



Rwanda Water Resources Board RWB



Ubukangurambaga bwo Kurwanya Isuri

Soil Erosion Control Campaign

August Newsletter | 2022



#TurwanyeIsuri
#FightingSoilErosion

“Hakomeje ubukangurambaga bwo kurwanya isuri mu bikorwa bitandukanye mu gihugu hose. Dutanye twese turwanye isuri.”

“Campaign to fight soil erosion in different activities continues across the country. Let's join efforts to fight soil erosion.”

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I Burasirazuba: Bagaragajwe ko bari gusodoka muri gahunda zo kurwanya isuri



Umuganda wo guca imirwanyasuri mu Karere ka Ngoma/ Photo: Ngoma District

3-08-2022: Hegitari ibihumbi 543 zagaragajwe ko zikeneye gushyirwaho imirwanyasuri, ubuyobozi bw'inzego z'ibanze bunengwa uburyo buri gushyira mu bikorwa iyi gahunda aho mu mezi atatu hamaze gukorwa 2% by'izi hegitari.

Ibi byagaragajwe kuwa Kabiri tariki ya 2 Kanama 2022, ubwo habaga inama Nyunguranabitekerezo yahuje inzego zitandukanye ku ngamba zo kurwanya isuri no gutera amashyamba mu Ntara y'Iburasirazuba.

Kuva muri Mata Leta y'u Rwanda yiyemeje gushyiraho imiganda hirya no hino mu gihugu mu gihe cy'amezi icyenda hagamijwe gucukura imirwanyasuri, gutera ibiti bitandukanye hagamijwe kurwanya isuri.

Dr Rukundo Emmanuel, Umuyobozi Mukuru w'Ikigo gishinzwe Umutungo Kamere w'Amazi mu Rwanda (RWB), yeretse aba bayobozi ko kurwanya isuri ari ikibazo gikwiriye gushyirwamo imbaraga cyane, aho yatanze urugero kuri Nyabarongo ahanyura ubutaka bungana n'ibiro 42 mu isogonda avuga ko ibi byerekana ubukana bw'isuri ihari.

Yavuze ko u Rwanda rwarwanyije isuri nibura ku mwaka rwajya rwunguka miliyari 183 Frw ubundi agenda akoreshwa mu kurwanya isuri mu bikorwa bitandukanye.

Dr Rukundo yavuze ko kuri ubu ibikorwa byo kurwanya isuri bitari gushyirwamo imbaraga nk'uko byagakozwe, yemeza ko mu mezi make ashize iki gikorwa gitangiye hamaze kurwanya isuri kuri 2%.

Ati “ Ubu rero tugeze kuri 2% tugendeye kuri raporo yo muri Nyakanga, tugendeye kuri uyu muvuduko twasanze byadutwara imyaka 50 kugira ngo turwanye isuri kuri za hegitari ariko turamutse dukoze hegitari imwe mu cyumweru muri buri Mudugudu iyi gahunda yarangirana n'uyu mwaka ubu hamaze gukorwa hegitari 2500 zirenga mu Burasirazuba kandi hakenewe gukorwa hegitari I bihumbi 177 dukeneye kwihutisha rero.”

Umuyobozi Mukuru wa Meteo Rwanda, Gahigi Aimable, we yavuze ko bimwe mu bintu bitera isuri harimo imvura nyinshi ndetse n'umuyaga mwinshi ukunze.

kwibasira Intara y'Iburasirazuba, yavuze ko igikorwa cyo kurwanya isuri cyakwihutishwa mu kwirinda imvura nyinshi izagwa mu ntangiriro za Nzeri.

Umuyobozi Mukuru wungirije wa RAB ushinze Iterambere ry'Ubuhinzi, Dr Bucagu Charles yavuze ko hegitari ibihumbi 543 arizo zikwiriye kurwanywaho isuri anagaragaza ko zimwe mu mpamvu zitera isuri ari ubutaka bworoshye n'ibindi.

Ati “Mu bitera isuri harimo ubukana bw'imvura, umwimerere w'ubutaka bworoshye cyane cyane mu misozi miremire aho iyo imvura iguye ubutaka bugasoma bugenda bumanukana n'ibiriho byose, ubuhaname bukabije, ubutaka bwambaye ubusa ndetse no kutagira amaterasi bituma isuri yiyongera.”

Dr Bucagu yagaragaraje ko ku butaka buhingwa ingano y'itaka rigenda ari toni 421 kuri hegitari

ku mwaka wabibara ugasanga ngo nibura umuhinzi agira igihombo kiri hagati ya 5-10% by'umusaruro.

Yakomeje avuga ko umuturage wahinze agashyiramo ifumbire iyo atarwanyije isuri neza nibura ku mwaka ashobora guhomba ibihumbi 900 Frw kuri hegitari ngo kuko itaka rigenda ritwara ya fumbire aba yashyizemo kongeramo n'uruhare rwe mu guhinga.

Yavuze ko hashyizwe imbaraga mu kurwanya isuri hakorwa imiganda hagacibwa imirwanyasuri ahandi hagakoreshwa VUP byakwihutisha iki gikorwa abaturage ntibakomeze guhomba.

