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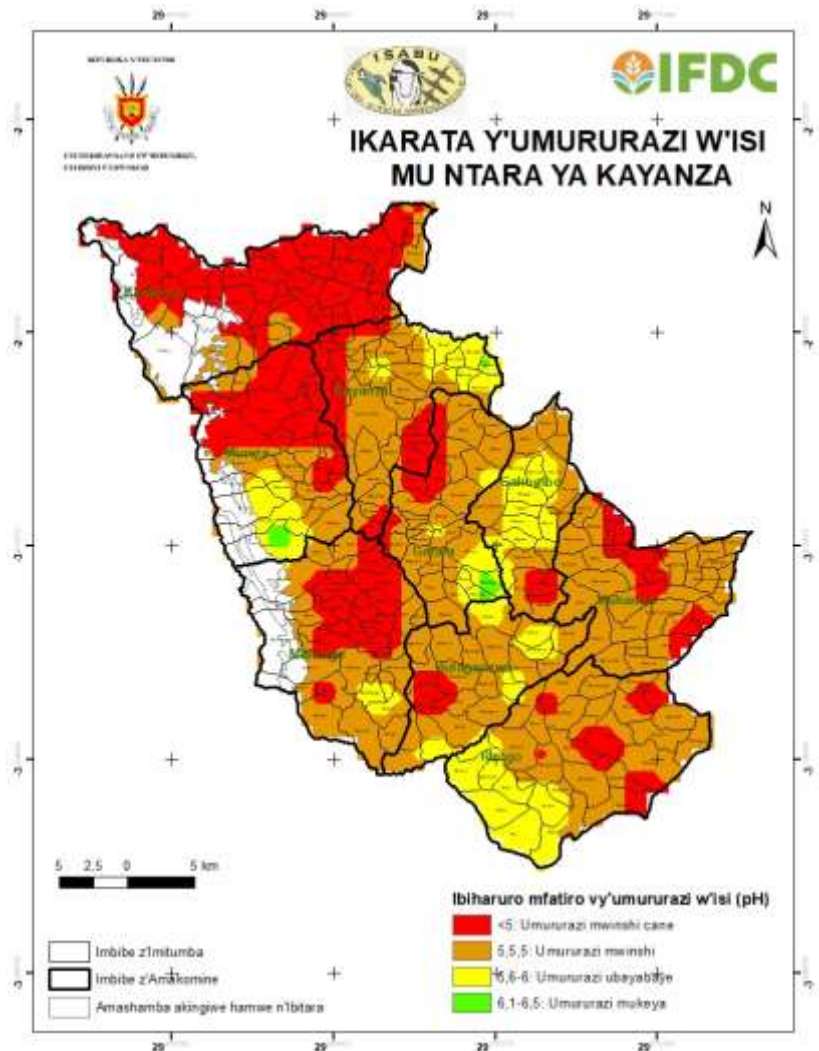


UBUSHIKIRANGANJI BW'IBIDUKIKIJE,
UBURIMYI N'UBWOROZI



**AGATABU KEREKANA AMAKARATA
Y'AKANOVERA K'ISI NDIMWA YO MU
NTARA YA KAYANZA**

Umwaka wa 2022



Bujumbura, Ruheshi 2022

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1. INTANGAMARARA

1.1. Ingene akanovera k'isi ndimwa kifashe

Itituka ry'isi ndimwa mu Burundi ntirikiri agaseseshwa rumuri, bituma umwimbu ugabanuka kandi abantu nabo batera biyongera. Ibituma akanovera k'isi kagabanuka navyo ahanini n'ibi bikurikira : kudakoresha neza ibisigarira vy'ivyimburwa, kutarwanya inkukura ku rugero rushimishije, ubuhinga n'ubumenyi budakwiye mu guhingura no kurwiza ifumbire y'ikirundi,....

Kugira ngo isi isubire yimbuke, birakenewe ko hamenyekana ingene isi yifashe muri rusangi mu gihugu kugira ngo abafasha n'abakorera mu gisata c'uburimiye bisunge ibiharuro vya none.

