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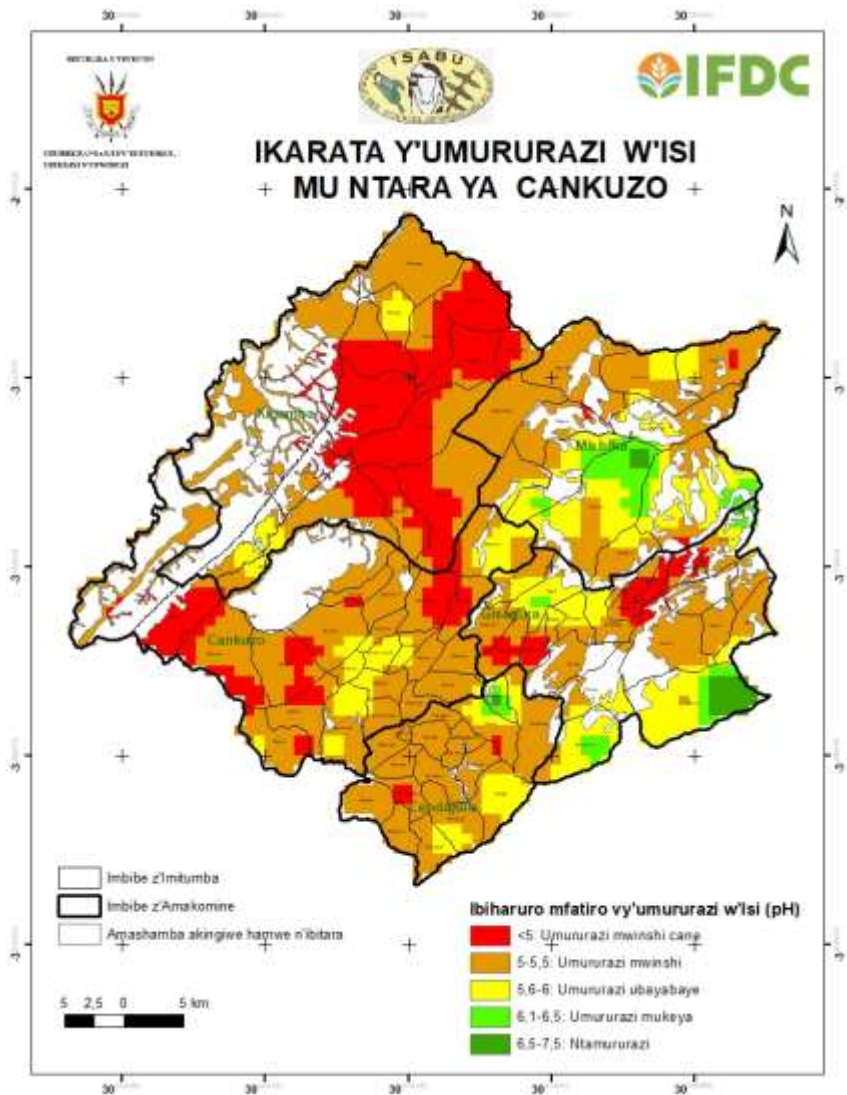


UBUSHIKIRANGANJI BW'IBIDUKIKIJE,
UBURIMYI N'UBWOROZI



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

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'uburimiyi bisunge ibiharuro vya none.

Amakarata yo mu ntara yafatiye ku rugero rw'umururazi w'isi (pH), ku vyunyonyu: 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 y'ayo makarata

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

Kugira dushikire iryo hangiro hakozwe ibi bikurikira:

- Gukora amakarata y'umururazi (pH), y'ivyunyunyuru 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'uburimi, 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 y'aho 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 y'ayo 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

