# Digital Seed Systems Resilience Assessment Suite

* *Rationale and Budgeting*

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## Introduction:

The digital Seed Systems Resilience Assessment toolbox is a cutting-edge application suite designed to support practitioners in the field of seed systems resilience assessment. It comprises a set of interconnected tools that enable users to conduct detailed assessments of crop diversity, seed network structure and dynamics, and seed system resilience. This toolbox is designed to provide practitioners with the necessary information and insights to identify areas for improvement and take action to enhance the resilience of seed systems.

### Crop Diversity Assessment Tool:

One of the key components of the toolbox is the Crop Diversity Assessment tool, which allows users to assess the diversity of crops within a given seed system. This tool utilizes a range of data sources, including farmer surveys, plot observations, and genetic data, to provide a comprehensive overview of the crop diversity present in a particular seed system.

### Resilience Analysis Tool:

The Resilience Analysis tool is designed to help users understand the resilience of a seed system in the face of various stressors. This tool utilizes a range of data sources, including climate data, market data, and farmer surveys, to provide a comprehensive analysis of the resilience of a seed system.

### Seed Network Analysis Tool:

The Seed Network Analysis tool is designed to help users understand the structure and dynamics of seed networks within a seed system. This tool utilizes a range of data sources, including farmer surveys and trade data, to provide a detailed analysis of the seed network structure and dynamics.

## Diagram Description automatically generatedThe Suite Algorithm

The above figure shows the array how the tools will be operating.. So in general there will be 3 tools.

* SRA-1 : Crop Diversity Analysis Tool (SRA is short for Seed Resilience Analysis)
* SRA 2: Resilience Analysis Tool
* SRA 3: Seed Network Analysis Tool

The below list shows the detailing of the different sub-tools within the individual tools.

### Tool 1 (SRA 1): Analysis of Crop Diversity Availability and Preference

* SRA 1A : Historical Timeline
* SRA 1B : Diversity Wheel
* SRA 1B1: Inventory of crop diversity
* SRA 1B2: Diversity wheel – crop based
* Crop prioritization for varietal diversity analysis
* SRA 1B3: Inventory of varieties of the prioritized crops
* SRA 1B4: Diversity wheel – Varieties of priority crops- based
* SRA 1C: Preference ranking (Male and female separate data)
* SRA 1C1: Crop preference ranking
* SRA 1C2: Varietal preference ranking

### Tool 2: SRA 2: Analysis of Climate Resilient Crops and Varieties

* Identification of the key hazards of Climate Change
* List crops that are most affected by these hazards
* Identify the crops that are perceived as resilient to climate change
* Analysis of climate resilient varieties based on farmers perceptions

### Tool 3: SRA 3: Social Seed Network Analysis

## Outputs

This tool will be able to do the following

1. Collect the data directly from Individual farmers and from a farmers group meetings or from a focus group discussion
2. Analyze the results and generate CUSTOMIZED reports as we want them
3. Store the data in the cloud for future reference

## Budget

The budget is under

* Development costs – EUR 10000
* Hosting, domain and maintenance (5 years) – EUR 4000
* Days for Arnab – 25
* Days for Abishkar - 15