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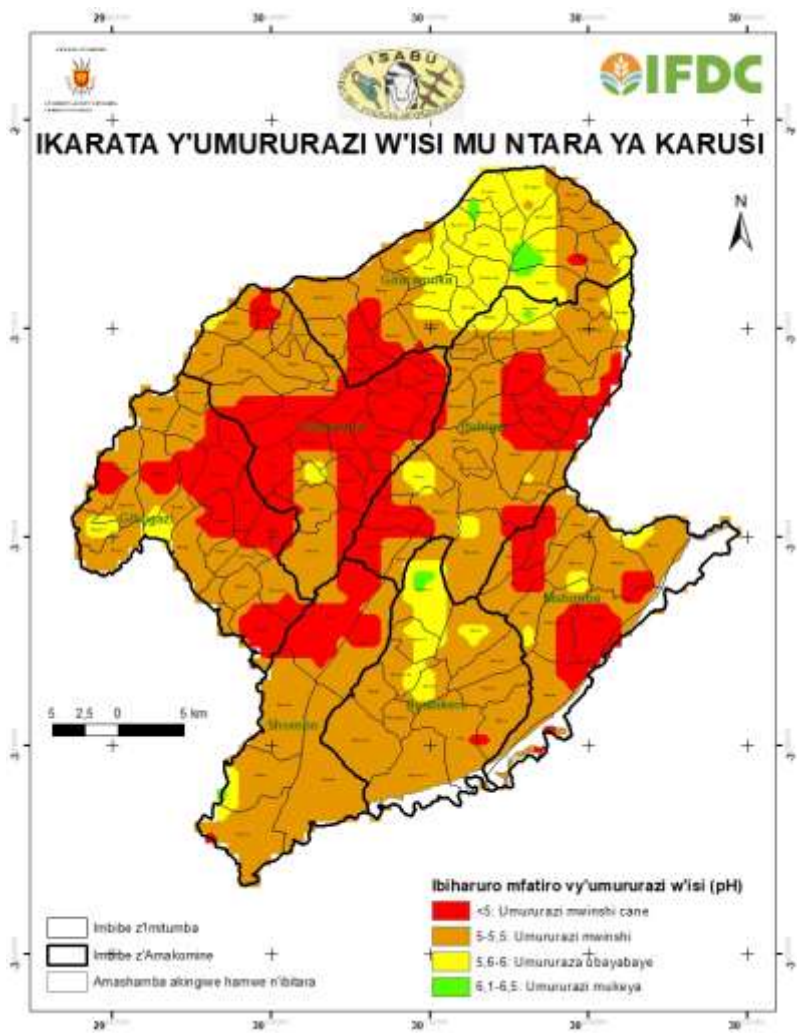


UBUSHIKIRANGANJI BW'IBIDUKIKIJE,
UBURIMYI N'UBWOROZI



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

Umwaka wa 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 abajewe 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, hasabawe 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

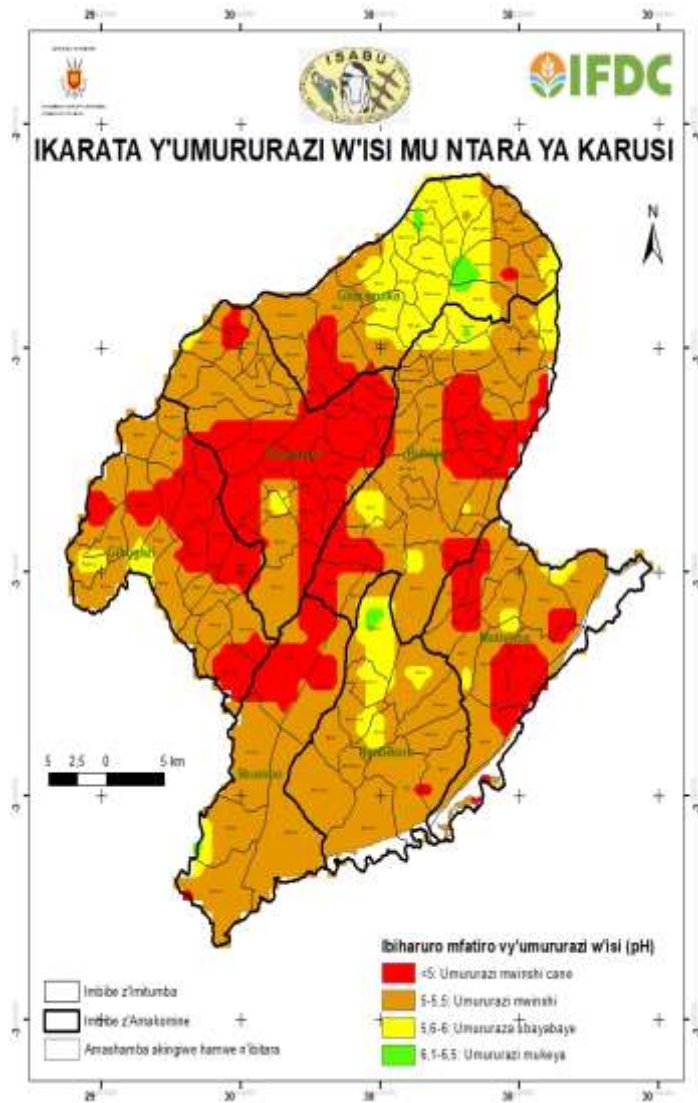
- Ibice 87 kw' ijana (87 %) vy'isi ndimwa vyo mu ntara ya Karusi bifise umururazi mwinshi gushika kuri mwinshi cane ;

