



NATIONAL BIOSAFETY AUTHORITY (NBA)

Translation of
Biotechnology and Biosafety Scientific Terms/Phrases
Found in the
Biosafety Act No.10 of 2007
and the
Cartagena Protocol on Biosafety (CPB)
in to
Seven Zambian Local Languages

January 2015

Editor's Note:

During 2014, the National Biosafety Authority (NBA) received numerous enquiries on the procedure of lodging applications for the introduction or importation of various genetically modified crops and products in to Zambia. It is anticipated that during 2015 and going forward, there will be submitted application(s) for the introduction of these crops for research purposes under confined field trial conditions as well as placing on the market of products derived from genetically modified crops.

Nonetheless, the Biosafety Act No. 10 of 2007 at Section 14 (5) is categorical on the importance of public views as regards the application and the subsequent decision(s) arrived at. Similarly, the Cartagena Protocol on Biosafety (CPB) at Article 23, encourages Parties to promote and facilitate public awareness, education and participation concerning the safe transfer, handling and use of living modified organism or indeed genetically modified organisms.

It is with the foregoing that the NBA in a bid to facilitate a comprehensible and informed participation of the public in issues of biotechnology and biosafety, keeping in mind that these issues are susceptible to being misrepresented and thus misunderstood leading to deeply entrenched positions, meanwhile, the public is not adequately or accurately informed. As such it is imperative that the public is availed impartial information to allow them make informed contributions during public debates and ultimately reach a common consensus for the protection of human and animal health as well as safe guarding the environment.

This translation of biotechnology and biosafety terms and phrases is certainly not all-inclusive nor exhaustive as it restricts it self to terms and phrases used in the glossaries contained in the Biosafety Act No. 10 of 2007 and the Cartagena Protocol on Biosafety (CPB).

Further, the translation is not literal i.e. word for word, as usually, there are no exact words in the local vernacular that are similar or equivalent to the scientific terms or phrases used in the two documents. The translation is descriptive to allow for perception of the concepts referred to by the scientific terms or phrases in the two documents. It is hoped that with time and regular use, vernacular equivalents will be derived by language experts; this will go a long way not only in enhancing the objective of this translated work but the teaching, learning and development of science and mathematics in the country.

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Mr. Paul Mbewe – Senior Science and Technology Officer, MESVTEE

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Foreword:

Scientific advancement in all sectors of the economy is vital for socio-economic development and, as such, the Government recognizes the need for full and equal participation of men and women at all levels of national development.

This Translation of Biotechnology and Biosafety Scientific Terms/Phrases into Seven Zambian Local Languages is the first of its kind in the history of Zambia, where attempts have been made to simplify the understanding of scientific terms by our local people. The terms that have been translated are only those that are found in the Biosafety Act No. 10 of 2007 and the Cartagena Protocol on Biosafety (CPB), and are not exhaustive of all the terminologies in this vast field of science.

My Ministry remains committed to finding solutions to scientific problems and this translation could not have come at a better time than this, as the people of Zambia are in need of simplified information that will enable them better understand and be able to participate not only in scientific debates but will appreciate the scientific concepts from a more user friendly language setting. This will enable Zambians actively interact during public participation fora, as well as make informed decisions even at individual level.

I therefore urge all Zambians to make use of this important document as we venture into this scientifically advanced era.



John T.N. Phiri, PhD
MINISTER OF EDUCATION, SCIENCE, VOCATIONAL TRAINING AND EARLY EDUCATION
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i.	Ms. Mutukwa moya	Lozi
ii.	Mr. Loveday Hachuyumba	Tonga
iii.	Ms. Mbingila Chikumbi	Luvale
iv.	Mr. Chola Musukuma	Bemba
v.	Mr. Joseph Zulu	Nyanja
vi.	Mr. Prince Kapita	Lunda
vii.	Mr. Alex Mukuta	Kaonde

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Dr. Paul Zambezi
Chairperson

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Translated Scientific Terms/phrases:

1. Advance Informed Agreement

Definition according to the CPB & Biosafety Act: The consent obtained before any activity is undertaken based upon full disclosure of all relevant information and the taking of full responsibility by the supplier of the information for its accuracy and completeness.

Lunda: Kuditezhang'ahu dehi chityang'enu henohu yuma kanda yishiki mwitung'a.

Luvale: Kulivwasanyina chimweza mulimo shimbu kanda uzachiwe shimbu kanda mumilo uzachiwe.

Bemba: Ukusuminishanya libela libe umulimo ushilacitwa.

Nyanja: Kuvomekezana poyamba ndi mbali zonse zokhuzidwa pomwe nchinto ikalibe kuyamba.

Tonga: Kuzuminzyanya kutaanguna mulimo kawutanacitwa.

Lozi: Kulumelelana chimo, kunyatelisana kwa makalelo musikaekisana kale.

Kaonde: Kuswang'ena jimo mwingilo saka akyangye kwingijiwa.

2. Applicant

Definition according to the CPB & Biosafety Act: Any person making an application for the approval of the Authority, or the person to whom the approval is given.

Lunda: Mukwakukeng'a na kumwitezha kuzata mudimu kufuma kumutayi.

Luvale: Khala muthu nasonekela kuzango mangana yimwitavise kuzata mulimo.

Bemba: Umuntu uuli onse uleipusha ukupelwa insambu ukufuma kubutungulushi.

Nyanja: Munthu aliyense opempha cilolezo kubungwe imene ili ndi mphamvu zopeleka cilolezo.

Tonga: Kufumbwa muntu uulembela kuti azuminzyigwe aba Silutwe, naa muntu ooyo wazuminzyigwa.

Lozi: Mutu kaufela yataleleza mapampili a ku i kupela kufiwa maata, kapa mutu yo ya fiwa maata.

Kaonde: Muntu uji yense ubena kulomba luusa pa kintu, nangwa awa ubena kupewa luusa.

3. Authority

Definition according to the CPB & Biosafety Act: The National Biosafety Authority.

Lunda: Mutayi wa National Biosafety Authority.

Luvale: Zango ya National Biosafety Authority.

Bemba: Iciputulwa ca National Biosafety Authority.

Nyanja: Cigao ca National Biosafety Authority.

Tonga: Cibeela ca National Biosafety Authority.

