



INYUNGU Z'UBUHINZI BW'IBITI BIVANGWA N'IMYAKA

Inyungu nyinshi zishobora kugaragara ku buryo bufatika cyangwa zikagaragara binyuze mu gushyira mu bikorwa neza ubuhinzi bw'ibiti bivangwa n'imyaka.

Ukurikije ibipimo fatizo bya Naturland, ikawa na kakao by'umwimerere bigomba guhingwa bivanzwe n'ibiti bivangwa n'imyaka bijyanye n'imiterere yahantu imirima iherereye, muni y'ibiti by'icucu. Inyungu nyinshi zishobora kugaragara ku buryo bufatika cyangwa zikagaragara binyuze mu gushyira mu bikorwa neza ubuhinzi bw'ibiti bivangwa n'imyaka.

Guhinga ikawa muri iyi gahunda y'ubuhinzi bw'ibiti bivangwa n'imyaka bifite inyungu nyinshi z'ubukungu. Hari kandi n'inyungu ku muhinzi zituruka mu buhinzi bw'umwimerere, ndetse n'inyungu z'ijyanye n'imibereho myiza y'abaturage ndetse n'umuco.

Inyungu z'ubukungu zituruka ku buhinzi bw'ibiti bivangwa n'imyaka

Gutera ibindi bihingwa byakoresheye mu rugo

Muri gahunda y'ubuhinzi bw'ibiti bivangwa n'imyaka, hari imyaka ihingana n'ibihingwa ngengabukungu. Ibi bihingwa bishobora gukoreshwa n'abahinzi n'imiryango yabo mu ngo zabo, bitanga indyo yuzuye irimo intungamubiri zitandukanye. Ubuhinzi bw'ibiti bivangwa n'imyaka bushobora kandi kuba isoko yizewe y'aho ibiryo by'amatungo bituruka. Inkwi n'ibikoresho byo kubaka na byo bishobora kuva muri ubwo buhinzi, burimo amoko menshi y'ibiti bitanga umusaruro w'ingeri z'ibiti mu bihe bitandukanye by'umwaka.

Kugabanya amafaranga akoresheye no kuba ufite kwigenga

Kuba abona ibyo kurya, ibiryo by'amatungo, inkwi n'ibikoresho by'ubwubatsi ku isambu ye, bituma umuhinzi agabanya amafaranga akoresheye mu guhaha kuko adakeneye kugura ibyo bicuruzwa ku masoko yo mu karere. Ibi bituma kandi abaho adahungabanywa n'ihindagurika ry'ibiciro by'isoko. Bitewe n'inyungu zituruka mu buhinzi bw'umwimerere bwo kuvangwa ibiti n'imyaka, abahinzi babasha kubaho mu bwigenge noneho bakazigama amafaranga bagakoresheje mu gushaka inyongeramusaruro zituruka hanzu (amafumbire, imiti yica udukoko).

Kwinjiza amafaranga aturuka ahantu hatandukanye no kugabanya ibibazo

Usibye ibyo umuhinzi akenera gukoresha mu rugo rwe, mu buhinzi bw'ibiti bivangwa n'imyaka hatu ruka na none ibicuruzwa bishobora kugurishwa ku masoko yo mu karere, ibyo bikaba ubundi buryo bwo kwinjiza amafaranga. Umusaruro wabonetse mu buhinzi bw'ibiti bivangwa na kawa ugurishwa amafaranga menshi kuko uba waturutse mu buhinzi bw'umwimerere. Ibicuruzwa bimwe bishobora no gutunganywa n'abahinzi ndeste n'imiryango yabo kugirango bigurishwe byongerewe agaciro nk'amavuta meza, indodo, imbuto zitunganyijwe, n'ubukorikori buva mu bitu. Bigabanya ibibazo by'ubukungu ku bahinzi kuko batagomba gushingira ku musaruro w'ibihingwa ngengabukungu bimwe n'izamuka ry'ibiciro ku isoko.