Umuyobozi w'Akarere ka Kirehe, Rangira Bruno, nka kamwe mu turi mu dukunda kwibasirwa n'isuri aho bafite hegitari ibihumbi 42 zishobora kugirwaho ingaruka n'isuri yavuze ko bari gukora ubukangurambaga mu baturage kugira ngo bamenye ububi bw'isuri.

Ati "Nk'Akarere turi kwegera abaturage kugira ngo hakorwe imiganda yo gukora imirwanyasuri mu mirima n'ahandi ku misozi, turi gutera ibiti kandi mu mirima y'abaturage ndetse tukanakora ubukangurambaga mu bandi bafite ubutaka."

Kuri ubu Intara y'Iburasirazuba muri hegitari ibihumbi 177 zikwiriye kurwanyaho isuri hamaze gukorwa hegitari 2500 nkuko raporo yo uri Nyakanga ibigaragaza. [Soma inkuru irambuye](#)

Hegitari zirenga miliyoni imwe zishobora kwibasirwa n'isuri mu Rwanda



Amaterasi y'indinganire yakozwe ku musozi wa Muhanda mu Karere ka Rubavu mu mushinga wa Sebeya / Photo:Remy Niyingize

4-08-2022: Ikigo gishinzwe umutungo kamere w'amazi mu Rwanda, RWB, kigaragaza ko hari impungenge ku butaka bwa hegitari zirenga miliyoni imwe zishobora kwibasirwa n'isuri hiryana no hino mu gihugu.

Ibi byagarutseho n'Umuyobozi w'Ishami rishinzwe kubungabunga ibyogogo no kurwanya isuri mu Kigo gishinzwe Umutungo Kamere w'Amazi mu Rwanda (RWB), Ruzigana Pamela, wavuze ko muri gahunda yo kubungabunga ibyogogo hakoze ubushakashatsi bugamije kumenya ingano y'ubuso bw'ubutaka bushobora kwibasirwa n'isuri mu Rwanda.

Kubungabunga ibyogogo u Rwanda rufite, bisaba gushyira imbaraga mu kurwanya isuri mu rwego rwo kwirinda ko ishobora kuba imbogamizi mu kubungabunga kandi bifatiye runini ubuzima bw'abaturage.

Ubusanzwe icyogogo ni ubutaka bugizwe n'imibande, ibibaya n'imisozi bimenya amazi y'imvura ahantu hahurira hamwe nko mu mugezi cyangwa ikiyaga.

Kuri ubu u Rwanda rufite ibyogogo icyenda bigizwe na Kivu, Rusizi, Mukungwa, Nyabarongo yaruguru, Nyabarongo y'epfo, Akanyaru, Akagera k'amajyaruguru, Akagera k'majyepfo na Muvumba.

Uyu muyobozi yavuze ko hari inyigo zigenda zikorwa n'imishinga itandukanye ikubiyemo ibikorwa bigamiye kurwanya isuri mu rwego rwo kubungabunga ibyogogo.

Ati "Hari inyigo ziga imiterere y'icyogogo no kureba ubuzima bw'abaturage mu cyogogo n'imirimo ihakorerwa, ibibazo ndetse n'amahirwe icyogogo gifite. Iyo tuvuga uburyo bwo kurwanya isuri tubirebera mu buryo bukomatanyije kuko harebwa ubwiza bw'amazi, yaba akoreshwa mu buhinzi, mu nganda n'ibindi byinshi."

Hamwe mu hakunze kugarara ikibazo cy'isuru ni ku cyogogo cya Sebeya mu Ntara y'Iburengerazuba aho hari n'umushinga ukomeje gushyirwamo imbaraga.

Ni umushinga ushyirwa mu bikorwa mu turere tune tw'Intara y'Uburengerazuba ari two Rubavu, Nyabihu, Rutsiro na Ngororero.

Muri uyu mushinga hibandwa ku bikorwa byiganjemo gukora amaterasi y'indinganire n'ayikora aho hamaze gukorwa hegitari zirenga 4500, gutera amashyamba n'ibiti bivangwa n'imyaka.

Hamaze kandi kubakwa ingomero ebyiri ku mugezi wa Sebeya, gutanga ibigega bifata amazi no kwigisha abaturage gukora ubuhinzi butangiza ibidukikije no gukura abaturage mu bukene binyuze mu kubaha imirimo ibungabunga uyu umugezi.

Kuri ubu hashyizweho komite zishinzwe kubungabunga ibyogogo zashyizweho n'iteka rya Minisitiri ndetse zikagenda zishyirwa ahamaze gukorerwa inyigo yo guteza imbere no kubungabunga icyogogo.

Hakozwe inyigo y'umwihariko ndetse hatangira ibikorwa byo kurwanya isuri, guca amaterasi n'ibindi.

Kugeza ubu mu Rwanda ubuso bukeneye kurwanwaho isuri bungana na hegitare 1.080.168.

Ruzigana Pamela yavuze ko ko nubwo hakiri imbogamizi ku myumvire y'abaturage ariko hari impinduka zigarara zagezweho mu kurwanya isuri.

