

REPUBLIKA Y'UBURUNDI

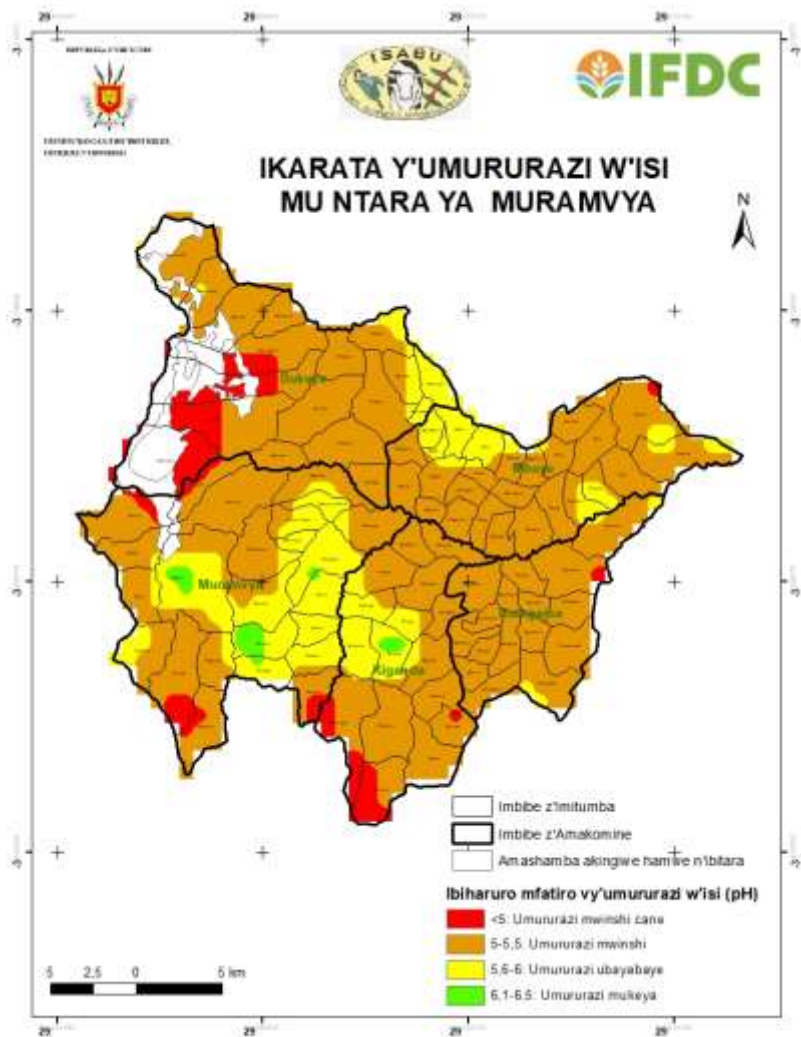


UBUSHIKIRANGANJI BW'IBIDUKIKIJE,
UBURIMYI N'UBWOROZI



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

Umwaka wa 2022



Bujumbura, Ruheshi 2022

IBIRIMWO

1. INTANGAMARARA	4
1.1. Ingene akanovera k'isi ndimwa kifashe.....	4
1.2. Intumbero nyamukuru yayo makarata	5
2. INGENE IBIKORWA VYAKURIKIRANYE	5
3. IKARATA Y'UMURURAZI/UBUKARIHE (pH).....	6
3.1. Ibiharuro mfatiro vy'umururazi w'isi (pH).....	6
3.2. Ivyashitsweko	6
3.3. Ikarata y`umururazi (pH)	8
4. IKARATA Y'ICUNYUNYU NYARUBABI (N)	9
4.1. Ibiharuro mfatiro ku cunyunyu nyarubabi	9
4.2. Ivyashitsweko	9
4.3. Ikarata y`icunyunyu nyarubabi (N)	11
5. IKARATA Y'ICUNYUNYU (RUKOMEZANGINGO (P) IGITERWA GISHOBORA GUKORESHA.....	12
5.1. Ibiharuro mfatiro ku cunyunyu rukomezangingo (mg/kg).....	12
5.2. Ivyashitsweko	12
5.3. Ikarata y`icunyunyu rukomezangingo (P) igiterwa gishobora gukoresha	14
6. IKARATA Y'ICUNYUNYU NYARUTEKE (K) IGITERWA GISHOBORA GUKORESHA.....	15

