

WORLD WIDE VIEWS ON BIODIVERSITY
Bemba Version



Akatabo kamashiwi yakupela Abekala calo

June 2012



Aka kataba keminine pakwishibisha abekala calo abobakatengako imbali mu cilonganino cikulu ichesonde Lyonse ica World Wide Views 2012. Ukusabankanya kawaka katabo kacitilwe naba Danish Board of Technology kuli bonse abo bampana nabo mucilonganino ca World Wide Views alliance. Kuti mwebelgelapo nafimbi pamilimo ine iyi nabaibimbamo pebula lyapamwela iya wwwviews.org.

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Citizens Participation in Global Governance

Bemba Version

**Amashiwi
Yakusabankanya ku bantu**

September, 2012

Ubutantiko bwa Mashiwi

0. AMASHIWI YANTANSHI	3
1. UBULONDOLOSHI BWA BIODIVERSITY	5
1.1. BUSHE BIODIVERSITY CHINSHI?	5
1.2. UBWKASHI BUSUMA BWABANTU, IMPANGA, IMIMANA NE NAMA NE FILAMBU FYABUKO	6
1.3. UKUPAMFIWA KWA BIODIVERSITY	7
1.4. ICILONGANINO CIMONA PABWKASHI BUSUMA UBWAFIBUMBWA FYONSE, IMPANGA, UMUSHILI NE MIMANA (CBD)	8
1.5. UKUIBIMBAMO KWABEKALA CALO MUMASHIWI YA KUSUNGA BWINO IFYABUMI NEMITI PAMO NEMIMANA.	9
2. 2. BIODIVERSITY WA PAMUSHILI	10
2.1. UKUCINGILILA IMPANGA ISHISUNGA UBUMI	10
2.2. UKUCEFYANYA KWAKULUFYA IMPANGA SHA IKATA UBUMI	11
2.3. UKWALUSA INCHENDE ISHISUNGA UBUMI MUCHENDE SHABULIMI	12
3.0. IFYAMWE O FYAMULI BABEMBA	16
3.1. UKWIPAYA ISABI UKWACILA MUCIPIMO	16
UKUFUMYA UBUKUMU MULI BABEMBA	16
UKUBOMBELA PA BULONDO BWATWALILILA	17
INCENDE SHATENGELWA MULI BABEMBA	17
UBWISHIBISHI NO KUTUNGILILWA	18
IFYA MWEO MUFISHI FYAPANSI YABEMBA	18
UBWAFYA BUSHINGEMWE NA IFISHI FYAPANSI YABA BEMBA	19
4. AMAFYA NE FILAMBU FYA KU LANSHANYA	20
UKWAKANYA KWAFIBI NE FILAMBU FYA BIODIVERSITY	20
4.2. UKULANSHANYA PAKUSUMINISHIWA NEFILAMBU: UKUSUMINISHANYA KWA KU NAGOYA	21
UKUSUPULA KWAMASHIWI	23
UKWAFUMA AMASHIWI NA MABULA NAYAMBI AYAKUBELENGELAPO	23

0. Amashiwi yantanshi

Mwaiseni kucilonganino cesonde ichilolekesha palwa kuibimbamo mumashiwi ya pabwikashi busuma ubwafibumbwa fyonse, impanga, ne imimana!

Twamifukamina pakuti naimwe muibimbemo mumashiwi ayakumine kufyakulofya ubwikashi busuma bwabantu, impanga, imimana ne nama (biodiversity), pantu abafikansa fya calo nabatuteka bafwile baumfwa ifili mumano yesu pali uyu wine mulandu. Biodiversity eshiwi tulebomfy a pakusosa pafyabumi nempanga pano sonde, ifilimbwa fyalekanalekana, inama shonse notunsenyansenya tonseutwapamushili no twa pali ba bemba abakauka nabatalala. Pamyaka yapita 30 ubwikashi bwabantu nabulenga ukulufya kwa bwikashi busuma bwabantu, impanga, imimana ne nama shamtundu mitundu.

Incende uko impanga no busuma bwabwikal tabwaonaika, ubwinanama bonse, imiti nefyani nafyonse filampana pamo nokuba ifya cafwilisho icikalamba ku bantu. Pafisuma ififuma ku ncende shamusango uyu nifi; umwela, ifyakulya, umuti, umushili uwafunda, ifilyo fisuma fya fimuti, ifisabo pamo nefitekwa.

Kuncende ukwachepana ubonaushu bwampanga nefyabumi fyonse, kulaleta ishuko lyaku sangamo imiti yakubomfy a mufipatala, ubuyantanshi bwabunonshi nefintu fyakubomfy ilyo lyonse twasanga amafya ayakuma kukupindamuka kwamwela wacalo (climate change). Ukwampa kusuma kwabwikhshi busuma bwabantu, impanga, imimana ne nama ecishinte icikatilila ubumi bwesonde lyonse. Ukulofya kwa ububwile kukakuma abantu isonde lyonse mumusango ubi, lelo eko yali amano ayalekanalekana eyengalesha ukulofya kwa ubu bwile. Pachilonganino ca calo icaiposa mumashiwi ayakumine kufyakulofya ubwikashi busuma bwabantu, impanga, imimana ne nama, mukaba nakashita akakusosa nokulanshanya pamashiwi ya kusunga ubwikashi busuma bwampanga na bantu.

Aka katabo nakakwata amashiwi ayasupulwa pamulandu wakusunga impanga nefyabumi fyonse bwino nefyo twingacita pakusunga inchende shesu bwino. Aka katabo kaleyafwilishako abantu mukupekanya kwakulanshanya kwacalo ukukabako mu September pa 15 2012. Akakene akatabo namashiwi yalimo nayafula pukuti naimwe muibimbemo.

Aka katabo kalekomailo pamashiwi bakalalanshanyapo ku India ku COP11 mu mweshi wa October 2012, uko intungulushi isha fyalo ukufuma mufyalo ifingi fyesonde fikakumana nokulanshanya pa Iwakucimfy a ubonaushi bwa bumi ne mpanga. Icilonganino cesonde ecilolekesha palwa kuibimbamo mumashiwi ya pabwikashi busuma ubwafibumbwa fyonse, impanga, ne imimana (WWViews) cikakolanganika amashiwi nama panga yenu nokuya twala kuli bashimafunde abakasangwa kulya kucilye cikabela ku India. Ukuibimbamo kwelyashi ili kwamuntu uli onse nangu cingaba cakuti mulesuminisha atemwa tamwasumina mukusunga bwino incende sha bumi ne mpanga. Umulandu wa kusunga impanga nefyabumi bwino walikuma ku bunonshi bwacalo, ubuyantanshi no umulinganya. Ici kanshi ecalenga ukuti ukulanshanya kwelyashi ili twishilafye abafikansa fya calo nangu abapanga amafunde, utwampani, ifilonganino naba kanyeanye belyashi beka awe, lelo naifwe fwebekala calo tuibimbemo. Ala te abo abafikasa fyacalo nangu abapanga amafunde yesonde, ebapita mufyo ayo amafunde yaleta, ala bantufye abekala calo. Kanshi ici mufwile ukwishiha ukuti ishiwi lyeni nokuibimbamo kwalicindama – soseni po naimwe!!

Ifyakulelenga aka katabo: Akakatabo kakwete ifipande fine. Icipande capakubala cili pabulondoloshi bwa pabwikashi busuma ubwafibumbwa fyonse, impanga, ne imimana, kabilicicipande cilelondolola apo ilyashi lyakusunga impanga no bumi apobufikile nefyo ilyashi

litukumine. Kibili casosa napacilonganino icikalamba icilolesha pamulundu wine uwakusunga impanga ne nama, pamo nefipangano fya ici cilonganino.

Icipande cabubili calondolola pamisungile bwino bwa mushili. Ifyo ubulimi bwakuma kubwile bwakusunga bwino impanga nefibumbwa, nefyo impanga ishatengelwa shibomba mukusunga impanga nefibumbwa elyo nefyo twingacita pakulesha ubonaushi bwa mpanga nefibumbwa nencende ishisunga ubumi ubwalekana lekana.

Icipande cabutatu cilesopamimana napalwakuti imimana yalisenda impanga iikulu iyesonde lyonse. Kibili casosa pafyo ubumi bonse ubwamwifye, ifyani, finama ne sabi nefyo fyauminkana. Kibili casosa pakutengela isabi, ukusunga utushitu twamwifwe, namafya ayaba mukutengela incende pamumana.

Icipande ca bune cili pelyashi lya kwakana ifintu ifibi ne fisuma atemwa ifilambu ififuma mu mulimo wakubaka impanga ne fibumbwa. Ukwakufumya indalamaishakubomfyabwino bwino mukucingilila ubumi ne mpanga. Icipande casosa pafipangano bapangene ku Nagoya Japan nefyo fipangano filebomba mukutwala umulimo wakucingilila ubumi nempanga pantanshi.

Amashiwi ayali muli aka katabo yafumine mufitabo ifyalembwa nabakanye kanye belyashi lya biodiversity isonde lyonse. Ababene abantu baliceceta bwino bwino impika yelyashi lyakusunga bwino impanga no bumi napakashongotwelo yamano yamuntu. Ebatwebele ifyo twaishiba nefyo tatwaishiba pakuti tulepingula ifintu abailuka.

Ifyo aka katabo kalembelwe: Akakatabo kalembelwe nebumba beta ati BIOFACTION kulya ku Vienna pamo necilonganina beta ati Danish Board of Technology, nabakalamba ba cilonganino ca World Wide Views. Bakanye kanye baililine lyasha lya biodiversity baliceceta pakushininkisha ukuti ilyashi lilifye bwino.

Vienna, June 2012



(c) Tawng / www.fotosearch.de

1. Ubulondoloshi bwa Biodiversity

Icipande chapakubala chilesosa mukwipifya pali biodiversity mwisonde lyonse. Amashiwi ayakankala nayasoswa muli akakatabo kibili amashiwi yonse nabayalondolala bwino. Fyonse ifyalenga elyo nefifuma mu kulufya kwa biodiversity pamyaka ukucila na 30, ngefy chaishibikwa, nafilondololwa pamo nafyonse ifikumine kufikansa fyacalo. Kibili icicipande naciceceta ifisuma ififuma mu biodiversity elyo nefibi nangu ifitumbukamo mukulufya biodiversity pamuntu, palubali lwacalo napesonde lyonse.

