

A photograph of three women working in a greenhouse. They are all smiling and wearing headwraps. The woman on the left is wearing a dark jacket, the middle woman is in a light blue jacket, and the woman on the right is in a green and white striped shirt. They are holding red plastic crates filled with harvested green beans. The greenhouse structure with its curved metal ribs and translucent covering is visible in the background.

Added value for nature and mankind

Equitable benefit-sharing for the conservation and sustainable use of biodiversity

BioInnovation Africa | 2019-2022

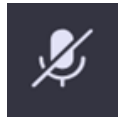


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Golden Rules for a great webinar



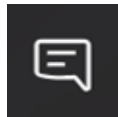
- Please mute your microphones and turn off your cameras



- If you want to ask a question or have a comment, please type the words “Question” in the chat or raise your hand and you will be given the chance to express yourself later



- Click once to “Raise your hand” – click twice to “Lower your hand”



- If the moderator says your name, please un-mute your mic and ask a precise question / give comment



- Oral inputs only during Q/A after the presentations



BIA Technical Exchange Series

Session N°2: Online Tools for ABS Applications, Permits and Monitoring of Genetic Resource Utilization

Date: Friday, 29/05/2020



BioInnovation Africa

-equitable benefit-sharing for the conservation of biodiversity-

Improving efficiency of
national ABS frameworks

Supporting conservation &
sustainable use

Biodiversity- based
value chains for
sustainable development

Reflecting biodiversity-based
value chains in development
cooperation

Sector-specific manuals to
guide the ABS and
permitting processes

Training to support ABS
contract development and
support understanding on
VCs and business models

Online application systems
to facilitate access
procedures and follow-up

CNA guidelines for
improving the impact of
supply chains on
sustainability/conservation

Financing mechanisms

Assistance in integrating
sustainability/conservation
aspects into supply chains
(ABS) and corporate
policies

Technical/legal support to
joint ventures with African
partners

Supporting innovations,
products and value
creation based on African
biodiversity for local
development

Technology transfer

New jobs / improved jobs

Collection and analysis of
lessons learned / best
practices

Provide advice on
approaches, instruments
and tools

Strengthen internal
capacity

Possible long-term
integration into the
development portfolio



Tracking Utilization of Genetic Resources

Content

- How can IT tools support the implementation of the Nagoya Protocol?
- How can IT tools support monitoring the utilisation of genetic resources?
- Monitoring tool of the ABS Initiative enables provider-triggered tracking of utilisation of national genetic resources
- Monitoring tool of the ABS Initiative enables analysis of R&D landscape

Content

- How can IT tools support the implementation of the Nagoya Protocol?
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- Monitoring tool of the ABS Initiative enables analysis of R&D landscape

Development of basic concept

GEF4 / GEF6 projects for six African Countries & The Bahamas - 2012 - 2016

Starting point 1: Paul Oldham/ ABS Initiative developed innovative text mining codes for revealing the use of genetic resources from a specific country in patents or publications

Starting point 2: The research permit system of The Bahamas with up to 100 applications annually offer a wealth of data on researchers and institutions having accessed genetic resources and undertaken research

The Idea: Using the permit data to screen public data (publications and patents) to follow critical points in the biodiversity-based value chain

The Concept: Using text mining codes and open source software in an automated system combining application and tracking process

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

Supporting the implementation of the Nagoya Protocol with IT tools

Supporting administration of ABS applications and permits

- Clear and transparent measures and procedures of the domestic access system
 - ☑ NP Art. 6 Access to Genetic Resources, specifically Art. 6 3.

