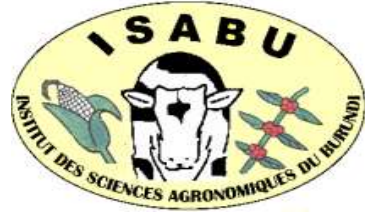


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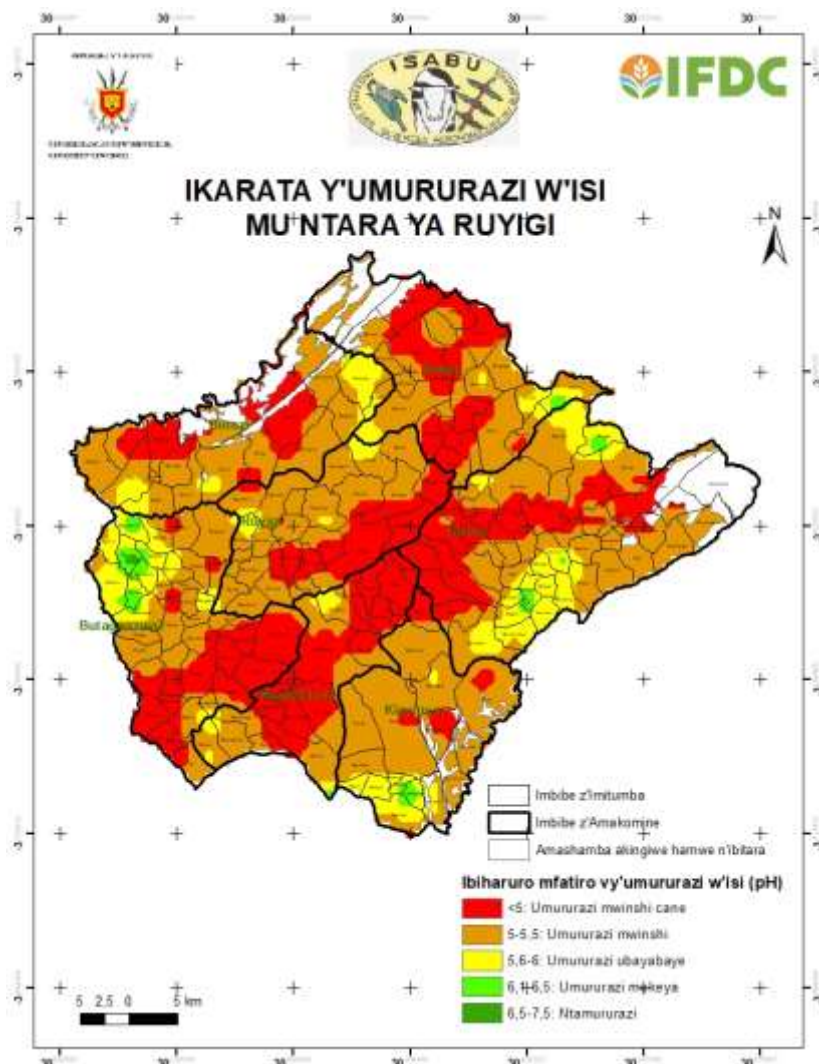


UBUSHIKIRANGANJI BW'IBIDUKIKIJE,
UBURIMYI N'UBWOROZI



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

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 nibi 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, harasabwe 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

