

Ikinyamakuru ENDOKWA News



Nature Based Community Enterprises (NBCEs) Regional Community Network Newsletter

**Ikinyamakuru cy'ihuriro ry' amakoperative yiteza
imbere kandi yita ku bidukikije**

ISSUE NO 2

Date: Novembre 2018



Every article (in English) is translated in Kinyarwanda

Buri nkuru (mu Cyongereza)
ihinduye mu Kinyarwanda

Nomero 2

itariki: Ugushyingo 2018



Collaborative Action for Nature and People

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The main objective of this ENDOKWA News is to support community learning through regional information sharing. It also facilitates the rest of the world to know the efforts of community groups in environmental safeguard and poverty reduction. It is produced in the framework of "Nature Based Community Learning Group" as resolved during the Regional Community Exchange Workshop held in Eastern Uganda from 29th to 31st August 2016.

Iki kinyamakuru cyandikwa mu rwego rwo kwigishanya hagati y'abaturage cyangwa amatsinda y'abaturage muri aka karere. Iki kinyamakuru kandi kigamije kumenyesha isi ibikorwa by'indashyikirwa by'abaturage mu gufata neza ibidukikije ndetse no kurandura ubukene. Iki kinyamakuru cyandikwa mu rurimi rw' Icyongereza n'Ikinyarwanda/Ikirundi hashingiwe ku mwanzuro wafashwe mu ihuriro nyunguranabumenyi ku rwego rw'akarere yabaye kuwa 29 kugeza kuwa 31 Kanama 2016 mu burasirazuba bwa Uganda I Mbale.

Editorial

Dear Readers, welcome to the second issue of ENDOKWA News a bilingual (English and Kinyarwanda/Kirundi) newsletter produced by the Albertine Rift Conservation Society (ARCOS Network) in collaboration with its community partners in the Albertine Rift region through its Nature Based Community Enterprises Programme. This issue was produced with support from the World Resources Institute (WRI) and the New Field Foundation (NFF).

"Endokwa" is a Luganda word (One of Ugandan local language) which means "seedling". We gave this name to this newsletter to reflect how engaging local communities is a fresh start to finding sustainable solutions for ending poverty and ensuring environmental sustainability as well as tackling climate change impacts. The name also reflects hope and potential of local community groups to ensure a better future of our planet.

In this issue you will read about the work of Kanaba Community Development and Echuya Forest Conservation Association (KADECA) in safeguarding the Echuya forest (Uganda) and promoting sustainable development in the neighbourhood around the forest. You will also read ARCOS Network and its community partners' journey to resilience, some success stories and in the educative part "Know more about the link between environment and livelihoods" we will learn about the benefits of Forest and Landscape Restoration. Finally, in the last two sections we will meet a farmer from Rwanda in the eastern Province and preview some events.

If you have any questions or ideas to improve this newsletter or would like to contribute an article to the next issue, please contact us (see the contact address on the back cover). We also invite you to follow us on Twitter, Facebook, and Instagram (see the icons on the back cover).

Ijambo ry'ibanze

Basomyi b'Ikinyamakuru Endokwa, tubifurije kuryoherwa na numero ya kabiri by'iki kinyamakuru. ENDOKWA News ni ikinyamakuru cyandikwa n'umuryango ubungabunga ibidukikije ukanaharanira iterambere rirambye mu karere k'umuhora wa Albert (Albertine Rift Conservation Society (ARCOS Network)) ku bufatanye n'amakoperative y'abaturage yita ku bidukikije mu kazi kayo akorana nayo mu karere k'umuhora wa Albert (Albertine Rift). Ibikorwa byo kwandika iyi nomero ya kabiri byatewe inkunga na World Resources Institute (WRI) na New Field Foundation; turabashimira cyane.

Endokwa bisobanura "Urugemwe" mu rurimi rw'Ikgande (Rumwe mu ndimi zivugwa mu gihugu cy'Ubugande). Iri zina ryatoranyijwe kuko ryerekana neza ukuntu guha ijambo, urubuga ndetse n'ubushobozi abaturage hariya batuye mu mudugudu ari intangiro nziza mu gushaka ibisubizo birambye byo kurandura ubukene ndetse no kurinda ubusugire bw'ibidukikije. Iri zina kandi ryerekana ikitere ndetse n'ubushobozi bw'abaturage bishiyize hamwe mu kugena ejo hazaza h'iyi si.

Muri iyi nomero ya kabiri muramenya birambuye KADECA, koperative iharanira ubusugire bw'ishyamba rya Echuya muri Uganda ndetse n'urugamba rwayo mu guharanira iterambere rirambye mu gace iryo shyamba riherereyemo. Muraza gusoma kandi urugendo rwa ARCOS Network n'abafatanyabikorwa bayo, mu gushaka ibisubizo birambye ku ihindagurika ry'ibihe hagamijwe kwihiaza mu biribwa, amazi n'ingufu, aho rugeze. Muraza gusoma bimwe mu bikorwa by'indashyikirwa twakuramo isomo byagezweho na bamwe mu bahinzi, hanyuma tunarebere hamwe ibyiza twungukira mu gusana imisozi n'ibibaya byangiritse. Mu gice cya nyuma turareba amwe mu matangazo y'inama zabaye zifite aho zihuriye n'icyo iki kinyamakuru kigamije.

Niba ufiletse ikibazo cyangwa igitekerezo cyadufasha kurushaho kunoza iyandikwa ry'iki kinyamakuru, cyangwa wifusa gutanga inkuru yasohoka muri nomero itaha y'iki kinyamakuru, twandikire kuri aderesi zatwanzwe ku rupapuro rwa nyuma.

**Editor/ Umu yobozi w'ibikorwa byo kwandika iki kinyamakuru
Gilbert Muvunankiko (ARCOS Network)**





1. ARCOS' Local Community Partners in Action

Community Managed Tree nurseries proven to be effective for Forest Landscape Restoration

By Gilbert Muvunankiko (ARCOS)

The Bonn Challenge, a global effort for land restoration, targets to bring 150 million hectares of the world's deforested and degraded land into restoration by 2020, and 350 million hectares by 2030. The Government of Rwanda has joined this global initiative and pledged to restore 2million hectares of its land by 2020. Adopting the bottom-up strategy is key for meeting these targets. Although restoration is more than just planting trees, the latter play a critical role in this exercise. Trees play a great role in the well-being of people as they provide oxygen, and in the environment by stabilizing the soil and reducing erosion and pollution and effects of flooding downstream. Trees provide food, protection, and homes for many animals. Trees and local communities occupy the centre of restoration initiatives, therefore empowering community to produce and plant trees to restore their land is crucial for a successful restoration. This article presents the lessons learnt by the Albertine Rift Conservation Society (ARCOS Network) throughout its road to resilience with its partner community groups.

It used to be common to buy seedlings and hand them over to communities for planting, which sometimes did not consider the local context and community needs. In searching for sustainable solutions to land degradation and effective ways for restoration, ARCOS Network has set up a mechanism for community-based Forest Landscape Restoration, where it built a long-term partnership with Nature Based Community Enterprises (NBCEs). After that a due diligence study to identify the needs for forest landscape restoration was conducted and 11 Community Managed Tree Nurseries (three in Kirehe, 5 in Bugesera and 4 in Rutsiro) were established in different parts of Rwanda. This went hand in hand with skills and capacity building in tree nursery development and management. As a result, more than 270,000 trees were planted, and more than 3000 ha restored as by 2018. Empowering local communities to manage tree nurseries and plant trees, is a sustainable solution to land degradation, livelihood issues and contribute to climate change adaptation and mitigation.

The ARCOS Network developed an integrated approach and named it "BEST Approach", for the implementation of initiatives under its Community Development Programme ("Nature Based Community Enterprises (NBCEs)") Programme. The BEST Approach (BEST stands for initial of the four pillars comprising the approach as explained below) is built on community partnership and ownership of on-ground interventions, cemented by a Sustainability Agreement involving local communities, local government and ARCOS Network. The BEST Approach is based on four pillars: Building leadership and sustainable institutions, Enhancing environmental resilience, Sustainable business solutions and Transformation and inspiring others. The BEST Approach was proven to be an effective approach as far as on-ground interventions aiming at increasing community development and environment sustainability are concerned.

