Organization of SP seed system in Rwanda and on-farm seed management practices

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Usefulness of a viable Seed System

- The lack of sustainable SS is one of the key constraints to improving SP productivity in sub-Saharan Africa (SSA) (Ian Barker et al., 2009).
- SS needs to provide farmers with planting material:

➢ in sufficient quantities

➢ at the right time

➢ of an appropriate physiological state, vigour and health

➢ of superior genotypes appropriate to the farmer's purposes, and

➢ at an affordable price (Gibson et al, 2011).

Challenges in SP seed system

1. Timely provision of SP vines (high quality for smallholders farmers)
2. Limited access to clean planting materials
3. Effects of climate change and climate variability
4. Free exchange of vines that have high load of virus
5. Satisfy the high demand of sweetpotato vines
6. Limited /lack of skills of sweetpotato vines multipliers
7. Limited sweetpotato stock (at districts)provision for high demand
8. No full access to swamps or marshlands for off-season production as well as preservation of planting materials

Table 1: Sources of sweetpotato vines by gender and region

Source of seed	Gender of the household head		Total
	Male	Female	
Own farm	177	53	230
Male neighbour	2	0	2
Female neighbour	17	11	28
Relatives	4	1	5
Farmer group	1	2	3
Research institution	3	1	4
NGO	1	0	1
Market	1	0	1
Other farmers	4	1	5
Total	210	69	279

Source: Rwanda Sustain Project baseline

As consequences:

- Fails to provide sufficient and high good planting material at right period

- Its prevents the crop from satisfying demand, and limit its potential role as a security food crop to producers and consumers

