Access & Benefit Sharing Monitoring System (ABS-MS)

ABS Partnership Project
## Access and Benefit Sharing (ABS) Partnership Project

<table>
<thead>
<tr>
<th><strong>Duration</strong></th>
<th>2016-2020</th>
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<tbody>
<tr>
<td><strong>Commissioned by</strong></td>
<td>Federal Ministry for Economic Cooperation and Development (BMZ)</td>
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<td><strong>Implementation Partners at the National level</strong></td>
<td>Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India, and National Biodiversity Authority (NBA)</td>
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<td><strong>Implementation Partners at the State level</strong></td>
<td>State Biodiversity Board (SBB) of Maharashtra, Tamil Nadu and Uttarakhand</td>
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</table>
Development of 10 good practices

Bio-Resource based Value Chains
Identifying cases to develop ABS Good Practices in Maharashtra

Conserving bioresources for better livelihoods
Identifying tradeable and potential bioresources for ABS in Garhwal, Uttarakhand

Conserving bioresources for better livelihoods
Identifying tradeable and potential bioresources for ABS in Kumaun, Uttarakhand
The Challenge

Under the scope of BD Act 2002 & ABS Guidelines, NBA aims at effective monitoring of bio-resources (BR) and associated Traditional Knowledge (TK).

Most of the users of bio-resources are outside the preview of authority.
Unauthorized access to BR/GR
No medium to track the access of BR/GR
Minuscule benefit sharing
The Concept

Innovative text mining system to find out whether genetic resources from a specific country were used in patents or publications: Paul Oldham (UK)

The research permit system of The Bahamas with up to 100 permits per year offers a wealth of data on researchers and institutions having accessed genetic resources and undertaken R&D: Tested

The idea: Using the permit data to screen public data (publications and patents) to follow critical point in the value chain

The concept: Using text mining software and open source software in an automated system combining application and monitoring process

The effect: Increased clarity and transparency for access, increased confidence in effectiveness of benefit sharing system
The Solution

• Under the scope of ABS Partnership Project, Develop **IT enabled Monitoring System** for tracking the use of BR & associated TK within & outside India

• Objective of the System is the monitor utilization under two scenarios:
  • Access and utilization are undertaken with approval of NBA: Activity Tracked
  • Access and utilization are undertaken without approval of NBA: Potential Users
The Approach

NBA E-filing System

Online Databases
- OAG
- MAG
- GBIF
- Indian Patents
- EU/US Patents

Digital Databases
- ZSI
- BSI
- TKDL
- Others

NBA Servers-India specific
- Patent
- Scientific Literature
- Taxonomic data
- NBA E-Filing system

MDM Repository

Data Integration

Data Mining

Advance Analytics

Desk Officer

Data Processing/Cleaning

Monitoring

Statistics

Reports

NBA: National Biodiversity Authority of India; WOS: Web of Science; MAG: Microsoft Academic Graphs; GBIF: Global Biodiversity Information Facility; OAG: Open Academic Graphs; ZSI: Zoological Survey of India; BSI: Botanical Survey of India; TKDL: Traditional Knowledge Digital Library; ETL: Extract Transform Load
Key Features

### APPROVAL NOT TAKEN
- Date Integration from all major data sources
- Seamless scanning of complex documents for identifying use of bio-resource having Indian origin
- Alert mechanism when non-complied access is tracked
- Scope for dynamic database update
- Generate automated reports and statistics

### APPROVAL TAKEN
- Automatically capturing the information on users applying to NBA for access permission
- Tracking applicant’s use of bio-resource
- Check whether the utilization is beyond the scope of granted permission
- Alert mechanism when non-complied access is tracked
- Interactive Dashboards

NBA: National Biodiversity Authority of India
LOOK

NBA: National Biodiversity Authority of India
Fictional permit number BS20151234, Paul Oldham, Bahamas Project, Permitted to collect specimens of x, in locations y, for non commercial research. See details at https://forms.bahamas.gov.bs/dp_form.asp?fid=259
THANK YOU FOR YOUR TIME

Implemented by

In cooperation with:

Ministry of Environment, Forest and Climate Change Government of India

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