Amararata yo mu ntara yafatiye ku rugero rw'umururazi w'isi (pH), ku vyunyuny : rukomezangingo (P), nyarubabi (N) na nyaruteke (K). Ubuhinga bwinshi burakoreshwa rero mu kugarukana akanovera k'isi ndimwa : gukoresha ifumbire y'ikirundi ; gukoresha ishwaraga, guhingura imicafu yo mu ngo n'ibisagara (ibisigarira vy'imfungurwa, umwanda muto na mukuru,

ibisigarira vyo mu mahinguriro,...), kurwanya inkukura, gukoresha neza ifumbire y'ikizungu, n'ibindi n'ibindi.

1.2. Intumbero nyamukuru yayo makarata

Gufasha kugarukana akanovera k'isi mu kwerekana urugero rw'ivyunyunyuyu nyamukuru n'umururazi turiko kugira ngo abajjwe gufata ingingo no kuzishira mu ngiro bavyisunge.

Kugira dushikire iryo hangiro hakoze ibi bikurikira :

- Gukora amakarata y'umururazi (pH), y'ivyunyunyuyu bikuru bikuru : nyarubabi (N), rukomezangingo (P) na nyaruteke (K) ;
- Gutanga insiguro y'ivyibonekeza ku makarata ;
- Gutanga intumbero yo gufumbira isi ndimwa.

2. INGENE IBIKORWA VYAKURIKIRANYE