1.1. Bushe Biodiversity chinshi?

Ubulondoloshi bwa pabwikashi busuma bwabantu, impanga, imimana ne nama (Biodiversity), busosa pa misango ne misango yabumimi pano isonde. Biodiversity yakuma kumitundu yonse iyafilimbwa, inama, nefinsenyansensa nefikulaika fyonse pamushili na mulibabemba abatalala na bakauka. Biodiversity yayakanikana patatu: ifishinka pa mitundu atemwa imisango, pa bwile na pandupwa (Moneni box 1.1).

Kuti twatila icipendo ukufuma pa **10 million ukufika naku 30 million ya misango yafilimwa, inama notunsenyansensa tonse twikala pesonde lino, mumushili, mumenshi napalifibemba ifyapabuka.** Napali lelo, chalishibikwa mucishinka ukulingana naba kanyekanye **bamasambililo yapafyabumi, ukuti ukufikafye** napa cipendo ca 2 million empendwa yonse pano isonde iya filimwi ne nama. Cila mwaka, ba **kanyekanye bamasambililo yapafyabumi** (Scientists) balasanga imisango naimbi iyafilimwa nemana nefinsenyansensa ukufika naku cipendo ca 15,000. Chalishibikwa ukuti imisango yabumi imo isangwafye muncende imo, kumbi ukwashala awe. Icilangililo twingapela caba Kangaroo abashisangwa ukuli konse panwesonde kanofye muchalo ca Australia. Kibili ifilimwa ifingifye fyalishibikwa ukusangwafye munchendefye imo.

Biodiversity isosa pa misango yabumi yonse, ubwile bwabumi bonse no bwananyina pabwikashi busuma bwabantu, impanga, imimana ne nama. Tupele ngechilangililo, mulifibemba ifikalamba mwaba utuntu utunono utwaba ngenkungwa shapamimana

Box 1.1: . Biodiversity yayakanikana patatu:

- 1) Umutundu wabumi (species) emukuti umusango wa nama, ifilimwa, ba baktilia, ababa nga inshimu, umusunga (Yeast), ba Kangaroo abakashika, Kapenta. Ifinama fya mutundu umo fyalikumbinkana kuntulo elyo kuti fyasadana pamo.
- 2) Ubwile bwabumi (**ecosystem**) ni ncende iyaba nga bemba, imitengo, ifimpusa fya mulibemba (coral reef) nangu ifiswebebe, uko ifilimwa, inama notunsenyansensa twikala pamo no kubakana.
- 3) Ulupwa atemwa ububombo bwacintu (**genetic information**), Cilacintu icipema necishipema chalibumbwa mumusango uwacikumika kumutundu waciko , uko cafuma ukocingeikal nefyo cisandana. Ubupusano bwanama atemwa ifintu iifyafuma kumutundu nangu umokowa umo bunono sana.

(phytoplankton) utukulila necikabililila cakasuba. Ishishine nkungwa shamucimana shilaliwa no tunama utunono, notunama utunono nato tulaliwa ku nama ishikulu pamo ngesabi, ifikulaika nafishimweshimwe. Cimocene, ifyani fyamwifwe, ne sabi filyo kubanda imyanda pano isonde nabantu abengi mufyalo ifikankala nefipina fimo filacetekela ubunonshi nemikalile mufyakulya fya mwifwe atemwa mumimana. Kanshi ubwikashi busuma bwabantu, impanga, imimana ne nama (Biodiversity) bukankala sana pamikalilele yabantu.

Inchende ishisunga imisango yanama ishingi ishapusanapusana bashita inchende ishikankala isha isulamo ubwikashi busuma bwabantu, impanga, imimana ne nama. Lelo twibukishe ukuti tempangafye sheka ishatengelwa atemwa ishishaikatwako eshisungafye imisanga yanama ishapusan pusana awe. Pakale, abantu bali abaposako amano mukusakamana na mukusunga umushili ne mpanga mupepi nemishi yabo, ifyapala impanga yakulimamo, imitengo ne umushili umumena ifyani.. Impanga iyo basunga nokubomfy a bwino ilakwata imisango iyanama iyapusana pusana. Mu fyalo ifingi pano pesonde, ama tauni balepansa na mu ma indasitili pamo pene nekulundwa kwampendwa efifulunganya impanga iisuma pamo namano ne mibele abantu balusungilamo impanga nafyonse ifikalamo.

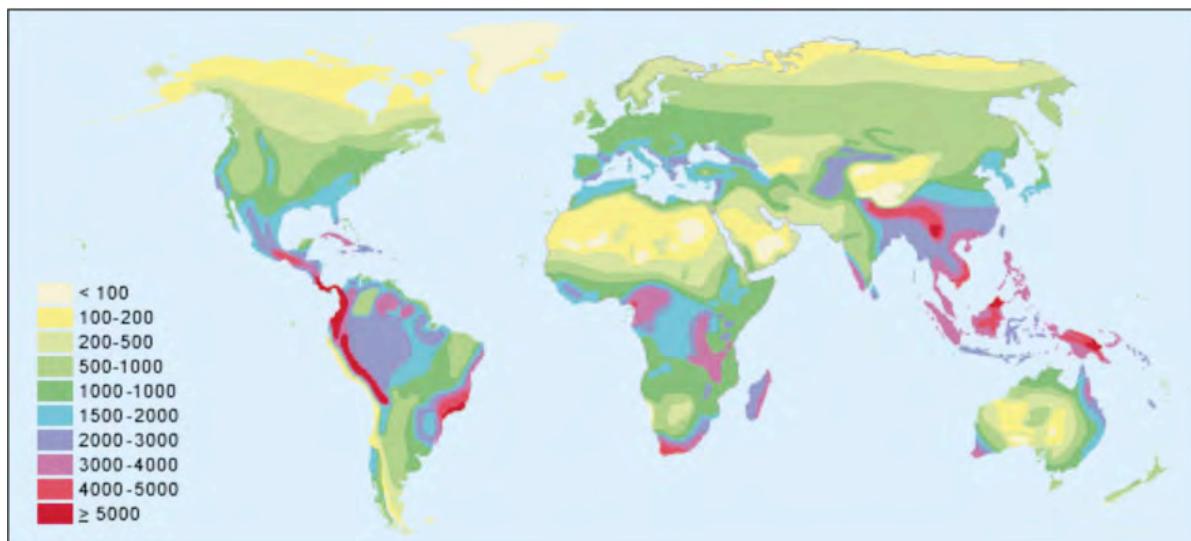


Figure 1.1: Impanga shimo shalikwatisha imisango yabumi ukucila ishibeye. Apa pacikope baletulanga ubupusano nokwampana kwa miti ne fyani. Amalangi (colours) ayapusana pusana yalelanga impendwa ya miti ne fyani panchende iyapimwa $910,000 \text{ km}^2$. (icicilangililo cafuma mucitabo caba: Barthlott et al. 1999, amended)

1.2. Ubwikashi busuma bwabantu, impanga, imimana ne nama ne filambu fyabuko

Ubwikashi busuma bwabantu, impanga, imimana ne nama **bwalikwata ubukankala bwabuko**. Tatilefyе umutundu onsefye pano calo walitemwa ipanga, umushili nefilimwa nafyonse ifyaba pamushili, kubikapo ne ntambi yamipepele no bwikashi, amafunde, ubumi pamo kwangala. **Lelo bumuntu nabo bwaliba ubwashintilila mubwikashi busuma bwabantu, impanga, imimana ne nama nefipe nemibombele yaiko.**

Ifipe

Inama isha pusanapusana, ifilimwa nemisango yabumi imbi, pamo filapanga incende iisuma itungilila ukwampana bwino kwanama, babemba, umushili, ifimuti nefyabumi fyonse. Incende shisuma ishakwata ifyabumi ifingi shilaleta ifintu ifisuma ifyaba ngefyakulya, imbao, umufundo, umuti namenshi ayasuma kubantu. Ipanga iyisuma iyakwata inama nempanga muli bubwino, nincende isuma iyafilimwa ifitekwa pantu ifilimwa ifingi nenama shitekwa fyatuntuka kuli fimunyina ifyamumawanga. Ku nama nefimuti nafimbi ifintu ifyabumi entuntuko yamiti iyalekana lekana iyo tubomfy a mukundapa amalwele.

Imilimo

Imilimo ya ncende ukwaba inama, imiti nefyabumi fimbri ifyapusana pusana yaba ishili yakulipila yalutufye lelo ikankala. Ngefyo caba icakuti utuntu beta ati amanutrients tulyo twa filimwa, elyo ifilimwa ngaflepema filaleta umwela uwakupema uusuma. Kibili imfula no mwela pamo filapanga umushili ukufuma kumabwe, kibili ifimuti nefyani pamo naftibumi ifyabumi nefishili fyabumi filafundisha umushili no kuutikamika umuyanshiku. Babemba balisenda impanga iikulu iye sonde ukucila fye napalicitika wesonde Lyonse. Babemba aba tabaisulafye namenshi awe, lelo balikwat nefyabumi ifyapusanapusana ifya mwisonde. Kibili aba babemba balikwata mukuku uusenda fyonse ifyabamo pantamfu itali sana. Ababen babemba balapindulula inshita yamumwaka (climate) nefya kulya. Utumpusa utunono utwa muli babemba (coral reef) tulafumya umwela uusuma uwakupema uyo nena shapamushili shipemako. Panshita imo ine umwela tupema uyo ufuma muli bapwapwa besu ulasobolwa ukufuma mulwelele no kuusungila kumbi.