Lozi: Katengo ka National Biosafety Authority.

Kaonde: Kije kya National Biosafety Authority.

4. Biosafety

Definition according to the CPB & Biosafety Act: A set of measures, policies and procedures used or established for assessing, preventing, monitoring and managing any risk associated with genetically modified organisms to human health and safety and to the environment.

- Lunda: Inzhila zhakukehesha na kuking'a wumi kufuma kukukala na nzatishilu ya yuma yidi na wumi.
- Luvale: Jijila ja kukanyisa na kukinga kulikangula charathu na vyuma vyamuchitungilo kuulyanyi wakufuma uvyuma vikwavo vili namarono
- Bemba: Inshila shakucefyeshamo atemwa ukupwishishamo ubusanso bwingatumbuka ukufuma kumibomfeshe ya fyamweo.
- Nyanja: Kupeleka citetezo ku umoyo wa cinthu ciliconse cimene cili ndi umoyo, kuzinthu zina zace zamoyo zosinthidwa mucilengedwe cake.
- Tonga: Ndibbala libeesegega kupandulula ntaamu zyakusola kucesyia alimwi aku manininzya kugusya zylilijazo zyzwaba mububambe bwazyintu zyilaabuumi.
- Lozi: Mihato ya kubukeleza ze pila kwa lika ze pila kapa libaka kuli lisike za tisa kozi kapa butata kuzwa ku zeng'wi ze pila.
- Kaonde: Mashinda akufomwenamo nangwa kupwishishamo lukaji lufuma kubukomo buji mu kwingijisha bintu biji na bumi.

5. Biotechnology

Definition according to the CPB & Biosafety Act: The development of products by exploiting biological processes or substances using intact original or modified organisms or by using active cell components.

- Lunda: Inzhila yakuzatisha mwakuhimpila Yuma yidi na wumi kuhitila munzhila ya kuyimbombashana kulonda yibalumuki yuma yacheng'i ya kukwasha chihandilu cha muntu. Yuma yidi neyi; mahewu, mankendi na walwa.
- Luvale: Chinyingi chakuzachisa vyuma vyamwono mujila yaumanjimela kuhichila mukuchingasana mangana vyalumuke mujila yekha yakukafwilamo muchiyoyelo cha vathu; vyakufwana nge lituku, mbolo, milava navyuma vikwavo.
- Bemba: Imibomfeshe nemipilibwile yafyaba mucintu icamweo mukupanga kwa fintu umuntu enganonkelamo, ifili ngefyakulya, ifyakunwa nefintu fimi ifiibebele.
- Nyanja: Ugwiltisa nchito zinthu zina zamoyo pofuna kupanga zinthu zina zomwe zingaphindulile anthu. Mwacisanzo, thobwa, munkhoyo, yogati, mowa ndi zina zambili.
- Tonga: Nzila zyabusongo bwaansi zyibeesegega kubamba zyintu zyipona ziyig wasyilizya bantu mukupona kabotu, mbuli cibwantu, mabisi azyimwi.
- Lozi: Buchaziba bwa ku itusisa ze pila ka mutala, ze kona kutemisa lico ze swana inge mabisi kapa ku shashekisa maheu ni sipesu ze ciwa ni ku nwiwa kapa kuitusiswa ki batu.
- Kaonde: Kwingijisha mashinda ne kwalula na muchi bintu biji na bumi mukulenga bintu bingijishi wa byakonsha kuleta buzaka ku bantu. Kyakumwenako, maalwa a bila, yogati, chizi, ne bikwabotu byavula.

6. Cartagena Protocol

Definition according to the CPB & Biosafety Act: The Protocol on Biosafety under the Convention on Biological Diversity.

- Lunda: Kupompa kwachitayang'enu chamatung'a ezhima naku wana mwaku diking'ila kukukalakufuma kuyuma yidi na wumi kwanding'i ku mumu sumba wa Cartagena, itung'a da Colombia.
- Luvale: Chivwasano mukachi kamafuchi osena chakukungilamo vyuma vyam wono kuulanyani. Chapwile kumbaka ya Cartagena, itung'a da Columbia.
- Bemba: Icipangano capamibomfesho nemipangile yafintu ukufumya kufintu fimi ifya mweo icacitilwe mumusumba wa Cartagena mucalo ca Colombia.
- Nyanja: Cimvano camsonkhano wa kudzikola Colombia mumzinda wa Cartagena pofuna kupeza njila zabwino zotetezelamo umoyo wa zinthu zomwe zili ndi moyo.

7. Control

Definition according to the CPB & Biosafety Act: To examine, regulate, manage or direct any activity within a person's jurisdiction.

- Lunda: Kukung'a nakumona neyi muntu wunekewi ng'ovu yakwesekezha natweshi kuzata mudimu na kukang'esha kukala ha kuzatisha yuma yidi na wumi.
- Luvale: Kukung'a kutwaminyina, nakumona nge kala milimo vanamuhane muthu unazachiwa.
- Bemba: Ukupindulula, ukutungulula nokwanganalila bwino umulimo wapa cintu icakwata umweo mukukonka nensambu umuntu akwata pacifulo cakwe
- Nyanja: Kuyanganila pakayendetsedwe ka nchito zoteteza cinthu ciliconse ca moyo kuzintha zina zamoyo, zosinthidwa mukapangidwe ndinso ku zinthu zina zocokela kuzinthu zimenezzo.
- Tonga: Kusoleka kwakubona, akweendelezaya antela kusololela mulimo uuli oonse kweelana aasimpila nguzu zyapedwe muntu.
- Lozi: Mwa ku zamaiseza. Kutatuba kutoma mihato ka mo li kazamaisezwa kamulao ni kufa sikuka kulikana ka maata a filwe. Kufa sikuka kuli kusike kwaba ni butata kwa batu ni mwa lilalanda.
- Kaonde: Kukikizha, kusopa ne kutangijila mwingilo uji yense mungovu yapewa muntu.

8. Conference of the Parties

Definition according to the CPB & Biosafety Act: The Conference of the Parties to the Convention.