Abakozi bo muri ISABU bafashanijwe n'abo mu gisata kijejwe gufumbira isi ndimwa mu bushikirangaji bw'uburimyi, ubworozi n'ibidukikije bafashwe mu mugongo na IFDC, baragiye mu gihugu cose batora ivu ry'isi ndimwa mu bibanza 1377. Iryo vu ryapimiwe muri ISABU. Inyuma yaho amakarata y'akanovera

n'umururazi w'isi ndimwa yarakozwe hisunzwe ibiharuro vyavuye mu nzu nsuzumiro (Laboratoire). Mu nama yo kuyemeza, hasabwe ko hokorwa amakarata intara ku ntara n'insiguro yayo no gushika muri komine.

3. IKARATA Y'UMURURAZI/UBUKARIHE (pH)

3.1. Ibiharuro mfatiro vy'umururazi w'isi (pH)

Urugero	Ibiharuro mfatiro vy'umururazi w'isi
umururazi mwinshi cane	< 5
umururazi mwinshi	5 - 5,5
umururazi ubayabaye ;	5,6 - 6,0
umururazi mukeya;	6,1 - 6,5
nta mururazi;	6,6 -7,5 :
isi irimwo kariciyumu na manyesiyumu kurugero rwo hejuru.	> 7,5

3.2. Ivyashitsweko

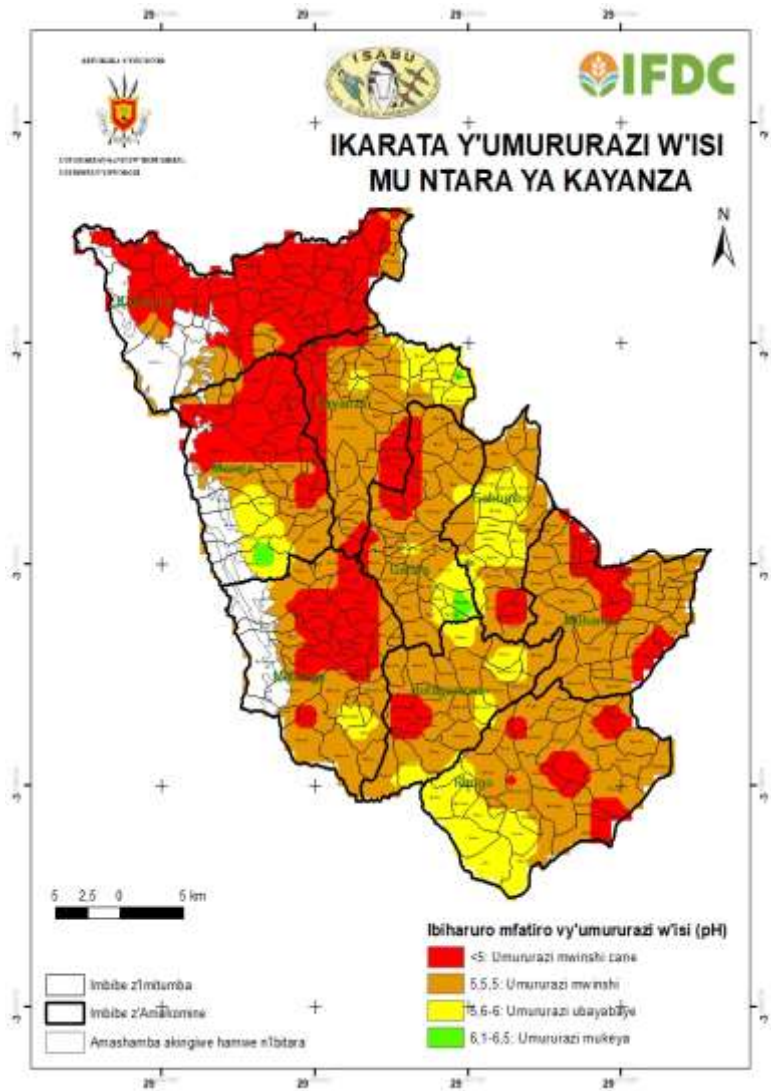
- Ibice 85 kw' ijana (85 %) vy'isi ndimwa vyo mu ntara ya Kayanza bifise umururazi mwinshi gushika kuri mwinshi cane ;