Pamyaka ingi abantu abengi balitemwa ukwikala nokwangalila kululamba Iwamimana nabebemba. Ifimuti ne nama ifikala atemwa ifyapalamana no lulamba, filasunga ubulyo, filasusa ifiko ukufuma kumimana naba bembra, kibili filacingilila ululamba pakunasendwa namabimbi ya pali bembra. Isabi, nemisangi imbi iyesabai, ifyani fyamwifwe ukufuma kululamba Iwafimana filalisha abantu nena; kibili filaleta umufundo, imiti, amafuta yakusuba, ifyakubomfyia pamyanda nakumakule. Ifyani/ifimuti fyamwifwe (Coral reefs) e mishitu yamuli babemba; iyi mishitu ilaleta isabi, nokucingilila kufinkukumana nangu ifintu ifibi ifisa nomwela namenshi. Abantu ukufika napacipendo ca 500 million bacetekela ubunonshi ukufuma muli iyi ine imishitu yamuli babemba. Abantu abamufyalo ifikankalako pamo ne fikankala filacetekala apakalamba muli iyi yine mishitu kumilile and kubwikashi.

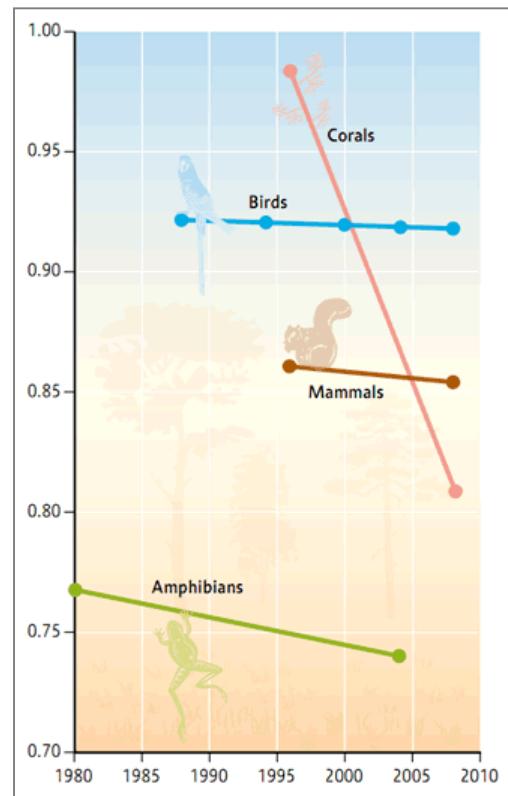


Figure 1.2: Ukucepana kwa fyuni, inama shifyala, utushutu twamwifye, inama ishibikila ukufuma mu mwaka wa 1980 ukufika mu 2010 (Ukuufuma kuli: IUCN 2012)

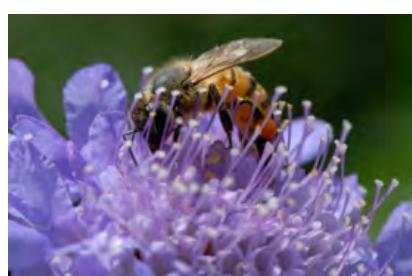


Figure 1.2: (kukuso) ulushimu lulefumwa ubuluba peluba (Intulo: Gurling Bothma 2012). (Kukulyo). Kunchende kumo uko abantu baipoya inshimu shonse, bashibulimi beka neminwe yabo ebayambila ukulafumya ubuluba kuli ici cimuti nokutwala kuli cambia pakuti ifimuti fitwale ifisabo ifyapala nga amacungwa. (Intuntuko ye lyashi: Li junsheng)

1.3. Ukupamfiwa kwa Biodiversity

Amashiwi yachilonganino icikulu icesonde ica United Nations ayo balembele nokusabankanya mu mwaka wa 2012, yasosele pamulandu wampanga nefyo ileonaka ulubilo, kibili yasosele napamasakamika ayakumine kumenshi nefintu ifilesangwa mumenshi yamululamba

Iwamimana ikulu. Icikulu basoselepo cakulufyanya ubwikashi bwakwampana bwino ubwa bantu, inama, imiti nefimbi ifibumbwa, basosele ukuti pamya 30 iyi yapita, ukucilafye napalicitika wabwikalo busuma bwafibumbwa nabonauka elyo kibili nabukonkanya ukonaika. Kibili ukucilafye napalicitika wafibumbwa ifyalekanalekana kuti fyaloba. Ukulingana namashiwi ba Living Planet Report 2010 basabankeny, ifintu 5 efileta umwenso wakupasa ubwikashi busuma bwafibumbwa, inama nemiti nefikulaika fyonse, bufuma ku bantu.

- **Ukonaula nokulufya inchende sha bwikashi bwafibumbwa, imiti, imimana:** Ukonaula kwape ukwa miti, amalungu atemwa impili filelenga ishi nchende shibe shisuma ishakuteka atemwa ukusunga inama shampanga nafilimbwa atemwa imiti.
- **Ukubomfy a ukucilamucipima kwa fibumbwa:** Abantu nga baipaya inama ukucilamucipimo nangu balebomfy a imiti nefilimwa fimbis ukucilamo fyonse fikaloba umuye nshiku. Pamo pene no kwipaya isabi, ukulunga nakutema imiti ukucila mucipimo fitwala kubonaushi.
- **Ukukowesha amenshi:** Umufunda wacisungu uwacilapo ulakowesha amenshi nencende shamenshi atemwa ishaba mululamba Iwamimana atemwa babemba. Ifisoso ukufuma kutulale atemwa amatauni, imikoti na mushanchito nafyo filalundapo ukukowesha amanshi.
- **Ukupilibula kwamwela wacalo:** Ubulimi, ukoca amalasha na mabwe ya coal pamo namafuta, ukupansa impanga, neficitwa fyamucende shancito ishikulu (industry) kulenga ukufumya mulwelele umwela uyo beta mucisunga ati greenhouse gases. Uyu mwela ulalenga ukuleta icikabilo icikulu kumushi nababemba. Ifilimbwa, imiti yamwifwe, namenshi makasa ayakulu yakulu filonauka bwangu ngacakuti ici cikabilila cacitika kumushili naku fimana.
- **Ukwingilila ifibumbwa fimbis:** Ifibumbwa atemwa ifyabumi fimo ngabafikusha kunchende shafiko nokushitwala kuncende shimbi, filakula atemwa ukusandana bwangu nokupoka incende kufibumbwa fyakaila muli ilyancende ukufumafye kukakale.

1.4. Icilonganino cimona pabwikashi busuma ubwfibumbwa fyonse, impanga, umushili ne mimana (CBD)

Icilonganino cimona pabwikashi busuma ubwfibumbwa fyonse, impanga, umushili ne mimana catampilwe naba United Nations mumwaka wa 1992 kucalo ca Brazil mwi tauni lya Rio de Janeiro, panuma yakwiluka ukuti amafya yampanga yesonde yafulisha. Ici cilonganino calisuminishiwa ukulingana nefyalo 192 nakabungwa kaba European Union. Ici cilonganino caiminina pakusunga bwino nokubomfy a nokwakana bwino ubusuma bwakutungilila ifibumbwa nefilimbwa ifyalekanalekana no kufipela inshita ne nchenda yakufulilako atemwa ukusandulukilako. Icalo ca America chena tacabamo muli ici cilonganino.

Mu mweshi wa October mu mwaka wa 2012, abeminishi ba ici cilonganino ukufuma fyalo fyonse ifyaba muli ici cilonganino fikakumana nakabili kulya ku India (COP11) nokulanshanya pafyo bengalesha atemwa ukucingilila ukulufya kwa mpanga nobwananyina bwabumbo. Mumwaka wa 2010 ku calo ca Japana mu Nagoyo, balimike ifipope 20. Ifi fipope fyaba nokucitwa ilyo umwaka wa 2020 taulati urike. Kanshi ku cilongani ici cikabela ku India ba membela bonse bakalasosa pamulimo wakufilikisha ifipope ifi batantika 20. Ifi fipope fyalikuma ku milandu ya amafunde yacalo, umusonko, ukulesha imilimo iyonaula impanga, ukulipilisha abaleonaula impanga, ifikomo fyakukonka mumibombele, ubwafwilisho kufyalo mukusunga impanga bwino, ifilambu fyakutungilila ukusunga impanga bwino.

1.5. Ukuibimbamo kwabekala calo mumashiwi ya kusunga bwino ifyabumi nemiti pamo nemimana.

Ukulofya kwa bwikashi busuma ubwafibumbwa fyonse, impanga, umushili ne mimana bulaleta ifintu ifingi munshila ishapusanapusana; pamuntu, palupwa, pamushi atemwa pa taouni, pacalo nempangafye ikulu ukucila napacalo. Pafintu fimo ifingesapo nifi, imitengo yafyakulya ukuya pamulu, ukukana sombola kwafilyo ukusuma, isabi ukanafwfa ilingi, ukubulilwa kwamenshi ayasuma ayakunwa, ukapaasa kwafimana cilanshita nafimbi ifinkukuma fyacalo ukubikapofye nokususuka kwa mushili, ukulenga impanga nencende ishingi ukukanamoneka ukuyemba ku batandashi bacalo. Ifi fyonse fintu fimo ifyo teti tumone ati filecitika nomba lelo kuntansi fikamoneka elyo fikakuma kubumi bwesu bonse. Kuti fyatwala mukulufya kwancito, imibombele yamilimo nencende twikalamo nemilile. Lelo mukuibimbapo nokuposako amaka namano kuti twacingilila paku ifi fyonse fikacitika. Pantu ngatwafilekelesha abantu bambi no bwikashi kuti bwaonaika ifyapala, abalondo besabi ngatakuli ukwipaya isabi nangu umusonko wakucingilila ubu bonaushi bwakulisha ninshi kuti twacefyia indalamu shakuicingilila mucalo atemwa ukupangilapo nashimbi ncito, nangu ishakutwala kufipatala, amasukulu nangu ubuyantansi bwacalo.