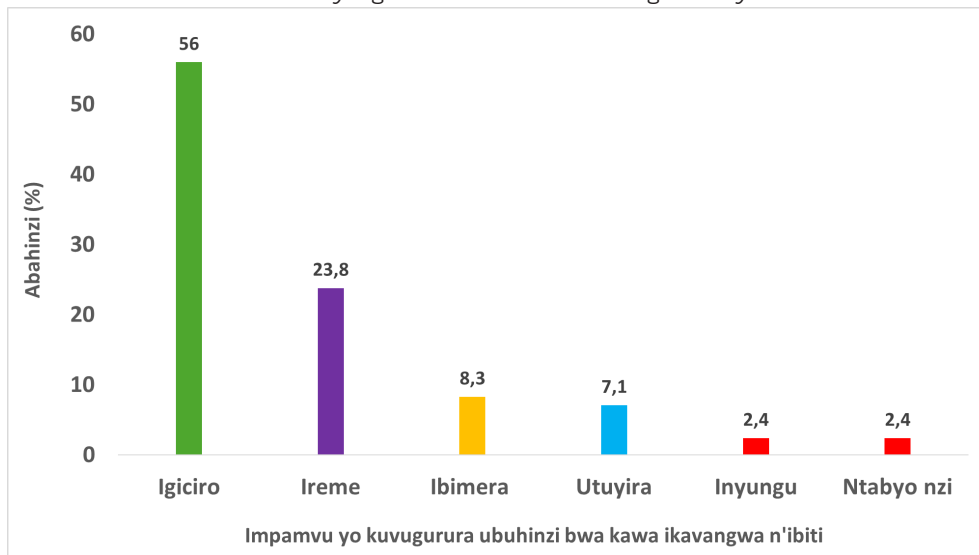
- | | |
|-------------------------------------|---|
| 1 Imbaho (Ubwubatsi, Inkwi, ...) | 5 Indodo (imyenda, ibitambaro badodamo imyenda,...) |
| 2 Ibiryo by'amatungo | 6 Ubuvuzi (Ibyatsi, ibishishwa by'ibiti,...) |
| 3 Ibiribwa (Ibitoki, imikindo, ...) | 7 Ibyo gusasira (amababi, amashami,...) |
| 4 Ngengabukungu (ikawa, ...) | |

Igishushanyo cya 1: Urugero rw'ibicuruzwa bishobora gukoreshwa mu ngo cyangwa kugurishwa ku masoko y'imbere mu gihugu.

Kubona ibiciro biri hejuru kubera kawa nziza

Guhinga ikawa ivanze n'ibiti bigira akamaro kenshi ku ireme n'ubwiza bya kawa.

Kawa yuje ubuziranenge igurishwa neza ku masoko yo hanze, bigatuma umusaruro w'abahinzi wi-yongera - imwe mu mpamvu z'ingenzi ituma umuhinzi ku giti cye nawe yahindura uburyo bwo guhinga kawa akayivanga n'ibiti bivangwa n'imyaka.



Imbonerahamwe ya 1. Mu Burundi, impamvu zo gukomeza ivugururwa ry'ubuhinzi bwa kawa ikavangwa n'ibiti bivangwa n'imyaka zatangiye hashyize imyaka irindwi (7). ifoto ya Ndi-hokubwayo na bagenzi be (2021)

Ingaruka z'igicucu ku bihingwa bya kawa

Ibiti bitanga igicucu bituma igiti cy'ikawa kiba ahantu hakonje kandi heza. Bigabanya ibibazo ibiti bya kawa bihura nabyo, bituma intete z'ikawa zera gahoro gahoro ndetse zikamera neza. Igiti cya kawa iyo cyeze gahoro gahoro bituma:

- kigira intete nyinshi kandi ziremereye, bituma uburyohe n'impumuro byivanga ndetse biga fata igihe kirekire kugira ngo zibashe kugumana uburyohe bw'umwimerere
- ubusharire bwiyongera bitewe n'urugero ruri hejuru rw'umusemburo uturuka muri aside iva mu bimera. Ibyo binyabutabire bituma ikawa iba nziza cyane kandi ikagira n'impumuro nziza
- Igipimo cya kafeyine kigabanukaho gato

Igicucu mu buhinzi bw'ibiti bivangwa n'imyaka kigabanya ubushyuhe n'izuba. Kawa yacaniwe n'izuba ryinshi igihe kirekire izamura igipimo cya aside yitwa chlorogène, bigatuma ishyarira bi-kabije. Igicucu kigabanya ibyago by'uko imbuto z'ikawa zicwa nizuba, kuko bituma ikawa igira uburyohe n'impumuro bidakwiriye.

Ibyiza by'ibiti bitanga igicucu

Ibiti mu buhinzi bw'ibiti bivangwa n'imyaka, bituma ubutaka bubona za mikorobe zitandukanye, harimo za bagiteri na mikorobi zituma ubutaka bukungahara. Ibi bituma ikawa ibona ingano y'intungabihingwa ikwiye, bigatuma ikawa irushaho kuba igisore no gutanga intete ziryohye.