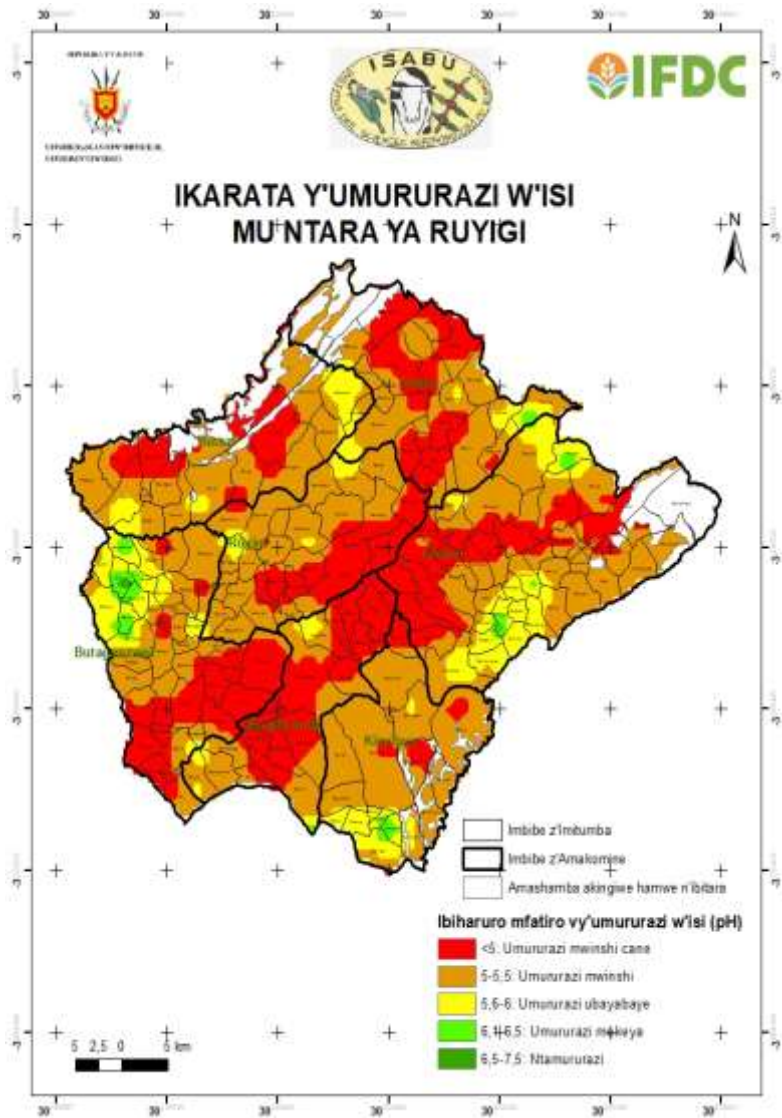
- Ibice 85 kw' ijana (85 %) y'isi ndimwa vyo mu ntara ya Ruyigi zifise umururazi mwinshi gushika kuri mwishi cane ;
- Ibice 12 kw' ijana (12 %) y'isi ndimwa vyo mu ntara ya Ruyigi zifise umururazi ubayabaye.

- Igice gisigaye gifise umururazi ku rugero ruri hasi.

Uburinganire bw'isi ndimwa dufatiye ku rugero rw'umururazi

Urugero rw'umururazi	Uburinganire (ha)	Ibice kw'ijana (%)
Umururazi mwinshi cane	64591,4	31,7
Umururazi mwinshi	111539,2	54,8
Umururazi ubayabaye	24683,8	12,1
Umururazi mukeya	2685,7	1,3
Nta mururazi	91,7	0,0
Vyose hamwe	203591,9	100,0