- Ibice 12,5 kw`ijana (12,5%) vy`isi ndimwa bifise mururazi mukeya;
- Igice ca koline ya Gitaramuka gifise isi ndimwa irimwo kalisiyumu na manyeziyumu ku rugero rwo hejuru ugererajije n`izindi commune.

Uburunganire bw`isi ndimwa dufatiye ku rugero rw`umururazi

Urugero rw`umururazi	Uburunganire (ha)	Ibice kw`ijana (%)
Umururazi mwinshi cane	35777,7	26,1
Umururazi mwinshi	83384,3	60,8
Umururazi ubayabaye	17151,3	12,5
Umururazi mukeyi	769,2	0,6
Vyose hamwe	137082,5	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

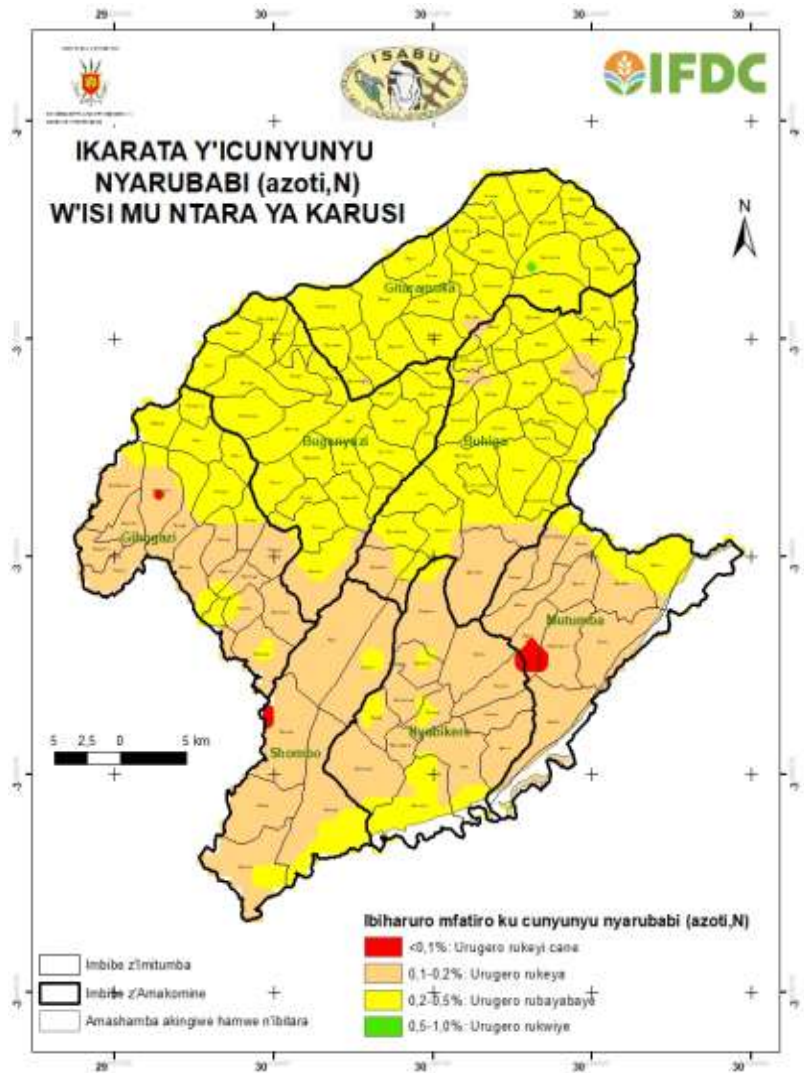
4.2. Ivyashitsweko

- Ibice 56 kw`ijana (56 %) vy'isi ndimwa bifise urugero rubayabaye ku cunyunyu nyarubabi (N) ;
- Ibice 44 kw`ijana (44 %) vy'isi ndimwa bifise urugero rukeyi ;