Throughout the implementation of the project, eleven Community Managed Tree Nursery Centers were established, produced and planted over 270,000 trees in Bugesera, Kirehe and Rutsiro Districts of Rwanda. The planted trees include fruit species (grafted mango and avocado, tree tomato (*Solanum betaceum*), orange, citrus, Passion Fruit (*Passiflora edulis*), Carica papaya) and agroforestry species (*Grevillea robusta*, *Calliandra calothrysus*, *Lecaena leucocephala*, and *Markhamia lutea* and coffee) as preferred and suggested by most of community members during the baseline study.



Over 300 ha of watershed were restored through tree planting, soil conservation and agroforestry interventions. The project interventions contribute to the sequestration of 9,352,000 tons of CO₂ per year (equalling sequestering 2 Million times CO₂ emitted during return trip from Europe to Australia in a plane). Apart from contributing to soil fixation and carbon sequestration, the planted trees will generate income at household level, contribute to the enhancement of food security and reduce malnutrition in children and women.

We are very pleased to share with other stakeholders what we learned from the established Community Managed Tree Nursery Centers. In brief, empowering communities to produce and plant the trees, is the sustainable option for achieving the target of increased forest cover, restoration of agricultural lands and adaptation to climate change while also reducing poverty among rural communities. Below are some lessons learned:

- Capacity building is the key factor for the success of Community Managed Tree Nursery Centers: Communities need regular technical advice and physical and financial inputs, as well as adequate monitoring and evaluation to run a tree nursery centres effectively and ensure the maximum survival rate of the trees planted.
- Community Managed Tree Nursery Centers are more cost-effective and yield better results than the mega-seedlings production and distribution by big organizations. It is more effective in terms of seedling distribution, greater participation by local people in the production process and tree maintenance.
- For the success and the high survival rate of the trees, local communities need to be involved throughout the process. It is important to have the needs assessment done and be guided by the needs of the community in choosing the species to produce in a nursery. The needs assessment findings also guide the activities pertaining to raising awareness and education.
- Local government involvement in all steps of the process is important for the success of a tree nursery and tree planting initiatives.
- Incentive systems are an integral part of the success of tree planting and land restoration, as it affects the survival rate of trees planted and raises the commitment of local communities in restoration.
- Even if the communities may feel the consequences of land degradation through the decrease in harvests or the occurring disasters, they will not shift to restoration until they are educated and accompanied in the process.

ARCOS Network is committed to maintain and upscale the Community Managed Tree Nursery Center initiative in as many villages as possible in Rwanda and other East African countries. However, the support of everybody is needed for restoration and adaption to climate change, the impacts of which are already widely felt. Rural communities have the ability to make restoration a success. However, any action with communities requires guidance and their involvement in every stage to help them understand. That is why building their capacity is important. It is also important to test a pilot study together and hand over the initiative when the community is ready to handle it independently. The Governments should provide budget to support initiatives that contribute to enhancing climate resilience and land restoration such as this Community Managed Tree Nursery Centers.

See a [pdf copy of the case study on Community Managed Tree Nursery here](#), you can also find a [pdf copy of the project achievements here](#).

ARCOS Network thanks Rwanda's Green Fund (FONERWA) to have supported this initiative. We also thank the World Resources Institute and One Tree Planted for their support to upscale this initiative.

We kindly ask everyone interested in Forest Landscape Restoration to join us and join hands to take this initiative to the next level. Contact us via the address on the last page.





1. Ibikorwa bya ARCOS na Koperative bakorana

Byagaragaye ko Kongerera ubumenyi n'ubushobozi abaturage mu gukora pepinyeri ari igisubizo kirambye mu gusubiranya imisozi n'ibibaya byangiritse

Yanditswe na Gilbert Muvunankiko(ARCOS)



Muri gahunda y'isi yiswe Bonn Challenge igamije gusubiranya imisozi n'ibibaya byangiritse, ibihugu byahize gusubiranya Hegitari Miliyoni 150 zangiritse ku isi kugeza muri 2020 na Higitare Miliyoni 350 kugeza mu 2030. Muri iyi gahunda u Rwanda narwo ntirwatanze, kuko muri ziriya hegitaru twavuze rwahize ko ruzaba rwasubiranyije ahantu hangana na Higitari Miliyoni 2 muri 2020. Guhera hasi mu baturage ni bwo buryo bwiza bwo kugera kuri ibi ku buryo burambye.



Nubwo gusubiranya imisozi n'ibibaya bitavuze gusa gutera ibiti, ariko ibiti bifite uruhare rukomeye mu kugirango icyo gikorwa kigende neza. Murabizi ko igiti gifite akamaro gakomeye mu mibereho myiza ya mutu. Bimwe muri ibyo twavuga gukora umwuka mwiza duhumeka (oxygen), kigafata ubutaka ari nako kigabanya isuri no kwandura kw'amazi y'ibishanga, imigezi n'ibiyaga ndetse bikagabanya n'ubukana bw'imyuzure yatera mu tubande. Ntitwakwibagirwa kandi ko bifite n'uruhare rukomeye mu kwiha mu biribwa ndetse no kuba indiri y'izindi nyamaswa.

Mu bikorwa bijyanye no Gusubiranya Imisozi n'ibibaya byangiritse, abaturage batuye aho bibera ndetse n'ibiti biri mu bya mbere byo kurebaho no kwitondera mbere yo gutangira icyo gikorwa. Ni yo mpamvu kongerera ubumenyi n'ubushobozi abaturage mu gutegura no gutera ibiti ari inkingi ya mwamba mu kugera ku ntego zo gusubiranya imisozi n'ibibaya.



Muri iyi nkuru turabagezaho inama ndetse n'ibyo Umuryango Wita ku Bidukikije mu Muhora wa Albert (ARCOS Network) wigiye mu gikorwa cyo kongerera ubumenyi n'ubushobozi abaturage mu rugendo rwabo rugana mu kuzamura imireho myiza n'busugire bw'ibidukikije. Turabagezaho kandi bimwe mu mihigo y'ingenzi besheje.

Kera wasangaga (ndetse n'ubu hari aho bikorwa) iyo igihe cyo gutera ibiti cyageraga leta cg ibindi bigo, baguraga ingemwe bakaziha abaturage ngo batere, rimwe na rimwe ugasanga mu kubikora batitaye ku miterere n'ubuzima bw'aho bagiye kuzitera cg icyo abaturage bifuza. Mu rugendo rwo gushakisha ibisubizo birambye ku kibazo cyo kwangirika k'ubutaka ndetse n'uburyo bwiza bwo gusubiranya ahangiritse, ARCOS Network yagerageje uburyo bwo gusubiranya imisozi n'ibibaya bufite ipfundu ku baturage batuye aho ibyo bikorwa bikorerwa. Ibyo byashingiye mu kugira ubufatanye



burambye na koperative (15 mu Rwanda), gukora ubushakashatsi ku bikenewe ngo ahangiritse hasubiranywe. Nyuma y'ubwo bushakashatsi hatangijwe pepinyeri 11 zicungwa n'abaturage mu bice binyuranye byo mu Rwanda (Kirehe (3), Bugesera (5) na Rutsiro (4)). Ibi kandi byajyanaga no kongerera ubumenyi n'ubushobozu abaturage mu gucunga neza pepinyeri. Iki gikorwa cyatanze umusaruro ufatika aho ibiti birenga 270000 byatewe ndetse aharenga Hegitari 3000 harasubiranywa (aha turavuga muri 2017-2018).

Mu biti byatewe harimo iby'imbuto ziribwa, harimo imyembe na Voka (bibanguriye), ibinyomoro, amacunga, indimu, amapapayi n'amatunda; ndetse n'ibivangwa n'imyaka harimo Gereveliya, Kaliyandara, Lesena, Umusave, ikawa n'ibindi. Gukora no gutanga ibi biti byashingiraga ku busabe bw'abaturage mu gihe hakorwaga inyigo y'ibikenewe. Ibi biti byatewe bifite akamaro gakomeye mu kugabanya umwuka mubi mu kirere kuko bigabanya Toni 9.352.000 za CO₂ (Umwuka wa karuboni) buri mwaka (ibi bingana no gukura hafi inshuro 18 CO₂ yajyaga mu kirere mu muysi wa Kigali ku mwaka muri 2015). Turetse no gufata ubutaka ndetse no kugabanya umwuka mubi wa karuboni mu kirere cy'u Rwanda, ibi biti bizabyara amafaranga kandi bigire n'uruhare mu kugabanya imiriire mibi ndetse no kwiha mu biribwa mu ngo.