Byongeye kandi, ubwoko bw'ibiti by'igicucu bushobora kugira ingaruka ku buryohe bwa kawa, kubera ko ibyo bita bituma ikirere kimera neza n'intungabihingwa ibiti bya kawa bikeneye bibo-neka mu buryo bwihariye.

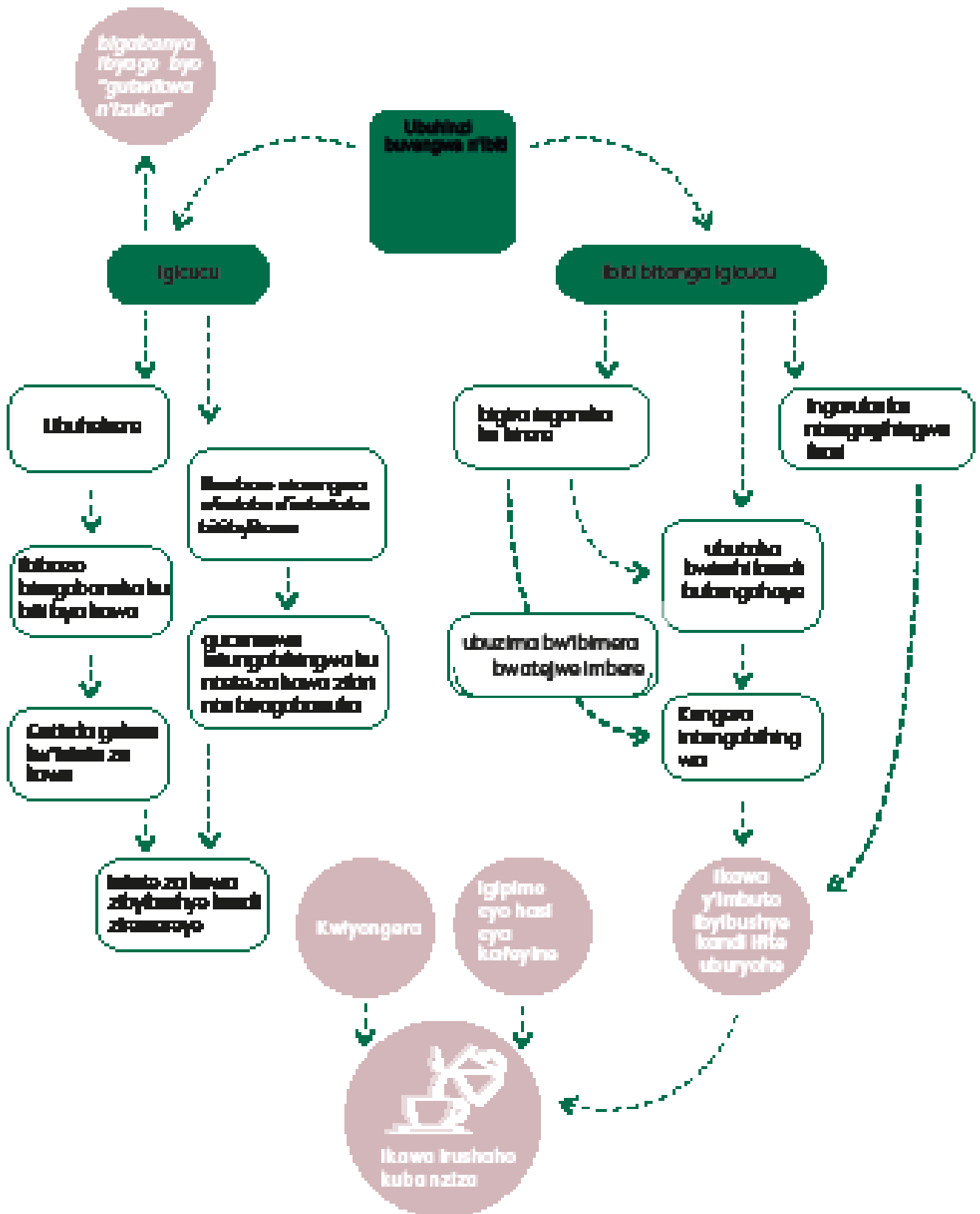
Uburyohe bwa kawa buratandukana biturutse ku bwoko bw'ibiti by'igicucu bishobora kuba gutuma kawa iryoha ariko mu buryo butandukanye. Urugero, igiti cyitwa gereveriya gishobora gutuma intete za kawa zigira ubusharire nk'ubwindimu.