Ati "Ni ibintu tugenda twumva, kuko iyo urebye isuri iyo ibayeho turatakaza ubutaka kandi ntitubashe guhinga. Amazi na yo arandura bikazadutwara amafaranga menshi yo kuyasukura kugira ngo amashanyarazi aboneke, ndetse na WASAC ibone amazi yo gutanga. Niyo mpamvu twese turi kubizamo kugira ngo iki kibazo gishakirwe umuti ariko na none igikomeye ni ijwi ry'umuturage."

Abaturage basabwe kugira uruhare mu kurwanya isuri aho kubiharira ubuyobozi bwite bwa Leta nk'uko bikunze kugarara ko mu bice bitandukanye abaturage bagifite imyumvire ko kurwanya isuri ari ibya Leta. [Soma inkuru irambuye](#)

Buri segonda ubutaka buragenda: Igihombo giterwa no gufata nabi Nyabarongo



Nyabarongo niwo mugezi muremure mu Rwanda aho ufite uburebure bwa kilometero 351/ Ifoto: Igihe

16.08.2022: Buri mwaka, ubutaka bw'u Rwanda bugera kuri toni miliyoni imwe butwarwa n'amazi biturutse ku isuri n'ibindi bikorwa byangiza ibidukikije. Hari ubushakashatsi bwagaragaje ko ku mwaka utwara ubutaka bungana na toni zisaga 400, ukabujyana mu bindi bihugu.

Mu duce tw'imisozi miremire dukora kuri Nyabarongo nka Muhanga ahazwi bucukuzi bw'amabuye y'agaciro bwinshi, buri segonda ibilo 51 by'ubutaka biragenda nk'uko byatangajwe n'Ikigo gishinzwe Umutungo Kamere w'Amazi mu Rwanda.

Umugenzi nka Nyabarongo muremure mu Rwanda, kwangirika kwawo n'inkengeru zawo ni igihombo gikomeye ku gihugu dore ko ufatiye runini ubuhinzi, urusobe rw'ibinyabuzima, ubukungu bw'igihugu kubera umuriro w'amashanyarazi ukomoka ku ngomero zubatse kuri Nyabarongo, amazi meza agemurirwa umujyi wa Kigali n'ibindi.

Umuyobozi Mukuru w'Ikigo gishinzwe Umutungo Kamere w'Amazi mu Rwanda, Dr Rukundo Emmanuel, mu kiganiro cyihariye na IGIHE, yavuze ko igihugu gihomba byinshi kubera iyangirika ry'uwo mugezi ufatwa nk'ingobyi igaburira uruzi rwa Nil.

Nta na rimwe wabona amazi ya Nyabarongo ari urubogobogo, ishusho yayo waba uri kure cyangwa uri hafi aba ari ikigina. Impamvu y'iryo bara ry'amazi yayo, ahanini ni isuri n'ubucukuzi bw'amabuye y'agaciro bukorwa mu buryo butubahirije ibidukikije.

Dr Rukundo Emmanuel avuga ko bigira ingaruka zikomeye ku gihugu no ku baturage.

Ati "Iyo habaye isuri ikintu cya mbere kibaho ni ubutaka bugenda, bugahera kuri bwa butaka buhingwa ari nabwo buba burimo n'ifumbire. Ku muturage uhinga, umusaruro uragabanuka bikagera ku buzima bwa buri muni bw'umuturage aho inyungu yari ategereje n'igihugu bigabanuka."

U Rwanda ni igihugu gituwe n'abaturage aho hafi 60 % batunze n'ubuhinzi. Kubera guhinga gakondo, bwinshi muri ubwo buhinzi bukururira abahinga mu bishanga no ku nkengeru z'imigezi.

Nyabarongo ibamo ibinyabuzima birimo inyamaswa zigaragarira amaso nk'ingona, amafi n'izindi. Habamo urusobe rw'ibinyabuzima bindi nk'ibimera.

Dr Rukundo yavuze ko kubera amazi yanduye n'isuri, ibyo binyabuzima bihababarira ku buryo bimwe bishobora kuzima burundu.

Ati "Iyo amazi yangiritse bwa buzima nabwo burapfa. Amazi tuyabyaza umuriro w'amashanyarazi, hari aho tuyafata tukayatunganya bakayakoresha mu buzima bwa buri muni. Dufatiye nko ku ruganda rwa Nzove, ifata amazi ya Nyabarongo ikayatunganya agakoreshwa mu bikorwa bya buri muni. Iyo amazi yanduye rero, ikiguzi cyo gutunganya amazi kiriyongera."

Nko ku ruganda rw'amazi rwa Nzove, kubera uburyo Nyabarongo mu gihe cy'imvura amazi yayo aba arimo ibyondo byinshi, hakoze ubundi buryo bwo gukogota amazi yo muni y'ubutaka, kugira ngo mu gihe imvura yabaye nyinshi imashini zikananirwa kuyungurura aya Nyabarongo, abaturage batazabura amazi.