ARCOS Network yishimiye kubasangiza amasomo twigiye muri iki gikorwa cyo guteza imbere ubumenyi n'ubushobozu bw'abaturage mu gucunga neza za pepinyeri hagamijwe gusubiranya imirima yakayutse, guhangana n'ingaruka z'imihindagurikire y'ikirere ndetse no guhashya ubukene mu baturage. Muri make ibi bishamikiye ku buryo bwa BEST (reba kuri paji ibanziriza ihera) ARCOS Network ikoresha, kandi ni ingenzi mu gusubiranya imisozi n'ibibaya byangiritse.

Soma hano zimwe mu ngingo z'ingenzi z'ibyo twize muri uru rugendo nawe byagufasha niba ushishikajwe no gufatanya n'abaturage mu gusubiranya imisozi n'ibibaya:

- Kongerera ubumenyi n'ubushobozu abaturage ni inkingi ya mwamba mu gucunga neza pepinyeri: Abaturage bakenera ku buryo buhoraho ubufasha n'inama za tekini ndetse n'ubufasha bujanye n'amafaranga; ikindi kandi gushyiraho uburyo buboneye bwo gusuzuma ibikorwa ni ingenzi mu gucunga neza pepinyeri ndetse no kuzamura amahirwe yo gukura kw'ibiti byatewe.
- Pepinyeri zicunzwe n'abaturage ubwabo usanga zidatwara amafaranga menshi ugereranyije n'ahandi ndetse n'umusaruro uzikomokaho ugasanaga ari mwiza kandi ari igisubizo kirambye ku biti. Urebye ku buryo ingemwe zigera ku baturage zimeze, uburyo abaturage bitabira yaba no mu gihe cyo kuzitegura ndetse no kuzifata neza nyuma yo guterwa, usanga ubu buryo ari ntamakemwa kandi butanga umusaruro ufatika.
- Kugirango ingemwe zatewe zibeho ku kigero kiri hejuru, bisaba ko abaturage batuye aho pepinyeri zikorera kandi bazanatera ibyo biti biyegerezwa muri buri ntambwe yo gутегура kugera ku gutera ibiti. Ni ngombwa cyane kubanza gukora inyigo y'ibihari, ibikenewe ndetse n'ababikeneye ngo biyobore igikorwa cyo guhitamo ingemwe zizakorerwa muri pepinyeri. Iyi nyigo kandi itanga ishusho y'ubukangurambaga bukenewe ndetse n'igikenewe kwigishwa abaturage.
- Ubufatanye (kuva mu gutangira kugeza ku gusoza) n'inzezo z'ibanze ni ingenzi cyane kugirango gутегура no gutera ingemwe bigende neza.
- Gushyiraho uburyo bw'agahimbazamusyi ni inkingi ya mwamba mu gusubiranya ahangiritse. Agahimbazamusyi gafite uruhare rukomeye mu kuzamura umubare w'ibiti bifata mu byatewe, kakazamura ubushake n'imyumvire y'abaturage mu gusubiranya ahangiritse.
- Nubwo abaturage babona neza ingaruka zo kwangirika k'ubutaka (babirebeye wenda no kugabanuka k'umusaruro cg ibiza bibaho), ntibazigera bonyine bafata iya mbere mu gusana ahangiritse ige cyose batigishijwe ndetse bakanaherekezwa muri urwo rugendo.

ARCOS Network ndeste na amakoperative bafatanyije, biyemeje gukomeza ndetse no kugeza ahandi iki gikorwa cyo kongerera ubumenyi n'ubushobozu abaturage mu gucunga neza pepinyeri hagamijwe guteza imbere ibikorwa byo gusubiranya imisozi n'ibibaya byangiritse. Ariko iki gikorwa ni igikorwa kireba buri wese cyane cyane abaturage bo bafite urufungozo rwo kugera ku gisubizo kirambye cy'iyangirika ry'ubutaka. Niyo mpamvu kubongerera ubumenyi n'ubushobozu ari ingenzi cyane. Ni ngombwa kandi kuberekera uko bigenda mbere yo kubareka ngo bakore ibyo batarumva neza bonyine. Ikindi kandi guverinoma ikwiye gushaka ingengo y'imari yihariye yo gufasha ibikorwa nk'ibi bigamije kongera imbaraga mu guhangana n'ihindagurika ry'ibihe ndetse no gusubiranya ubutaka bwangiritse binyuze mu gikorwa nk'iki cyo kongerera ubumenyi n'ubushobozu muri ibyo.

ARCOS Network irashimira cyane Ikigo cy'Ighugu cy'ibidukikije n'ihindagurika ry'ibihe (FONERWA) yateye inkunga iki gikorwa kandi ikanashimira umuryango World Resources Institute (WRI) na One Tree Planted bawufashije kwagura iki gikorwa mu tundi duce two mu Rwanda.

Nawe niba ushaka gufatanya na ARCOS Network, twandikire cg uduhamagare kuri aderesi ziri ku rupapuro rwa nyuma.





KADEKA: The journey towards sustainable livelihoods and management of Echuya Forest, Kisoro, Uganda

By Rubibi Yubu (KADEKA) & Brigitte Kanyamugenge (ARCOS)

Kanaba Community Development and Echuya Forest Conservation Association (KADECA) is a cooperative of 147 members operating in Kanaba Sub-county in Kisoro District in Uganda and is a member of ARCOS Community Network since 2016.

The cooperative was established in 2002 with the aim to engage local communities in restoration and conservation of Echuya Forest Reserve and reduce their dependency on forest resources through providing them with the capacity to develop alternative livelihoods initiatives.

Echuya Forest Reserve lies within the Albertine Rift Afromontane area, which makes it the centre of endemism that contains a variety of species only confined to this unique ecosystem. The forest was highly threatened by human activities mostly encroachment due to the search for agricultural land, illegal honey collection and water fetching, large-scale extraction of bamboo and other trees inside the forest, and the papyrus from Muchuya Swamp located on the top of the forest.

As a solution, the government of Uganda through a participatory approach established KADECA to jointly manage and restore the forest. In the beginning, local communities tended to resist when the government restricted the use of Echuya resources. But after the establishment of KADECA, the group was supported financially and given skills to invest in a diversity of income generating activities including handcraft, business-oriented agriculture, beekeeping, wine manufacturing, ecotourism and saving and credit schemes. They also developed tree nurseries for agroforestry and restoration of the forest, as well as securing the availability of raw materials (mostly bamboo) outside Echuya. Among KADECA, few sub-groups were formed to jointly monitor activities inside and outside the forest. Information sharing was reinforced to allow communities to report on illegal activities and get feedback from the local government on correction measures against the reported issues.

As a result, illegal activities in and outside Echuya have been stopped. No bush fires anymore, no illegal bamboo cutting and tree cutting, no illegal harvesting of papyrus. In addition, community's behaviour and mindset has improved. They are now focusing on protecting and restoring Echuya forest while building sustainability of their livelihoods.

Cooperative turnover significantly increased from UGX 200,000 in 2010 to UGX 30,000,000 in 2018. However, KADECA is facing some challenges including climate variability, lack of enough technical skills, lack of enough manure, some bamboo species disappearing and few among local community who are still too rigid to adopt to new technologies.



KADECA mu rugamba rwo guteza imbere imibereho irambye no kubungabunga ishyamba cyimeza rya Echuya i Kisoro muri Uganda

*Yanditswe na Rubibi Yubu (KADECA) &
Brigitte Kanyamugenge (ARCOS)*

KADECA (mu magambo arambuye y'Icyongereza ugenekereje mu Kinyarwanda: Ishyirahamwe riharanira iterambere ry'abaturage ba Kanaba no kubungabunga ishyamba rya Echuya) ni ihuriro rigizwe n'abanyamuryango 147 bibumbiye mu matsinda asaga 8 akorera mu murenge wa Kanaba, mu karere ka Kisoro muri Uganda, ikaba kandi imwe mu makoperative agize Ihuriro Nyunguranabumenyi ry'Amakoperative akorana na ARCOS Network (Umuryango Ubungabunga Ibidukikije mu Karere k'Umuhora wa Albert) guhera 2016.

KADECA yashinzwe mu mwaka wa 2002, hagamijwe gushishikariza abatuye Kanaba kugira uruhare rufatika mu kubungabunga no gusubiranya ishyamba rya Echuya, no kubafasha kubaka imibereho irambye badashingiye ku mutongo kamere barikuramo.