- Decision making whether access to GR and aTK falls under the domestic ABS framework
 - ☑ NP Art. 2 Use of Terms, specifically “utilisation” and NP Art. 3 Scope

- Decision making about the nature of intended utilisation and the related elements of mutually agreed terms in ABS contracts
 - ☑ NP Art. 8 Special Considerations, specifically Art. 8 (a)

Supporting the implementation of the Nagoya Protocol with IT tools

Supporting information sharing and monitoring

- Submitting information to the ABS Clearing-House
 - ☑ NP Art. 14 The Access and Benefit-sharing Clearing-House and Information-sharing, specifically Art. 14 2. (c)

- Reporting to the COP MOP on the status of implementation of the Nagoya Protocol
 - ☑ NP Art. 29 Monitoring and Reporting

- Tracking of utilisation of GR and aTK and commercialisation of derived products
 - ☑ NP Art. 17 Monitoring the Utilization of Genetic Resources, specifically creating the internationally recognized certificate of compliance (IRCC) Art. 17 2-4, can reveal “successful utilization” in cases where user does not inform checkpoints and does not report back as agreed upon in MAT

Video on NP Art. 17 on monitoring



IT tools supporting implementation of NP Art. 17

Step 1: Country with users setting up **checkpoints** receiving or collecting the relevant information from national users

Step 2: Provider country publishing information on national ABS permits in the ABS Clearing House and thereby establishing the **internationally recognised certificate on compliance (IRCC)**

Step 3: Country with user compares IRCC with information from national users and sends **checkpoint communiques** to the ABS-CH

Step 4: Provider country compares checkpoint communiques relating to its IRCCs with national PIC / Permit / MAT

Concept of IT system (2016)

[About](#) [The Model](#) [Planning](#) [Schematics](#) [Resources](#)

The Nagoya Protocol: A Model Online Research Permit and Monitoring System

This is the project site for a model Online Research Permit and Monitoring System to support national implementation of the [Nagoya Protocol](#).

The idea behind the model is to assist Parties to the [Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization](#) of the [United Nations Convention on Biological Diversity](#) with implementing the Nagoya Protocol.

The model focuses on the creation of an online permit and monitoring system to make it easier for governments to administer research permit applications involving genetic resources and traditional knowledge and to monitor compliance under the Nagoya Protocol as well as making it easier to prepare national reports.

Download in Word and PDF

You can download Word versions of the sections in a .zip file [here](#). For pdf versions go [here](#).

You will also need to view the schematics which demonstrate the basic functions of the system. You can view them online from the Schematics menu or download them in [powerpoint](#), [keynote](#) or [pdf](#). The schematics are meant to be viewed as a slide show in presentation mode.

The draft workplan can be downloaded as headings to assist with project planning [here](#).

Who Developed This?

The original model was written by Dr. Paul Oldham as part of work with Hartmut Meyer and Olivier Rukundo on implementation of the Nagoya Protocol in the Bahamas. The updated version is a joint work in progress and much better for it.

Financial Support

The model was developed with the support of [The Bahamas Environment, Science & Technology Commission \(BEST\)](#) of the Government of the Bahamas under the UNEP/GEF project "Strengthening Access and Benefit Sharing (ABS) in the Bahamas" as set out in Oldham, P (2015) *Concepts for an Electronic Monitoring Tool. UNEP/GEF project "Strengthening Access and Benefit Sharing (ABS) in the Bahamas"*. The present paper was written with the additional support of the multi-donor [ABS Capacity Development Initiative](#) hosted by the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. We express our sincere thanks to the BEST Commission, UNEP/GEF the ABS Capacity Development Initiative, BMZ and GIZ for their support. The views expressed are solely those of the authors and should not be interpreted as reflecting the views of the Government of The Bahamas, BMZ, GIZ or the ABS Initiative.