- Ibice 14 kw`ijana (14%) vy`isi ndimwa bifise mururazi ubayebaye, ahasigaye hari umururazi mukeya cane ;

Uburunganire bw`isi ndimwa dufatiye ku rugero rw`umururazi

Urugero rw`umururazi	Uburunganire (ha)	Ibice kw`ijana (%)
Umururazi mwinshi cane	33979,1	31,3
Umururazi mwinshi	58753,9	54,1
Umururazi ubayabaye	15325,1	14,1
Umururazi mukeyi	478,7	0,4
Vyose hamwe	108536,9	100,0

3.3. Ikarata y'umurazi (pH)



4. IKARATA Y'ICUNYUNYU NYARUBABI (N)

4.1. Ibiharuro mfatiro ku cunyunyu nyarubabi

Urugero	Urugero rwa nyarubabi kw`ijana (%)
Rukeyi cane	< 0,1
Rukeyi	0,1-0,2
Rubayabaye	0,2-0,5
Rukwiye	0,5-1,0
Rukwiye cane	>1,0

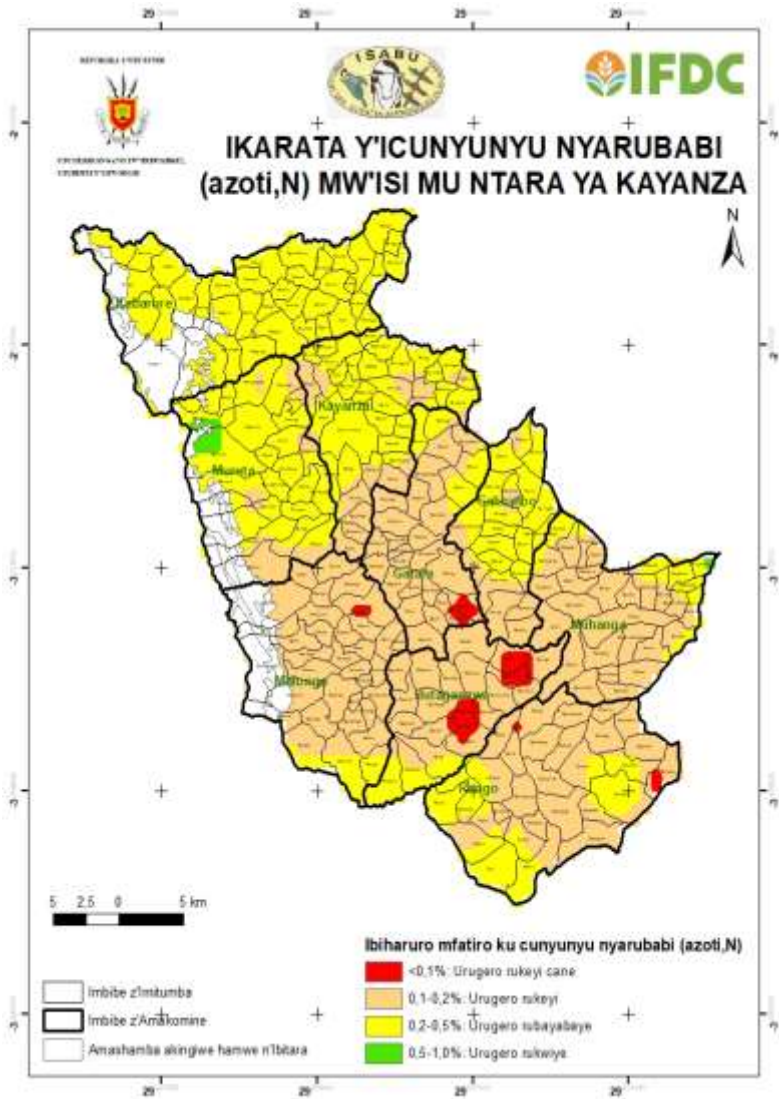
4.2. Ivyashitsweko

- Ibice 45 kw`ijana (45 %) vy'isi ndimwa bifide urugero rubayabaye ku cunyunyu nyarubabi ;
- Ibice 53 kw`ijana (53 %) vy'isi ndimwa bifise urugero rukeyi ;

Uburinganire bw'isi ndimwa dufatiye ku rugero rw'icunyunyu nyarubabi

Urugero rw'icunyunyu nyarubabi	Uburinganire (ha)	Ibice kw'ijana (%)
Rukeyi cane	1759,8	1,6
Rukeyi	57176,7	52,7
Rubayabaye	49016,6	45,2
Rukwiye	571,1	0,5
Vyose hamwe	108524,2	100,0

4.3. Ikarata y'icunyunyu nyarubabi (N)



5. IKARATA Y'ICUNYUNYU RUKOMEZANGINGO (P) IGITERWA GISHOBORA GUKOresha

5.1. Ibiharuro mfatiro ku cunyunyu rukomezangingo (mg/kg)

Urugero	Ibiharuro vya rukomezangingo (mg/kg)
Kiri ku rugero ruri hasi cane	0 - 5
Kiri ku rugero ruri hasi	5 - 20
Kiri ku rugero rubayabaye	20 - 50
Kiri ku rugero rukwiye	50 - 100
Kiri ku rugero rukwiye cane	>100