6.1. Ibiharuro mfatiro ku cunyunyu nyaruteke (még/ku magarama ijana y'ivu ryumye).....	15
6.2. Ivyashitsweko	15
6.3. Ikarata y'icunyunyu nyaruteke (K) igiterwa gishobora gukoresha	17
7. INSIGURO.....	18
8. UGUSOSERA.....	18
IVYONGEWEKO: Urugero rw'ishwagara ikoreshwa mu ndimo	19

1. INTANGAMARARA

1.1. Ingene akanovera k'isi ndimwa kifashe

Itituka ry'isi ndimwa mu Burundi ntrikiri 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'uburimyi 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 ishwaagara, 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

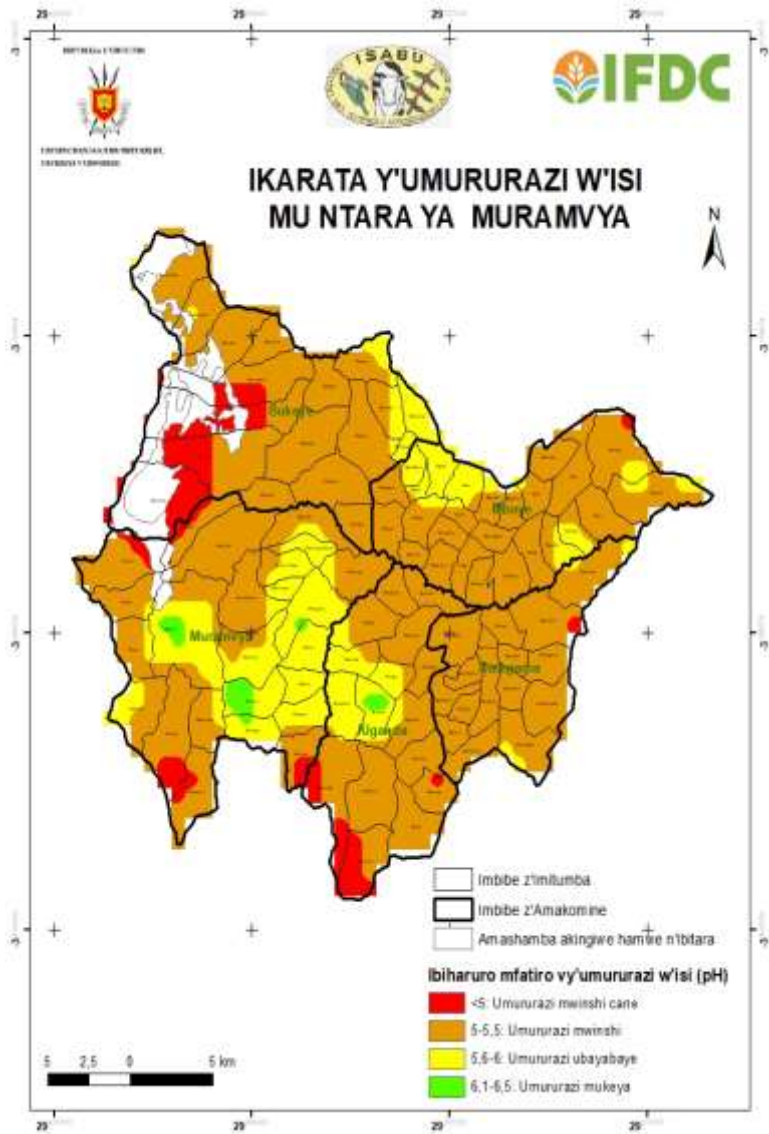
- Ibice 80 kw' ijana (80%) vy'isi ndimwa vyo mu ntara ya Muramvya bifise umururazi mwinshi gushika kuri mwishi cane ;
- Ibice 19 kw`ijana (19%) vy`isi ndimwa bifise umururazi ubayabaye ;

- Ahasigaye hari umururazi mukeyi.