Dr Rukundo yakomeje agira ati "Ku ngomero z'amashanyarazi, iyo twubatse dam runaka tukavuga ngo izakenera amazi angana gutya, ha handi twateganyije amazi hakazamo bwa butaka bukirundamo, bigabanya umuriro wakabaye utangwa n'urwo rugomero."

Ingaruka z'isuri muri Nyabarongo zikomereza mu bishanga inyuramo, aho imanukana ibyondo n'umucanga, ubuhinzi bw'ibyo bishanga bugahagarara.

Uyu mwaka urasiga impinduka...

Kuva mu myaka ishize, umugezi wa Nyabarongo wagiye ukorwaho ibikorwa bitandukanye bigamije kuwubungabunga ariko ntabwo byagiye bitanga igisubizo kirambye ku kuwurinda isuri n'iyangirika ryawo.

Inzobere zagiye zigaragaza ko ikibazo ari ugutatanya imbaraga kw'abafatanyabikorwa bawubungabunga cyangwa se kudashyiraho umurongo uhamye.

Dr Rukundo Emmanuel yabwiye IGIHE ko hashyizweho ingamba zihariye zigamije kurwanya isuri hirya no hino mu gihugu, ku buryo biteze ko uyu mwaka uzasiga hari impinduka.

Ati “Iyo turebye ubuso bugomba kurwanyaho isuri, 80 % yabwo ni ahantu hacibwa amaterasi yikora cyangwa imirwanyasuri. Biri mu bushobozi bwose bw'umuturage.”

Yakomeje agira ati “Hari ubukangurambaga bwatangiye mu kwezi kwa kane turi gukorana n'inzego z'ibanze, dusaba ko umuturage wese aho ari yarwanya isuri mu butaka bwe. Igipimo cy'ubutaka ku muturage ni hafi igice cya hegitari, twumva ko ari ikintu gishoboka kurwanyaho isuri.”

Kuva mu 2021 Leta imaze gushyiraho hafi miliyari 3.5 Frw yo kurwanya isuri, haherewe ku turere dukunze kugaragaramo kwibasirwa n'isuri cyane.

Dr Rukundo avuga ko hari na gahunda yo gukora amaterasi y'indinganire aho gahunda ari ugukora ubutaka bungana na hegitari 24948. Zizaba ziyongera ku zindi hegitari ibihumbi 21 zakozwe mu myaka ine ishize.

Ati “Ahantu isuri yaje haba imikoki minini cyane iza igaca aho hantu, na yo tugenda tuyikora ikaba ubutaka umuturage ashobora kongera guhinga. Hari n'ibindi bikorwa byo gutera ibiti bivangwa n'imyaka, gutera ibiti ku mbibi z'imigezi ngo ubutaka butagenda.”

Ku bacukura amabuye y'agaciro, hari gutekerezwa uburyo bwo gukangurira

uburyo bwo gukangurira abayacukura, gutunganya amazi bakoresheje mbere yo kuyarekurira mu migezi yiroha muri Nyabarongo.

Icyakora Dr Rukundo, yavuze ko kurwanya isuri ari na yo yangiza cyane umugezi wa Nyabarongo atari ibintu by'umuntu umwe.

Ati “Hari ibikorwa biba byarakozwe bikeneye kubungabungwa. Niba umuciriye umuringoti mu murima we, akeneye kuwusibura. Iyo idakozwe isuri ntabwo iba irwanyije.”

Mu bindi byagaragaye ko byanduza Nyabarongo cyane, harimo imyanda ijugunywamo iturutse mu ngo z'abantu no mu nganda. Ibyo bituma amazi y'uwo mugezi yandura ku buryo ashobora gushyira mu kaga ubuzima bw'abayakoresha.

Hari ubushakashatsi bwakozwe n'ishyamba Democratic Green Party mu Ukwakira 2021 bwagaragaje ko hari ubwoko bw'innyoni zakundaga kuba mu cyogogo cya Nyabarongo zitagihari kubera kwangirika k'uwo mugezi.

[Soma inkuru irambuye](#)

Ibiganiro mu bitangazamakuru ku bukangurambaga bwo kurwanya isuri n'ibiza

- ▶ Ikiganiro n'Umuyobozi Mukuru wa RWB, Dr. Rukundo Emmanuel ku micungire y'umutungo kamere w'amazi. [Kanda hano](#)
- ▶ Ikiganiro **Waramutse Rwanda** cya MINALOC na RWB kuri RTV ku bukangurambaga bwo kurwanya isuri bukomeje hose mu gihugu. [Kanda hano](#)
- ▶ Ikiganiro **Amakuru Yihariye** cya RWB na Meteo Rwanda ku ngamba zo kurwanya isuri n'ibiza mu gihe cy'imvura. [Kanda hano](#)
- ▶ Itangazo rihamagarira buri muturage kurwanya isuri n'ibiza. [Kanda hano](#)

Rwf3bn dyke on Lake Muhazi to enhance tourism, agriculture



The newly constructed Muhazi dyke worth to conserve Lake Muhazi.

Photo:Remy Niyingize

1-08-2022: Works to construct dykes worth Rwf3 billion for conserving Lake Muhazi and protecting its downstream area from devastating floods are complete, according to the Rwanda Water Resources Board (RWB).