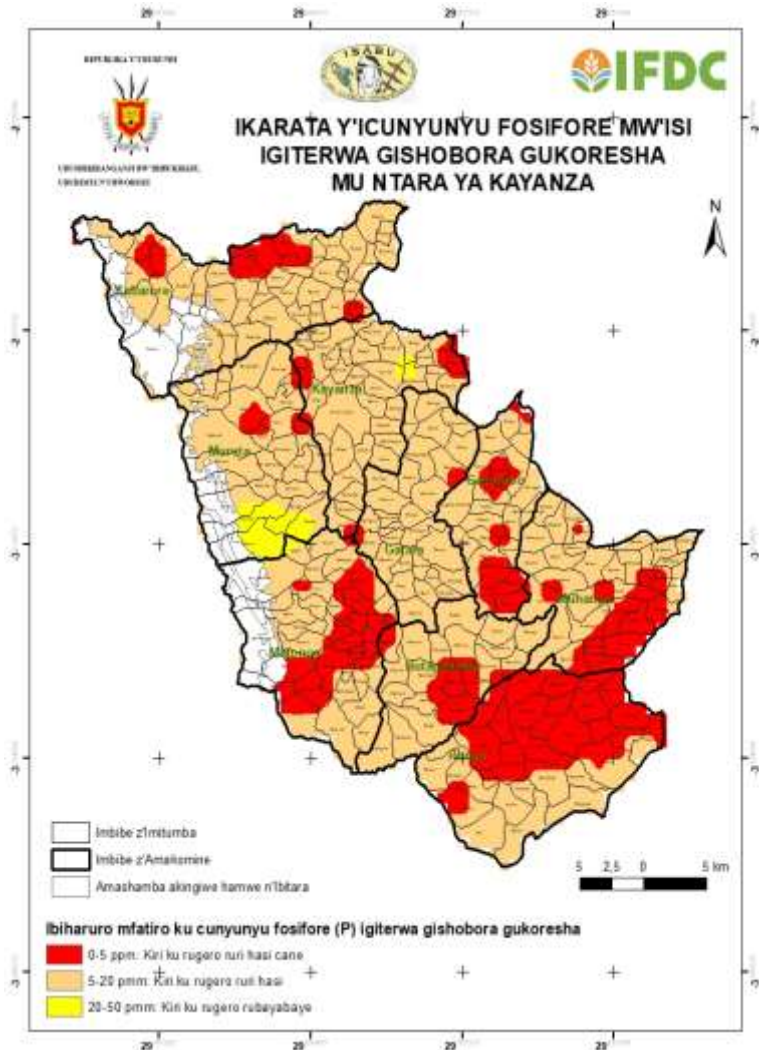
5.2. Ivyashitsweko

- Ibice 24 kw`ijana (24 %) vy`isi ndimwa vy`intara ya Kayanza bifise icunyunyu ca rukomezangingo kiri ku rugero ruri hasi ;
- Ibice 98 kw`ijana (98 %) vy`isi ndimwa vy`intara ya Kayanza bifise icunyunyu ca rukomezangingo kiri ku rugero ruri hasi cane.

Uburinganire bw'isi ndimwa dufatiye ku rugero rw'icunyunyu rukomezangingo igiterwa gishobora gukoresha

Urugero	Uburinganire (ha)	Ibice kw'ijana (%)
Ruri hasi cane	25986,2	24,0
Ruri hasi	80249,9	74,0
Rubayebaye	2208,1	2,0
Vyose hamwe	108444,1	100,0

5.3. Ikarata y'icunyunyu rukomezangingo (P) igiterwa gishobora gukoresha



6. IKARATA Y`ICUNYUNYU NYARUTEKE (K) (IGITERWA GISHOBORA GUKORESHA)

6.1. Ibiharuro mfatiro ku cunyunyu nyaruteke (még ku magarama ijana y`ivu ryumye)

Urugero	Ibiharuro vya nyaruteke (még ku magarama ijana y`ivu ryumye)
urugero ruri hasi;	< 0,25
urugero rubayabaye ;	0,25-0,5
urugero rukwiye ;	0,5-1,0
urugero rukwiye cane.	>1,0