- Amakomine ya Gitaramuka, Bugenyuzi na Buhiga nizo zifise urugero rubayebaye cane ugereranije n`ayandi ma komine yo mu ntara ya Karusi.

Uburinganire bw`isi ndimwa dufatiye ku rugero rw`icunyunyu nyarubabi (N)

Urugero rw`icunyunyu nyarubabi	Uburinganire (ha)	Ibice kw`ijana (%)
Rukeyi cane	525,9	0,4
Rukeyi	59836,4	43,6
Rubayabaye	76673,6	55,9
Rukwiye	46,6	0,0
Vyose hamwe	137082,5	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

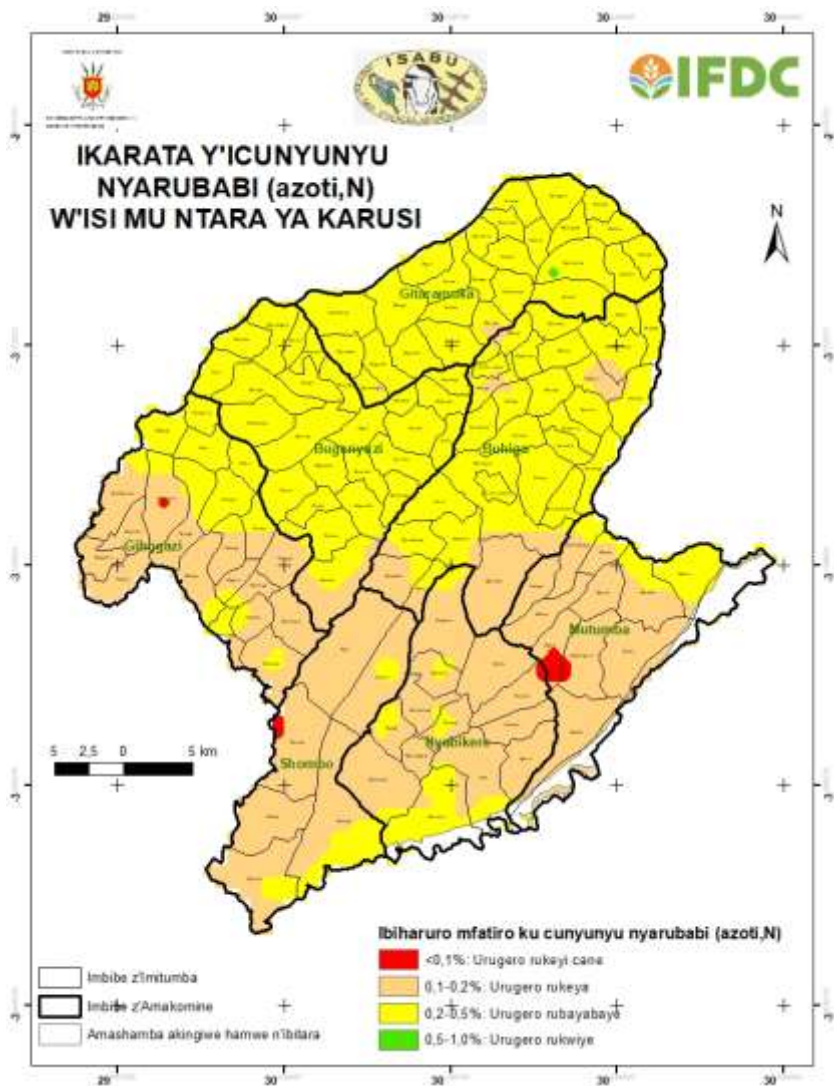
5.2. Ivyashitsweko

- Ibice 70 kw`ijana (70 %) vy`isi ndimwa vy`intara ya Karusi bifise icunyunyuru ca rukomezangingo kiri ku rugero ruri hasi ;
- Ibice 100 kw`ijana (100 %) vy`isi ndimwa vy`intara ya Karusi bifise icunyunyuru ca rukomezangingo (P) kiri ku rugero ruri hasi cane.