Suggested Citation

Oldham, P; Rukundo, O; Meyer, H (2016) An Online Research Permit and Monitoring System to Support National Implementation of the

Core components of the concept

Authorities

Online Front Page

Applicants

Core System

Legal

Backups

Monitoring / Tracking

Physical Archive

Reporting

Mobile access

More than Art. 17: The provider-triggered monitoring concept

Starting point 1: Monitoring publications and patents where no attempt has been made by the user to secure permission (PIC – ABS Permit - IRCC) and no ABS agreement exists (MAT), commonly described as biopiracy

- **using external data from the public domain**

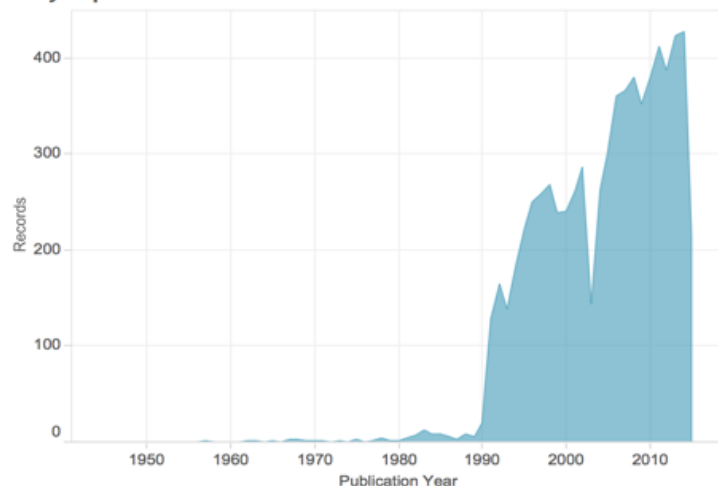
Starting point 2: Monitoring publications and patents where the user has received permission (PIC – ABS Permit - IRCC) and entered into an access and benefit-sharing contract (MAT)

- **using internal data from administrative processes**

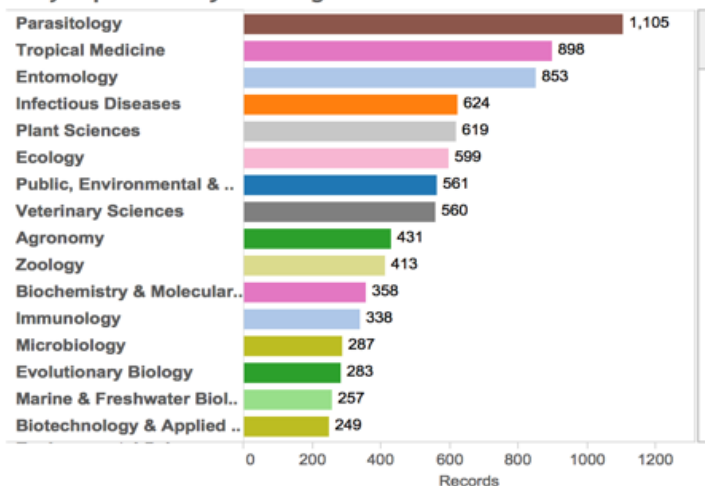
Starting point 1: What are sources for external data?

- Scientific literature
- Patent documents
- Products (systematic approach to be developed)
- Samples in ex-situ collections
- DNA sequences in data banks