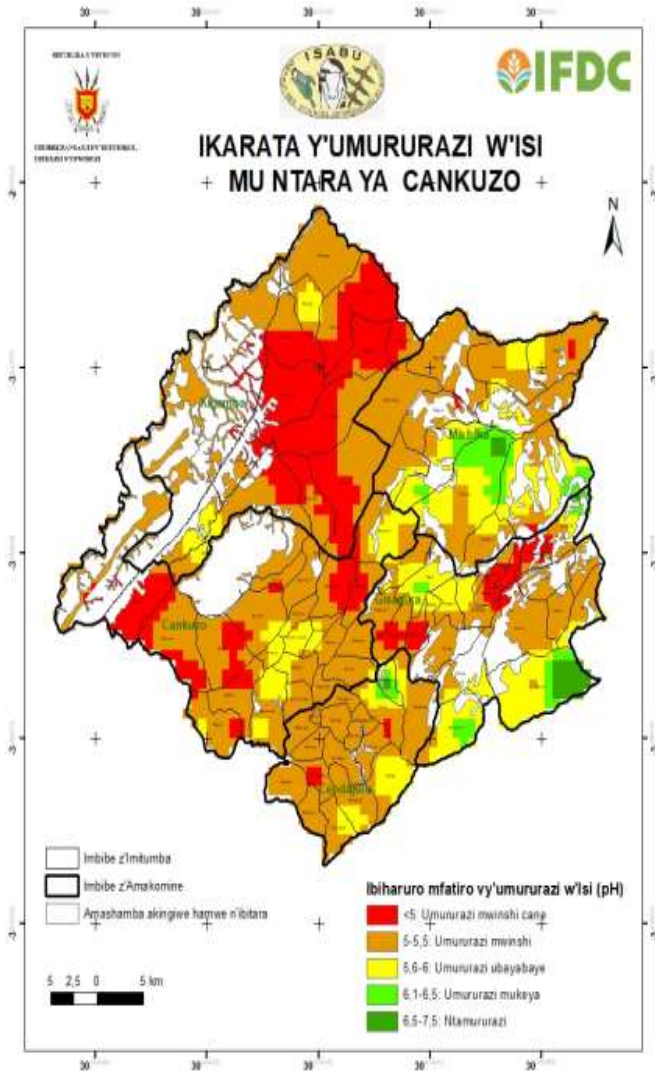
3.2. Ivyashitsweko

- Ibice 77 kw' ijana (77 %) vy'isi ndimwa vyo mu ntara ya Cankuzo zifise umururazi (pH) mwinshi gushika kuri mwishi cane ;
- Ni nkuko twovuga ko mu ntara ya Cankuzo ata si ndimwa irimwo kalisiyumu na manyeziyumu ku rugero rwo hejuru;
- Amakomine ya Mishiha na Gisagara afise umururazi mukeyi ugereraniye n'ayandi.

Uburinganire bw'isi ndimwa dufatiye ku rugero rw'umururazi

Urugero rw'umururazi	Uburinganire (ha)	Ibice kw'ijana (%)
Umururazi mwinshi cane	28350,1	20,5
Umururazi mwinshi	78978,9	57,1
Umururazi ubayabaye	25064,7	18,1
Umururazi mukeya	4527,8	3,3
Nta mururazi	1355,8	1,0
Vyose hamwe	138277,4	100,0

3.3. Ikarata y'umukurazi (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

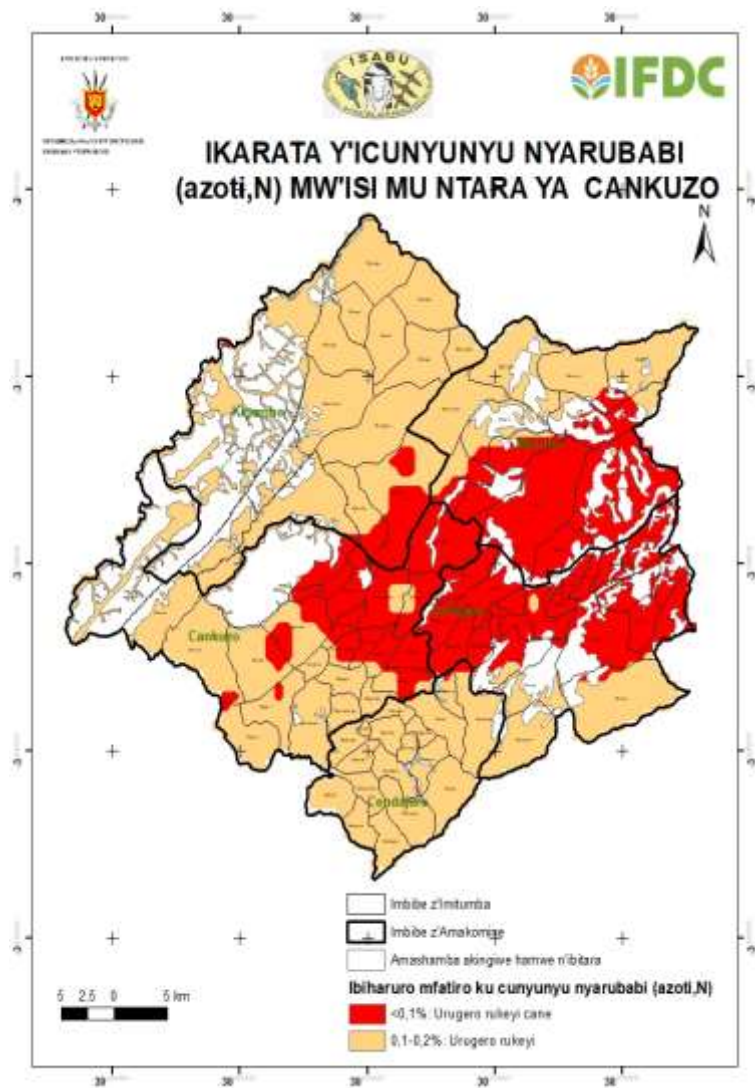
- Ibice 35 kw`ijana (35%) vy'isi ndimwa bifise urugero rukeyi cane ku cunyunyu nyarubabi (N) ;
- Ibice 65 kw`ijana (65%) vy'isi ndimwa bifise urugero rukeyi ;