Uburinganire bw'isi ndimwa dufatiye ku rugero rw'umururazi

Urugero rw'umururazi	Uburinganire (ha)	Ibice kw'ijana (%)
Umururazi mwinshi cane	3817,7	6,1
Umururazi mwinshi	45734,6	73,5
Umururazi ubayabaye	12131,6	19,5
Umururazi mukeyi	535,9	0,9
Vyose hamwe	62219,7	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

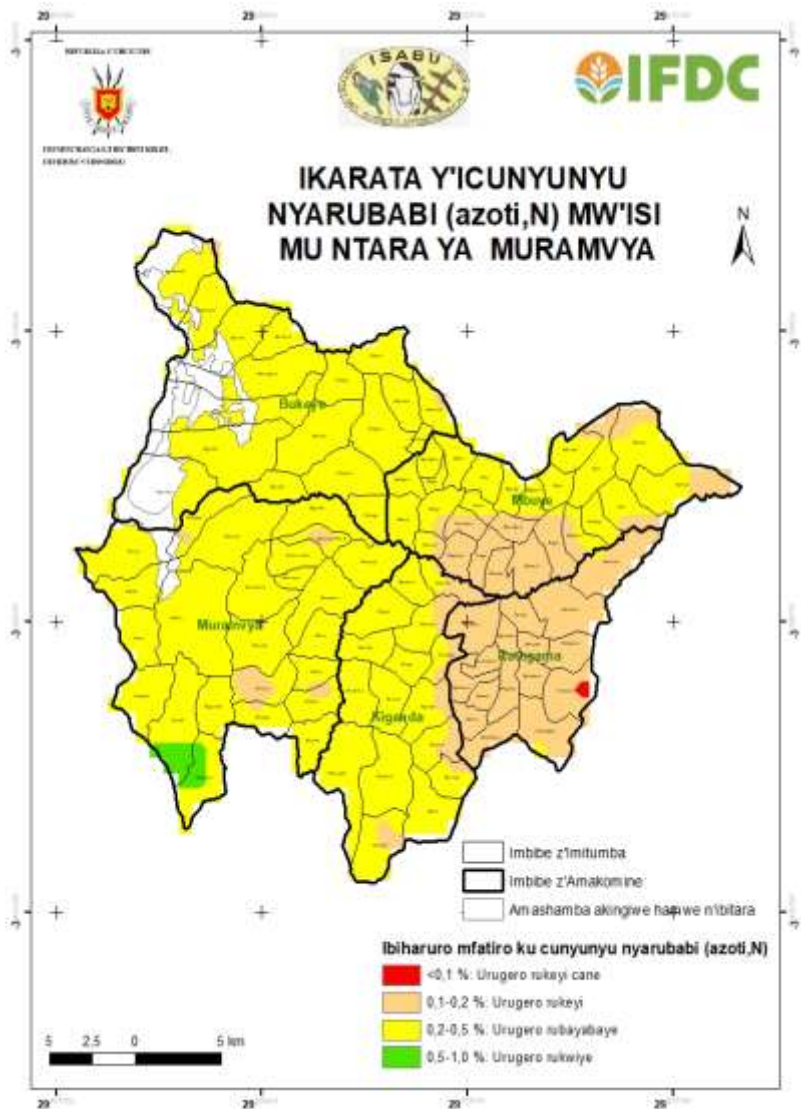
4.2. Ivyashitsweko

- Ibice 77 kw`ijana (77%) vy'isi ndimwa bifise icunyunyu nyarubabi (N) ku rugero rubayabaye;
- Ibice 22 kw`ijana (22%) vy'isi ndimwa bifise icunyunyu nyarubabi ku rugero rukeyi.

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

Urugero rw'icunyunyu nyarubabi	Uburinganire (ha)	Ibice kw'ijana (%)
Rukeyi cane	103	0,17
Rukeyi	13978,8	22,47
Rubayabaye	47609,1	76,52
Ruri hejuru	528,8	0,85
Vyose hamwe	62219,7	100,00

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

- Igice 1 kw`ijana (1%) c`isi ndimwa c`intara ya Muramvya gifise icunyunyu ca rukomezangingo (P) kiri ku rugero ruri hasi cane;
- Ibice 99 kw`ijana (99 %) vy`isi ndimwa vy`intara ya Muramvya bifise icunyunyu ca rukomezangingo kiri ku rugero ruri hasi.