Ishyamba kimeza rya Echuya riherereye mu gace k'imisozi Umuhora wa Albert unyuramo, ari byo biriha umwihiroko wo kuba indiri y'ibinyabuzima byihariye utasanga ahandi ku isi. Iri shyamba ryagiye ryangirika cyane bitewe n'ibikorwa by'ubuhinzi, guhakura no kuvoma amazi mu ishyamba imbere, gutema imigano n'ibindi biti byinshi mu ishyamba, ndetse no gusarura urukangaga rwo mu gishanga cya Mucuya giherereye ku gasongero k'iri shyamba.

Mu rwego rwo guhangana n'ibi bibazo byugarije ishyamba rya Echuya, guverinoma ya Uganda ku bufatanye n'abaturage bashinze KADECA hagamijwe gushyiraho uburyo buhuriweho n'impande zombi bwo gucunga no gusubiranya iri shyamba. KADECA igitangira, habayeho igisa no guhangana hagati y'impande zombi ubwo hashyirwagaho amabwiriza mashya ahindura uburyo abaturage bari basanzwe bakoresha umutungo kamere w'iri shyamba. Ariko ibi byaje guhinduka, aho muri iyi gahunda, abaturage bahawe ubumenyi n'igishoro cyo gukoresha imishinga itandukanye ibabyarira inyungu, irimo ubukorikori, ubuhinzi, ubuvumvu, gutunganya divayi, ubukerarugendo ndetse n'ibimina byo kubitsa no kugurizanya. Abaturage kandi bahawe ubumenyi bwo kwikorera ubuhumbikiro bw'ibiti birimo ibivangwa n'imyaka n'ibiti by'ishyamba biterwa mu gusubiranya ishyamba rya Echuya no hanze yaryo kugirango ababikenera mu bikorwa bitandukanye babashe kubibona badasubiye kubitema mu ishyamba.

Amwe Mu matsinda agize KADECA yashyiriweho gucunga umunsi ku munsi ibikorwa bikorerwa mu ishyamba rya Echuya no hanze yaryo. Gahunda zo guhanahana amakuru zashyizwemo ingufu kugirango aba bari muri aya matsinda babashe gutanga raporo ku bikorwa binyuranyije n'amategeko kandi bahabwe ubujyanama n'imyanzuro yafashwe n'inzezo za leta mu guhangana n'ibyo bikorwa byagaragaye.

Ibi byatumye ibikorwa binyuranyije n'amategeko bikorerwa mu ishyamba no hanze yaryo bigabanya ku buryo bugaragara. Aha twavuga nko kugabanuka kugaragara kwa ba rutwitsi na ba rushimusi, guhagarara burundi kw'itemwa ry'imigano n'ibindi biti no gusarura urukangaga muri Muchuya. Uretse ibi kandi, abaturage bahinduye imyumvire n'imyitwarire ku buryo bugaragara, aho ubu bose barajwe ishinga n'icyabateza imbere kivuye mu byo bakora, kandi bakabikora babungabunga banasubiranya ishyamba n'urusobe





rw'umutungo kamere waryo. Inyungu itaziguye y'ibyinjiraga mu matsinda yiyoungereye kuva ku mashilingi 200,000 mu mwaka wa 2010 kugeza ku mashilingi 30,000,000 aho ihuriro rishyiriweho.

N'ubwo habayeho impinduka nyinshi nziza, KADECA yagiye ihura n'imbogamizi zirimo ihindagurika ry'ibihe rigira ingaruka nyinshi ku bikorwa byabo bitandukanye, kuba badafite ubumenyi-ngiro buhangije mu bikorwa bakora, kutabona ifumbire y'imborera ihagije yo gukoresha mu buhinzi, amwe mu moko y'imigano agenda akendera bityo kuyabonera imbuto bikabagora ndetse n'abaturage bamwe na bamwe batarahindura neza imyumvire ngo bajyane na gahunda z'imikorere irambye.





2. NBCES success stories and experience sharing

Can Organic farming be a solution to food insecurity and land degradation challenges?

By Immaculee (farmer from Gitesi) & Brigitte Kanyamugenge (ARCOS)

Although agriculture has always served in terms of providing food for an increasingly growing population, many farmers nowadays are facing a decreasing productivity mainly driven by unusual weather conditions, pests and crop diseases and land degradation being a result of unsustainable agriculture practices and climate change.

Enhancing productivity as well as the capacity of production systems to adapt to a rapidly changing environment and climate, with scarce natural resources requires innovations that help to move towards a resource-efficient and environmental smart agriculture. Strengthening farmers' capacities for production and for delivery of ecosystem services, as well as facilitating knowledge exchange, demonstration and dissemination is key to enhance sustainability of agro-ecosystems.

Organic farming is one of sustainable practices that can enhance productivity without destroying the environment, while being more resilient to climate change and improving the livelihoods of farmers. On the other hand, consumers' demand for organic food has been increasing and influencing a number of market measures worldwide. However, many farmers, especially in developing countries, are not aware of that, and those who adopt the initiative face marketing and branding challenges.

This section focuses on the experiences shared by *Immaculée Mukandori*, a vegetable farmer from Gitesi, Karongi district in Rwanda, testifying the wonders of using vermi-compost as leaf food, insect repellent and manure. According to her, the production has tripled since she shifted from using chemicals to vermi-compost, unfortunately, she had difficulties to sell her products, as buyers could not believe that they are fully organic. The following is the conversation between her and Brigitte from ARCOS Network:

Brigitte: What do you do to get such big and healthy vegetables on your farm?

Immaculée: My secret is vermi-compost

Brigitte: What is Vermi-compost and how do you make it?

Immaculée: Vermi-compost is a system through which organic waste is turned into very high-quality compost using earthworms. Worms' urine (technically named "Worm Tea") is also collected, diluted and used as leaf food and insect repellent. The system is established by setting up a worm bin, filling the worm bin with organic materials (in our case we use coffee pulps) and introduce earthworms. The system must be always shaded and let the sunlight and fresh air reach the heap, as well as regularly watered. After few months (depending on materials used and frequencies of feeding and watering the bin), normally between 3 to 4 months the compost can be collected and used on farm or mixed with other organic materials to make more compost.

Brigitte: Did you see any difference since you started using worm compost?

Immaculée: There is a huge difference. I started using this compost on experimental plots and the production was impressive (a lot and big vegetables). Later on, I definitely decided to use it on the entire farm.

For instance, with chemical fertilizers and pesticides, I could harvest only 4kg per 1 tree of coffee; but by using worm compost and worm tea, the average yield per coffee tree is 12kg now. Since I started using worm compost, beetroots



from my farm weigh more than 1kg each, where I used to harvest four or five beetroots to reach 1kg.

Brigitte: Did you face any challenges to adapt to the system?

Immaculée: For coffee, there was no problem, because the market is already secured. However, for vegetables, no one neither at the local market, nor in big supermarkets would believe that it was fully organic. Only few vegetables (not more than 10kg of beetroots, onions and green pepper combined) were bought by neighbours who have witnessed the process and the remaining (over 95% of vegetable production) was given to friends and family for free, given I did not have post-harvest facilities to keep it longer.

Brigitte: What did you learn from that experience?

Immaculée: I did not take the challenges I face at the markets as a problem, but rather as an opportunity. Most farmers in rural areas do not believe that organic farming can enhance productivity, while restoring the land. I was not aware that most of buyers these days prefer organic products rather than those produced using chemicals.

Brigitte: What can you suggest as a way forward?

Immaculée: Farmers need to be educated, not only about organic farming, but also about other good practices that enhance production and contribute to restore the environment. In addition, market measures should be enhanced to promote organic products (ex: establish markets for organic products)





Mbese koko guhingisha ifumbire y'imborera byaba igisubizo ku kwiha mu biribwa ndetse no guhangana n'iyangirika ry'ubutaka?

Yanditswe na Immaculee (Umuhinzi, Gitesi) & Brigitte Kanyamugenje (ARCOS)

Kuva kera ubuhinzi ni inkingi ya mwamba mu kwiha mu biribwa kw'abaturage biyongera umunsi ku munsi. Nubwo bimeze bityo ariko, abahinzi muri iyi minsi bari guhangana n'ikibazo cy'igabanuka ry'umusaruro ahanini riterwa n'ihindagurika ry'ibihe by'imvura n'izuba, udusimba n'indwara byangiza imyaka byiyongera, ndetse n'iyangirika ry'ubutaka bitewe n'ibikorwa by'ubuhinzi bitita kuri ejo hazaza, hakiyongeraho n'ikibazo gikomereye isi yose kijyanye n'ihindagurika ry'ikirere.