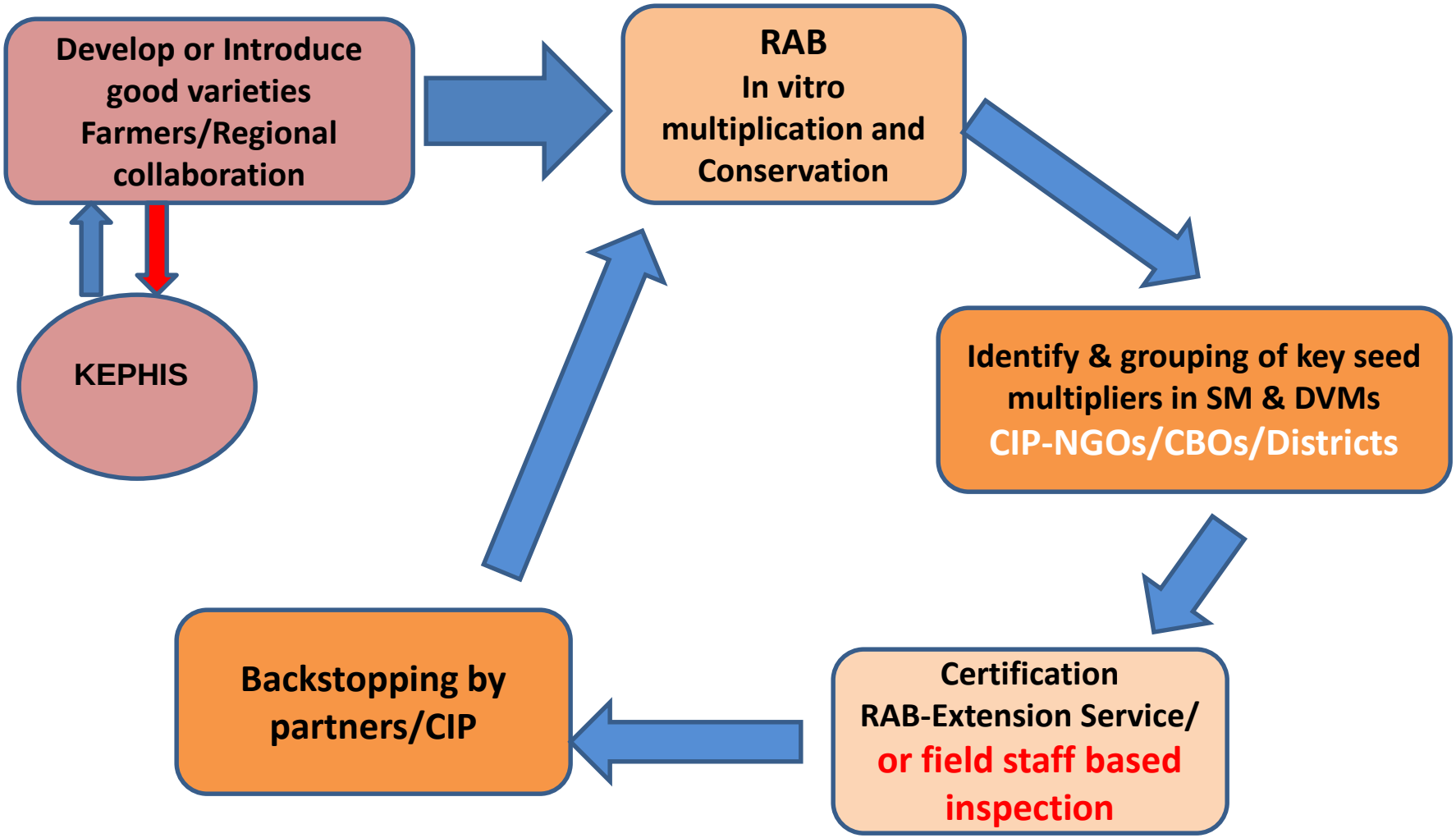
Description of source of SP seed

- RAB-SP has picked up the responsibility to produce pre-basic seed in 2009

- Laboratory facilities:
  - TC-Rubona
  - Screenhouse
  - Net-Tunnels & MNT technologies
  - Irrigation facilities (Karama and Kigembe)

- **Big amaount of** pre-basic and basic seed is produced & distributed

Rwanda SP model of seed system



Thorough needs assessment of key stakeholders

Table 2: Defined field standard for SS in Rwanda

Requirements		Pre-basic and Basic seeds	Certified seeds		Quality Declared Seeds
			C1	C2	
Previous cropping, number of season, min		3	3	3	2
Isolation, m, min		20	10	10	5
Off-types, %, max		0	1	1	2
Diseases					
Alternaria, %		0	2	5	5
Sweet potato viruses	Leaf curl, %, max	0	0	0	5
	chlorotic stuntviruse,%, max	0	2	3	5
	Feathery mottle viruse, %, max	0	2	3	5
Black rot, %, max		0	0.1	0.1	0.5
Root-knot Nematodes %, max		0	0.5	0.5	1
Scurf, %, max		0	0.1	0.1	0.5
Erinose, (%)		0.1	0.5	0.5	1
Wilt, %, max		0	0.1	0.1	0.5
SSR-Pox[2]		0	5	5	10
Storage rot		0	0	0	0
Pests					
Sweetpotato weevils, (%)		5	5	5	10
Wireworms, %, max		1	5	5	10

Challenges in Rwanda SS

1. Get right varieties for end-users (DVM/FGs)
2. Increase skills of DVMs in SP Seed Production & other modules (IDM&IPM)
3. NT &MNT management by DVMs and CBOs /NGOs
4. Implementation of Rwanda SP seed standard
5. Many people want to be DVMs
6. Only 4 nspectors dedicated to all crops.
7. How long is the transition from informal to formal SS??

MNTs in Rubavu and Musanze

Sweetpotato rapid multiplication using net tunnels technology at farm level

Key stakeholders involvement in the seed system

- **Key stakeholders**:
  - YWCA, Imbaraga syndicates,
  - NGO's (CARITAS,TUBURA,WORLD VISION, DERN, CRS, One Acre Fund, other development agents)
  - Private sectors
  - Local authorities/Districts

THANKS