The barrage was built to control the outflow of the water from the lake so as to, among others, permit sustainable food production around the lake, ensure sustainable water supply for agriculture and domestic use in addition ramping up a growing fisheries sector.

The new Muhazi dyke is 6.5 meters high and has a crest elevation of 1,437.5 meters.

Davis Bugingo, the Flood Management and Water Storage Development Division Manager at RWB told Doing Business that the new dyke could also curb a certain percentage of flooding that usually ravages the Nyabugogo commercial hub located in the lake's downstream zone, in Kigali city.

The lake empties into River Nyabugogo, which flows southwards to Kigali and meets River Nyabarongo.

The water flowing out of Lake Muhazi usually triggered floods due to lack of retaining walls, Bugingo explained.

“The dyke to hold back and control water outflow from the lake will ensure water is available

to users as water levels will not reduce. Users include farmers who need water for irrigation, domestic water supplies, and the cage fishing community,” he said.

Lake Muhazi, a long thin shallow lake, is one of the 31 lakes in Eastern Province. The Lake is fed by 870 square kilometers of watershed and spans over about 38 square kilometers.

The new dyke replaces an old one constructed in 1999 when it was observed that the lake was drying due to uncontrolled outlet. Attempts to fix the dyke problems were made since 2013, usually by use of sandbags. A feasibility study carried out in 2019 showed that the cost and difficulties involved in the rehabilitation of the old dam were higher than building a new dyke downstream.

If the water level does not lower, fish farmers with cages in Lake Muhazi stand to benefit.

Otherwise, Bugingo noted, fishing cages as well as the pipes that pump irrigation water could hang in the air if water levels, for instance, reduced by one metre. In such a situation, he added, even the fish could die.

“Sugar cane plantations and other crops in floodplains downstream could also be saved from flooding.”

Conserving Muhazi for tourism

Tourism enthusiasts in the past pointed at the untapped potential of Lake Muhazi, which straddles five Districts across two Provinces and the City of Kigali. The lake straddles the borders of Rwamagana, Kayonza and Gatsibo districts in Eastern Province, Gicumbi District in Northern Province and Gasabo District in City of Kigali.

The lake and its environs teem with latent tourism potential, experts say.

The lake and areas in its vicinity hold a place of historical importance. Legend has it that the founder of ancient Rwanda kingdom, King Gihanga Ngomijana, fell from the sky and settled in Gasabo, near Lake Muhazi. It is believed that that is where Rwanda started from.

According to the Rwanda Development Board (RDB), the lake is known for its large population of spotted-necked otters, fish and birds.

Over the years, several hospitality and entertainment venues sprung up in areas around the lake.

The Government wants to promote the area as a key destination. There is a plan to develop a wide-range of products and services in the area. Planned investments – under the Rwanda Sustainable Tourism master plan – include an amusement park, beach facilities and water sports, a nightclub and casino, a five-star hotel, guest houses, an animal orphanage and a medical centre. [Read the full story](#)

RWB releases the State of Soil Erosion Control in Rwanda 2022



Some terraces have been created as viable solutions to curb soil erosion/
Flyer: Remy Niyingize

8-08-2022: The State of Soil Erosion Control in Rwanda 2022 is the result of collaborative efforts between the Government of Rwanda through Rwanda Water Resources Board (RWB) and the International Union for Conservation of Nature (IUCN) as part of the Embedding Integrated Water Resources Management in Rwanda project

funded by the Embassy of Kingdom of the Netherlands in Rwanda.

In this report The results of the erosion control mapping shows that of the 30 districts of Rwanda, land under high erosion risk is about 1,080,168 hectares (45% of the total provinces land which is estimated to 2,385,830 hectares) of which 71,941 hectares (7% of the total risk areas) are at extremely high risk, 190,433 hectares are at very high risk (18% of the total land at erosion risk), 300,805 hectares are at high risk (28% of the total risk identified), and 516,999 hectares (48% of the total land at risk) are at moderate risk.

Efforts made in controlling erosion in Rwanda

In Rwanda, it was observed that the erosion control techniques i.e. proportion of land at erosion risk which are today protected against erosion for each district is very low.

In fact, of 1,080,168 hectares of land at risk in all provinces, only 282,352 hectares are protected against erosion (26% of the country land at risk) of which 28,870 hectares are protected by contour bank terraces (commonly known as progressive terraces covering (10% of the land protected) while forests protect about 190,011 hectares at risk (67 % of land protected).

There are other practices like bench terraces (42,379 ha: 15%), hedgerows and shrubs (318 hectares), etc. About 797,816 hectares are not protected yet which is about 74 % of the total country land at risk. [Read the report](#)

Rwanda loses over Rwf800bn annually due to soil erosion –new report



Farmers try to salvage some of their rice produce washed away by floods in Nyagatare District in 2019/ Photo: The New Times

9-09-2022: MORE THAN 745,000 hectares of agricultural land in Rwanda potentially loses its topsoil every year, a new report shows, adding that the country loses more than Rwf800 billion annually due to soil erosion.