Kuzamura umusaruro ndetse n'ubumenyi n'ubushobozzi busabwa mu kujyana n'iri hindagurika mu bidukikije ndetse n'ikirere bituma umutungo kamere ugenda ukendera, bisaba guhangana udushya tugamije gukoresha uwo mutungo kamere usigaye neza ndetse no gukora ubuhinzi burambye, bushyira imbere ibikorwa byo kubungabunga ibidukikije. Kongererera abahinzi ubushobozzi ndetse n'ubumenyi mu bikorwa byo kwita kuri serivisi zitangwa n'ibanya by'umutungo kamere no gushyiraho uburyo bakungurana ubumenyi ndetse n'ubunararibonye, ni urufunguzo rwo kugera ku iterambere rirambye mu ubuhinzi.

Gukoresha ifumbire mborera ni Bumwe mu buryo bwiza bwafasha kongera umusaruro kandi butangiza n'ibidukikije, ndetse ugasanga bifasha no kongera ubudahangarwa ku ihindagurika ry'ibihe ari nako bizamura imibereho y'abaturage. Iyo urebye neza kandi ku rundi ruhande, usanga abantu bashaka ibiribwa byahingishijwe ifumbire y'imborera usanga baragiye biyongera cyane ku isi hose. N'ubwo bimeze bityo ariko, abahinzi benshi, cyane cyane mu bihugu bikiri mu nzira y'amajyambere batazi iby'iryo shakishwa ry'ibiribwa bihingishijwe imborera ndetse n'ababiteza imbere muri ibyo bihugu ugasanga bahura n'imbogamizi mu kwamamaza no gucuruza ibyo biribwa.

Muri iki gice cy'iki Kinyamakuru ENDOKWA numero kabiri, twasuye Immaculée Mukandori, umuhinzi w'imboga ukorera Gitesi, mu Karere ka Karongi ho mu Rwanda, atubwira ibitangaza biri mu gukoresha ifumbire ikorwa n'iminyorogoto. Iyo fumbire ikoreshwa nk'ibitunga igihingwa kandi ikanakoreshwa mu kwirukana udusimba twangiza imyaka. Yaduhaye ubuhamya ko umusaruro we wikubye gatatu (3) kuva yareka gukoresha ifumbire y'imvaruganda agatangira gukoresha iyo mborera iva mu minyorogoto yoroye. Ariko nawe atangira yahuye n'imbogamizi zo kubona abaguzi kuko batemeraga ko koko imboga ze zihingishije ifumbire y'imborera kubera ingano zabaga zifite. Ni ikiganiro Brigitte (Umukozi wa ARCOS Network ushinzwe porogaramu y'iterambere ry'abaturage) yagiranye na *Immaculée*:

Brigitte: Tubwire ibanga ukoresha kugirango imboga zawe zibe nziza gutya?

Immaculée: Ibanga nkoresha nta rindi ni ifumbire y'iminyorogoto

Brigitte: Ifumbire y'iminyorogoto se ubwo ni iki, uyikora ute?

Immaculée: Ifumbire y'iminyorogoto ni ifumbire y'imborera nkora nifashishije ibishishwa cyangwa ibindi bintu bibora nkabishyira mo iminyorogoto ikabishwanyaguza ikabihindura mo ifumbire nziza cyane ari yo ureba hano. Inkari ziyo minyorogoto, twita "worm tea (bivuze ugenekereje icyayi cy'iminyorogoto)", nazo turazifata tukazifungura zigakoreshwa nk'ibiryo bituma amababi y'imboga atoha ndetse ni nazo dukoresha nk'umuti wirukana udukoko.





Ubundi dukora ikintu nakwita nk'ikibumbiro gikoze mu mbaho, twarangiza tugashyiramo ibantu bibora, kuko turi n'abahinzi b'ikawa ibyo bibora dukoresha ni ibishishwa by'ikawa; nyuma tugashyiramo iminyorogoto. Iki kibumbiro kigomba iteka kuba gisakariye ku buryo ariko butabuza imirasire iringaniye y'izuba kugeramo ndetse ugomba kudatuma bya bishishwa washyzemo byumagara (Nukuvugako ugenda unyanyagizaho utuzi, ntugomba gutuma bikakara). Nyuma y'amezi make (bitewe n'ibantu bibora wakoreshje ndetse nuburyo ucucagiraho amazi), muri rusange ni hagati y'amezi 3 na 4, ifumbire yawe iba yabonetse ukaba wayikoresha mu mirima yawe cg ukayivanga n'ibindi bintu bibora mu ngarane kugirango nabyo bikomeze bibyare ifumbire nziza cyane nkayo.



Brigitte: Ubona hari impinduka zazanye no gukoresha iyo fumbire y'iminyorogoto?

Immaculée: Cyane rwose impinduka narazibonye. Natangiye gukoresha iyi fumbire mu karima nakoreragaho igeragezwa cg se ubushakashatsi, kandi umusaruro wari ku rugero rushimishije cyane (imboga nyinshi kandi ubona ko zishishe cyane rwose). Nyuma niho naje kuyikoresha mu murima wanje wose.

Nk'umuhinzi wa kawa kandi, nafashe ibiti bimwe mbikoreraho ubushakashatsi nkoresha iyi fumbire na cya cyayi cy'iminyorogoto. Ku gitimwe cya kawa, igihe nkoresha ifumbire mvaruganda ndetse n'imiti y'ubutabire yica udukoko, nasaruraga 4kg; ariko nkoreshje ifumbire y'iminyorogoto ndetse n'icyo cyayi cyayo mu kwiruka udusimba ndetse no gufumbira, igiti kimwe cya kawa ugereranyije

nasaruyeho 12 kg. Ku mboga zo nahinze, beterave imwe yashoboraga gupima 1kg kandi mbere byarasabaga ko nsarura beterave enye cg eshanu ngo ngwize 1kg.

Brigitte: Hari imbogamizi waba warahuye nazo muri ubwo buryo butamenyerewe bw'imihingire?

Immaculée: Ku ikawa ho nta kibazo cyabaye kuko isoko ryo risanzwe rihari. Ariko ku mboga ho, yaba mu masoko ya hano iwacu cg mumaguriro agezweho y'imboga n'ibindi bicuruzwa (Super Market), nta mutu numwe wemeraga ko imboga zanje zifumbije 100% ifumbire y'imborera gusa. Icyo gihe nagurishije gusa imboga nke zitarenze n'ibiro 10 bya beterave, ibitunguru ndetse na puwavuro, kandi nabyo byaguzwe n'abaturanyi gusa basanzwe bazi koko ko nkoresha imborera. Ibindi bisigaye (birenga 95%) nabiyhereye abaturanyi n'abavandimwe ku buntu kuko ntafite ubundi buryo nabikamo umusaruro wanje w'imboga nyuma yo gusarura.

Brigitte: Ibyo bibazo wacyemo ucyeza bwa mbere byakwigishije iki?

Immaculée: Muby'ukuri, sinigeze mfata izo mbogamizi nk'ikibazo, ahubwo nabonaga harimo n'igisubizo. Byonyine byanyeretse ko bishoboka kuko abahinzi benshi ino ntibemera ko gukoresha ifumbire y'imborera gusa bishobora kongera umusaruro ku buryo bugaraga kandi n'ubutaka bwabo bukongera bukaryoha. No ku rundi ruhande sinarinzi ko abaguzi bifuza ibihingwa bihingishijwe ifumbire y'imborera kuruta ibihingishijwe imvaruganda. Nabimenye bambwira ngo ibyo ntawabigura warunzemo ibifumbire by'imvaruganda ngo bibyimbe. Kandi nzi neza ko ntigeze nyikoresha.

Brigitte: Ubona hakorwa iki ngo bigende neza kurushaho?

Immaculée: Njye mbona hakenewe cyane ko abahinzi bigishwa, atari gusa gukoresha imborera mu buhinzi bwabo ahubwo n'ibindi bikorwa byiza bijyana n'ubuhinzi byongera umusaruro kandi bikanafata neza ibidukikije ryo shingiro rya byose. Ikindi kandi hagakwiye gushyirwaho uburyo bufatika bwo guteza imbere ubuhinzi bukoresha ifumbire y'imborera cyane cyane hashyirwaho amasoko azwi waguriramo ibyo bicuruzwa.