Muri rusangi, amakomine ya Mishiha na Gisagara afise urugero rukeya cane ugereranije n`ayandi makomine yo mu ntara ya Cankuzo.

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

Urugero rw`icunyunyu nyarubabi	Uburinganire (ha)	Ibice kw`ijana (%)
Rukeyi cane	48591	35,1
Rukeyi	89795,6	64,9
Vyose hamwe	138386,6	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

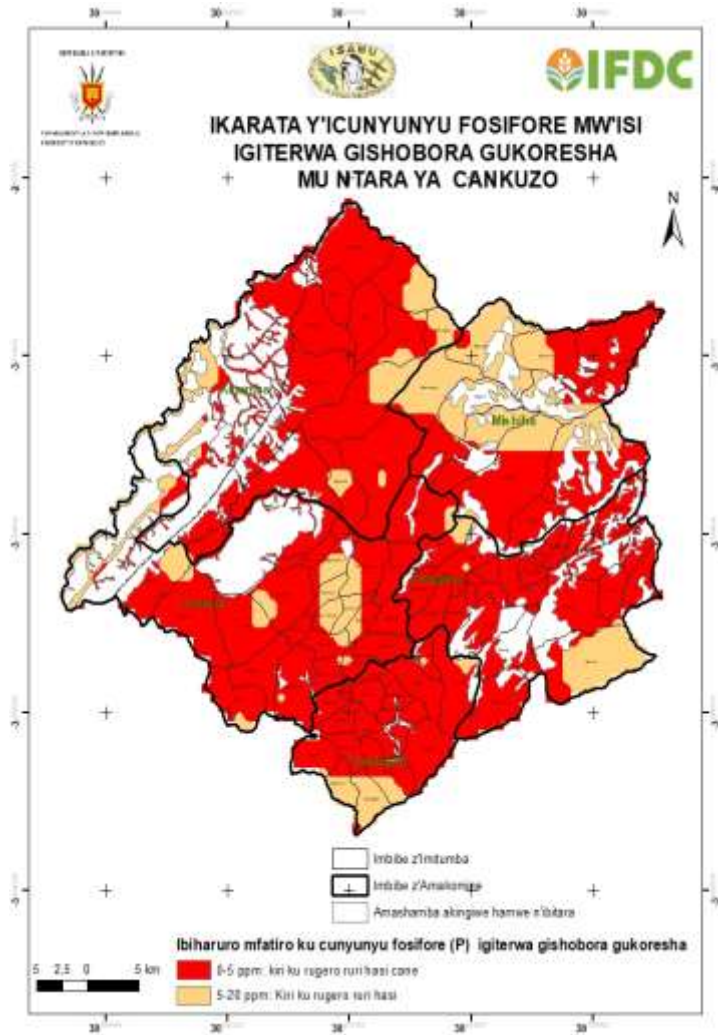
5.2. Ivyashitsweko

- Ibice 80 kw`ijana (80%) vy`isi ndimwa vy`intara ya Cankuzo bifise icunyunyu ca rukomezangingo kiri ku rugero ruri hasi cane ;
- Ibice 20 kw`ijana 20 %) vy`isi ndimwa vy`intara ya Cankuzo bifise icunyunyu ca rukomezangingo kiri ku rugero ruri hasi.