- Lunda: Chipompelu chemenang'aku matung'a ahumang'anang'a kukupompa kweneni kwadikasang'awu inlong'eshelu ni yitong'ozhooka yawu ha yuma yidi na wumi hachilaka-hachilaka.
- Luvale: Chikungulwilo chachinene chamafuchi anakuliwananga nakulikasa vivwasano havuyama vyamwono mulwola- mulwola.
- Bemba: Ukulongana kwa nkombe ukufuma mufyalo ifyapusana pusana ishangalila nokupingula imilimo yonse yapafintu ifyakwata umweo iifwile ukubombelwapo

- Nyanja: Musonkhano wa maiko, ili ndilo mbali limene lili ndi nchito lowona kuti zonse zomwe amvana panthawi ya msonkhano ziyikidwa m'malo.
- Tonga: Kubungana kwamasi kumuswaangano mupati wakuzwidilizya ntaamu zyamakanze zyzuminanwa muzyiindi a zyiindi.
- Lozi: Mukopano wa linaha, mikopano ya linaha ya singanyekanga za litaba za mifuta ya lika ze pila.
- Kaonde: Kije kikatampe kitala pa kipwilo kya misambo ya byalo ne nzhokelo ya lufundo pa banyama ne bijimwazhi, kisamba pa mfikizhizho ya misambo ya byalo kupichila mu lufukulo lokitwala kumisambo yakyo ya pakimye pakimye.

9. Contained use

Definition according to the CPB & Biosafety Act: Any operation undertaken within a facility, installation or other physical structure, which involves living modified organisms that are controlled by specific measures that effectively limit their contact with, and their impact on, the external environment.

- Lunda: Kuzatila nyidimu ya yuma yidi na wumi mutupeka hela matala etezhewa mwakubula ku diwana na Yuma yikwawu kulonda kukang'esha kutanda kwakukala kwayu ha yuma yahanzhi.
- Luvale: Kuzachila milimo yakuchingasana vyuma vyamwono muzoro chipwe muchihela vanetavisa kuchinyisa navilifutula chipwe navipandama navyuma vili kuweluka nskuneha kukaluhwa.
- Bemba: Icipinda atemwa incende iyacingililwa umubombelwa imilimo iya kupilibula nokupanga if intu ukufumya kufya kwata umweo umushifwile kwingila abantu nangu inama pakuti takuli kuleta ubonaushi kuncende atemwa ubusanso kunama na bantu.
- Nyanja: Nchito yocitikila muchipinda kapena mumpanda, ndi colinga cofuna kuteteza anthu, nyama ndi malo ozungulila kumene nchito izi zikuchitikila.
- Tonga: Mulimo oonse, wacitwa mubusena antela cilawo nchimunya, nokuba zyzinkila cakumaninina kuswaangana kwazyintu zymwi alimwi abukaka bukonzya kuba kuzyintu zytizingulukade.
- Lozi: Kusebeleza mwa sibaka mo kusilelelizwe. Kupeta misebezi mwa sibaka se si silelelizwe, kupeta lipatisiso za lika zepila ze beilwe sihozo se si zwa ku zeng'wi zepila, ze sa swaneli kuzwela kapa kukopana ni lika zeng'wi ze kwande.
- Kaonde: Mwingilo uji yense wa mumpunzha yanengezhiwa, mukishimikwa nangwa mu kintu kikwabo kyalengewa na maboko, bipangwane bijimwazhi bya muchi bisopewa kupichila mu mashinda akepeshako kaanya ka kukwatanakanya ne kukaanya kufikizha lukaji lwabyo pa buzholoke bwa kungye.

10. Environment

Definition according to the CPB & Biosafety Act: The aggregate of surrounding objects, conditions and influences that influence the life and habits of man or any other organism or collection of organisms.

- Lunda: Ilung'a hanyeng'umukila yuma na nomu muyekalila na nshakaminu ya muntu, nyitonde, hamu tuhu na yuma yikwawu yikweti wumi na Yuma yabula wumi.
- Luvale: Chitungilo chinapu chihela chili navyuma lyojinguluka nakufungulula twamiso na kuyoya cha muthu, muthu, mitondo, tunyama numba khala vyuma vyekha vyamwono navize vyakuhona mwono.

- Bemba:** Incende iyatushinguluka nafyonse ifyabamo ifyakuma kumibele, ubwikashi, no mweo wa muntu nefintu fimi ifyakwata umweo.
- Nyanja:** Malo otizungulila ndi zintu zacilengedwe pomwe pali mitengo, anthu, nyama, madzi ndi zina zambili za moyo.
- Tonga:** Ciimo aluwo mbozyibede zyintu zytuzingulukide, alimwi alukwelelezyo lukwelelezya buumi alimwi azyiyanza mbuli muntu nokuba cintu cimwi cipona antela zyipona mbozyililemeke.
- Lozi:** Sibaka. Lika ze pila ni ze sa pili ze fumaneha mwa sibaka ze bupa libaka, ze cwale ka: mezi, liseli, likota, macwe, mubu, batu ni zeng'wi ze shutana–shutana.
- Kaonde:** Buzhokoloke: Bilengwa byonse bituzhokoloka, mashinda ne bwikalo byongola bumi ne byubilo bya muntu nangwa bilengwa byavula.

11. Event

Definition according to the CPB & Biosafety Act: Insertion of a particular transgene into a specific location.

- Lunda:** Kwing'zha Yuma mwadivung'ila wumi wa chuma chezhima ya kundama kulusemu (gene) kufuma kudi chuma cha wumi chikwawu chidi neyi muntu, inyama hela mbutu, nakuchinka muchuma chikwawu chimu hohu chinakeng'iwu kulonda chisemununi iking'u, yinjikizhilo, na yaaku ya china chuma kwafumini lusemu.
- Luvale:** Eyi yinapu jila yakumbata njini (gene) yamwono muchuma chakuyoya nakuhaka mu chuma chikwawo chakuyoya mangana chikasemunwine vana vambuto yachize chakulivanga.
- Bemba:** Ukubula jini (gene) ya cintu l ca mweo ukubika mu cintu cimbi ica mweo pakutila cinga pashako mbela yaciko cilya cintu capokelela ilya jini.
- Nyanja:** Kutenga majini (gene) kucinthu camoyo ndi kuyika mu cinthu cina camoyo ndi colinga, cofuna kuti cija cimene mwaikamo majini akunja cizioneka monga cija m'mene mwacotsa majini.
- Tonga:** Kusyonka Tuzo twakabambwa kuzyila kuzyintu zyaandeene kunjizya mucilawo cimwi cakabeela katuzo kuzyila mubazyali naa kunjizya cinkozya mukazo kazwa kumbi kutegwa kuzyalwe mwana uukonzya bazyali bobilo baandeene.
- Lozi:** Ku zwisa jini mwa nto ilimwi yepila ni kuibeya mwa nto yemwi ye pila fa sibaka mwa mubili opila sesibizwa kulomosomu (chromosome).
- Kaonde:** Kulenga bintu byavula biji na bumi kupichila mu kufumya kalume-kachi ka mu kintu kimo kiji na bumi nabiji kalota (carrot) kubika mu kalume-kazhi ka kintu kikwabo nabiji jitaba pakuba'mba ajo jitaba