Using a reference year of 2021 agricultural season A, the report-by Rwanda Water Resources Board (RWB) in partnership with International Union for Conservation of Nature (IUCN) under support from Kingdom of the Netherlands-says that above three million tonnes of crop produce are estimated to be lost seasonally, an equivalent of six million tonnes annually.

It shows that 22,000 tonnes of maize and 15,000 tonnes of beans are estimated to be lost every season due to severe erosion.

“The total economic loss in agricultural productivity due to severe erosion in Rwanda is round Rwf37.9 billion every season,” reads part of the report.

The country is losing 25 tonnes of topsoil per hectare every year, and the total area at risk is over one million per hectare, or 45 percent of the country total.

Of one million hectares of land at risk in all provinces, only 282,352 hectares are fully protected against erosion.

The discharge is estimated to an average of 27 million ton of top soil lost annually.

“The annual loss due to soil erosion is estimated to be Rwf810 billion on average,” the report shows.

Another effect of soil erosion is soil fertility depletion and incurred cost of fertilisers as soil erosion removes the upper fertile part of soils that contains nutrients.

Josaphat Kanyeshuri, a researcher and lecturer in environmental studies, told The New Times that soil erosion and mining activities are top of activities polluting rivers such as Nyabarongo.

“There have been many projects to control soil erosion and conserve the river, but there is lack of proper monitoring to ensure implementation of the existing projects is successful, and ownership among citizens,” he said.

Erosion control actions and recommendations

Minister for Agriculture and Animal Resources, Geraldine Mukeshimana, has requested local government leaders to intensify campaigns against soil erosion.

The campaign has been launched in all provinces across the country.

“There should be increased efforts in terraces, agro-forestry and protecting rivers and lakes among others,” she said.

The study estimates that the total cost of erosion control actions is estimated at Rwf514 billion, of which Rwf323 billion is required for protection of agricultural land against soil erosion (about 60 percent of the total risk areas) using bench terraces, contour bank terraces known as progressive terraces, agroforestry and plantations on contour banks.

“This would require about eight years from 2022 to 2030 to complete the activity by investing about Rwf42 billion every year to protect agricultural land against excessive erosion using community approach,” experts have mentioned.

There should be a switch of emphasis to focus on the promotion of a high quality integrated soil management system rather than stand-alone erosion control measures in agricultural land, the study recommends.

It also shows that rainwater harvesting in settlements and storm-water infrastructure in urban areas has potential to address accelerated erosion and other problems resulting from rainfall run-off across the country.

The contour bank terraces are recommended in high-risk agricultural lands, ditches are recommended in forested areas while bench terraces are recommended in areas at extremely high risk where bench terracing was started but wasn't done in the entire area.

Grassed waterways have been recommended for existing terraces which were made without waterways or with waterways but no grasses.

No-till agriculture (zero tillage) has been recommended for perennial crops in extremely high-risk areas while storm-water management facilities or water harvesting facilities have been recommended in built-up areas.

Bamboos are recommended to close gullies or to protect rivers while forests (afforestation or reforestation) are recommended in extremely high-risk areas.

Contour bank terraces are required on 510,096 hectares, which is about 47 percent of the total country land at risk, while afforestation and reforestation are required on 39,901 hectares

(4 percent of the country land at risk).

Agroforestry is required on 101,232 hectares (9 percent of the total country land at risk). [Read the full story](#)

EDITORIAL: We must act now to save our soils



Radical terraces created by RWB in Giciye catchment to curb soil erosion./ Photo: Remy Niyingize

10-08-2022: A new damning report has revealed that Rwanda loses some 27 million tonnes of topsoil each year thanks to soil erosion, resulting in an annual loss of Rwf800 billion.

This is a significant loss especially considering Rwanda's size. The picture is even direr if analysed in the context of the country's arable land.

To put the attendant financial loss in context, the Rwf800 billion the country loses annually through soil erosion is just less than a sixth of the current financial year's national budget. The amount is greater than the budgetary allocations for agriculture, health and energy combined.

The report shows that more than 745,000 hectares of Rwanda's agricultural land potentially loses its topsoil – the soil layer that contains most of nutrients and fertility – every year.

It shows that severe erosion washes away 22,000 tonnes of maize and 15,000 tonnes of beans every planting season, with the total economic loss in agricultural productivity estimated at Rwf37.9 billion each season.

Needless to say, this poses a serious threat to the country's food security ambitions and undermines both short-and long-term strategies to transform the agriculture sector.

The study has shined a light on one of the most serious challenges facing the agriculture sector, with smallholder farmers bearing the brunt of the consequences of soil erosion.

Add climate change to the mix and the situation could get worse in the years ahead.

It is a sobering reminder that we need to urgently reexamine the current strategies to prevent land degradation, and even go back to basics where necessary.

The same study indicates that, to control erosion, the country needs to invest at least Rwf500 billion to promote terraces, agroforestry and contour farming.