Kugabanya gucuranwa intungabihingwa

Kuvanga kawa n'ibiti bivangwa n'imyaka bigabanya umubare w'indabyo n'imbuto ku giti kimwe. Bituma kandi intete za kawa zigikeneye gukura zigabanya uburyo zicurana intungabihingwa, bikongera ubuziranenge bw'ikawa inyobwa.

Kugabanya ibyago byo guhomba

Ibihingwa ngengabukungu ntibikunze guhura n'ibibazo by'ibidukikije bitewe n'uko birindwa imiraba nk'umuyaga n'imvura nyinshi. Muri ibyo bihe by'imihindagurikire y'ikirere, habaho igihombo gito.



Igishushanyo cya 2. Incamake y'ibyiza byo kuvanga ibiti by'ikawa n'ibiti bivangwa n'imyaka kugira ngo irushaho kuba nziza

Inyungu z'ubuhinzi bw'ibiti bivangwa n'imyaka ku kubungabunga ibidukikije

Kubungabunga ubutaka

Ibiti bituma ubutaka burushaho kumera neza kandi bukaramba. Imizi myinshi y'ibiti ituma ubutaka buba hamwe, ihagarika isuri, kandi igatanga ingano nini y'ibibabi bituma ubutaka busubirana intungabihingwa. Ibiti ni byo bikingira umuyaga kandi bigenzura umuvuduko w'umuyaga, bityo bikagabanya isuri iterwa n'umuyaga. Igicucu cy'ibiti gishobora gukingira imvura, kikanagabanya ingaruka igira ku butaka, kandi kikanagabanya umuvuduko w'amazi atemba. Imizi yabyo ifata ibice bigize ubutaka, bigatuma ubutaka budahindagurika no kurinda ubutaka kwangizwa n'isuri.

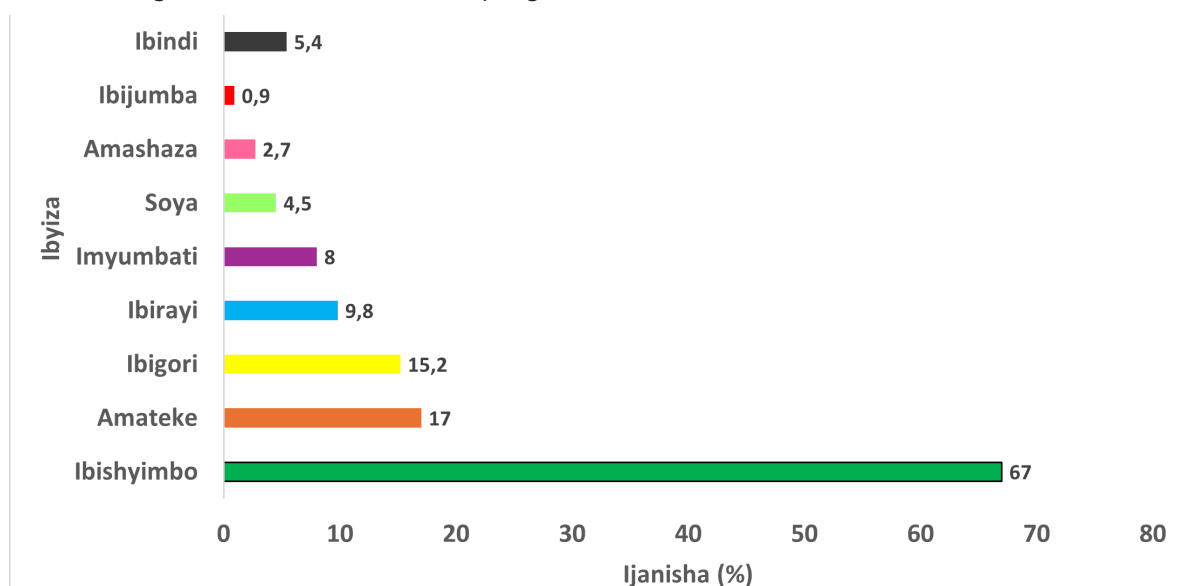
Igishushanyo cya 3. Imiterere y'imizi ifata ubutaka © Naturland e. V..