12. Export

Definition according to the CPB & Biosafety Act: Intentional transboundary movement of a genetically modified organism or a product of a genetically modified organism from one country to another country.

- Lunda:** Hi kutwala Yuma yikweti wumi yinahimpewi kudi muntu kwikala Yuma ya cheng'l kumatung'a acheng'l kubadika ing'iza yetung'a nakuya kwitung'a dikwawu.

- Luvale:** Kutwala kuweluka walifuchi vyuma vyakuyoya vize vanalumuna kupwa chavyo mujila yakuchingasana nachifwanyisa chavyuma vyamuyachi wekha.
- Bemba:** Ukwabusha umupaka wacalo ukutwala kucalo cimbi icintu ico umweo waciko wapilibulwa ukupitila mukufumyamo nangu ukupela icitwa jini kucintu cimbi icamweo pakuti naco cingakwatako ifisuma fimo ifyo cishakwete kububumbo bwaciko.
- Nyanja:** kupeleka kudziko lina kapena kwina kwace zinthu zamoyo zomwe cilengedwe cake casinthidwa ndi anthu mochotsa zinthu zina zocedwa ma jini kucotsa kucina cosiyana mucilengedwe ndi kupelekamu cina pofuna kusintha cinthuco kuti cikhale ndi zinthu zomwe cinaco cili nazo, kapena kupanga kuti cikhale ndi maonekedwe ofanana ndi cinaco.
- Tonga:** Kutola zyintu naa cintu cakabambwa akabeela naa zyiyeela zyakazwa mucintu nokuba zyintu ziyimbi ziyipona kuzwa kucisi cimwi kuya kuli cimwi kukosola minyiza.
- Lozi:** Kuisa kapa kulekisa lika kwande a naha. Kuisa lika ze beilwe sihoziso se si zwa kwa lika zemu ze pila ku zwa mwanaha l ling'wi ku ya mwanaha ye ng'wi.
- Kaonde:** Kupoteshiwa kwa bipangwa ne bijimwazhi bya muchi nangwa kintu kyasemwa ku kipangwa ne kijimwazhi kya muchi kufuma ku kyalokimo kuya ku kyalo kikwabo.

13. Exporter

Definition according to the CPB & Biosafety Act: Any legal or natural person, who arranges for any genetically modified organism, or a product of a genetically modified organism to be exported.

- Lunda:** Mukwa kutwala yuma yidi na wumi na yikawu yina himpevi kwikala yuma yacheng'i ku matung'a acheng'i kubadika ing'iza yetung'a nakuya kwitung'a dikawu kudi muntu wudi wezhima anekuwu inshimbi.
- Luvale:** Mukalovola vyuma kuweluka napu khala muthu vanetavisa kweseka najishimbi chipwe ukhawenyi kutwala kuweluka walifuchi vyuma vyakuyoya vize vanalumuna kupwa chavyo mujila yakuchingasana na na vyuma vyamuyachi wekha.
- Bemba:** Umuntu uwakwata insambu uwashingwana nomulimo wakwabu sha umupaka ukutwala kucalo chimbi icintu ico umweo waciko wapilibulwa nafyonse ifipangwa ukufuma kucintu ica mweo.
- Nyanja:** Munthu aliyense wovomekezedwa mwa lamulo amene wakonzekela zofuna kupeleka kwina kwace zinthu zamoyo zomwe zasinthidwa mucilengedwe ndi anthu.
- Tonga:** Muntu uuzuminzyidwe amulawo antela muntu biyo, ooyo uupedwenguzu zyakweenzya naakutuminzya zyintu, walo uubamba nzila zyakuti zyantuzyipoma zykion zye kweenda kuya kucilawo nokuba busena bumwi,kuzwa kuli bumwi.
- Lozi:** Mutu ya lumelelize kuisa lika Kapa kulekisa mileko ya lika ze beilwe sihoziso se sizwa kwa lika ze ng'wi ze pila ze lumelezwa ka mulao kuzwa mwa naha kuisa mwa naha yeng'wi.
- Kaonde:** Muntu uji yense utiala pa mizhilo nangwa muntutu, wakonsha kunengezha bya kupotesha kipangwa ne kijimwazhi kya muchi kiji kyonse kungye ya kyalo.

14. Import

Definition according to the CPB & Biosafety Act: Intentional transboundary movement of a genetically modified organism or a product of a genetically modified organism into one country from another country.

Lunda: Hi kuleta Yuma yidi na wumi na yikwawu yina himpewi kwikala Yuma yikwawu kufuma ku matung'a acheng'i.

Luvale: Kwingisa mulifuchi vyuma vyakuyoya vize vanalumuna kupwa chavyo mujila yakuchingasana na vyuma vyamuyachi wekha.

Bemba: Ukwabusha umupaka ukufumya kucalo cimbi ukuleta mucalo icintu ico umweo waciko wapilibulwa nafyonse ifipangwa ukufuma kucintu ica mweo.

Nyanja: Kufuna kubweletsa kudziko lina kapena kwina kwace zinthu zamoyo zomwe cilengedwe cake casinthidwa ndi anthu mochotsa zinthu zina zocedwa ma jini kucotsa kucina cosiyana mucilengedwe ndi kupeleka mu cina pofuna kusintha cinthuco kuti cikhale ndi zinthu zomwe cinaco cili nazo, kapena kupanga kuti cikhale ndi maonekedwe ofananandi cinaco.