These findings – and the proposed actions – need to be taken seriously by concerned authorities, both at the central and local government levels. And, we must act now before it's too late. [Read the editorial](#)

How soil erosion is posing a threat on food security



According to the State of Soil Erosion Control in Rwanda May 2022, more than 745,000 hectares of agricultural land in Rwanda are potentially eroded every year/ Photo: Report

10-08-2022: In the last three farming seasons (over a year's time), farmers grouped under IABM – a cooperative mainly growing maize in Muhanga District, Southern Province, saw 28 he-

ctares of their farms gradually washed away by torrential rain induced erosion, causing them at least Rwf112 million annual income loss.

Jean d'Amour Ntamabyariro, president of this cooperative with over 1,500 members, told The New Times that it was carrying out farming on 215 hectares for maize seed multiplication purposes, but currently does it on 187 hectares, because of the water induced erosion that destroyed part of their farms.

He estimated maize production at four tonnes per hectare, indicating that the completely eroded 28 hectares of farmland could produce 112 tonnes. With a kilogramme of maize seed costing Rwf1,000 that totals to over Rwf112 million.

“Rainwater flows from hillsides and roadsides and takes away our soil, and that has an economic implication. Sometimes, we lose part of our land, while in some cases, fertile soil is washed away by erosion, forcing us to apply three times the amount of fertilisers we would normally use as we try to restore soil fertility,” he said.

He indicated that their land is carried away by streams such as Makera and Kagorogonzo into the River Nyabarongo and heads downstream to Egypt.

This is one of the examples of how erosion is deteriorating agricultural productivity, increasing production costs for farmers (as they try to recover productivity) and the country at large.

Indeed, according to the State of Soil Erosion Control in Rwanda May 2022, more than 745,000 hectares of agricultural land in Rwanda are potentially eroded every year.

It was produced by the Rwanda Water Resources Board (RWB) and the International Union for Conservation of Nature (IUCN).

Using a reference year of 2021, season A, the report revealed that over 3 million tonnes crop produces are estimated to be lost seasonally (6 million tonnes annually) due to severe erosion, of which 22,000 tonnes of maize and 15,000 tonnes.

According to the report, the crop productivity lost to severe erosion in Rwanda translates into a loss of about Rwf37.9 billion (5.5 percent) of the Rwf690 billion agricultural sector contribution to Rwanda's GDP in the first quarter of 2021.

The above produce loss due to erosion is far more than the 10,000 tonnes of maize and 5,000 tonnes of beans that MINAGRI wants to purchase and store – at a cost of Rwf7.4 billion – in the National Strategic Grain Reserve in this fiscal year, with aim to provide food relief to needy people in case of food shortages.

And this is happening while 467,000 Rwandan households or 18.7 percent of the country's all households were food insecure, according to the 2018 Comprehensive Food Security & Vulnerability Analysis.

Soil fertility depletion and the incurred fertiliser cost

The report indicated that soil erosion removes the upper fertile part of soils that contains nutrients. Given that 641,280 hectares are affected by soil erosion, the report estimated that 16 tonnes of soil is displaced, carrying soil nutrients including about 1,282,560 tonnes of soil Carbone (C) and 128,256 tonnes of nitrogen (N) loss per year.

In order to compensate for soil nutrient loss and improve land productivity, the report showed that fertilisers such as urea and di-ammonium

phosphate (DAP) are applied.

In the substitution of nitrogen loss with urea, with an average price of Rwf564,000 per tonne – reference to MINAGRI subsidised price of urea in 2021); it would cost Rwf72 billion per year to Rwandan farmers, a cost that excludes Government subsidies.

Cost and benefits of erosion control actions

In Rwanda, of 1,080,168 hectares of land at erosion risk in all provinces, only 282,352 hectares – or 26 percent – are protected against erosion.

The total cost of erosion control actions in the country is estimated at Rwf514 billion, of which 323 billion are for the protection of agricultural land against soil erosion (about 60 percent of the total risk areas) using bench terraces, contour bank terraces known as progressive terraces and agroforestry and hay plantation on contour banks.

This would require about eight years from 2022 to 2030 to complete the activity by investing about Rwf40 billion every year to protect agricultural land against excessive erosion using a community approach.

High quality soil management could be achieved through an integrated conservation agriculture approach that provides profitable agricultural yields, while minimising environmental damage, the report recommended.

Speaking to The New Times, Charles Bucagu, Deputy Director General in charge of Agriculture Development, said that the Government was working with other partners to increase forest and grass cover, as well as constructing terraces among other efforts to control erosion.

“And that’s a fact because if you look at [River] Nyabarongo, it is carrying away much soil. So, there is a need to protect the land from erosion, but also tackle the loss caused by the fact that the fertiliser applied by the farm is washed away by erosion, and the expected harvest that is lost because crops are also washed away,” he said.

Meanwhile, he said that about 20 million tree seedlings, including agroforestry and fruit trees, will be planted in October this year, countrywide in order to support anti-erosion efforts. [Read the full story](#)

Experts weigh in on soil erosion-induced losses



Pedestrians wade through a flooded wetland in Kigali on January 28, 2020/
Photo: The New Times

Soil conservation, restoration and erosion control experts have suggested the establishment of demonstration plots in villages across the country that could help educate farmers on controlling soil erosion, starting with districts that are most vulnerable.