Gukwirakwiza intungamubiri

Ibiti bikurura intungabihingwa mu butaka binyuze mu mizi yabyo maze ikayizana ku butaka. Izo ntungabihingwa ziba mu butaka ngo zikoreshwe n'ibihingwa. Amababi yumye, imizi n'ibindi bintu bituruka ku biti, na byo byongera intungabihingwa mu butaka. Ni muri ubwo buryo, hakomeza kubaho ikwirakwizwa ry'intungabihingwa.

Ibiti bimwe na bimwe bivangwa n'imyaka, cyane cyane ibiti by'ibinyamisogwe, bifite ubushobozi bwo gukurura azote yo mu kirere binyuze mu mibanire myiza na bagiteri itunganya azote mu mizi yabyo. Ubu buryo butuma ubutaka bukungahara kuri azote, akaba ari intungabihingwa by'ingenzi ituma ibimera bikura. Ibihingwa bigirana umumaro hagati yabyo, byongera umusaruro kuko ubudasa bw'ibihingwa butuma umusaruro wiyongera.



Imbonerahamwe ya 2. Ibyiza by'ibiti by'igicucu bivangwa n'ikawa nk'uko byagargariye abahinzi 334 ubwo bavugururaga ubuhinzi bwa kawa bakayivanga n'ibiti bivangwa n'imyaka mu Burundi. ishusho bwite ya Ndihekubwayo na bagenzi be. (2021)

Kubona ibitanga ifumbire y'imborera

Amababi yaguye, amashami, n'ibindi binyabuzima biva mu bita birabwira, bigatuma ubutaka burushaho kubamo ibinyabuzima n'intungabihingwa. Ibi binyabwira byongerera ubwiza bw'imiterere y'ubutaka, ubushobozi bwo gufata amazi, kugumana ubuhehere no kugumana intungabihingwa, biganisha ku burumbuke bw'ubutaka.

Icyo za mikorobe zikora

Ibita ndetse n'ibibwira bibiturukamo bituma ahantu biri hagira ikirere gifasha ibinyabuzima na mikorobi byo mu butaka. Ibi bikaba bikenewe kuko bifasha ibirundo ibyatsi bibwira bikavamo intungabihingwa.

Igicucu gifatanyije n'ibinyabuzima bigabanywa ubushyuhe bw'ubutaka bikarinda ubutaka kwangirizwa n'imirasire y'izuba. Ibi nabyo ni iby'ingenzi ku mibereho ya za mikorobe zo mu butaka, kubera ko ubushyuhe bwinshi mu butaka bwangiriza bituma zipfa.

Gukoresha neza amazi

Imizi y'ibiti ituma habaho imiyoboro n'inzi mu butaka, bigatuma amazi yinjira mu butaka mu buryo bworoshye. Bitewe n'imiterere myiza y'ubutaka, ibi byongerera ubushobozi bw'ubutaka bwo kwinjiza amazi no kuyabika, bikagabanywa amazi atemba ahubwo bikongera ingano y'amazi yo mu butaka. Nanone kandi, ibiti bikurura amazi avuye hasi mu butaka, mu gihe imvura yaba itagwa cyangwa amazi akaba adahagije. Igisenge cy'ibiti gitanga igicucu, bigatuma umwuka utumuka uva mu butaka uba mucye ndetse n'uburyo ubutaka butakaza ubuhehere bigabanuka. Ibi bigabanywa amazi akenewe ku bihingwa, kuko umwuka utumuka uva mu butaka uba ari mucye.

Kuvugurura ubutaka

Ubuhanzi bw'ibiti bivangwa n'imyaka bushobora kuvugurura ubutaka bwabaye bubi hakoreshejwe ubwoko bw'ibiti byabugenewe. Ubuhanzi bw'ibiti bivangwa n'imyaka bushobora kandi kugabanywa uburozi buri mu butaka buriho nka saline na aside ndetse no guhora bigenzurwa.

Gufasha kugenzura no gukurikirana indwara n'ibyonnyi

Kubera ko abahinzi bohora mu mirima yabo basarura ibihingwa biba byaravanzwe na kawa, kandi kubera ko umurima uba ufite igicucu, haba ari ahantu heza cyane, bashobora kugenzura neza kandi hakiri kare udukoko n'ibyonnyi bagashyiraho ingamba zo kurwanya udukoko n'indwara mbere y'uko bikwirakwira hose.

Ubucucike bw'ibiti byiza bituma ibyatsi bibi bidakura. Ubwoko bwinshi bw'ibiti bivangwa n'imyaka ni ubutumi bw'inyamabere ntoya, ibikururuka hasi, n'inyoni bikarya udukoko twangiza cyangwa dutera indwara. Urusobe rw'ibinyabuzima byinshi bigabanywa ibyago byo gukwirakwiza no kwanduza udukoko n'indwara.