Tonga: Nzila antela nyendo zyakuleta zyintu kukosola minyinda kuzwa mucisi comwe kuya muli cimwi.

Lozi: Kutisa lika mwanaha kuzwa kwanaha yeng'wi. Kutisa mwanaha lika ze beilwe sihoziso se si zwa kwa lika zeng'wi ze pila ku zwa kwa naha ye ng'wi.

Kaonde: Kwabushiwa mipaka ya byalo kwa bipangwa ne biji mwazhi bya mu chi nangwa kintu kyasemwa ku bipangwa ne bijimwazhi bya muchi kutwezhiwa mu kyalo kimo kufuma ku kyalo kikwabo.

15. Importer

Definition according to the CPB & Biosafety Act: Any legal or natural person, who arranges for any genetically modified organism or a product of a genetically modified organism to be imported.

Lunda: Kala muntu wezhima wuneluki nakulondela nshimbi nakulong'esha kuleta yuma yikweti wumi na yuma yikwawu yina himpewi kwikala yuma ya cheng'i kwing'ila mwitung'a kufuma ku matung'a acheng'i.

Luvale: Mukakuneha vyuma mulifuchi napu khala muthu mwalongesa kweseka najishimbi chipwe ukhawenyi kwingisa mulifuchi vyuma vyakuyoya vize vanalumuna kupwa chavyo mujila yakuchingasana na chifwanyisa chavyuma vyamuyachi wekha.

Bemba: Umuntu uwakwata insambu uwashingwana no mulimo wakwabusha umupaka ukuleta mucalo ukufumya kucalo cimbi icintu ico umweo waciko wapilibulwa nafyonse ifipangwa ukufuma kucintu ica mweo.

Nyanja: Munthu aliyense wovomekezidwa mwalamulo amene wakonzekela zofuna kubweletsa mdziko zinthu zamoyo zomwe zasinthidwa mucilengedwe ndi anthu.

Tonga: Muntu uuzuminzyidwe amulawo antela umwi biyo uupedwe nguzu zyakuleta zyintu mucisi walo uubamba nzila zyakuti cintu cipona ciletwe mubusena naa mucisi cimwi.

Lozi: Mutu ya lumelilizwe kuitisa lika kapa kulekisa mileko ya lika ze beil we sihoziso se si zwa kwa lika ze ng'wi ze pila ze lumelilizwe ka mulao kuzwa kwa naha ya kwande.

Kaonde: Kampanyi nangwa muntutu wakonsha kunengezha bipangwa ne bi jimwazhi bya muchi bijitu byonse, nangwa kintu kyasemwa ku kipangwa ne kijimwazhi kya muchi kubaamba kiletewe mu kyalo.

16. Inspector

Definition according to the CPB & Biosafety Act: Any person appointed as an inspector under the Biosafety Act.

Lunda: Mukwakupikita: Muntu wudi wezhima anekuwu ng'ovu ya kupikita kusing'ewa kwa yuma yidi na wumi na wumi wa muntu anatonuwu kwesekeza na nshimba ni nzhila mwakuzatila.

Luvale: Mukakupikita napu khala muthu vanahanej'ngolo kweseka najishimbi kupikita vyuma vyakuyoya vize vanalumuna kupwa chavyo muyila ya ku na vyuma vyamuyachi wekha

Bemba: Umuntu uuli onse uwasantwa ukumona ifyo umulimo ulebombwa uwakubomfya nokupilibula ifyaba mucintu ica mweo mukukonka nefunde lyapakupilibula ifya mweo.

Nyanja: Munthu aliyense amene wasankhidwa kukhala woyang'anila kulingana ndi lamulo lokhudza kupeleka citetezo ku umoyo wa cinthu ciliconse cimene cili ndi moyo.

Tonga: Kufumbwa muntu uusalidwe kuba sikulingula mumulawo wabukwabilizi bubotu kuzwa kuziyintu ziyona.

Lozi: Mutatubi ki mutu ya ketilwe kutatubanga lika zeama lika ze pila ze beilwe sihoziso sa lika ze ngw'l ze pila, mwatasaa mulao woama za muhato wo bukeleza ze pila.

Kaonde: Shipikitala: Muntu ujitu yense watwikiwa mwingilo wa kusopa ne mashinda akufomwen amo nangwa kupwishishamo lukaji lufuma ku bukomo buji mu kwingijisha bintu biji na bumi ne bipangwa byabyo.

17. Gene

Definition according to the CPB & Biosafety Act: A fundamental, physical and functional unit of heredity

Lunda: Chuma chalema mwadivung'ila wumi wa chuma chezhima chikweti wumi chamwekeshang'a iking'u na yaaku yachu ya kusemuka kwikala chum ache yala hela chuma cha wamubanda

Luvale: Lusemo(Gene) lunapu kachuma kamukachi kamujimba wakuyoya ka livungilamo mwono kechi nakuhana chifwanyisa ku vana navasemuka

Bemba: Akantu akasangwa munsande-sande shacintu ica mweo akalenga ukuti kube icipasho, ifili nga umwana ukupala abafyashi bakwe mumimonekele nangu mumisango

Nyanja: Kanthu kamene kapezeka mu selo (cell) lathupi la cinthu camoyo. Ndipo ndiko kamapangisa mwana wa cinthuco ca moyo kutengela kapena kufanana muzicitidwe ndi maonekedwe amakolo.

Tonga: Ncizo naa cibeela cijanwa mumubili wacintu cipona alimwi ciyandika kapati, cibeleda kubamba kukozyanya kwatusyango naa banyama bapona.

Lozi: Nto yo fumanwa mwa mubili wa folofolo, sicalo kapa maikulokuwawa ye fa nto yepila sihozo.

Kaonde: Jishinda ja kuvuzhizhamo bipangwa nangwa banyama kwakubula kusambakanya mulume

ne mukazhi jobengijisha mukulenga bipangwa nangwa banyama bavula bamwekanatu nobe kyonka kilengwa kwafumine lukunwa (nabiji ng'ombe wabibala- bibala nangwa ufumya mu kaka wavula).

18. Gene technology

Definition according to the CPB & Biosafety Act: Any technique that involves the isolation, characterization, modification and introduction of deoxyribonucleic acid (DNA) into living cells or microorganisms.

