBIS[12], and SCAR[13] and other related marine organizations.	May 2010 – Dec. 2011
IAIA 10 Geneva	Preliminary results and proposed processes will be	Apr. 2010

[8] http://www.sanbi.ac.za/

[9] http://www.sabif.ac.za/

[10] http://www.wii.gov.in/

[11] http://www.ices.dk/indexfla.asp

[12] http://www.iobis.org/

[13] http://www.scar.org/

conference	presented in a workshop session of the BD&E Sector at IAIA 10, in Geneva	
IAIA 2011 Annual Conference	Workshop: Sharing results and established processes and uptake by the community	April/May 2011
Outreach and Communications Strategy	A comprehensive outreach and communications strategy will be developed and implemented through the GBIF network and other key stakeholders to (a) make progress by tapping low hanging fruits, (b) mainstream discovery and publishing of EIA associated primary biodiversity data through the GBIF network. Such a multilingual outreach and communications toolkit will help GBIF Participants and other key stakeholder communities to reach out to their target groups.	Nov. 2009 – Dec. 2011
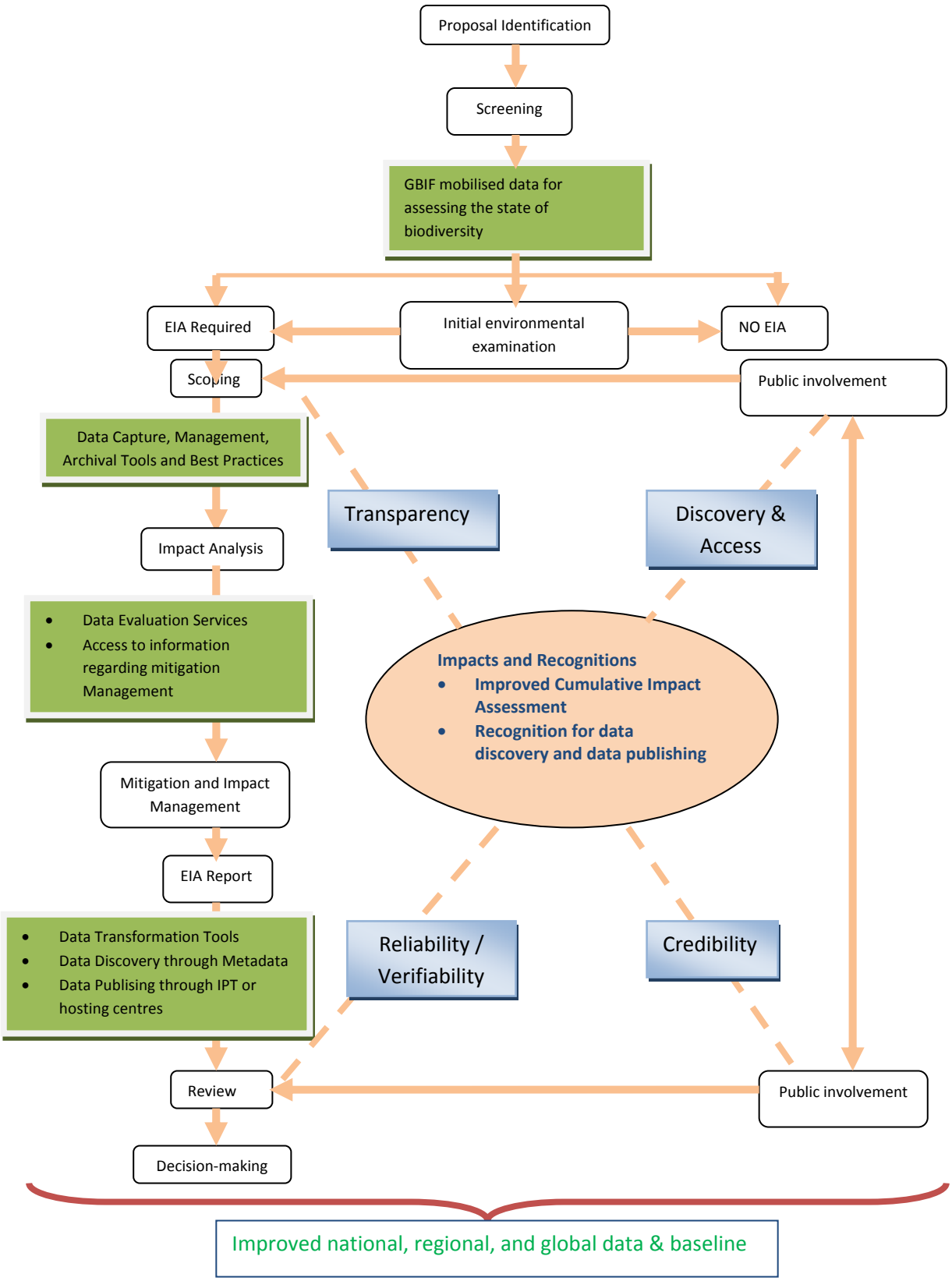
Figure 1. Anticipated benefits of the GBIF Strategic Application to mobilise primary biodiversity data associated with Environmental Impact Assessment Studies