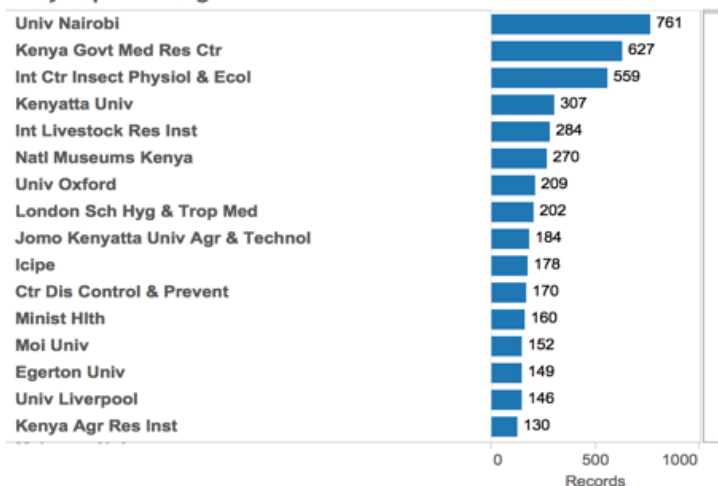
Kenya Species Trends



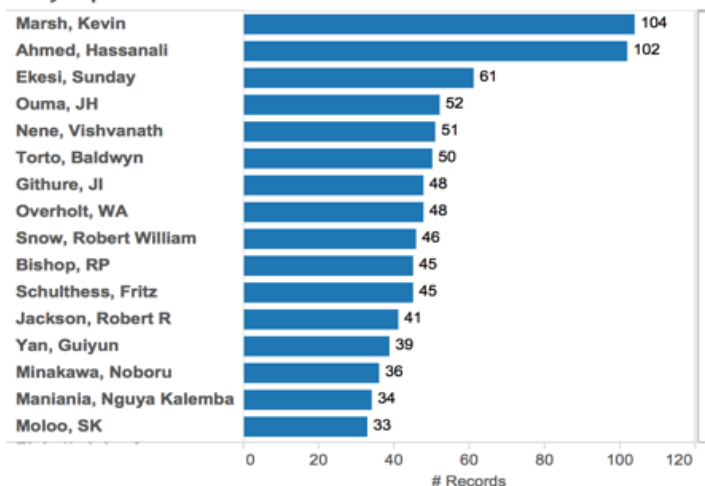
Kenya Species Subject Categories



Kenya Species Organisations



Kenys Species Author



Tracking patents on GR and aTK

The screenshot shows the LENS.ORG website interface. The browser address bar displays the URL: https://www.lens.org/lens/search?q=Lake%20Nakuru&p=0&s=pub_date&d=-. The page header includes the LENS.ORG logo and navigation links: English, About, Innovation Apps, Guest Work Area, Register / Sign in, and Support. A sidebar on the left contains a 'Register' section with a description and buttons for 'Register' and 'Sign In', and a 'Patent Filters' section with dropdown menus for Date Range, Jurisdictions, Inventors, Owners (US), Applicants, Cited Authors, Cited Works, Document Families, and Classifications. The main content area is titled 'Patent Results' and shows '40 Results for: Lake Nakuru'. It features a 'Patents' tab and a 'Cited Works' tab. The 'Patents' tab is active, displaying a list of patent results. Each result includes a checkbox, a green checkmark, the patent title, publication date, family size, cited works, and applicant information. The results are as follows:

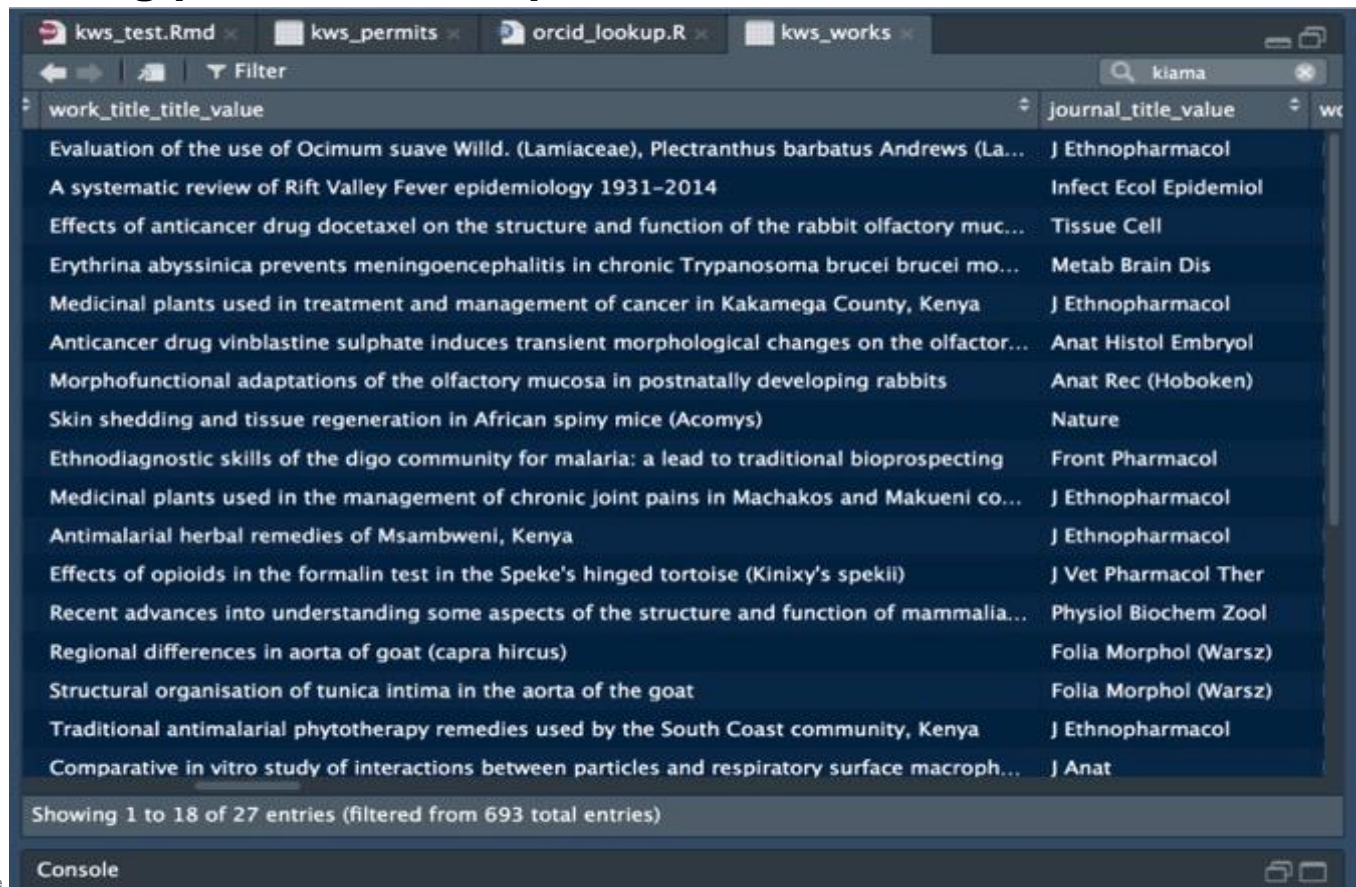
Patent Title	Publication Date	Family	Cited	Cites	Applicant
Serine Proteases Of Bacillus Species	Published: Apr 21, 2016	Family: 3	Cited: 3	Cites: 180	Danisco Us Inc
Medicinal Herbal Composition For Treating Infection	Published: Dec 3, 2014	Family: 14	Cited: 0	Cites: 0	Internat Patent Holdings Llc
Compounds And Compositions For Treating Infection	Published: Apr 15, 2014	Family: 2	Cited: 0	Cites: 5	Owner: International Patent Holdings Llc

Each patent result also includes a 'Patent Application' or 'Granted Patent' section with the patent number and a link to the full text. For example, the first patent is WO 2016/061438 A1, and the second is EP 1919490 B1.

Starting point 2: What are sources for administrative data?