Lunda: Wunkulung'ang'a hela nzhila zhakuzatisha na kwambula yaaku hela kuhimpa nakuletamu nsang'u ya (DNA) muyuma yanyanya mwadivung'ila wumi (Cell) wachuma chezhima yakundama kulusemu lwa muntu hela nyama, yakubula kumona na mensu.

Luvale: Chinyingi chamukhala jila chakuhandunwinamo kwalumwinamo chipwe kuwanyishilamo ngolo ja (DNA) mu vyuma vyamwono (cell) mangana vipwenga nachifwanyisa chavyuma vyamuyachi wekha

Bemba: Inshila yakubofya jini. Inshila iili yonse iyakupatula, ukwingisha nokupilibula insande-sande shamucintu icakwata umweo atemwa mu kantu akanini-nini akamweo akashimoneka kumenso yabantu akupitila mukubomfya (DNA) atemwa jini ya camweo

Nyanja: Njila yakuya yosinthilamo cilengedwe ca zinthu zomwe zili ndi moyo, monga kusintha kwa ma jini kapena kuyika majini ya (DNA) mukanthu kakang'ono komwe kapanga thupi la munthu, kapena kuti ka (cell) kuyika mu cinthu cina camoyo.

Tonga: Kufumbwa nzila iili yoonse iijatikizya kwaandaanya bube bwacizo (Gene) kucibamba akubikka cizo eeci mucibeela cijisi buumi kuti kacikonzya kuzubulula cinkonzya (DNA) mutuntu tupona tuniini kapati, tutakonzyi kubonwa a meso nyaanya.

Lozi: Buchaziba bwakukona kuzwisa sihozo jini (Gene) kapa mwinelo wazepila ni kubeya kuzeng'wi zepila.

Kaonde: Jishinda jiji jonse ja mu maana apya ja kusalulwilamo, kubika mundonda kwalulwilamo ne kuletelamo tulume-kachi tubese mu mashi tulengela mwana kusemwa wa mukazhi nangwa wa mulume (gene) mu tubese kache twa mubiji tuji na bumi nangwa tubese- kache twamumubiji twakilamo kukepa twakukankalwa kumona na mesotu.

19. Gene therapy

Definition according to the CPB & Biosafety Act: The replacement of a defective gene in a person or animal suffering from a genetic disease.

Lunda: Kushamu na Kuuka kwa jini (gene) yuma ya lusemu yatama mudi muntu hela mudi nyama yinakukata nyisong'u nakushamu yacheng'i.

Luvale: Kufumisa gini (gene) yalyenyeka yize mwalivungila mwono muli muthu chipwe mukanyama nakushishisama yekha yamuhwila.

Bemba: Ukufumyapo jini (gene) iishili bwino no kupyanikishapo imbi iili bwino mu muntu atemwa mu nama iyalwala iyo jini (gene) yaonaika.

Nyanja: Kucotsa ma jini (gene) yowonongeka ku munthu kapena ku nyama yodwala ndikuyikamo yena ma jini (gene) pofuna kuclitsa matenda yokhudza ma jini (gene) mu munthu kapena mu nyama.

Tonga: Kugusigwa kwacizo (gene) na kabeela kamwi kaleka kubeleka bweelede mu muntu nokuba mumu nyama uuciswa bulwazi buzwa mukabeela aako katabeleki akubikka kambi kabeleka.

Lozi: Kualafa ka ku yolisa jini (gene) kappa lijini ze sitani kapa ze fosahalile ka ku beya ze kondile mwa batu ni lifolofolo.

Kaonde: Kufumishiwapo kwa tulume-kazhi twa mu mashi tulengela mwana kusemwa wamukazhi nangwa wamulume (gene) twaonaika mu muntu nangwa mu nyama wabela kikola kyalamata ku tulume-kazhi twa mu mashi tulengela mwana kusemwa wa mukazhi nangwa wa mu lume ne kupingizhapo tukwabo.

20. Hazard

Definition according to the CPB & Biosafety Act: An intrinsic biological, chemical or physical characteristic of a genetically modified organism, which could lead to an adverse impact on the environment and human health.

Lunda: Chuma chidi chezhima china tong'ozhokeluwu kuleta kufwana kumuzhimba na yaaku yakusemuka nayu na yuma yakwawu yina yina himpewa yikweti yumi yinatweshi kuleta kukala helunga na chihandilu cha muntu.

Luvale: Khala chuma nachineha ulyanyi chipwe lwenyeka kuvathu na vyuma vikwavo vyakuyoya nge kavizachishile mujila yakwoloka.

Bemba: Icintu conse icingonaula atemwa ukusansa icintu ico umweo waciko wapilibulwa, icinga fulunganya incende yatushunguluka no kubika ubumi bwa muntu mukayofi nga cakuti takwali inshila shamfufu isha kucingililwa mo.

Nyanja: Zinthu zimene zingabweletse cionongo ku umoyo wa munthu, nyama ndi zinthu zotizungulia ngati palibe citetezo.

Tonga: Cintu cimwi cikonzya kuletela bubi naa bukaka kuzyintu zyituzingulukide alimwi akunseba zyantantu.

Lozi: Nto ye fumanwa ku ze pila kapa muinelo wa nto ye beilwe li jini ye kona ku tisa butata mwa sibaka kapa mane mwa bupilo bwa batu ni zeng'wi ze pila.

Kaonde: Bintu byankosha kuleta loono pa bumi ne bwikalo bwa bipangwa ne bijimwazhi bya muchi ne konauna buzhokoloke ne bumi bwa muntuunge pabula bukikizhi.

21. Hybrid

Definition according to the CPB & Biosafety Act: A plant, animal or organism produced by crossing two genetically dissimilar parents.

Lunda: Imbutu, inyama hela chuma chezhima chiketi wumi chinasemuki na ku himpashana anwali ayedi ambula kudifwana kulonda kusemachuma chadimena chabula kufwana anwali yachu. Neyi; muntu wiyila na wutoka, kabaka ka tooka na kayila, muntu wamulehi na muntu wa mwih.

Luvale: Khala chuma chakuyoya chakufwana nge mbuto, tunyama, vathu numba tuthutu vinasemuka ku mbuto jivali jakuhona kulifwana, chin jikizo; , chivwale chichila na chize chitoma, ngombe wamasengo na ka hundu. Chipwe chindele namuthu wilava.