2014

Mu 2014 Ntabwo bavangaga kawa n'ibihingwa cyangwa n'ibiti bitanga igicucu. Hari ibibazo bikomeye by'udukoko twitwa udusurira. Abahinzi ntabwo bamaraga igihe kinini mu mirima yabo.



2018

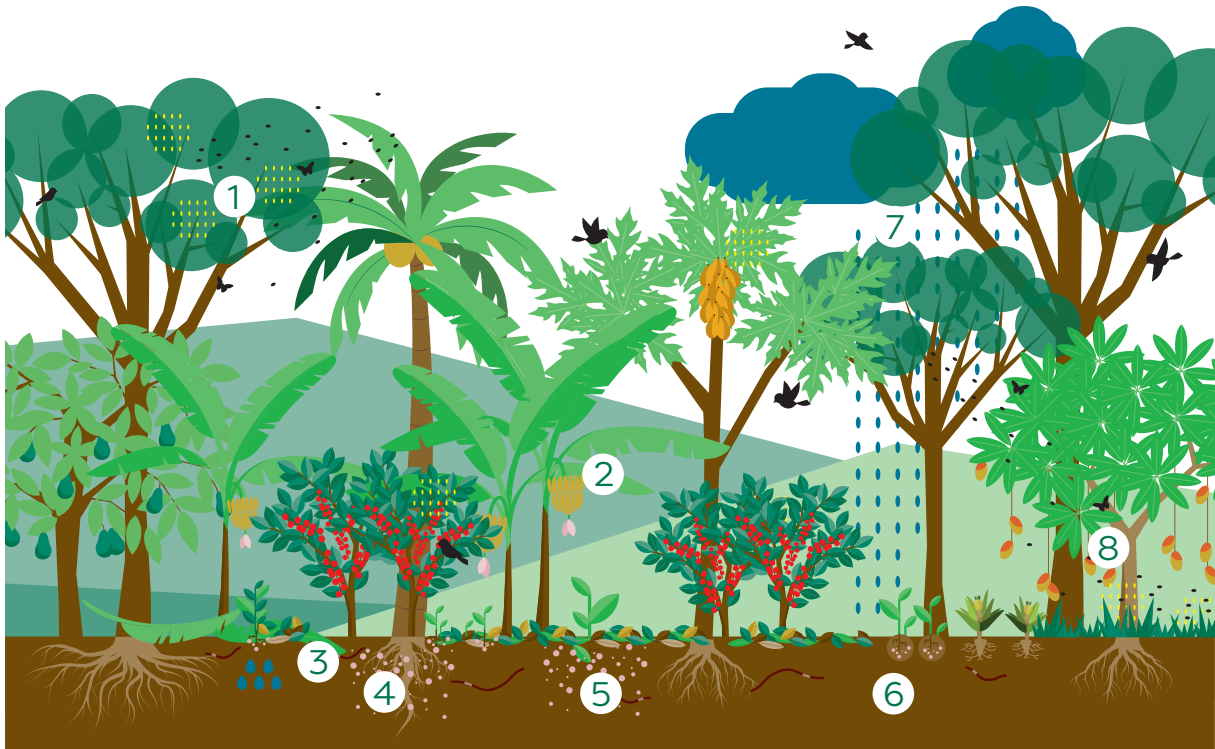
Mu 2018 Abahinzi batangiye kumara igihe kinini mu mirima yabo kandi barushijeho kunoza uburyo bwo gucunga imirima yabo no kugenzura udukoko dutera indwara.



2022

Abahinzi bamara igihe kinini mu mirima yabo kuko bashobora gusarura ibindi bihingwa. Gukurikirana udusurira byagenze neza cyane. Kuko bakoresha umuti wica udukoko dukomoka kuri Neem iyo udusurira tugaragaye.

Amashusho 4, 5 na 6. Uko ubuhinzi bw'ikawa kuva mu 2014 bwagiye butera imbere (bihereye mu kuvugurura ubuhinzi bwa kawa bukavangwa n'ibiti bivangwa n'imyaka) kugeza mu 2022 muri COCOCA, Burundi © Naturland e. V.