Ukusuminishanya kwa fyalo fyonse pali uyu mulandu kusuma pantu umulandu wampanga, amenshi, umushili nomwela mulandu wa fyalo fyonsefye kibili ufwaiwa ifyalo fyonse nafiibikamo mukusanga inshila yakupwishishamo ubu bwafya. Inchende ishingi umwikala ifyuni, nefibumbwa fimbi filaciluka nemipaka yafyalo. Amensi ayo bakowesha kululamba lumo ulwabemba yalafika kuncende shimbi isha bembu yakuma naba shakowesheko amenshi bene. Nangu ubwingi busuma lelo pakutifye ifyalo fyonse fisuminishanye pacintu cimo cintu cashupa nganshi. Kanshi abapanga mafunda yafyalo, nabakanyekanye yapalyashi lyakusunga impanga bwino namabumba yabantufye abafye abaiposako mukusopo pali ayayene amashiwi, bakakwata inshita yakusosa palwamisungile yampanga nefibumbwa lilya kukaba icilye ca COP11 kulya ku India.

Amepushi yamo ayapalwalala yali ngefi: Bushe nibani abonaula ubwikashi busuma ubwafibumbwa, impanga nemimana? Bushe impinge nefipope fyakucingilila ubonaushi bwampanga bukafkilishiwa shani? Finshi fifwile ukucitikwa? Bushe imbalu shabantu nenama nafimbi ifyesond fikasungwa bwino shani? Bushe cilefwaikwa ukupangako amfunde yambi? Bushe kuti twatungilila abantu ukukwila bwino kocefyia ukonaula mpanga palwabo beka atemwa tubikekofye amafunde yambi ayapya pamon namafunde yabunonshi yambi?

Abekalo calo bafye ebakucikuma sana ilyo lyonse amafunde yapangwa. Kanshi ukubimbamo abekala calo mukulanshanya kwa mafunde kulafusha amino namaka yakupanga nokufkilisha amafunde bwino.



2. 2. Biodiversity wa pamushili

Pamulandu wa mpanga tulasanga imibele iyapusanapusana iyafilengwa na lesa ifili nga: imishitu, amawanga, inika nangu ifiswebebe ifipeela ubuumi kufimenwa-menwa, ifinama elyo nefintu fimbì ifinono ifishimoneka kumenso. Muli ici icipande kuti twalolekesha pa fintu fitatu ifyo batila bio deversity: ukucingilila incende shafilengwa nalesa, ukulesha ubonaushi bwancende shafilengwa na lesa elyo nokupilibula incende shafilengwa nalesa ukushitwala muncende shabulimi.

2.1. Ukucingilila impanga ishisunga ubumi

Inshila imo iyaboomba bwino bwino ukucingilila biodiversity kunuma uku, kucingilila incende ishakwata ifilengwa nalesa ishishaona ulwa ishili pamo ngencende ukuloka sana imfula nangu shimbi ishitwa ukutila savannahs. Incende shamusango uyu, ilingiline shisunga ifimenwa-menwa ifingi elyo nenama shampanga ishamisango-misango ishakusunguka icakutila namaka ya muntunse ya filwa ukukwanisha bwino bwino ukufika pali leelo. Ififine ifimenwa-menwa, filapeela ubucingo pakusuminisha ifilengwa nalesa ukutila fileenda nangu ukwikala bwino mumusango Lesa afipangilamo. Incende ishacingililwa, shikankaala nganshi elyo imisango imbi iyaishishine impanga ishili ngamulya basungila inama [national parks] shapangwilwe apo nomba papita nemyaka ukushinta nakumyaka umwanda umo namakumi yane [140 years]. Pali ifi ifyamusangu uyu, amaka yamuntu elyo nefyakufuntula ubuyantansi bwacalo, fyliba ifyaceepa. Ukutema ifimuti fya mba, ubulimi, ukwimba ulubwe elyo nokwikala muncende shamusango uyu, fylibindwa. Incende shamusango uyu shalinga ukukuminkanishiwa pamo bwino bwino, ukusungwa bwino bwino elyo nokupeelwa ulupiya ululingile ukubmfiwa mukusunga ishi ncende. Incende ishacingililwa, shikankaala nganshi kubantu. Lipoti wa cisaka ce sonde Lyonse [UN], alanga ukutila incende shamusango uyu shipeela ubwikashi busuma kubantu ukucila napacipendo 1.1 billion isonde Lyonse apo lyapela. Amenshi yakunwa kubantu abekala mumisumba ikalamba [cities] pano isonde Lyonse yafuma muncende ishamusango uyu pamofye ngafintu ifimenwa-menwa fyacindama mukufuntula imilimine yafinsabwa nsabwa ifyalekana lekana isonde Lyonse.

Mumwaka wa 2010, ukucilafye napacipendo ca 150,000 encende ishacingililwa icitwaalafye nakuli 12.7 percent pampanga yanse iyaba pesonde Lyonse. Impendwa elyo nobukulu bwaishi sshine impanga ishacingililwa, naikulilako lelo tashilakula ukufika pacimo icakucingilila ico

baleita ukutila biodiversity bwino bwino kumulandu wakutila, ishi impaanga tashakula sana kabi shaliba ishasalangana. Ukucilala napali citika wancende shacindama uwaba biodiversity icilangililo; impanga ishashalakofye nefilengwa nalesa ifishaseeka ifili pamo ngefyuni, tashacingililwa bwino bwino nakalya. Elyo mukulundapo, shimbi pali ishishine incende tashasungwa bwino nangufye panono. Cimo icasumunishiwe pamulandu wa biodiversity cali cakutila mu mwaka wa 2010 kufwile kwabako ukulundako impendwa elyo nobukulu bwancende ishacingililwa ukufika naku ciendo ca 17 percent isonde Lyonse ilyo cikalafika mumwaka wa 2020. I cileplibula ukutila, amabuteeko yonse pano isamba lyakasuba yafwile yabikako nashimbi incende ishakucingilila elyo nokufuntula ishabapo kale.

Ici tacakabe icayanguka nakalya. Ukubikako incende ishakucingilila ishipya ilingi line kuleetafyne ukupusana nangu icimfulunganya pakati kabantu abaletontonkaya munshila ishalekanalekana. Pantu kukalaaba ukutila bushe cinshi cawamapo ukubomfyne impanga mukusunga ifilengwa n alesa, ukusungilapo abantu nangu ukuibomfyne mukwimba ulubwe? Ilingsi line inshila ishaiminina pakucingila ifilengwa nalesa shilalishanya nenshila shabantu ishaimininafyne pakufwaya ukubomfyne ishi ncende mukufwayafye ifyabunonshi bwabantu abene beeka. Neci nipamulandu wakutila limbi abalimi kuti baleshiwa ukulalima muli ishi ncende, utwampani [companies] utubomfyne ishi shine ncende mukutema ifimuti fyakushitisha, kuti twaleshiwa ukukonkanyapo umulimo wakutema ifimuti fyakupalako imbao. Bambi nabo kuti baleshiwa ukwimba imikoti yakufukulamo ulubwe nangu ukupanga amabala yakulimbamo ifimutu [plantations], elyo nokupangafye imisebo ipya ngacakutila ilefwaikwa sana limbi nalyo line kuti cakanisiwa. ukusalapo icifwile ukucindikwa nangu ukucitwa bwangu ukucila icinankwe, Lyonse cilaba icashupa. Ukwabula ukulanshanya bwino bwino pakati kabantu balefwaya ukucita ifi twapenda pamulu elyo nabantu bekala muncende shamusango uyu, limbi kuti calengafye ukutila kwaba ukukana sakamana ifingawamina abantu elyo nokukana biika amino mukusunga ifilengwa nalesa. Mukulundapo, ulupiya ulwingi, imintapendwa yama Kwacha lufwile lwasangwa mukwafwilishako pakukonkanyapo ukucingilkila incende ishacingililwa akale elyo nokupeela icishindika mukofu kuli abo bonse abafumishiwa muli ishi ncende pakubatwaala kuncende shimbi elyo napakubonawila ifilimwa fyabo.

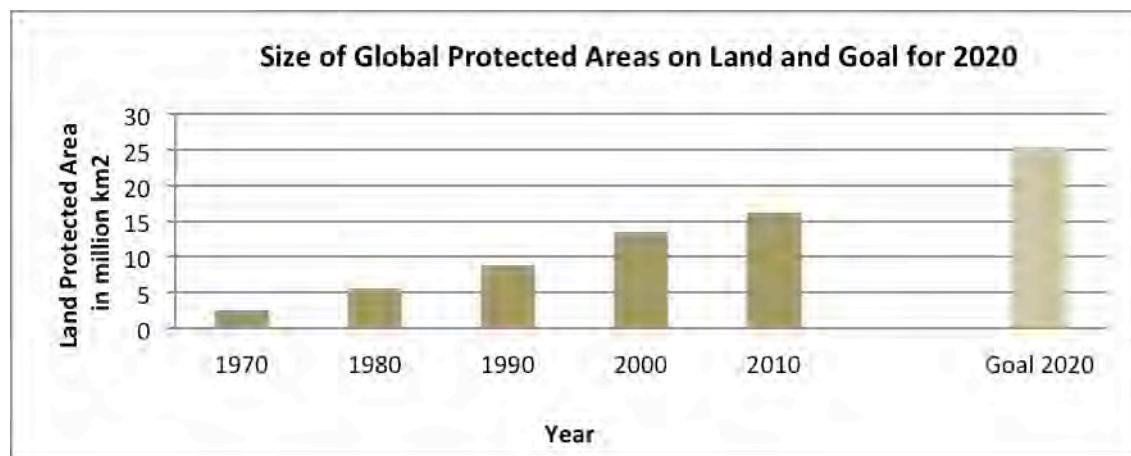


Figure 2.1: Ukufula kwacipendo kwancende ishacingililwa pansiha elyo necipope cakufkilisha mumwaka was 2020 (intulo yelyashi: UNEP-WCMC 2012)

2.2. Ukucefyanayi kwakulufya impanga sha ikata ubumi

Nangulaline cingaba cakutila utubungwe utwalekana lekana tuli utwasuminisha mukufwayako inshila ishakucingilila biodiversity ukushinguluka isonde Lyonse, cila calo palwaciko limbi kuti casangako ifingalenga ukutila kwingaba ukutema nokshula imiti pakupangako amabala ayakalamba umwakulima ifyakulya fyamisango misango, ukubomfyne ifimuti ukupangako

imbao elyo nobutekeshi bwa ng'ombe pacipimo icikalamba. Ukupangako impanga umakusangila indalama pamo nemikalile isuma iyampendwa yabantu iilekulilako, fintu fimo ifikankaala sana.