Bemba: Ukubula imbuto shibili isha cintu ica mweo ifili nga inyanje shibili ishapusana nangu ukusashikanya pakuti yaisa kwata inyanje iya pusanako nga ni nama yaisafyala inama iyapusanako.

Nyanja: Kutenga mbeu ya zinthu zamoyo zosiyana ndi kusakaniza kotelo kuti pakhale kufanana kwa zobeleka zake. Mwacisanzo, kutenga mbeu ya cimanga cacitali ndi kutenganso mbeu ya cifupi ndi kusakaniza tizakhala ndi mtundu wacimanga ca utali wake umene uzakhala wapakati-mpakati.

Tonga: Kasyango kamena kwiinda mukusanganya zyizo zybobilu kuzwa kutusyango nokuba tunyama tutali twamukowa omwe.

Lozi: sicalo kapa folofolo ye pila ye pepilwe ki bashemi ba ba shutana. Mutala, ki komu ye pepilwe ki ya singungunya ni yamanaka.

Kaonde: Kijimwa, nyama nangwa kilengwa kyafuma mukusambakanya pamo tulume-kazhi twa mu mashi amubasemi bapusana. Kya kumwenako kusambakanya kwa tulume-kazhi twa mu jitaba jaipipa ne jiji na mapeke akatampe pakuba amba mukekale na nkunwa ya mataba iji na binenge bya ipipa ne mapeke abaya.

22. Landrace

Definition according to Wikipedia, a free encyclopedia: A local variety (of a domesticated animal or plant species) which has developed largely by natural processes.

Lunda: Imbutu yachisemwa yasakulewa kudi andimi mu malung'a mwashakamawu yadimanga'wu ha chaka ha chaka.

Luvale: Mbuto jachisemwa vechikulimanga vanjimi kujingalila jakulihandununa kamwaka himwaka

Bemba: Imbuto ishapusana pusana ishasalwa na balimi ukufuma kukale isho babyala cila nshita na nshita muli ilya ncende.

Nyanja: Mbeu zakale zosiyana-siyana zacikhalile za makolo athu zomwe alimi akhala akubyala nthawi ndi nthawi mu madela awo.

Tonga: Mbuto zyakayindi zyamisyobo yaandeene zyoalisalila balimi muziyilawo mobakkala oomo muvwula kulimwa biyo zyisyango zyakulya.

Lozi: Mifuta ya licalo za sintu, zefumanwa mwa libaka ze shutana shutana.

Kaonde: Nkunwa yakala yapusana-pusana isalwa na banjimi batwajijila na bunjimi bwa kajo ka kwijishatu abo bene.

23. Living modified organism

Definition according to the CPB & Biosafety Act: Any living organism that possesses a novel combination of genetic material obtained through the use of modern biotechnology.

Lunda: Chuma chezhima chinakuhanda na wumi neyi; nyitundu, anyama, antu, ana himpewi na Yuma kufuma kuyuma yikwawu ya wumi yina wanewi kuhitila munzatilu ya kuhimpa tuyuma twanyanya (DNA) mwandivung'ila wumi.

Luvale: Vyuma vyosena vyakuyoya vyakufwana nge mitondo, tunyama, vyakusoka hamavu chip we khala vyuma vyakuyoya evi vanalumuna kupwa chavyo kuhichila muchinyingi chakuchingasana nangolo jamuvyuma vyeka mangana vipwenga nachifwanyisa cha

vyuma khana.

- Bemba:** Icintu iciliconse icakwata umweo, ico umweo waciko wapilibulwa, icakwata mbela shimbi ishipywa, ishingaleta ubusanso atemwa ubonaushi kuncende na kufintu fimbi ifya mweo.
- Nyanja:** Cinthu cili conse ca moyo cimene cili ndi cilengedwe cosinthidwa kotelo kuti sicingapeleke ciopsezo ku cinthu cina ciliconse ca moyo.
- Tonga:** Cintu coonse cipona cijisi zyizo zyazyintu ziyipona ziyibumbilide ziyijanwa kwiinda mukubelesya nzila eezyo ziyigwasya bantu kupona kabotu.
- Lozi:** Sesipila sesi cincizwe sihozo. Nto ye pila ye swana sina maikulokuwawa, sicalo, toze kapa folofolo ye beilwe jini ye zwisizwe kwa nto yeng'wi ye pila ya mufuta usili.
- Kaonde:** Kintu kyumi kiji na bulume bwakusemununa nabiji kichi, nyama, ne bikwabotu kyafumine mu mashinda apya akwalulwilamo na muchi bintu biji na bumi mukulenga bintu bingijishiwa byakonsha kuletabuwame ku bantu.

24. Living organism

Definition according to the CPB & Biosafety Act: Any biological entity capable of transferring genetic material, including sterile organisms, viruses, and viroids

- Lunda:** Chuma chidi na wumi, chidi nini nang'ovu yinatweshi kutwala yuma yidi na wumi muyuma yikwawu kulonda chikali chuma cha cheng'i, na Yuma yikwawu yabulang'a kusemununa ney tububu.
- Luvale:** Chuma chili na mwono chinahase kuhana ngolo jacho muchuma chikwavo chakuyoya mangana chipwenga na chifwanyisa chacho, navyuma vikwavo ka vyechi kusemunwina
- Bemba:** Icintu icili conse icakwata umweo icinga pilibulwa nangu icinga pela imbela yaciko ku cintu cimbi apali icishakwata ubumi elyo notushishi tuleta malwele.
- Nyanja:** Cinthu cili conse cimene cili ndi moyo cimene cinga kwanisike kusin thidwa mocosamo zinthu zina monga ma jini (gene) nkuphatikizapo zinthu zomwe sizinga kwanise kubeleka zina zamoyo.
- Tonga:** Cintu coonse cilaabumi cikonzya kulonzya antela kuyambukizya kabela kazyizo zymwi, ku sanganya azyintu zytazyali bana kubelesya nyunguantela nseke mbuli milibo ya cimwali, nokuba bwizu bwa Nzinza.
- Lozi:** Nto ye pila ye swana inge ze zwala, ze sa zwali ni maikulokuwawa.
- Kaonde:** Kintu kyonse kiji na bumi, kiji nabulume bwa kusemununa kyakosha kufumishiwa ne kubikiwamo tubese- kache, apo paji ne bintu biji na bumi byabula lusemo, twishi ne tubese- kache tuji na bulume bwakuleta myaalo kubipangwa (na biji lutamba, vitaba ne bikwabotu)

25. Microorganism

Definition according to the CPB & Biosafety Act: Any cellular or non-cellular microbiological entity that is able to reproduce or transfer genetic material

- Lunda:** Tuyuma twanyanya twakubula kumona na mensu etu ilang'a ching'a kuzatisha ikina da (microscope), mwadivung'ila wumi wa chuma chejima, chidi nang'ovu ya kusemununa hela kutuntulula Yuma yikweti Yuma ya wumi mu Yuma yikwawu.