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

Urugero	Uburinganire (ha)	Ibice kw'ijana (%)
Ruri hasi cane	629,7	1,0
Ruri hasi	61590	99,0
Vyose hamwe	62219,7	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

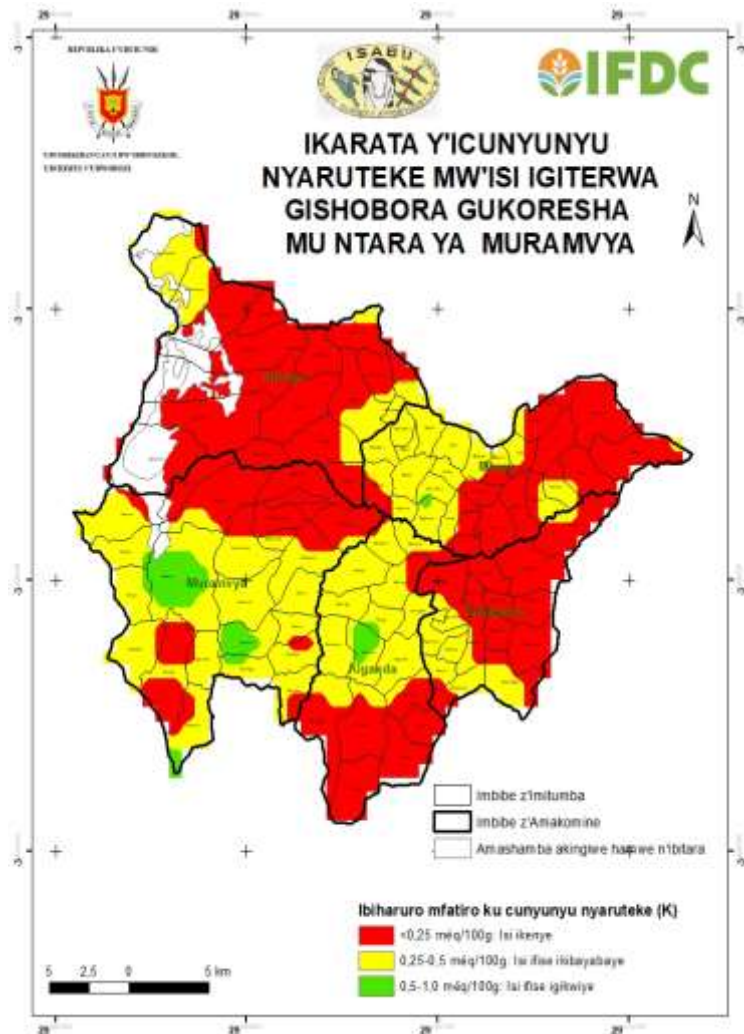
- Ibice 41 kw`ijana (41%) vy'isi ndimwa vyo mu ntara ya Muramvya bifise icunyunyu nyaruteke kiri ku rugero rubayabaye;
- Ibice 56 kw`ijana (56%) vy'isi ndimwa vyo mu ntara ya Muramvya bifise icunyunyu nyaruteke gikeyi.

Amakomine ya Kiganda na Muramvya n'igice ca komine Mbuye zifise urugero rw'icunyunyu nyaruteke rukwiye gusumba ayandi makomine.

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

Urugero	Uburinganire (ha)	Ibice kw'ijana (%)
Urugero ruri hasi	34503,4	55,5
Urugero rubayabaye	25746,5	41,4
Urugero rukwiye	1969,9	3,2
Vyose hamwe	62219,7	100,0

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



7. INSIGURO

Isi ndimwa y'intara ya Muramvya ifise ingorane y'umururazi (pH), urugero ruto rw'icunyunyu nyarubabi (N), rukomezangingo (P) hamwe na nyaruteke (K). Icunyunyu rukomezangingo kiri ku rugero ruto mw'isi ndimwa nka zose z'intara ya Muramvya (100%).

8. UGUSOSERA

Ivyunyunyu vya rukomezangingo, nyarubabi na nyaruteke bitegerezwa kwongerezwa mw'isi ndimwa y'intara yose ya Muramvya. Gukoresha ishwaraga mu kugabanura umururazi w'isi birafasha mu kubohora icunyunyu ca rukomezangingo kiba caboshwe n'ivyunyunyu vy'ubumara. Gukoresha ifumbire y'ikirundi birafasha mu gusahiriza ifumbire y'ikizungu yarisanzwe ikoreshe.

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%			