3. Know more about the link between Environment and livelihoods

By Gilbert Muvunankiko (ARCOS Network)

Did you know about the benefits of Forest Landscape Restoration (FLR)?

For decades, unsustainable human practices driven by high population growth and rapid economic development, have degraded the environment and affected people's livelihoods. The latter caused natural resources decline which goes with the decline in services they provide. Those practices contributed much on climate change which in return exacerbates the situation. Those practices include mostly deforestation, unsustainable use of land/soil which lead to many problems including a decrease in crop harvest, soil erosion, watershed degradation among others.

It is now time for humans to reverse the situation through Forest and Landscape Restoration. In this issue, we will learn the benefits from FLR. In the next issue, we will explore the steps and principles of FLR and the context of this initiative at local level.

According to the International Union for Conservation of Nature (IUCN), Forest Landscape Restoration (FLR) is the ongoing process of regaining ecological functionality and enhancing human well-being across deforested or degraded landscapes. FLR is more than just planting trees – it is restoring the whole landscape to meet present and future needs and to offer multiple benefits and land uses over time. FLR manifests through different processes such as: new tree plantings, managed natural regeneration, agroforestry, or improved land management to accommodate a mosaic of land uses, including agriculture, protected wildlife reserves, managed plantations, riverside plantings and more.

FLR interventions benefits not only local people but also have regional and global benefits. For example, when you plant a tree, many people benefit; it result in fresh air , erosion control taccompnied by food security. The impacts of planting trees have global benefits such as carbon sequestration and contribution to climate change mitigation and adaption at the same time.

Forest Landscape Restoration has multiple advantages including economic, social and environmental. The below table summarizes the FLR benefits.

According to the International Union for Conservation of Nature (IUCN), Forest landscape restoration (FLR) is the ongoing process of regaining ecological functionality and enhancing human well-being across deforested or degraded forest landscapes. FLR is more than just planting trees – it is restoring a whole landscape to meet present and future needs and to offer multiple benefits and land uses over time.

FLR manifests through different processes such as: new tree plantings, managed natural regeneration, agroforestry, or improved land management to accommodate a mosaic of land uses, including agriculture, protected wildlife reserves, managed plantations, riverside plantings and more.



Potential Benefits of Forest Landscape Restoration (Not Exhaustive)

Source: WRI, *The Restoration Diagnostic*

AREA	CATEGORY	BENEFIT
Economic	AVOIDED DAMAGE FROM NATURAL HAZARDS	<ul style="list-style-type: none"> Reduce risk of landslides Reduce intensity and frequency of flooding Reduce coastal impact of storm surges Reduce damage to roads and built infrastructure
	ECONOMIC DIVERSIFICATION	<ul style="list-style-type: none"> Diversify range of economic activities for households, rural communities, and national economies (e.g., timber, nontimber forest products, agroforestry, tourism, payments for ecosystem services)
	FOREST PRODUCTS	<ul style="list-style-type: none"> Provide fuel wood Supply construction poles Generate nontimber forest products
	RECREATION	<ul style="list-style-type: none"> Enable ecotourism
Social	FOOD SECURITY	<ul style="list-style-type: none"> Improve crop yields (through agroforestry) Increase amount of wild food availability (e.g., fruit, nuts) Increase animal feed or fodder (via silvo-pastoral systems) Increase presence of pollinators Increase presence of natural predators of crop pests
	JOBS	<ul style="list-style-type: none"> Create new jobs (e.g., seed collection, nursery management, tree planting, extension services, forest products production, ecotourism)
	NATIONAL PRIDE AND COMMITMENTS	<ul style="list-style-type: none"> Build national and/or cultural pride Contribute to REDD+ under UNFCCC Achieve Aichi Target 15 under the Convention on Biological Diversity Contribute to the Bonn Challenge
	POVERTY ALLEVIATION	<ul style="list-style-type: none"> Increase and diversify smallholder incomes (through production of timber, nontimber forest products, and/or food)
	HUMAN HEALTH	<ul style="list-style-type: none"> Improve potability of drinking water Save lives by reducing natural hazards (e.g., landslides)
	REJUVENATION	<ul style="list-style-type: none"> Create recreational fishing and hunting opportunities Provide places for hiking, camping, bird-watching, etc. Renew mental and spiritual well-being
Environmental	BIODIVERSITY	<ul style="list-style-type: none"> Reduce habitat fragmentation Promote animal movement and seasonal migrations Create new wildlife habitat Conserve endangered species
	CLIMATE CHANGE	<ul style="list-style-type: none"> Increase carbon sequestration capacity Ameliorate local temperatures due to cooling effect of forest cover Increase adaptive capacity and resilience to climate change (e.g., migration corridors, income diversification)
	SOILS	<ul style="list-style-type: none"> Increase organic matter in soils Increase amount of soil nutrients (e.g., nitrogen) Reduce topsoil erosion
	WATER	<ul style="list-style-type: none"> Reduce topsoil erosion and siltation of reservoirs Recharge groundwater supplies Stabilize water flows Ensure clean, stable supplies of freshwater for downstream water users, including cities Support fish and other aquatic life



3. MENYA BYINSHI KU ISANO IRI HAGATI YO GUFATA NEZA IBIDUKIKIJE N'IMIBEREHO MYIZA



Gusubiranya imisozi n'ibibaya byangiritse bivuze gukora ibikorwa bigamije kugarurira impuzandiri (ecosystems) ubushobozi bwazo bwo gutanga serivisi (services) zahoze zitanga mbere yo kwangirika. Muri ibyo bikorwa hibandwa cyane mu gukora ibisubiza ibyo abaturage batuye aho bakeneye ndetse inyungu z'ibyo bikorwa zikagera no ku rwego rw'igihugu, akarere ndetse no ku isi yose. Tekereza iyo uteye igiti, umwuka mwiza gikora uhumeckwa n'abantu benshi, isuri ikagabanuka bikajyana no kwiyongera k'umusaruro; ibyo kandi bigira akamaro ku isi hose kuko cya giti kigabanya n'umwuka mubi wa karubon (carbon dioxide) ifite uruhare runini ku ihindagurika ry'ibihe

Mbese waba uzi inyungu ziri mu gusubiranya imisozi n'ibibaya byangiritse?

Biturutse ku bwiyyongere bw'abantu, ndetse n'ibikorwa bya muntu bitita ku ngaruka zo kwangiza ibidukikije, ingaruka nyinshi zagiye zisubiza hasi imibereho myiza y'abaturage ndetse n'umutungo kamere ugenda ukendera. Ibi byageze no ku rwego rwo guteza ihindagurika ry'ikirere naryo kandi rituma imibereho irushaho kuba mibi n'ibidukikije birushaho kwangirika. Ibyo bikorwa byaranzwe ahanini no kwangiza amashyamba, gukoresha ubutaka nabi byateye ingaruka nyinshi harimo kugabanuka k'umusaruro w'ibihingwa, isuri, kwangirika kw'amasoko byateye igabanuka n'ibura ry'amazi meza, gucika burundi kw'ibinyabuzima bimwe na bimwe, ndetse binateza ihindagurika ry'ibihe naryo risubiza irudubi iki kibazo.

Harageze ko umuntu, we nyirabayazana w'ibyo bibazo byose, afata iya mbere mu gusubiranya imisozi n'ibibaya byangijwe. Muri iyi nkuru turareba muri make ibyo twunguka mu bikorwa byo gusubiranya imisozi n'ibibaya byangiritse. Mu numero itaha y'iki kinyamakuru tuzareba neza uburyo n'amahame ngenderwaho muri icyo gikorwa.

Gusubiranya imisozi n'ibibaya byangiritse bivuze gukora ibikorwa bigamije kugarurira impuzandiri (ecosystems) ubushobozi bwazo bwo gutanga serivisi (services) zahoze zitanga mbere yo kwangirika. Muri ibyo bikorwa hibandwa cyane mu gukora ibisubiza ibyo abaturage batuye aho bakeneye ndetse inyungu zibyo bikorwa zikagera no ku rwego rw'igihugu, akarere ndetse no ku isi yose. Tekereza iyo uteye igiti, umwuka mwiza gikora uhumeckwa n'abantu benshi, isuri ikagabanuka bikajyana no kwiyongera k'umusaruro; ibyo kandi bigira akamaro ku isi hose kuko cya giti kigabanya n'umwuka mubi wa karubon (carbon dioxide) ifite uruhare runini ku ihindagurika ry'ibihe twavuze ruguru.

