Evidences

Study #4634

Contributing Projects:
- P807 - 19. Orphan Crops
- P806 - 4. Biodiversity, safeguarding and conservation
- P801 - 1. Restoration (forest and landscape restoration)

Part I: Public communications

Type: OICR: Outcome Impact Case Report
Status: On-going
Year: 2021

Title: The right tree for the right place: Use of centralized agroforestry species database system (Agroforestry Species Switchboard) by over 340,000 people worldwide supports decisions for context-sensitive agroforestry research, planting, and restoration initiatives

Short outcome/impact statement:
The Agroforestry Species Switchboard created by ICRAF is an online resource containing over 170,000 species and corresponding information across geographies. The Switchboard has been visited over 350,000 times by researchers and practitioners worldwide to support effective landscape restoration. The Switchboard has been recognized by the Agroforestry Network as a credible and useful resource for those seeking information on goods and services of desired species, including biology, value, and ecology to determine suitability for growing to support restoration initiatives.
Outcome story for communications use:
High prevalence of degraded land and ecosystem services requires well-informed restoration programs that yield environmental and social benefits. However, there are few, and disconnected reliable databases to support sustainable landscape restoration for enhanced ecosystem services, while ambitious targets for global landscape restoration have been set (e.g. AFR100, Bonn Challenge). The Agroforestry Species Switchboard connects reliable species databases containing ecological information required for developing and implementing suitable restoration programs around the world. The Switchboard is a useful decision-support tool, and contains information on over 170,000 plant species. The Switchboard provides centralized access to 35 databases, providing thousands of hyperlinks. The user can query for information by species to increase the speed and efficiency with which users can quality information. The tool is updated regularly and invites user feedback. For example, the Switchboard has been discussed with the director of the Science, Assessment and Monitoring Division of the Convention on Biological Diversity, which resulted in giving special attention to issues of bio-security and invasive species.

In partnership with the International Union for the Conservation of Nature (IUCN), the information in the Switchboard has been expanded upon and re-packaged into a mobile application, which contains georeferenced ecological suitability data, and has been piloted for use to support restoration initiatives in Uganda, with the intention to scale up to other countries (Guatemala, Brazil, Rwanda, and Ethiopia) who have made ambitious commitments to the Bonn Challenge. The mobile application brings scientific ecological knowledge to farmers. Extension agents are also using the information from the Switchboard to begin conversations with communities about which species they will plant to support restoration initiatives. As a result, farmers select the appropriate species to plant, and carry out more effective landscape restoration initiatives for sustainable development in their communities. Armed with the information provided in the Switchboard, researchers and practitioners working on restoration are expected to employ more effective restoration programs more broadly. Success is scaled up, as more effective restoration initiatives yield more benefits. Use of the Switchboard globally provides the information needed to plant the right trees in the right places to support both improved ecosystem functioning and community livelihoods. Ultimately, use of the Switchboard to guide restoration is supporting progress to meeting the ambitious targets set by signatories to the Bonn Challenge to address the global challenge of prevalent land degradation.

Links to any communications materials relating to this outcome:
- https://tinyurl.com/y4u9e6ilq

Part II: CGIAR system level reporting

Link to Common Results Reporting Indicator of Policies: No

Stage of maturity of change reported: Stage 2

Links to the Strategic Results Framework:
Sub-IDOs:
- Enhanced institutional capacity of partner research organizations
- More efficient use of inputs

Is this OICR linked to some SRF 2022/2030 target?: Yes

SRF 2022/2030 targets:
- # of hectares degraded land area restored
- # of people, of which 50% are women, assisted to exit poverty
Description of activity / study: <Not Defined>

**Geographic scope:**
- Global

Comments: Scope for influence is particularly strong in the 30 states who have ratified commitments to the Bonn Challenge and have prioritized landscape restoration, but accessibility is global.

**Key Contributors:**
Contributing CRPs/Platforms:
- FTA - Forests, Trees and Agroforestry

Contributing Flagships:
- FP1: Tree genetic resources to bridge production gaps and promote resilience

Contributing Regional programs: <Not Defined>

Contributing external partners:
- SRUC - Scotland’s Rural College
- UCPH - University of Copenhagen

**CGIAR innovation(s) or findings that have resulted in this outcome or impact:**
Agroforestry Species Switchboard.

**Innovations:**
- 1468 - Agroforestry Species Switchboard 2.0: an online information source to support tree research and development activities
Elaboration of Outcome/Impact Statement:

Ever more pressing demands on land are driving unprecedented land-use change, resulting in a high prevalence of degraded land and loss of ecosystem services. In response, ambitious targets for global landscape restoration have been set (e.g. AFR100, Bonn Challenge) [1]. To meet these targets and rectify the global challenge requires well-informed restoration programs that yield environmental and social benefits. However, there are few, and disconnected reliable databases to support the kind of contextually appropriate restoration needed to restore degraded land and enhance ecosystem services. This results in substantial time investment dedicated to searching for information, and inefficiencies that hinder success and scaling of effective restoration projects. The Agroforestry Species Switchboard fills this gap by connecting reliable species databases containing ecological information required in a user-friendly format for developing and implementing suitable restoration programs around the world [2]. Its main advantage is the ability to shorten time and energy spent on searches for quality information from trusted sources.

Overall, the Switchboard provides an efficient, and credible decision support tool for restoration initiatives, to ensure that high quality and site appropriate restoration occurs. The Switchboard is referenced in a joint FAO-ICRAF guide on agroforestry in rice production landscapes for Southeast Asia, which is used by extension agents to support farmers in implementing agroforestry practices on farm. In the guide, readers are encouraged to consult the Agroforestry Species Switchboard when selecting what to plant, and preparing seeds to sow to ensure success. The Switchboard has also been linked to a mobile phone app in Uganda to support farmer-led planting initiatives led by IUCN, it helps to inform selection of “the right tree for the right place” (5). In Uganda, adoption has been particularly successful with the use of popular media (radio) and trialing the mobile application to disseminate information on restoration initiatives, and to convene multi-stakeholder discussions with communities for sustainable restoration [4]. IUCN reports that 98% of listeners to the radio program have implemented restoration initiatives on their farm. With over 300,000 users worldwide, and application to restoration programs in Africa and Southeast Asia, the Switchboard has therefore been a key source of baseline information to empower communities with the necessary nuanced understanding for sustainable restoration. Better access to quality information needed to support site-appropriate restoration will improve the quality and efficiency of restoration activities, and therefore improve outcomes for ecosystems and communities plighted with degraded land.

References cited:


Quantification: <Not Defined>
Gender, Youth, Capacity Development and Climate Change:

Gender relevance: 0 - Not Targeted
Youth relevance: 0 - Not Targeted
CapDev relevance: 1 - Significant
Main achievements with specific CapDev relevance: Organizations committed to restoration have better tools to support their work

Climate Change relevance: 1 - Significant
Describe main achievements with specific Climate Change relevance: Links information about species to ecological value, and suitable climatic conditions for growing to support restoration that is sensitive to both climate mitigation and adaptation

Other cross-cutting dimensions: NA
Other cross-cutting dimensions description: <Not Defined>

Outcome Impact Case Report link: Study #4634

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