Ukusuminishanya pafikomo fimo fimo pakati kafyalo ifyalekana lekana cilanga ukumfwana pakati kafyalo, lelo ici tacifwile capeleelafye mukulanda lelo fifwile fyafkilishiwa. Mumashiwi yambi kutila, cfwile cabikwa namulupapulo lwa cila calo elyo nokubombelwapo. Umusango uyu mulimo wabombelwapo uleta icimfulunganya pakati kabantu abalekana lekana.

Icakumwenako, mukucungilila incende shafilengwa nalesa abantu bambi baatila ngatakulii inshila shampomfu ishipya – nagula inshila shimbi ishakukosha amafunde yabapo kale – takuli nagu fimo ifingacitika. Baambi batontonkanya ukutila amafunde yafwile yasungwa munshila iyalinga icakutila kwaba ukusangako inshila shakuwamishamo ubunonshi: mukukonkana ngefyofine, ukucefya ubukumu bwa iyi yine imiboombele iishisunga bwino incende shakusungilamo ifilengwa nalesa [icilangililo, ukulunga inama, ukutema ifimuti fya mbao elyo nokwimba ulubwe] kuti fyacingilila inama sha mpanga nefimenwa menwa bwino ukucila nefyo amafunde yabapo ayabuteeko yengacita. Ukucila pamafunde ayatungulula ubunonshi bwacalo, inshila shimbi ishikukmine kuli abafikansa fya calo, nasho kuti shayana ukubomfiwa. Cimbi icakumwenako cakutila, ukucingilila kwa biodiversity kuti kwalundwa mumipekanishishe yamibombele muncende shamusango uyu, elyo limbi kuti kwaba ukulumunisha ukuibimba mukusunga bwino umusangwa ifilengwa nalesa. Ukucinkula incintu bwingi pamafya ayakumine kubonaushi bwa biodiversity kuti caba cikankaala pantu fyonse ifingesa kuntanshi kuti fyaisakwata ukucingililwa nabantu bene ukucila ifyo cingaba ngacakutila takuli ukubimba abantu mufilecitika.

Teapo peka, bambi abantu kuti bamona ukutila biodiversity taili iikankaala nangu ukukwata amaka ukufikapo mukicingilila incende shafilengwa nalesa ukupitila mumafunde yacalo, ufikansa fyamashiwi yacalo elyo nobunonshi elyo nokutila kuli fimbii ifipamfishe ukucilapo ifilingile ukusakamana ukucila pali biodiversity. Lubali lumbi ngacakutila kuli ukuipelesha elyo nokusumnishanya pakati kafilonganino ifyamufyaloo ifypusana pusana, ilipusho kuti lyakutila: Ninshilansi shingalinga ukubomfiwa ukucila pasibiye pakucungilila incende shafilengwa nalesa muncende intu mwikalamo nangu mucalo cenu?

2.3. Ukwalusha inchende ishisunga ubumi muchende shabulimi

Ubulimi mpanga yonse panwe sonde, ecintu cimo icikankaala nangula emulimo uwakulisha pamilimo yonse uo abantu babomfyaa pakonaula nangu ukufulunganya biodiversity. Eico kanshi, incensi ishiingi shilanda ukutila imipekanishshe iili yonse iikumine kukicingilila biodiversity ifwiile yalolekesha nakulubali lwabulimi. Kuliko insila shimo shimo isho ubulimi bufulunganishisha nangu ukukana tungulila biodiversity; imo pali ishi kupilibula kwa mpanga ukufuma mukusungilamo ifilengwa nalesa nokushisangula ishabulimi nokwikalamo abantu.

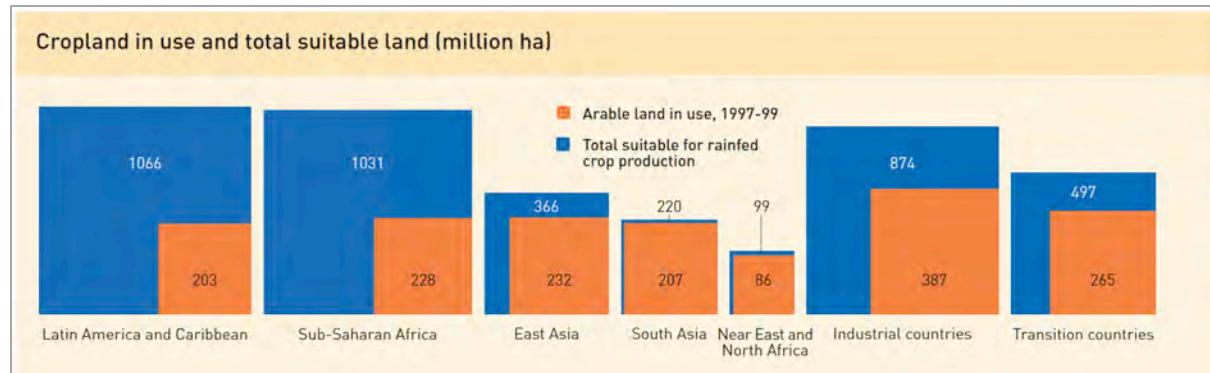


Figure 2.2: Ukulundilako san asana impanga shabuli (blue) mucende shimo ukucila pafyo cili lelo (orange) ubwikashi bwacikaya ubwafibumbwa nabo ninshi kupilibuka. (Intutuko ye lyashi: FAO 2002).

Palileelo, ukufika nakucipendo ca 40 percent icampanga yonse iyaba pano isamba lyacalo, ibomfiwa mukulima ifisabo ifyalekanalekana elyo nokuliisha ifiteekwa ifili nge ng'ombe. Iciputulwa ca World Resources Institute cilanda ukutila mufyalo ifingi ificili filetumpuluka incende nangu impanga ishingi ishakusungilamo ifilengwa naesa mukukulilako bashitwala mufyabulimi. Iciputulwa cilolekesha pakicingilia kwa mpanga shafilengwa naesa iciitwa ukutila; United Nations Environment Programme (UNEP) cisobela ukutiila mucalo ca Africa elyo na West Asia impanga yabulimi nakalimo kuti yakula imiku ibbili ukucila pafyo ili lelo ilyo cikalafika mumwaka wa 2050 elyo mufyalo fya Asia-Pacific mwena icpendo campanga ishikapilibulwa ukutwala mubulimi, cikafika kuli 25 percent ilyo cikalafika mumwaka umowine uwa 2050. Iciputulwa icikalamba palici cikakuma imishitu iyasunga ifimuti ifingi muncende mucende ishalekanalekana. Citika wa mpanga ishikalamba ishashala mwisonde lyonse nakalimo kuti nashoshine kuti shapilibulwanokushisangula ishakulimamo elyo nokuliishamo ifiteekwa ifyamisango namisango. Ukusendwa kwamushili uwafunda ku mfula kulalenga umushili ukonaika maka maka muncende mulya muloka sana imfula icilenga nokutila abalimi bamuli ishishine incende balepilibula ishi mpanga ukusangusha ishakulimamo. Iyi imibombele yamusango uyu yalikwata ifitumbukamo ifilufyanya biodiversity, pamulandu wakutila ifimenwa menwa elyo pamopene nenama shampanga tafyakakwate umwakwikala nakabili.

Umusango umbi uo ubulimi bucefeshamo biodiversity nimukutila, abalimi abengi balalwisha pamaka ukutila bakushe ubusomboshi bwafilimwa fyabo mumusango uuli onse bengakwanisha. Ici cilepilibula ikutila ifimenwa menwa pamo nenama shampanga ifingalenga ukuti ubulimi tabulondolweke, abantu bafwile bafilewisha mumusango uuli onse pantu kumano yabantu fimeoneka kwati ni mpese. Pakukwata ubusomboshi ubukalamba, abalimi tababomfyafye umuti wakwipaila impese, lelo balabomfyae nomufundo pamo naba mashini abakalamba pakufuntula ubulimi bwabo munshiku shalelo. Ububi bwakubomfyae inshila shamusango uyu mubulimi bakutila, taupwishafye ifilengwa naesa fyeka, lelo bulasenda nokonaula umushili. Uyu umusango ulonaula nafimbifye ifimena mumpanga icilenga nokucefya ubumi bwafintu ifiikala muli ishishine impanga ifili pamo nga inama shampanga pamo nefimenwa menwa.

Icilengèle ici mulandu wakutila ukufwaya kwafyakulya kubantu mucalo kwile kulekulilako mwi isonde lyonse elyo kulekula mukwangufyanya. Ukulingana nokufwailisha kwa cisaka ca isonde lyonse ica United Nations [UN] cisangilwe ukutila ilyo cikalafika mumwaka wa 2020, impendwa yabantu pa isonde ikafika ku cipendo ca 7.7 billion elyo iyi ine impendwa ikalafwaya ukulya cilabushiku. Pali lelo impendwa yabantu abengi isonde lyonse ileikala ukwabula icakulya cilabushiku. Bambi abantu kuti bapaasha ukutila ifyakulya ifyalinga ukuliisha isonde lyonse filalimwa lelo ubwafya bwabapofye musango wakusalanganishishamo ifyakulya fine kubantu abalefikabila. Bambi nabo batila ukulolela umusango uwalinga ukusalanishishamo icakulya kubantu abalekabila isonde lyonse, kuti caba nga umuntu uulefwaya ukukama umukaka kwilibwe.

Nabumbi ubwafya ubuliko, cipendo cabantu abalelya inama iciile cilekulilako cilabushiku mufyalo ifingi pano pesamba lya calo. Ukuteeka inama ishakufumyako umunani kufwaikwa ifyakuliisha ifiingi nganshi – ukulya ifinsabwa nsabwa ififuma mumpanga iileefwaikwa umulungamina, kuti kwaleenga ukukwata amaka ukulingana napamiku ikumi limo. Ecalenga, ukulya inama mucifulo cakulya ifilimwa kulalenga ukuti impendwa yabantu abalefwaya ifinsabwa nsabwa ukuilako pamuulu elyo napali ici kufwile kwaba ukufwyako incende

ukwakulima ififne ifinsabwa nsabwa.