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

Urugero	Uburinganire (ha)	Ibice kw'ijana (%)
Ruri hasi cane	110455,5	79,9
Ruri hasi	27813,2	20,1
Vyose hamwe	138268,7	100

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

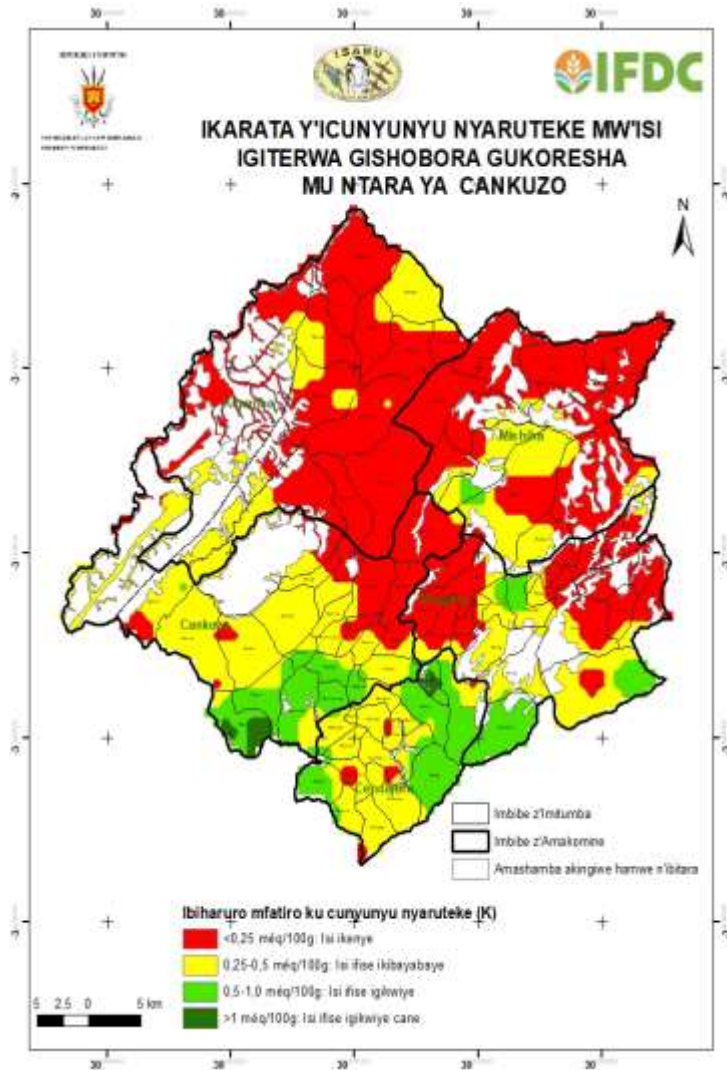
6.2. Ivyashitsweko

- Ibice 37 kw`ijana (37 %) vy'isi ndimwa vyo mu ntara ya Cankuzo zifise icunyunyu nyaruteke kibayabaye ;
- Ibice 50 kw`ijana (50 %) vy'isi ndimwa vyo mu ntara ya Cankuzo zifise icunyunyu nyaruteke gikeyi.
- Amakomine ya Cankuzo, Cendajuru na Gisagara afise isi ndimwa irimwo icunyunyu nyaruteke kiri hejuru ugereranije n'ayandi makomine.

Uburunganire bw`isi ndimwa dufatiye ku rugero rw`icunyunyu nyaruteke igiterwa gishobora gukoresha

Urugero	Uburunganire (ha)	Ibice kw`ijana (%)
Urugero ruri hasi	68547,9	49,6
Urugero rubayabaye	50978,4	36,9
Urugero rukwiye	17577,4	12,7
Urugero rukwiye cane	1186,4	0,9
Vyose hamwe	138290,2	100,0

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



7. INSIGURO

Isi ndimwa y'intara ya Cankuzo irafise umururazi, icunyunyu ca rukomezangingo (P) kiri hasi kurugero rw'ijana kw'ijana, ivyunyunyu nyaruteke (K) kiri ku rugero ruri hasi ku bice mirongo itatu n'indwi (37%) hamwe na nyarubabi (N) narwo nyene ku rugero ruri hasi ku bice mirongo itatu n'indwi (35%).

8. GUSOZERA

Ivyunyunyu vya rukomezangingo, nyaruteke (K) hamwe na nyarubabi (N) bitegerezwa kwongerezwa mw'isi ndimwa y'intara yose ya Cankuzo. Ivyunyunyu nyarubabi na nyaruteke 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 y'ikizungu yarisanzwe ikoreshwa.

IVYONGEWEKO: Urugero rw'ishwagara ikorehwa 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%			