1 Gutezimbere urusobe rw'ibimera bigizwe n'amoko atandukanye, ndetse no gukurura udu-simba dutuma haba kubangurira nk'inzuki n'ibinyugunyugu

2 Gutanga igicucu kigabanya imvura n'ubushyuhe byinshi ku bihingwa, inyamaswa, no ku bahinzi.

3 Imiterere myiza y'ubutaka butwikiriwe n'ibinyabuzima bigabanya isuri, bigatuma amazi yinjira mu butaka.

4 Kongera intungagihingwa ku bihingwa bitewe n'uburyo imizi ishora kure cyane ndetse n'ibiti bikurura azote mu kirere, bigatuma ubutaka budatwarwa n'isuri kubera uburyo imizi ari miremire.

5 Kongera ibikorwa by'ibinyabuzima mu kugabanya ubushyuhe bw'ubutaka, bituma ibibora bituruka kubiti biba ubuturo n'ibiryo by'udukoko n'ibinyabuzima bitandukanye

6 Bituma ubutaka bugira imiterere myiza, bukagumana ubuhehere ndetse bukagira n'ubushobozi bwo kugumana intungagihingwa

7 Kurinda umuyaga, izuba n'imvura nyinshi, kugabanya umuvuduko w'amazi atemba, isuri no gutakaza amazi binyuze mu mwuka utumuka bitewe n'ubushyuhe n'izuba ryinshi.

8 Gutanga aho gutura inshuti z'abahinzi zirya udukoko no kwirinda gukwirakwira kw'indwara

Igishushanyo cya 7. Incamake y'inyungu z'ubuhinzi-bw'umwimerere mu buryo bw'ibiti bivangwa n'imyaka

Inyungu ku rwego rw'imibereho n'umuco

Bifasha abaturage

Ubuhinzi bw'ibiti bivangwa n'imyaka byongera umusaruro w'ibiribwa gakondo birushaho kuba byiza binyuze mu gutanga imbuto zitandukanye, imboga, imbuto n'ibikomoka ku matungo, bigatuma abantu babona ibyokurya bifite akamaro mu rwego no mu muco wabo. Bifasha mu kubungabunga ubumenyi n'imikorere gakondo mu buhinzi, bigaha ubushobozi abaturage bagashyira muri gahunda zabo ibyo bakeneye n'ibyo bifuza mu igenamigambi ryo guteza imbere gahunda y'ubuhinzi bw'ibiti bivangwa n'imyaka, bibaha ububasha bwo gufata ibyemezo ku butaka n'umutungo byabo

Bitanga amahirwe y'akazi

Ubuhinzi bw'ibiti bivangwa n'imyaka butanga amahirwe y'akazi ku baturage mu byiciro bitandukanye by'ubuhinzi, nko gutera, gusarura no gutunganya ibikomoka ku buhinzi bw'ibiti bivangwa n'imyaka bitari ibihingwa ngengabukungu.

Kubungabunga ejo hazaza

Ubuhinzi bw'ibiti bivangwa n'imyaka butuma habaho kubungabunga umutungo kamere w'igihugu nk'urusobe rw'ibinyabuzima birindwa gupfa ubusa ku bisekuru bizaza binyuze mu kongera urusobe rw'ibinyabuzima. Mu buhinzi bw'ibiti bivangwa n'imyaka inyoni zishobora kuboneka zikubye incuro 2,5 iziba mu mirima ya kawa ihingwa mu buryo busanzwe.

Ubwiza bukurura

Guteza imbere ubwiza n'imiterere y'ahantu n'ibidukikije byuzuye urusobe rw'ibinyabuzima byongera uburanga butuma abantu bifuza kuza kuhakorera, bigakurura ba mukerarugendo ndetse hakaba n'ibikorwa by'imyidagaduro binyuze mu kurema ubwiza bw'ahantu n'ibidukikije byuzuye urusobe rw'ibinyabuzima.

Ifoto 8 & 9. Imirima ibiri yikawa © Naturland e. V.



Inyungu z'ubuhinzi bw'ibiti bivangwa n'imyaka ku rwego rw'ibidukikije

Kugenzura imyuka ihumanya ikirere

Ibiti byatewe muri gahunda y'ubuhinzi bw'ibiti bivangwa n'imyaka bishobora gufasha gufata karuboni yo mu kirere no kuyishyira mu butaka bwo hasi cyane bikagira uruhare mu gufata karuboni yo mu kirere bityo bigafasha mu guhangana n'imihindagurikire y'ibihe.