- National ABS permits / IRCCs
 - Various other permits for researchers to conduct research, collect material and transport the material across borders
 - Administrative data consist of names, addresses, institutions, access locations, species accessed, sample types etc.
 - These are “dormant” data because they are used for systematic monitoring purposes, especially when in paper files
- **combining tracking results for external and administrative data provides a basis for detecting utilization which is non-compliant with the national ABS framework**

Tracking publications of permit holders



work_title_title_value	journal_title_value
Evaluation of the use of Ocimum suave Willd. (Lamiaceae), Plectranthus barbatus Andrews (La...	J Ethnopharmacol
A systematic review of Rift Valley Fever epidemiology 1931–2014	Infect Ecol Epidemiol
Effects of anticancer drug docetaxel on the structure and function of the rabbit olfactory muc...	Tissue Cell
Erythrina abyssinica prevents meningoencephalitis in chronic Trypanosoma brucei brucei mo...	Metab Brain Dis
Medicinal plants used in treatment and management of cancer in Kakamega County, Kenya	J Ethnopharmacol
Anticancer drug vinblastine sulphate induces transient morphological changes on the olfactor...	Anat Histol Embryol
Morphofunctional adaptations of the olfactory mucosa in postnatally developing rabbits	Anat Rec (Hoboken)
Skin shedding and tissue regeneration in African spiny mice (Acomys)	Nature
Ethnodiagnostic skills of the digo community for malaria: a lead to traditional bioprospecting	Front Pharmacol
Medicinal plants used in the management of chronic joint pains in Machakos and Makueni co...	J Ethnopharmacol
Antimalarial herbal remedies of Msambweni, Kenya	J Ethnopharmacol
Effects of opioids in the formalin test in the Speke's hinged tortoise (Kinixys spekii)	J Vet Pharmacol Ther
Recent advances into understanding some aspects of the structure and function of mammalia...	Physiol Biochem Zool
Regional differences in aorta of goat (capra hircus)	Folia Morphol (Warsz)
Structural organisation of tunica intima in the aorta of the goat	Folia Morphol (Warsz)
Traditional antimalarial phytotherapy remedies used by the South Coast community, Kenya	J Ethnopharmacol
Comparative in vitro study of interactions between particles and respiratory surface macroph...	J Anat

Showing 1 to 18 of 27 entries (filtered from 693 total entries)

Console

Results of
screening external
data (ORCID-
linked
publications) with
administrative
data (KWS
research permits)

Online system enables analysis of R&D landscapes

Various benefits for the country arise due to the ability to use web services for scientific literature, patent data, geographic place names:

- Overview about ABS compliance and increased trust in the national and international ABS system
- Creation of a national electronic repository of publications about biodiversity in the country
- Increased understanding of the topics and focus of research effort in the country related to biodiversity and traditional knowledge
- Sound data basis for developing science policies and targeting funding



ABS Permitting and Monitoring Tool - Kenya



Access and Benefit Sharing Monitoring Tool - India

Experiences and lessons learnt

Rationale: The IT system does not alter existing law and regulations or existing mandates of permit granting authorities. But it streamlines and, if necessary, alters institutional administrative processes.

Phase 1: Determining the Scope of the IT System & Agreement on Deliverables and Conditions

- Comprehensive information of ABS, legal and IT officers of institutions dealing with genetic resources
- Involvement of the leadership for decision making
- Narrow or broad scope (only ABS permit or all necessary permits?)
- Clarification of ownership, copyrights, data storage
- Development of ToR for IT developers

Next webinar topics / common denominators

Session : 26/06 afternoon

Conservation benefits and sustainable use in biotrade and bioprospecting

- Content: First results of international study; National mechanisms for biodiversity conservation
- Participants: NFPs, National biodiversity institutes, representative(s) of Environment/Biodiversity funds (national, local)



Thank you for your participation



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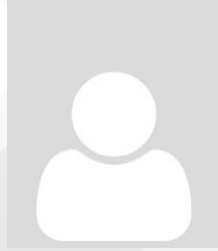
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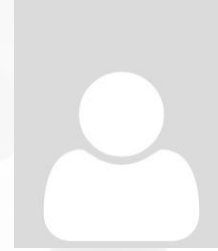
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<https://www.facebook.com/gizprofile/>

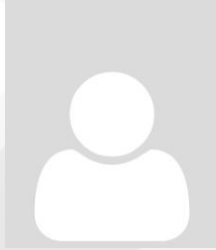
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