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

Urugero	Uburinganire (ha)	Ibice kw'ijana (%)
Ruri hasi cane	96343	70,3
Ruri hasi	40739,5	29,7
Vyose hamwe	137082,5	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

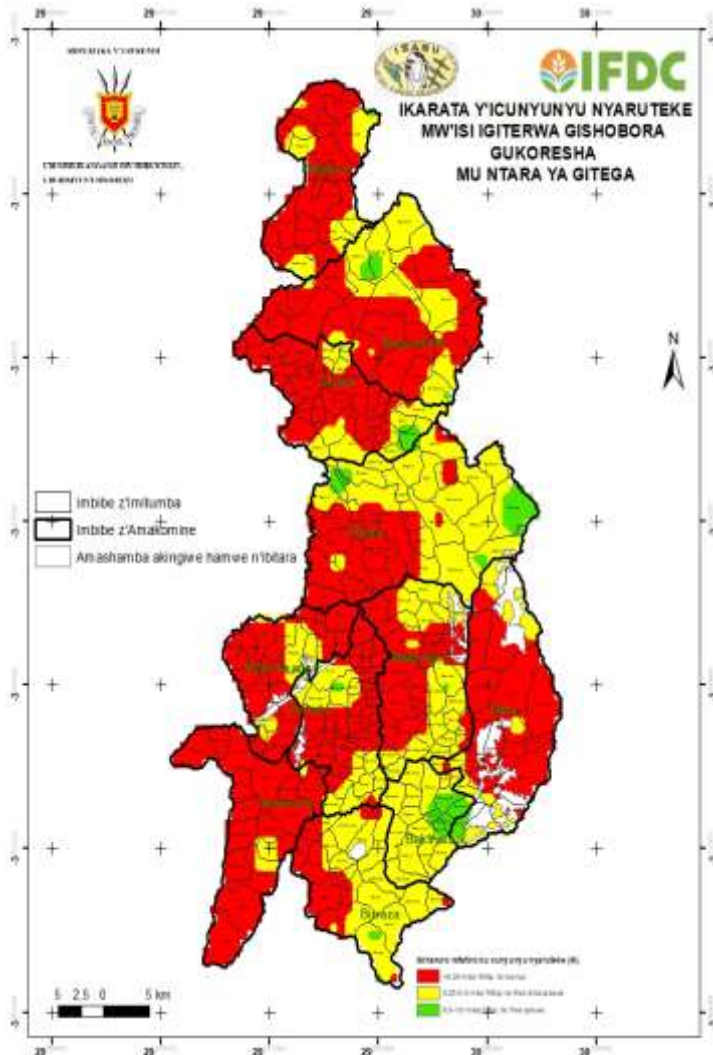
6.2. Ivyashitsweko

- Ibice 56 kw`ijana (56 %) vy`isi ndimwa vyo mu ntara ya Karusi bifise icunyunyu nyaruteke ku rugero rubayabaye ;
- Ibice 37 kw`ijana (37 %) vy`isi ndimwa vyo mu ntara ya Karusi bifise icunyunyu nyaruteke ku rugero ruri hasi.
- Ibice vya Komine Gitaramuka bifise icunyunyu nyaruteke ku rugero rukwiye.

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

Urugero	Uburinganire (ha)	Ibice kw'ijana (%)
Urugero ruri hasi	51203,8	37,4
Urugero rubayabaye	76544,8	55,8
Urugero rukwiye	7296,6	5,3
Urugero rukwiye cane	2037,4	1,5
Vyose hamwe	137082,5	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 n'indwi kw'ijana (87 %) bifise ingorane y'umururazi. Icunyunyu nyarubabi (N) kiri ku rugero rubayabaye ku bice mirongo ine na bine kw'ijana (44%), nyaruteke (K) iri ku rugero rubayabaye ku bice mirongo itanu na bitandatu kw'ijana (56%) ariko icunyunyu rukomezangingo (P) kiri ku rugero rudashemeye ku bice birenga mirongo icenda n'icenda kw'ijana (+99%).

8. GUSOZERA

Icunyunyu rukomezangingo (P) gitegerezwa kwongerezwa mw'isi ndimwa y'intara yose ya Karusi. 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 (P) kiba caboshwe n'ivyunyunyu vy'ubumara. Gukoresha ifumbure y'ikirundi birafasha mu gusahiriza ifumbire ya FOMI warusanzwe ukoreshwa.

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%			