Demonstration plots are farmer-owned and farmer-managed plots of land used by village-based extension agents, village agricultural extension officers or lead farmers as a platform for training farmers on good practices.

They also suggested mobilising finance from different sources of funding, apart from the national budget, to be able to design projects for intervening in providing solutions which local residents could not afford.

The recommendations follow a report dubbed ‘The State of Soil Erosion Control in Rwanda,’

which found that more than 745,000 hectares of agricultural land in Rwanda potentially loses its topsoil every year as the country loses more than Rwf800 billion annually due to soil erosion.

Pamela Ruzigana, the Catchments Restoration and Erosion Control Division Manager at the Rwanda Water Resources Board (RWB) told The New Times that the top causes of soil erosion include deforestation and vegetation clearance. “Besides deforestation, the soil is not covered by any vegetation in some areas. Agricultural activities are not complying with erosion control measures. For instance contour banks need to be protected. Otherwise it leads to soil erosion when it heavily rains after harvesting,” she said.

She added that settlements without facilities that do not retain or drain rainwater, mining are among the leading causes of soil erosion.

“Human activities are not sustainable and people have limited skills in using and conserving land. There is a need for awareness and education campaigns with joint efforts of different institutions including private sector and civil society organisations,” she noted.

She added that owners of land should play a big role by using techniques that are affordable and friendly, “For instance progressive terraces are easily applied. They do not require high cost and techniques.”

Ruzigana said that the government budget should focus more on agro-forestry seedlings to be planted where terraces are constructed as it required high financial capacity.

“The budget allocated to soil erosion control is still limited but more projects are in the pipeline to intervene where there are no projects already being implemented.

There is a need to continue mobilising resources because national budget is not enough,” she said.

The study disclosed that there is a need for over Rwf500 billion to control soil erosion in areas that are at risk.

Elisa Tumwesigye, CEO of Social Actions for Environment Protection and Biodiversity Conservation organisation, made the case for demonstration plots to serve as models in villages on how residents can control soil erosion on their own land.

“The country is losing fertile soil and farmers need to be educated on how to retain such fertility. This is because most of the time they are not aware that the soil is being washed away,” he said, adding that the government can increase budget in forestation and agro-forestry which are costly.

“Where we are operating, we realised farmers had no skills to do what they are capable of doing but also some lack financial capacity to even do what they know though it is not affordable,” Tumwesigye said, adding that soil erosion is affecting biodiversity leading to loss of some plant and animal species.

“Hence, finance is needed to scale up successful projects on erosion control. We will soon execute a project in Bugesera district to train farmers on conservation agriculture to prevent soil erosion that is polluting Lake Cyohoha,” he said.

Breaking down numbers on soil erosion status

At national level, land at risk of soil erosion is over one million hectares or 45 percent of the total country land.

The country is losing 25 tonnes of topsoil per hectare every year which translates into 27 million tonnes of topsoil lost every year.

At provincial level, land at risk of soil erosion is about 187,165 hectares or 59 percent of the total Northern Province land.

The total land at high risk of erosion in Western Province is about 261,542 hectares or 54 percent of the total province land.

The total land at high risk of erosion in Southern Province is about 311,116 hectares equivalent to 56 percent of the total province land.

The total land at high risk of erosion in Eastern Province is about 261,166 hectares equivalent to 29 percent of the total province land.

The total land at high risk of erosion in the City of Kigali is about 39,179 hectares or 54 percent of the total City of Kigali.

At district level, Ngororero has the highest risk with a total of 58,003 hectares i.e. 85 percent of its land at high erosion risk.

Muhanga district is ranked the second-highest in erosion risk with 53,352 hectares under risk (82 percent of the district land) while Rutsiro district comes third with 48,143 hectares prone to erosion estimated at 73 percent of the district land.

Other districts such as Karongi, Gakenke, Huye, Nyaruguru, Rulindo and Nyamagabe districts need considerable attention as the risk accounts for more than 60 percent of the district land.

[Read the full story](#)

Central and local government officials gather for a soil erosion control meeting



Officials discussing soil erosion control interventions during the meeting/
Photo: Remy Niyingize

18.08.2022: Different central and local government officials from 30 districts across Rwanda are attending a two-day soil erosion control meeting organized by the Ministry of Local Government (MINALOC) as part of the National Programme for Soil Erosion Control (NAPROSEC).

The meeting was aimed at making the proper plan for realistic & achievable targets in soil erosion control in districts during 2022 - 2023 Fiscal Year.

In line with accelerating erosion control interventions through community mobilization, budget allocation and stakeholders' engagement, MINALOC has adopted a guideline No 005/07.01 of 27/06/2022 to establish soil erosion control committees from the national to village level.

The Rwanda Water Resources Board (RWB) has also produced Catchment Restoration Opportunity Mapping Decision Support System (CROM-DSS) which was updated in 2021.

The system mapped 574,325 hectares, as required to be restored through progressive terraces, radical terraces, afforestation, rivers, and lakes banks' protection as well as gullies' rehabilitation. **To View all photos of the meeting, [Click here](#)**

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