Gusubiranya imisozi n'ibibaya bigira akamaro ku bukungu, umuryango ndetse n'ibidukikije. Imbonera hamwe iri hepfo irerekana neza inyungu yo gusubiranya imisozi n'ibibaya muri ibyo bice tuvuze haruguru.

Ibi twabibasomeye mu gitabo kiswe mu rurimi rw'Icyingereza Forest Landscape Restoration Opportunity Assessment ndetse no ku rubuga rwa murandasri rwa gahunda y'isi yo gusubiranya imisozi n'ibibaya "Bonn Challenge (soma Boni Carenji)" (<http://www.bonnchallenge.org/>)



Inyungu ku Bukungu

Igice kigerwaho n'yo nyungu	Icyiciro cy'izo nyungu	Inyungu
Ubukungu	Kurinda no kugabanya ibyago biterwa n'ibiza	<ul style="list-style-type: none"> • Gukumira no kugabanya inkangu • Gukumira no kugabanya ubukana bw'imyuzure • Kugabanya umubare w'amazu ndetse n'imihanda yakwangizwa n'ibiza
	kwiyongera kw'amahirwe yo kuzamura ubukungu	Byongera ibikorwa mbatura bukungu ku muryango, ku mudugudu wose ndetse bikagera no ku bukungu bw'igihugu muri rusange (Urugero: gutanga imbahö ndetse n'ibindi biti bikoreshwa mu bwubatsi, byongera kandi n'izindi nyungu zidashingiye ku biti gusa nko kongerera uburumbuke ubutaka, amazi meza, ubukerarugendo, ndetse iyo bikozwe neza abita kuri ibyo bikorwa bakwisyurwa n'babakoresha bityo bikabazamurira ubukungu). Tubisobanuye kurutaho, nk'abantu bita ku cyogogo gitanga amazi akoreshwa mu nganda cg imigi iyi niyi, bakagenerwa ishimwe nabakoresha ayo mazi cg abaturage babungabunga pariki bakabona agahimbazamusyi katurutse mu bukerarugendo.
	Ibiti n'ibibikomokaho	<ul style="list-style-type: none"> • Gutanga inkwi n'amakara byo guvana • Ibiti byo kubaka cg gufata insinga z'amashanyarazi • Gutanga izindi nyungu zidashingiye ku giti gusa nk'izo twavuze haruguru
	Imyidagaduro n'ubukerarugendo	Gutuma ubukerarugendo bushoboka kandi bukanezaza imitima na roho za ba mukerarugendo



Inyungu ku muryango mugari wa muntu

Igice kigerwaho n'yo nyungu	Ikiciro cy'izo nyungu	Inyungu
	Kwihaza mu biribwa	<ul style="list-style-type: none"> • Kongera umusaruro biturutse ku butaka bwafashwe neza binyuze mu kuvanga ibiti n'imyaka • Kongera ingano y'imbuto gakondo ziribwa • Kongera ubwatsi bw'amatungo (lyo ubworoz iwbwanze mu kuvanga ibiti n'ubwatsi biribwa namatungo mu rwuri baragiramo) • Bituma uodusimba tubangurira imyaka twiyongera • Byongera udukoko turya uodusimba twangiza imyaka
	Akazi	<ul style="list-style-type: none"> • Guhangi imirimio mishya (Urugero: gucuruza imbuto n'ingemwe, akazi ko gukora muri pepinyeri, gutera amashyamba n'ibindi bijyanye nabyo)
	Gahunda mpuzamahanga igihugu cyasinye	<ul style="list-style-type: none"> • Bituma igihugu cyibona mu ruhando mpuzamahanga kikanishimira gukora ibikorwa bifitiye inyoko muntu ku isi yose akamaro • Kugira uruhare muri gahunda y'isi yose mu kugabanya imyuka ihumanya ikirere bitewe no gutema amashyamba ndetse no gucunga nabi umutungo kamere • Kugera ku masezerano mpuzamahanga yasinywe n'igihighugu, aha twavuga nk'amasezerano mpuzamahanga wo kurinda urusobe rw'ibinyabuzima • Kugira uruhare muri gahunda y'isi yo gusubiranya imisozi n'ibibaya bise mu rurimi rw'Icyongereza Bonn Challenge
	Kugabanya no kurandura ubukene	<ul style="list-style-type: none"> • Kongera umubare w'amafaranga yinjiraga mu rugo binyuze mu kuzamuka k'umusaruro w'ibihingwa, imbaho n'ibiti byo kubakisha n'ibindi
	Ubuzima bwiza	<ul style="list-style-type: none"> • Gutanga amazi yo kunywa meza kandi afutse atatera indwara • Kurinda imfu zashoboraga guterwa n'ibiza (nk'inkangu cg imyuzure)
	Kunezeza roho ndetse no kugarurira umubiri imbaraga	<ul style="list-style-type: none"> • Bibyara ibanya byiza byo gukoreramo ubukerarugendo bujyana n'uburobyi • Bigatanga ahantu heza ho gutemberera n'amaguru ukora imyitozoigorora umubiri, aho gukambika hari umwuka mwiza kuri ba mukerarugendo, aho kwitegerezia inyoni n'ibindi • Bitanga ahantu heza hashimisha ubwonko ndetse na roho umuntu akumva abaye mushya (abakora ingendo zo gusenga, gukora imigenzo gakondo, kumedita n'ibindi bijyanye nabyo)



Inyungu ku bidukikije

Igice kigerwaho n'iyo nyungu	Ikiciro cy'izo nyungu	Inyungu
Ibidukikije	Urusobe rw'ibinyabuzima	<ul style="list-style-type: none"> Bituma indiri y'urusobe rw'ibinyabuzima isubirana Bitera kwisanzura kw'inyamaswa ugasanga mugihe cy'amapfa zibona uko zisuhuka n'aho zisuhukira bizaroheye (aha ni igithe indiri y'inyamaswa iba yaraciwemo ibice noneho ibikorwa byo gusana bikaza byongera kuyihuza) Byongerera amahirwe yo kubaho inyamaswa ziri gukendera ku isi
	Ihindagurika ry'ikirere	<ul style="list-style-type: none"> Byongera ubushoboz bwo guhangana n'ingaruka z'imihindagurikire y'ikirere Byongera ubushoboz bwo kugabanya karuboni mu kirere Bigabanya ubushyuye aho ibyo bikorwa byakorewe bitewe n'ubushoboz amashyamba afite mu kugabanya ubushyue
	Ubutaka	<ul style="list-style-type: none"> Byongera ifumbire mu butaka ndetse n'ibitunga ibimera bibuterwaho Bigabanya isuri
	Amazi	<ul style="list-style-type: none"> Bigabanya isuri ndetse no gusibama kw'amasoko, imigezi n'ibiyaga Biyungurura neza amazi y'i kuzimu agaburira amasoko tuvomaho kandi bigatuma ayo mazi aza gake gake tukamara igithe tuyabona Bishyira ku rugero umuvuduko w'amazi y'invura bityo bikagabanya isuri ndetse n'amazi akinjira mu butaka ahagije Ni yo nkingi yo kubona amazi meza ku migi, ingo ndetse n'inganda Bifitiye akamaro kanini amafi ndetse n'ibindi binyabuzima biba mu mazi



About ARCOS' Nature Based Community Enterprises Programme

ARCOS Network Approach :

ARCOS Network's Nature Based Community Enterprises (NBCEs) programme (community development programme) adopts a holistic understanding of the socio-ecological system and helps the community to build vision of success based on sustainability principles and rooted in the cultural heritage. ARCOS works with Nature Based Community Enterprises (NBCEs) through a model structured around four but interrelated components that make the situation more approachable.

The BEST Approach (ARCOS 2015) focuses on four key areas:

B: Building leadership and sustainable institutions.

Cooperative management, governance, setting targets and work plans, gender and youth inclusiveness.

E: Enhancing environmental resilience.

Promoting Community Based Adaptation through sustainable agriculture, enhancement and protection of soil and water ecosystems and biodiversity, forest landscape restoration, ecosystem-based adaptation, promotion of green energy technologies.

S: Sustainable business solutions.