Kugabanya ingaruka z'imihindagurikire y'ikirere

Ingaruka mbi zigenda ziyongera ziterwa n'ihindagurika ry'ibihe nk'imvura idasanzwe, amapfa, in

.kangu, imiyaga ikaze n'ibindi, bishobora kugira ingaruka zikomeye ku buhinzi, ku bantu no ku nyamaswa. Ubuhinzi bw'ibiti bivangwa n'imyaka bushobora gufasha kugabanya izi ngaruka mu buryo butandukanye, urugero; ibiti bigabanya umuvuduko w'umuyanga bishobora gukingira umuyaga ukomeye ibihingwa ngengabukungu, kandi ibiti byatewe ku misozi bishobora gufata ubutaka n'imizi yabyo bigakumira inkangu.

Guteza imbere ubuziranenge bw'umwuka n'amazi

Ibityi bishobora kwakira imyuka ihumanya ikirere kandi bikagabanya ihumana ry'umwuka bituma n'umwuka wo mu kirere uba mwiza. Birinda ingaruka ziterwa n'ibinyabutabire bimanuka mu mazi

Incamake

Ubuhinzi bw'ibiti bivangwa n'imyaka buzamura imibereho myiza y'abahinzi n'imiryango yabo biyuzemo mu gutanga inyungu z'ubukungu zishobora gufasha mu myubakire, mu bworozi no mu burezi bw'abana. Nanone kandi, bigira ingaruka zikomeye ku bidukikije kuko bituma ubutaka burushaho kwera n'ubwinshi bw'urusobe rw'ibinyabuzima, kandi bigatuma imirima irushaho kuba myiza ku bisekuru bizaza. Nk'uburyo bwuzuye bwo guhinga, ubuhinzi bw'ibiti bivangwa n'imyaka butanga icyizere cy'imiryango itekanye mu buryo burambye n'ejo hazaza.

Itariki yavugurwe bwa nyuma: 08/2024.

Ibitabo byifashishijwe

Bote, Adugna D., and Paul C. Struik. "Effects of shade on growth, production and quality of coffee (*Coffea arabica*) in Ethiopia." *Journal of Horticulture and Forestry* 3.11 (2011): 336-341.

Cheng Bing, Cheng Bing, et al. "Influence of genotype and environment on coffee quality." (2016): 20-30.

Jose, Shibu. "Agroforestry for ecosystem services and environmental benefits: an overview." *Agroforestry systems* 76 (2009): 1-10.

Koutouleas, A., et al. "Shaded-coffee: a nature-based strategy for coffee production under climate change? A review." *Front Sustain Food Syst* 6: 877476." (2022).

Sollen-Norrlin, Maya, Bhim Bahadur Ghaley, and Naomi Laura Jane Rintoul. "Agroforestry benefits and challenges for adoption in Europe and beyond." *Sustainability* 12.17 (2020): 7001.

"Sustainable Forestry Practices" FasterCapital, [fastercapital.com/keyword/sustainable-forestry-practices.html](https://www.fastercapital.com/keyword/sustainable-forestry-practices.html). Accessed on 1Mar.2024

Torrez, Vania, et al. "Ecological quality as a coffee quality enhancer. A review." *Agronomy for Sustainable Development* 43.1 (2023): 19.

Vaast, Philippe, et al. "Shade: a key factor for coffee sustainability and quality." ASIC 2004. 20th International Conference on Coffee Science, Bangalore, India, 11-15 October 2004. Association Scientifique Internationale du Café (ASIC), 2005.

Amashusho & Imbonerahamwe

- Imbonerahamwe ya 1 & 2: Amashusho yafashwe anahindurwa nk'uko Ndihekubwayo, Soter & Havyarimana, Tharcisse & Windbuehler, Sarah & Niragira, Sanctus & Habonimana, Bernadette & Kaboneka, Salvator & Megerle, Heidi. (2021) babyifuza. Uko abahinzi babona ubuhinzi bwa kawa ivangwa n'ibiti bivangwa n'imyaka mu gace kifuje kubona uburenganzira bwo guhinga by'umwimerere mu Burundi. *East African Journal of Forestry and Agroforestry*. 3. 40-53. 10.37284/eajfa.3.1.352
- Amashusho yose: © Naturland - Verband für ökologischen Landbau e. V.

Naturland ishyira mu bikorwa umushinga wa "Partner Africa" ku bufatanye na ROAM (Rwanda Organic Agriculture Movement), hibandwa cyane ku itsinda ry'abagore Ejo Heza muri koperative KOPAKAMA (akarere ka Karongi, Rwanda).