Kanshi nomba ubwafya buliko, musango wakuliminamo ifyakulya uku lubali kuli ukufwaya inshila yakucingililamo biodivdersity mumusango uuli onse uwalinga. Inshila shimbi shimo shimo elyo nemibombele imbi icily ilefwaikwa elyo nokulandwapo. Icilangililo cimo cakutila, ukukaana bomfyा inshila ishampomfu mubulimi bwafilmwa ifyapusapusana, kutikwapeelako isubilo lyakucefyा ifintu ifileeta ubwafya ukucila ifyo cingaba ilyo ukubomfyा inshila shampomfu mubulimi. Nomba nangula cingaba ifyofine, isubiilo lyakucefyा imilimine elyo nobusomboshi bwafyakulya, kuti kwalenga ukulundako icipimo campanga iilefwaikwa, mumashiwi yambi kutiila kuti caba icayana ukupilibuula impanga shakusungilamo ifilengwa nalesa ukuitwala mumpanga shakulimamo. Naimbi inshila ingaafwako kuti yaba kufuntula ubulimi mumpanga shabulimi ishaako akale ukubomfyा inshila shibili ishapusana. Inshila yakubalilapo kubomfyा inshila shakututa tukuta ishipya [new technology] pakufuntula imibombele lelo ukwabula ukufushamo ifisolobelo ifibomfiwa mubulimi, ifili nga ukuleetako ifilimwa ifipyा elyo kabilo ifyayana ifyapusana pusana. Icakwishi, umusango wakutukuta tukuta uupya ufwaya abantu bali abaishibako fimo fimo nangu abakwatapo amino yakubombelamo bwino bwino elyo kabilo inshila shine ishi, shintu shaluma umutengo kabilo teshintu shayanguka nakalya. Abalimi bafwile babomfyako ishakosa ishakutwalilamo imiboombele yabo pamulu isho bambi abalimi teti babomfyе nakalya. Umusango umbi uwacibili, kubomfyा inshila shimbi ishayanguka ishi shifwaikwa kubomfyा umuti uwingi uwakubomfyा mubulimi, ifili nga ukulima ifilimwa ifyapusana pusana mumabala cilamwaka [crop rotation]. Elyo imibombele ya uyu musango, ubewishibilo [knowldge] ubukalamba ngansi icilepilibuula ukutila incito shakubomfyा muli iyi nshila shifwiile shafula icilepilibuula ukutila kufwiile kwaba ubwafya pakukwanisha iyi milimo maka maka kubalimi banono.



Munshila ,imbi, abantu bambo bambo balepusha ngacakutiila cintu cayana ukulundako icipendo nangu ukufuntulako ubulimi bwafyakulya apakalamba ngansi ubo ubuuleeta ubwafya nangu ukonaula biodiversity. Nakalimo kuti kwaba ukufwailishako inshila shimbi

ishingalenga ukuceefyako ubulili bwafyakulya ukupitila mukucefyako kwakufwaisha ukulalya inama cilabushiku mwisonde lyonse, ukusangako inshila shimo shimo ishakubomfeshamo ifyakulya, ukucefyako ubonaushi bwafyakulya elyo

nokufisalanganya bwino bwino kubalekabiila. Uibwafya bwabapo bwakutila, ici cikafwaikwa inshila ishayana isili nga ukupilibuula imiliile yabantu elyo nafimbipo ifyo ifingamoneka ifyakosa ukufikonka nangu ifingaba ifyakosa ukufingasenda inshita iyatantalila pakutila fingabeelela.

Inshila shonse ishilengelwe pamula nashikwata ubusuma na ububi ubusangwamo. Ukucila pafintu ifikankaala ififwile ukubomfiwa, nafyo kuti fyaleeta amepusho ayengi pakati kabantu. Icilangililo nangu ilipusho lyakutila, bushe tufwile twasuminisha imisango imo ii sumunisha ukwalula impanga shakusungilamo ifilengwa nalesa ukushalukla ishakulimamo nokulenga



shaba ishawamina ubulimi pamopene na biodiversity? Nangu tufwile twashiila abalimi abene ukuimwena nangu bushe ababomfy a ifyakulya nabo nabakwata ulubali lwakusendamo pakucinglila biodiversity ilyo cakuma kukupanga kwafyakulya ififuma muli ishi ncende sha biodiversity? Ifi fyonse cila cimo na cimo nafikwata ulubali lwakusendamo pakulima ifyakulya ifilekabilwa elyo nokucingilila biodiversity.



3.0. Ifyamweo fyamuli babemba

Ulubali ulukalamba ulwesonde (2/3) lwafimbwa na babemba kibili mwaba ifyamweo ifya lekana lekana .Muli ici icipamidwa twalalolesha pamilandu itatu iikumine ifyamweo ifyamuli ba bembra pamo nga ukulesha ukwipaya isabi ukwacila mucipimo, ukucingilila ama coral reefs elyo nokuputulako incende shimo muli babemba ukuba ishatengelwa.

3.1. Ukwipaya isabi ukwacila mucipimo

Abantunse balipaya isabi muli babemba ukwambafye na inshita shakale.Pali ndakai, abantu ukufika na ku imitapendwa amakumi yane na pabula(49 million), ukushinguluka isonde bashila elyo nabambi imitapendwa imyanda ibili na ikumi limo na babili (212 million) babomba incito iikumine kubushila (pamo nga ukupikula amasumbu ,ukushitisha isabi pamushika nafimbiko). Capamo abantu imntapendwa imyanda ibili nama kumi mutanda na umo(261 million) ukushinguluka icalo coonse ubumi bwabo bwashintilila pabushila. Mumwaka wa 1970, isabi lyapaiwe lyafikile na kuma tani imintapendwa amakumi mutanda na yasano (65 million) elyo mumwaka wa 2000 ici icipendo calikulishe ukufikafye naku tani imintapendwa umwanda umo,namakumi yabili na yasano(125 million) Isabi ilyafinire amatani imintapendwa amakumi cine konse konse na yasano elyo baikete muli babemba elyo ili lyashala(mupepi namatani imintapendwa amakumi yane (lyafumine mubulimi bwesabi. Ukwipayafye isabi lyamuli babemba kweka ukwabula ilyakuteka tekuti kupwishe nsala yesabi mu caalo pantu impendwa yesabi naicepenkana.Nangu cingatila umuntunse natumpuluka mukupanga amato ayasuma aya kwikatila isabi ilingi ,isabi likatwa taliyako pamulu iyoo. Ukwamba mu 1990 ukulingana naku fyailisha kwakabungwe ka United Nations food and agriculture organisation (FAO).

Ukufumya ubukumu muli babemba

Impaile yesabi iishasuminishiwa yaba nobonaushi ubukalamba. Ubu bonaushi bulinga ifintu pamo nga, imikwau(ukutinta imikwau pansi yabemba kulonaula ifyamweo ifingi

(ukubomfyा suumu na utupata mupepi nai incende shatengelwa ishamा coral reefs elyo nobushila bumbi ubwakuti bwipailamo ifyuni na inama shamumenshi.Ubushila bwacila mucipimo bwalicinja no kucefyा ipendwa yesabi muli babemba .Muncende ishingi ,isabi lyalipwa pwe pwe umulandu nemipaile yabipa.

Ubushila bwamupampamina esolwe solwe mukonaula kwa fyamyeo muli babemba ukulingana nokufwailisha kwa kabungwe ka F.A.O. Ukushinta mumwaka wa 2000 casangilwe ukuti ifyakaniko fitatu $\frac{1}{3}$ ifye sabi lyamuli babemba lyalipaiwe ukucila mucipimo, mumbi lyalipwile fye umupwilapo.Mu ncende ikumi limo na shibili pa ncende ikumi namutanda umo bepaya isabi,isabi lipaiwa lyaliceepa saana ukucila kale lyonse.

UKUBOMBELA PA BULONDO BWATWALILILA

Ubulondo bwatwalilila niubo ubusuminisha ukwipaya isabi mukulinga icakuti lilapwa namukupita kwa nshita.Mufyalо ifingi,balibika ifipimo(fish quota) kabilи ifi fipimo fipangwa nabonse abakumine kubushila pamo nga aba fikansa fyacaalo, bashimakwebo ,bashila elyo naba Scientist. Ba Scientist naba shila lyonse balapashanya pabwingi bwe sabi bafwile ukwipaya cila mwaka.

INCENDE SHATENGELWA MULI BABEMBA

Incende shatengelwa muli babemba nincende muntu basungila ifya myeo ifyamuli babemba, kabilи shaba bucingo kunama shilya shali panembenembe yakupwa elyo nokucingilila isabi kumakwebo. Ilelo, amapesenti yabili ayababemba yalingililwa. Ukulolesha ku mpanga, ukufika fye napali ba percenti ikumi limo nayabili eyatengelwa.

Ubuyo bwabatengela ifyamweo ifyamumenshi kumona ukuti icende shatengelwa shafika kuma percenti ikumi limo, uwa babemba. Pali lelo,ishi ncende shatengelwa muli babemba shaba mupepi nakumilundu mu ncende shafyalо ifyalekena lekana. Muncende shatengelwa mukati kababemba uko ekuti incende shabela ba mailoshi imyanda ibili. Ukufuma kumulundu, ifyamweo ifyatengelwa finono saana.Bumo pamafya yasangwa elyo mulekusha incende yatengelwa pali bemba mukati nankati kafibemba yakuti, takwaba calo nangu cimo paceka fye icinga panga incende yatengelwa ngafintu cingacita mukati kamupaka waciko.