3.3. Ikarata y'umurazi (pH)



4. IKARATA Y'ICUNYUNYU NYARUBABI (N)

4.1. Ibiharuro mfatiro ku cunyunyu nyarubabi

Urugero	Ibiharuro vya 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

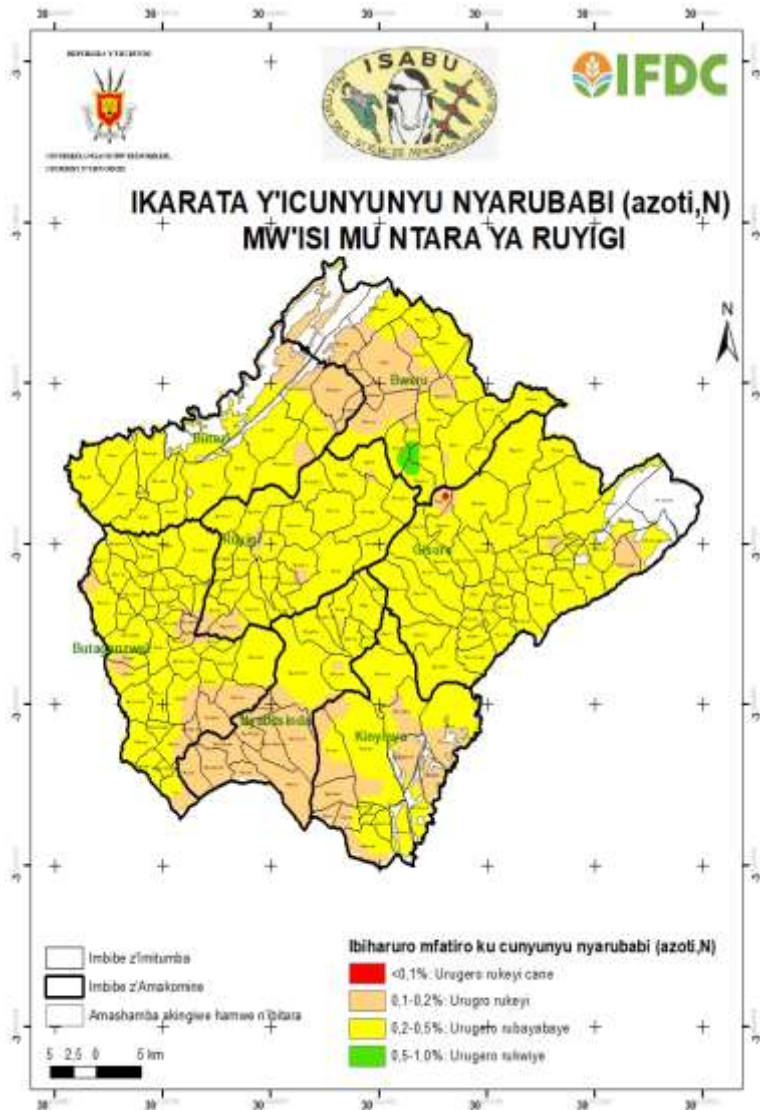
4.2. Ivyashitsweko

- Ibice 79 kw`ijana (79 %) vy'isi ndimwa bifise urugero rubayabaye ku cunyunyu nyarubabi (N) ;
- Ibice 21 kw`ijana (21 %) vy'isi ndimwa bifise urugero rukeyi ;
- Amakomine ya Nyabitsinda na Bweru zifise urugero rwa nyarubabi rukeya cane ugereranije n'ayandi makomine.

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

Urugero rw`icunyunyu nyarubabi	Uburinganire (ha)	Ibice kw`ijana (%)
Rukeyi cane	46,6	0,0
Rukeyi	42705,5	21,0
Rubayabaye	160187,6	78,7
Ruri hejuru	609,9	0,3
Vyose hamwe	203549,5	100,0

4.3. Ikarata y'icunyunyu nyarubabi (N)



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

**5.1. Ibiharuro mfatiro ku cunyunyuru 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

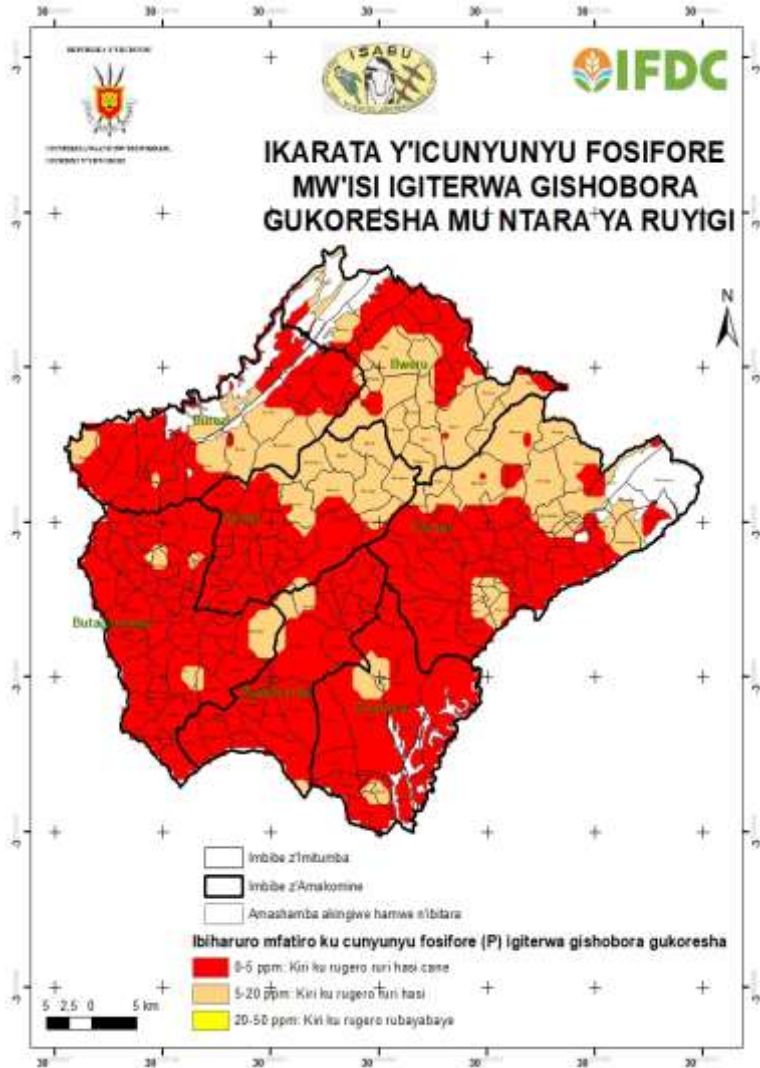
- Ibice 70 kw`ijana (70 %) vy`isi ndimwa vy`intara ya Ruyigi bifise icunyunyuru ca rukomezangingo (P) kiri ku rugero ruri hasi cane;
- Ibice 30 kw`ijana (30 %) vy`isi ndimwa vy`intara ya Ruyigi bifise icunyunyuru ca rukomezangingo kiri ku rugero ruri hasi ;