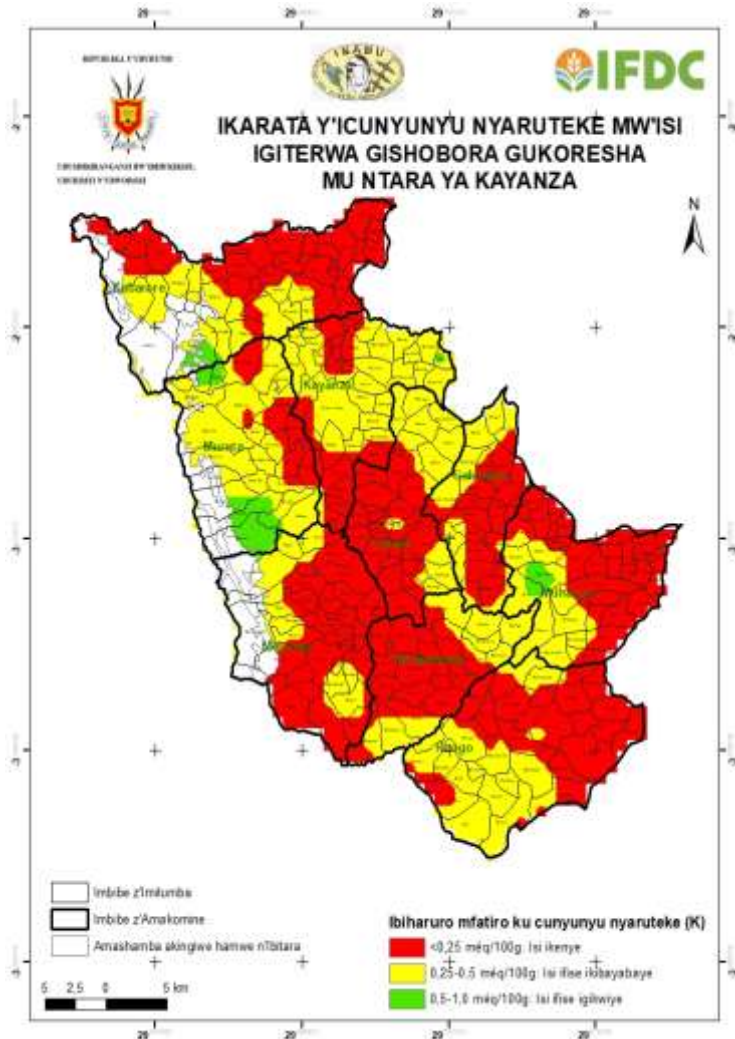
6.2. Ivyashitsweko

- Ibice 54 kw`ijana (54 %) vy`isi ndimwa vyo mu ntara ya Karusi bifise icunyunyu nyaruteke ku rugero ruri hasi.
- Ibice kw`ijana (56 %) vy`isi ndimwa vyo mu ntara ya Karusi bifise icunyunyu nyaruteke ku rugero rubayabaye ;

Uburinganire bw'isi ndimwa dufatiye ku rugero rw'icunyunyu nyaruteke igiterwa gishobora gukoresha

Urugero	Uburinganire (ha)	Ibice kw'ijana (%)
Urugero ruri hasi	58337,6	53,8
Urugero rubayabaye	47589	43,9
Urugero rukwiye	2537,5	2,3
Vyose hamwe	108464,1	100,0

6.3. Ikarata y'icunyunyu nyaruteke (K) igiterwa gishobora gukoresha



7. INSIGURO

Isi ndimwa y'intara ya Karusi igizwe n'ibice mirongo umunani na bitanu kw'ijana (85 %) bifise ingorane y'umururazi (pH). Icunyunyu nyarubabi (N) kiri ku rugero ruke ku bice mirongo itanu na bitatu kw'ijana (53%), nyaruteke (K) iri ku rugero rubayabaye ku bice mirongo itanu na bine kw'ijana (54%) ariko icunyunyu rukomezangingo (P) kiri ku rugero rudashemeye ku bice mirongo icenda n'umunani kw'ijana (98%).

8. GUSOZERA

Icunyunyu rukomezangingo (P) gitegerezwa kwongerezwa mw'isi ndimwa y'intara yose ya Kayanza. Ivyunyunyu nyarubabi (N) na nyaruteke (K) birakenewe kwongerezwa kugira ibiterwa bikure neza. Gukoresha ishwaraga mu kugabanura umururazi w'isi birafasha mu kubohora icunyunyu ca rukomezangingo kiba caboshwe n'ivyunyunyu vy'ubumara. Gukoresha ifumbure y'ikirundi birafasha mu gusahiriza ifumbure y'ikizungu yarisanzwe ikoreshwa.

IVYONGEWEKO: Urugero rw'ishwagara ikoreshwa mu ndimo

Ubwoko bw'isi	Ibipimo vy'umururazi w'isi	Urugero rwo kuvura isi	Urugero rwo kubungabunga isi
		Kg/are	Kg/are
Isi y'ibumba/inombe	< 4,7	17	6
	4,7-5,2	14	6
	5,2-5,7	7	5
	>5,7	0	0
Isi y'ikivuvu	< 4,7	14	5
	4,7-5,2	10	5
	5,2-5,7	7	4
	>5,7	0	0
Isi y'umusenyi	< 4,7	8	4
	4,7-5,2	5	4
	5,2-5,7	3	3
	>5,7	0	0
Ibi biharuro bifatiye kw'ishwagara ikorerwa mu burundi. Ibipimo vyayo ni: CaO:27% gushika kuri 30%; MgO:20% gushika kuri 21%			