Babemba bakalamba balicindama saana. Babemba ifyakiniko fibili pali fitatu ($\frac{2}{3}$) ifya mpanga elyo ukulingana naCBD, aba babemba bakalamba ebasunga ubwingi bwafyamweo ifyamumenshi. Nangu cingati icipangano epo caba icakuma pakutengela ifya mweo ifya mumenshi (United Nations Convention palupapulo lwa babemba, UNCLOS), ici icipangano cimona fye pambali shinono fye ishili nga Ubushila,ukwenda kwa mato, ukukowesha amenshi nangu ukwimba ulubwe mumenshi, lelo tacikuma kuncende shatengelwa.

Pali lelo, nincende shinono saana ishatengelwa mukati nankati muli babemba. Icakumwenako, mumwaka wa 2002, ifyalо ifinamupalamano ifya Italy, France na Monaco lyasaine icipangano caleitwa "Pelagos Sanctuary"muli bemba wa Meditteranean. Fyasuminishenye ukuceceta mato yalepita muli ii ncende

ayalembeshiwe mu fyalo fyabo lelo tabakwete maka yakulesha mato yalefuma kumbi. Icilangililo nacimbi ni "South Orkneys"ncende yatengelwa mumenshi makasaaya Antactica. Capangilwe mu 2010, kabili ubushila muli iyi ncende bwalibindwa.Iyi ncende yatengelwa nefyalo amakumi yataatu nafisano kabili ifi fyalo nifimembala fyakabungwe ketwa' Commission for the Conservation of Antarctic Marine Living Resources-CCAMLR'. Icipangano icily coonse icikumine kufyamweo ifyamumenshi mukati kababemba cikuma fye filya fine fyalo ifyasaina ico cipangano.Insambu shafyalo fimbisashikumako iyoo.Ici cilepilibulo kuti ifyalo ifyasaina cipangano.tekuti fipatikishe ifyalo fimbisifishasaina ukukonka amafunde shapangile.

Eco ukucingilila ifyamweo mumenshi ya babemba bakalamba kukaba ukwayafya ngashi ngacakuti takwakabe cipangono icikumine ifyalo fyonse(icilangililo:ici cipangano cilelunda mufya kale mucipangano ca UNCLOS).

Ico icipangano nangu cibe fyo cikaba icayafya ukupanga pantu kuti cacincitila amato ayengi ukwipaya isabi mulishilya ncende shakwatisha isabi elyo nakabili kuti caba icakushupa no kukosa umutengo ukusopa abashila abalefwaya ukwipaya isabi ilyacila mucipimo.

Akabungwe kafyalo fyakubulaya, ngecakumwenako, kapanga ifunde lyakuti isabi lyasuminishiwa ukwipaya nabashila mapercenti amakumi yane ukucila palyo ba Scientist babeeba ici mulandu wakuti abashila balafwayaisha saana isabi lingi nangu cingati ba Scientist balibapanda mamo.

UBWISHIBISHI NO KUTUNGILILWA

Ilelo,amato ayengi yapepeka isabi ilinono ngashi kalekale mu 1992,icisaka ca United Nations icimona pafyakulya(FAO) casangile ukuti amaka yamuntu ayakwikata isabi mucalo ilelo,yaba imiku ibili ukulingana naimpendwa yesabi lifwile ukwipaiwa.Lintu cilekulilako fye ukwafya ukwikala ububi busuma ngo mushila amabuteko ayengi balatungilila abashila babo nangu ukubacefeshako umusonko.Na ilingi cilenga abantu abengi ukucila kale lyonse ukuba Abashila.

Ubu bwishibishi kubashila bwalileta ubwafya,tekwisabi kweeka leelo nakubashila beene pantu limo limo uku kucinfanya skutwala kuli tapali. Akabungwe kafyalo fyaku Bulaya, Icalo ca China,Vietnam na Japan kucakumwenako filesha ukucefyako impendwa yabashila leelo mufyalo pamo nga Indonesia,Cambodia na Malaysia, impendwa yabashila ilekulilako fye.Pakucefeyako impendwa ya bashila,bampandamanobatila amabuteko yafwile ukuleka ukubomfyaindalama shacintubwingi mukupanga mato lelo nangu cibe fi, abashila bena bafwile ukubomba incite yabo

IFYA MWEKO MUFISHI FYAPANSHI YABEMBA

Ama reef fishi fyaba pansihi ybabemba. Fipangwa kwilibwe lya limestone ilipangwa lintu ifilimbwa ne nama shamumenshi shafwa .Ifi fishi ilingi fitwa "rainforests of the Sea" kabili fyaba pancende shimo ishakwatisha ifilengwa na Lesa muli babemba. If fishi finono saana kabili fyaba fye cakaniko cimo pe kumi(0.1%) iya babemba bonse,nangu tutile citika pali fine ica bubumbo bwa mumenshi ukubikapo fye na isabi, ifyuni fyamu menshi,imyepu na boonse ububumbo.

Fyaseeka muncende shakaba isha caalo (Tropics) mumenshi ayashashika. Ifishi fyama Coral reefs filaleeta ubukumu ukupitila mu batandanshi, ubulondo nokucingililwa kwa malulamba yaba bemba. Aba masambililo ya bunonshi balanda ukuti ubunonshi bufuma kuli ishi ncende kuti bwafika pamintapendwa yamadollar imyanda itatu namakumi cinelubali nayasano (375 bilion).

UBWAFYA BUSHINGEMWE NA IFISHI FYAPANSI YABA BEMBA

Ifishi fyapansi yababemba tafyakosa, fili mubusano makamaka bashila bashikonkae funde, ukukowesha kwa menshi ukufuma muma tauni. bampanda mano basoosa abati ukucila pa cakaniko cimo pali fitatu ifya ifi fishi kale kale fyalyonaulwa nangu fili mubusano bwakonaulwa. Ubwingi ubwaifi fishi bwaba mumenshi yakaba mufyalo filetumpuluka umo ifi fyalo fishakwata indalama shakucingilila ifishi. Uku kucingilila kuleplibula, kucakumwenako, ukubikako inshita lintu mwabinda ukwipaya isabi, ukucefyu ukukowesha umwela na menshi, ukupanga amapange yakusungilamo abatandanshi, ukuleta ubuyantanshi ubushonaula ululamba lwa babemba nangu ukwipaya utushishi utupangaifi fine fishi. Fyonse fifwaya ulupiya.



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4. Amafya ne filambu fya ku lanshanya

Ukwakanya kwafibi ne filambu fya Biodiversity

Ukulanshanya no ku suminishanya kwa fyalo fyonse pa mulandu wa kuchingilila bwikalobusuma bwa bantu, ifinama, impanga ne mimana inshita yonse kuleta amepusho pamo nga: **Nibani abakwata amaka ayacingilila? Nibani bakalipila? Nibani abaka sangamo ifilambu fya kucingilila ubwikashi busuma bwa bantu, inama, impanga ne mimana? Nibani abakacinfyankabili nibani bakacimfiwa?**

Umulandu wa bwikalobusuma ubwa bantu, ifinama, impanga ne mimana untu wa yafya sana kabiili wa kuminkana na mapange ayakankala ayengi. Mukufwailisha ulupiya lwa ku cingililaubwikashi busuma ubo ifyalo fyonse pano isonde fyalisuminishana pamapange aya mumwaka wa 2010. Lelo ilipusho ilikalamba nili ilyakuti: Nikwisa kwinka sanga ulupiya namano yakusunga, ukubwesha, noku cingilila, ifilenga atemwa ifibumbwa mucalo conse?

4.1. Ulupiya lwaku cingilila ubwikalo busuma bwa bantu, ifinama, impanga nenama

Palikano kashita, ulupiya lulefuma kuli ba Global Environmental Facility [GEF]. Ulu lupiya lule yafwilishya imilimo iyapusana pusana pamo nga ukusunga bwino icalo ukulingana noku suminishanya pamulandu wabwikashi busuma mu fyalo ifipina. Ulu ulupiya lufuma kubaipelesha mufyalo ifinonshi [moneni icikope 4.1]. Ukulongana kwa fyalo ifya suminishanya pamulandu wa bwikashi busuma kwalisuminishanya pamulandu wa fyebo ne nshila yaku bonfeshamo ulupiya. Mumwaka wa 2003, GEF yilibika muncende ishilefika naka 6.34 million square kilometers [icalo ca India kuti caingilamo imiku ibili] kabiili ishacingililwa pano calo ukulingana namakana yabili ulupiya [US\$2.9 billion].

Ifyalo fyonse fyalisuminishanya ukuti ulupiya lwa kucingila ubwikashi busuma ululefuma ku GEF, kufyalo ifyalekanalekana no lupiya ululeisa munshila shimbi teti lucingilile ubwikalo busuma pano calo. Abantu bambi baiminina pakweba ati cawamapo ukubonfyia ulupiya pafintu fimbii ukucila ubwikalo busuma. Bambi nabo beba ati ukubomfyia ulupiya pabwikalo busuma kuti kwaleta ubuyantansi kunshita yakuntansi.

Nikwisa kufwile ukufuma ulupiya lya kucingilila ubwikalo busuma bwa bantu, ifinama, impanga nenama mufyalo ifipina?

Ifyalo ifipina ilingi filafilwa ukucita ifintu ifingga cingilila ubwikalo busuma elo kapibili ifyalo ifikankala tafifwaya ukulundapo palupiya ulo fyabika mu GEF. Ilipusho lya uko ulupiya lufwile ukufuma lillela umafya ayengi. Abantu bamo batila ati ifyalo ifkankala fyalicefyia ulupiya lwakucingilila ubwikashi busuma ubwa bantu, inama, impanga ne mimana lelo balefwaya ifyalo ifipina ukubacingililako, echo mulimo wa fyalo ifikankala uku pela ulupiya lwaku cingilila ubwikashi busuma ubwa bantu, ifinama, impanga ne mimana icalo conse. Bambi noabo batila ati mulimo wa fyalo ifipina ukusendamo ulubali lelo tukupitilila ulubali luntu ifyalo ifikankala fifwile ukusendamo.