Assisting NBCEs in business planning, value addition, private sector engagement, market linkages and quality certification.

T: Transforming and inspiring others.

ARCOS and empowered NBCEs focus on Nature Based Villages (NBVs), demonstration sites in integrating sustainable environment and livelihoods practices. This is supported through a Nature Based Community Fund (NBCF) established to foster sustainability actions in each NBV through community loans, incentives and activities of common benefits. ARCOS also promotes community to community exchange through training workshops, exhibitions and exchange visits where communities share knowledge and experience and learn by doing.

Menya muri make gahunda ya ARCOS yo gushyigikira iterambere ry'abaturage binyujijwe mu gufata neza ibidukikije

Gahunda yo gushyigikira iterambere ry'abaturage binyujijwe mu gufata neza ibidukikije ni imwe muri gahunda z'umuryango ubungabunga ibidukikije mu Karere k'umuhora wa Albertin (ARCOS Network) unyuzamo ibikorwa bishyigikira iterambere rirambye rishimangira ubusugire bw'ibidukikije n'iterambere ry'abaturage. Intego nyamukuru y'iyi gahunda ni uguharanira iterambere ry'abaturage binyujijwe mu gushyigikira imishinga yabo y'ubucuruzi kandi yita ku gusigasira ubusugire bw'ibidukikije no gusangiza abandi ubumenyi.

Intero ya ARCOS ni "Ubufatanye mu guteza imbere imibereho myiza y'abaturage n'ibusugire bw'ibidukikije". Ni muri urwo rwego ARCOS ikorana n'abafatanyabikorwa batandukanye, barimo abaturage bishyize hamwe, inzego za Leta, imiryango itegamiye kuri Leta, abikorera n'imiryango mpuzamahanga; mu guhangana n'ibibazo byugarije ibidukikije n'iterambere. Mu

rwego rwo kunoza ibikorwa muri iyi gahunda, ARCOS igirana amasezerano y'ubufatanye n'abaturage n'inzego zibanze mu gushimangira ibikorwa by'indashyikirwa byinjiriza abaturage inyungu kandi bibungabunga ibidukikije, bityo bikabera abandi urugero rwiza n'inzira yo gusangira ubumenyi.

Ibikorwa by'iyi gahunda bishamikira ku ngingo 4 zigize uburyo bwa **B.E.S.T** ARCOS ikoresha, nk'uko bigaragara mu ngingo zikurikira:

B: Kubaka amakoperative arambye no kunoza ubuyobozi bwayo:

Guhugura abaturage ku miyobore myiza y'amakoperative, kugena intego no gukora gahunda y'ibikorwa, gushyigikira uburinganire n'urubyiruko mu ma koperative

E: Gushimangira ubusugire bw'ibidukikije: Gukora ubuhinzi burambye, gusigasira urusobe rw'ibinyabuzima aho dutuye n'aho dukorera, gufata neza amazi n'ubutaka no gukoresha ingufu zitangiza ibidukikije

S: Kubaka ibisubizo birambye ku mishinga y'abaturage: Gufasha za koperative gutegura gahunda y'ubucuruzi, kongerera agaciro umusaruro, gushaka ibyemezo mpuzamahanga by'umwimerere n'ubuziranenge bw'umusaruro no kubahuza n'amasoko

T: Gukwiza impinduka no kubera abandi urugero rwiza: ARCOS n'abafatanyabikorwa bashyira ingufu mu bikorwa byo kwiteza imbere, kubungabunga ibidukikije no guhangana n'ingaruka z'imihindagurikire y'ibihe mu midugudu yatoranyijwe kugirango izabe intangarugero (NBVs). Kubera ko ARCOS ikorera mu bihugu bitandukanye bya Afurika, ubumenyi buhererekanya ku rwego rw'umudugudu, bikagera no ku rwego rw'igihugu no mu bindi bihugu bya Afurika binyujijwe mu mahugurwa, imurika-bikorwa n'ingendoshuli, aho biga babishyira no mubikorwa.



3. EVENTS AND ANNOUNCEMENTS



Third Community to Community Exchange (C2CE 2018)

From 13th to 16th September, ARCOS Network and partners organized the 3rd Edition of the Community to Community Exchange (C2CE 2018) under the theme: "Toward resilient and sustainable communities". This event was held in Kigali/Rwanda and Kisoro/Uganda. It started with participation in Second Africa Regional Mountains Forum held in Kigali from 12th to 14th September 2018 and then a field visit in Kisoro, Uganda. The C2CE 2018 involved 32 NBCEs from Rwanda (22), Uganda (8) and Burundi (2).

The main objective of the C2CE is to enable participants to exchange information, knowledge and experiences on sustainable practices building on key areas under BEST approach, focusing on sustainable institutional management and leadership; best agricultural practices, forest landscape restoration, energy and water use efficiency; sustainable business operations, cultural exchange and community self-reliance initiatives.

The main highlights of this event include:

- One representative of mountain communities (Emmanuel Harerimana from Muhisimbi Cooperative) was elected to represent community groups in Governing Council of Africa Regional Mountains Forum
- Exhibition of community products and initiative towards sustainable livelihoods and environment sustainability during the second Africa Regional Mountains Forum
- Participants appreciated the efforts by ARCOS Network in promoting and facilitating regular C2CE, as well as in assisting and supporting its partner NBCEs to ensure that their businesses are sustainable and transformational
- Participants committed to advocate for the sustainability of C2CE and mainstream sustainable practices in all NBCE operations.
- Participants concluded that the next C2CE will be conducted in Rutsiro district in Rwanda in 2019 and they requested ARCOS Network to coordinate the event as usual
- Participants committed to contribute to the organization of this event

Ihuriro Nyunguranabumenyi rya gatatu rya Koperative ziteza imbere zinabungabunga ibidukikije

Iri huriro ryabaye kuva ku itariki ya 13 kugeza ku itariki ya 16 Nzeri 2018, rikaba ryari rifite insanganyamatsiko igira iti "Twubake umuryango aho abaturage batajegajezwa n'impinduka izo arizo zose". Iri huriro ryabereye i Kigali ndetse na Kisoro ho mu Bugande rihuza abahagariye koperative 32 zikorana na ARCOS Network (Rwanda (22), Bugande (8) and Burundi (2)). Ryatangiye kuri 13 Nzeri aho abagize iri huriro bitabiriye Inama ku Misozi ku Rwego Rw'Afurika banahakorera ndetse imurikagurisha ku bikorwa binyuranye bakora ndetse n'ubuziranenge bwabyo. Ibindi bikorwa byakomereje Kisoro muri Uganda aho bakoze ingendoshuli, bahanahana amakuru n'ubumenyi ndetse barisuzuma baniha gahunda yo kugenderaho mu gihe kiri imbere.

Ibi ni bimwe mu byaranze iri huriro rya gatatu:

- Umwe mu bagize iri huriro (Emmanuel Harerimana wo muri Koperative ya Muhisimbi) yatorewe guhagararira amatsinda y'abaturage mu Nama Nyobozzi y'Ihuriro Nyafurika ku Iterambere Rirambye ryo mu Misozi ya Afurika.
- Abaturage bamuritse ibyo bakora byiziza bijyanye no kuzamura imibereho myiza ndetse no gusigasira ubusugire bw'ibidukikije muri iriya nama nyafurika ku misozi
- Abagize iri huriro bibanze cyane ku gushimira ARCOS Network ku mbaraga ishyira mu gutegurira iri huriro igithe ndetse n'ubufasha iha abari muri iri huriro mu gukora ibikorwa birambye kandi Bizana impinduka zigaragara.
- Abagize iri huriro bahize gukora uko bashoboye ngo iri huriro rikomere kurutaho ndetse no gukomeza gushyira ibikorwa birambye ku izingiro ry'ibikorwa bya koperative zabo.
- Hemejwe ko ihuriro nyunguranabumenyi ritaha rizabera mu Karere ka Rutsiro ho mu Rwanda



We are very grateful for the financial support from World Resources Institute (WRI) and New Field Foundation (NFF). We would have not been able to produce this second issue of Endokwa News without your support. We thank also members of different community groups that have contributed articles to this issue of ENDOKWA News.



Turashimira cyane World Resources Institute (WRI) na New Field Foundation (NFF) ku nkunga yanyu mu kwandika nomero ya kabiri y'iki kinyamakuru ndetse nubufatanye bwanyu mu bikorwa bya ARCOS Network bitandukanye.

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