- Amakomine ya Kinyinya, Nyabitsinda na Butaganzwa niyo afise urugero ruri hasi gose ugereranije n'ayandi

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

Urugero	Uburinganire (ha)	Ibice kw'ijana (%)
Ruri hasi cane	142548,2	70,0
Ruri hasi	60940,2	29,9
Rubayabaye	46,6	0,0
Vyose hamwe	203535	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

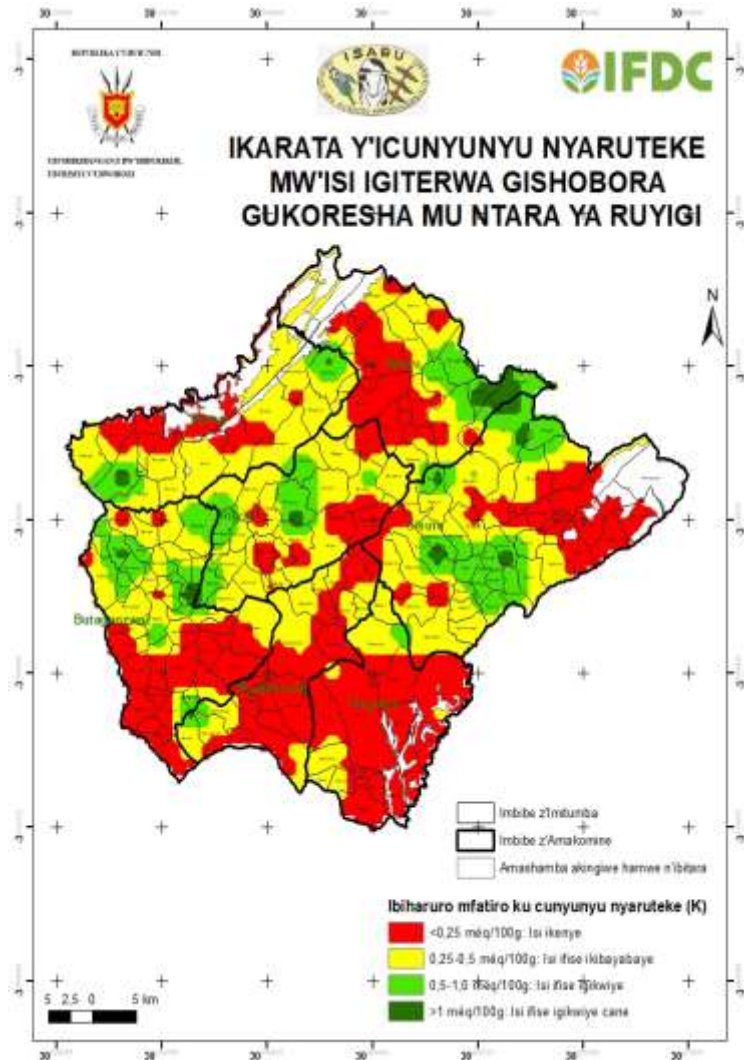
- Ibice 44 kw`ijana (44 %) vy'isi ndimwa vyo mu ntara ya Ruyigi zifise icunyunyu nyaruteke (K) kibayabaye ;
- Ibice 39 kw`ijana (39 %) vy'isi ndimwa vyo mu ntara ya Ruyigi zifise icunyunyu nyaruteke gikeyi ;

- Ibice 17 kw'ijana (17%) vy'isi ndimwa vyo mu ntara ya Ruyigi zifise icunyunyu nyaruteke bikwiye canke bikwiye cane.

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

Urugero	Uburinganire (ha)	Ibice kw'ijana (%)
Urugero ruri hasi	80159,3	39,4
Urugero rubayabaye	88661,4	43,6
Urugero rukwiye	31029,4	15,2
Urugero rukwiye cane	3701,2	1,8
Vyose hamwe	203551,3	100,0

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



7. INSIGURO

Isi ndimwa y'intara ya Ruyigi ifise umururazi (pH), icunyunyu ca rukomezangingo (P) na nyarubabi (N) ni bikeyi. Icunyunyu ca nyaruteke (K) kiri hejuru ugereranije nizindi ntara.

8. GUSOZERA

Ivyunyunyu vya rukomezangingo na nyaruteke bitegerezwa kwongerezwa mw'isi ndimwa y'intara ya Ruyigi. Gukoresha ishwagara mu kugabanura umururazi w'isi birafasha mu kubohora icunyunyu ca rukomezangingo kiba caboshwe n'ivyunyunyu vy'ubumara. Gukoresha ifumbure y'ikirundi birafasha mu gusahiriza ifumbire 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%			