Palikano kashita, ifyalo ifikankala fyali ipela ukulipila ba GEF ulupiya. Abantu bamo batontonkanya ukuti ici calibomba bwino eico teti cilinge ukubapatikishya ukusonka ulupiya nalumbi. Bambi nobo batila ati kumulandu wakuti ulupiya lwaku cingilila bwikashi busuma ubwa bantu, inama, impnaga ne fimana telwingi icalo conse, ulupiya lulefuma kukupeleshya teti lukwane eico ukulipila takufwile ukuba ukwaku ipeleshya.

Mukulekeleshya ilipushyo limo lyakuti calilinga ukuti ulupiya lulefuma ku buteko ukupitila mu mpiya abantu mucalo balipila ku buteko fye. Bushe teti kube ko inshila shimbi pamo nga utwampani na bashita kutwampani utu ukulipila? Umusango umo ku lipilishya abantu abaleonaula ubwikashi busuma nangula kubantu ababomfyia ifintu ifinggaleta imitengo sana. Bambi nabo batila ati ici kuti caleta ubonaushi bwalupiya, kuti cayafya ukwamba elo kabilii kuti caleshya ubuya ntanshi.

4.2. Ukulanshanya pakusuminishiwa nefilambu: Ukusuminishanya kwa ku Nagoya

Ukulanshanya pamulinganya waku bomfyia ififyalilwa cintu cimo pa lwaku cingilila bwikashi busuma pamapange yatatu aya cilonganino casuminishyene. Icicintu cikankala sana icinggaleta ukufikilishya amapange yambi yabili: ukusunga bwino ubwikashi busuma ubwa bantu, ifinama, impanga ne mimana elo nokufibomfyia munshila iletu ubuyantansi.

Insoselo **yafintu fyachifyalilwa** ipilibula ififyalilwa mufilengwa na Lesa. Ifi fifyalilwa fisangwa mufilengwa na Lesa kabilii ifipelwa kubana. Ifi fifyalilwa - namano twakwata pafilfyalilwa, nefyo tufibomfyia – kuti fyaleta ubusuma kumulandu wa kuceceta (research) no kutwala pantansi imilimo yamutwampani, pamo nge miti, ifyakulya fisuma, ifyakubomfyia mutwampani pamo namafuta ayamisango misango.

Ukulinganya ne fifyalilwa fimbii, ififyalilwa – pamo namano yabantu mumishi – tafikala atemwa ukusanga panga yonse fiselelafye kuli ku ncende uko ubwikashi bwaba ubusuma pamo ngamufyalo ifipina. Lelo utwampani utwakwata amaka na mano yakubomfyia ififyalilwa ifi tufuma kufyalo ifikankala. Ifi fyatwala kutwampani ukulabepa pamulandu wa fifyalilwa ifi mu fyalo fimbii ukwabula ukupoka insambu no kulondolola ifisuma fifuma mukubomfyia ifi fifyalilwa.

Ukusuminishanya kwa ku Nagoya

Panuma yamyaka yakulanshanya pamulandu wa “kusuminishanya pa fifyalilwa no mulinganya palwa filambu fifuma mukubomfyia” [Nagoya lishina lya musumba umo ku calo cha Japan uko ukulanshanya kwabelele] kwali ukusuminishanya mumweshi walusuba lukamba mumwaka wa 2010. Uku kusuminishanya kwita ifyalo ifipela amaka yaku bomfyia ifi fifyalilwa ati “bakapela” elo mukubwesha kufwile kwaba ukulondolola ubusuma bulefuma mukubomfyia [moneni icikope nambala 4.1]. Ukusuminishanya uku kabilii kweba ati ilyo

abantu mimishi basokolola amano yaku bomfya ififyalilwa ifi nobusuma bwafiko, bafwile basangamo ubusuma nabo. "abakubomfya" nibalya ababomfya ififyalilwa ifi na mano. Bafwile bapoka insambu shakubomfya no londolola ubusuma bwakubomfya.

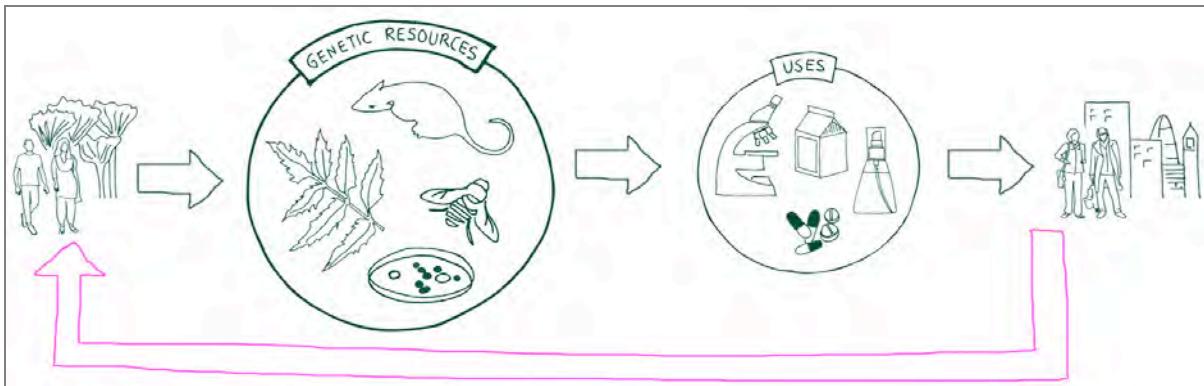


Figure 4.1. Icilangilo cakulanshanya pakusuminishiwa nefilambu

Icilangililo ca busuma bwaku londolola

Abena Kani bekala kumpanga ya Kerala kucalo ca India. Ibumba yaba kafwailishya baku nganda yama sambililo ya bulimi no kufwailishya [TBGRI] bali mumpanga ya kerala elyo abena Kani balebalanga inshila. Elyo baleenda muli iyi impanga, ili ibumba lyaihile mona uko abena Kani balelya ifisabo fimo ifyalebapela amaka.

Abena Kani tabafwaile ukusokolola inkama ya cisabo ici pantu cali ni nkama ya mutundu wabo. Lelo panuma yaku pamfiwa neli ibumba lyaba kafwailishya, balibalanga icimuti. Ibumba lyaba kafwailishya lyali esha ukufwailisha palwa ici cimuti nokusanga ukuti ici cimuti cisangwafye muli iyi impanga. Nangula cingaba ukuti ici cimuti callilandwapo nabakafwailisha bambi, tapali uwalandwelele ifyo cibomba. Bakafwailisha aba basangile ukuti ici cimuti calikwata amaka yapela amaka ayalengele ukuti bapangemo umuti witwa 'Jeevani' umuti uwusuma kubumi elo kibili ulapela amaka. Aba bakafwailisha baishile suminishanya nabena Kani ukuti bakalaputula pakati ulupiya bakalasanga mukushitisha uyu muti.

Ukulundapo, kwali ukusuminishanya palwa busuma bwa ici cimuti ukulingana nobuyantansi ne mikalile isuma yabena Kani mumpanga ya Karela, nabena Kani ukusanga fimbi ifimuti ne mibonfeshe Yafiko.



Figure 4.2. Icimuti abena Kani babomfeshye (kukuso) no muti wafuminemo (kukulyo). Intuntuko yelyashi (Wikipedia na <http://sanjeevaniherbals.com/>)

Ukulondolola ubusuma kuti kwaba mukupela ulupiya nangula ukubombela pamo mukufwailishya noku pelana efyo ukufwailishya uku kulesangamo. Ubusuma bufwile ukutwala pantansi ukusunga bwino no buyantansi bwa bwikashi busuma bwa bantu, ifinama, impanga ne mimana. Ukusuminishanya kwaku Nagoya kubikapo ifyabo fyakulinganya ukukulondolola mucalo conse.

Ubutantiko ne mpika yaku suminishanya kwa ku Nagoya

Ukusuminishanya kwaku Nagoya kukamba ukubomba panuma ya fyalo 50 ukusumina ukusendamo imbali ukukusuminishanya munshiku shyakuntansi. Utumfulumende tufwile ukusuminishanya ifyo twingakonka ifyebo fya kusuminishanya uku.

Elyo ukusuminishanya kwaku Nagoya kulelemba ifyebo fyaku ukusuminishanya kwabapo paku londolola abusuma bwa fimuti fyalekanalekana, ifyasangilwe mufyalo ifipina nabakafwailisha notwampani twafuma kufyalo ifikankala, kufwile kwaba. Abantu bambi batila ati ifi fimuti fyasangilwe munshila iyisuma kalesana. Lelo ukubomfyा ukusuminishanya kwaku Nagoya kuti kwaba kwati ku bwelelakunuma. Bambi nabo batila ati ifyalo uko ifi fimuti fyasangilwe fifwile ukukonyapo ukuba ifine fyafimuti noku konkanyapo ukupoka ubusuma bulesangwamo.

Bumbi ubwafya bwakuti ukusuminishanya kwaku Nagoya tabwakwata amaka yakumona imibomfeshe yafibumbwa fya mulibabemba abakalamba pamo nga esabi nafimbi ifimena mumenshi. Ifi filengwa tafyakwata umwine. Lelo ifi filengwa fibomfiwafye na bantu abanono elo kabilo abufuma kufyalo ifikankala.

Ubuntungwa bwafilengwa ifisangwa muli babemba abakalamba bukankala ubufwile uku konkanyapo. Abantu bambi batila ati ifilengwa na Lesa ifisangwa muli ba bemba abakalamba fya bantu bonse echalenga ukuti ubusuma bwakufibomfyा bufwile uku cingilila ubwikalo busuma bwa bantu, ifimana, impanga ne mimana mu fyalo ifipina.

Ukusupula kwamashiwi

ABS: Access and Benefit Sharing

CBD: Convention on Biological Diversity

CCAMLR: Convention on the Conservation of Antarctic Marine Living Resources

FAO: Food and Agricultural Organisation, is a United Nations Organisation

GDP: Gross Domestic Product

GEF: Global Environmental Facility

MPA: Marine Protected Area

TBGRI: Tropical Botanical Garden and Research Institute

UN: United Nations

UNCLOS: United Nations Convention on the Law of the Sea

Ukwafuma amashiwi na mabula nayambi ayakubeleEngelapo

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