- Luvale:** Tuvyuma twatundende twamwono katwechi kumona na meso etu, shi na kuzachisa makina (microscope) tunahase kusemunwina chipwe kunungulwila chifwanyisa chatwo muvyuma vikwavo.
- Bemba:** Akantu akali konse aka mweo aka cepesha ngashi, ako umuntu ashinga mona na menso yakwe kanofye ukupitila mukubofya icisolobelo (microscope) ica aka kwata amaka yakupela imbela yakako atemwa jini (gene) ku cintu cimbi.
- Nyanja:** Cinthu cili conse ca moyo cimene cili cacing'ono kwambili kwakuti simungakwanise kuciona ndi maso pokhapo mutagwilitsa nchito makina ocedwa (microscope) zinthu izi zitha kuthandiza kupanga zinthu zomwe zingaphindulile anthu.
- Tonga:** Kantu kaniini kapati kapona katakonzyi kubonwa ameso nyanya, kankozya kuzyalana na kulonzya kugusya tuzo kutola abusena aambi.
- Lozi:** Maikulokuwawa, ili kanto kakanyinyani kakufititsa ka ka pila, ka ka sakonahali kubonwa ka meto a batu, kwandaa ku itusisa mushini wakutatubisa zepila (microscope) ka ka kona ku ipazula ni ku fa sihozo sa kona kwa nto yeng'wi ye pila.
- Kaonde:** Kantu konse kacheche kabula kumwekana na meso kanatu naking'ambang'amba kitel wa amba (microscope) ka ku kabese–kachenangwa kabula kwikala mukifwanyikizho kya kabese-kache kaji na bulume bwa kusemununa nangwa kutuntuluka.

26. Modern biotechnology

Definition according to the CPB & Biosafety Act: The application of: (i) In Vitro nucleic acid technique, including recombinant deoxyribonucleic acid (DNA) and direct injection of nucleic acid into cells or organelles; or (ii) Fusion of cells beyond the taxonomic family that overcome natural physiological reproductive or recombination barriers and that are not techniques used in traditional breeding and selection

- Lunda:** Nzatilu yayiha ya yitong'ozhooka, mwakutuntulwila na ku himpashana ni kuhemba yuma yidi na wumi (gene) yina himpewi kwikala yuma ya cheng'i kulonda kufumi kuhimpashana muchuma chikwawu chikusemuka.
- Luvale:** Chinyingi chakufumisa jingolo jimwe muchuma chamwono (gene) na kuhaka muchuma chikwavo chakuyoya mangana chipwenga nachifwanyisa chacho nakusemunwina.
- Bemba:** Umulimo wakubula ama jini (genes) ya mucintu ica mweo no kubika mucintu cimbi ica mweo nokuceceta ifyo umulimo uleenda pakutila kwaba ukupilibula imibele ya ma jini (gene) ya muli cilya cintu.
- Nyanja:** Njila ya makono m'mene ma jini (genes) amasinthidwa ndi colinga cofuna kuyika maonekedwe acinthu cina mucinthu cinanso ca moyo monga zomela pofuna kusintha maonekedwe acinthu cinaco. Ndipo akasinthu majini (genes) citanthauza kuti zobeleva kapena ana acin thu cija m'mene ayika majini (gene) ena akunja azasinthu maonekedwe.
- Tonga:** Nzila iibelessegwa acaali kuvwelenganya tuzo tupona munzila izyibidwe kabotu ciyakucitika, kucita kufi kube kucinca kwabube antela ciimo catuzo twacintu cipona.
- Lozi:** Bucaziba bwa ku ze pila; bucaziba bo butalima za kushimbulula li jinni (gene) mwa tubotela twa licaziba za sayansi (test tubes) kukopanya li (DNA) za lika ze pila ze shutana, ka kutaba ndonga ya si hoziso mwa liemba za lika ze pila. Kabukuswani, taluso kikuli kuunga jini (gene) ya mwa simela kubeya mwa folofolo, kapa kuunga jini (gene) ya mwa folofolo kubeya mwa simela, akukonahala kuezwa cwalo.

Kaonde: Lufukulo lwa kwalulwilamo tulume kazhi twa mu mashi tulengela mwana kusemwa wamulume nangwa wa mukazhi mukusaka kuyukila jimo ne kukikizha mukuleta lupimpu mu mwekelo ya kipangwa nangwa kijimwanzhi lwa tulume kazhi twa mu mashi kwingijisha kwa maana akatataka.

27. Monitoring

Definition according to the CPB & Biosafety Act: The maintaining of regular surveillance, the checking of warning about or the recording of a situation or process.

Lunda: Kutwalekahu nakushishika omu muchatela kwikala nakutalatala.

Luvale: Kutwalilialo nakupikita mujila ili nakutambukila milimo kuvakhuluwa mangana vamone nge kuli ulyanyi nausoloka kuvyuma vyamwono muchitungilo.

Bemba: Ukwangalila, ukuceceta no kumona ifyo umulimo uleenda pakuti kwingaba ukutandula ubwafya atemwa ubusanso ubuli bonse ubwinga fwaya ukupona.

Nyanja: Kuyang'anila m'mene nchito ikuyendela kotelo kuti pakhale kudziwa mwa msanga ngati pali zina zace zimene sizikuyenda bwino kapena zimene zikupeleka ciopsyezo ku umoyo wa anthu ndi zinthu zina zozungulila.

Tonga: Kulingula kwamuziindi azyiindi lyoonse kubona zyicencezyo zyjatikizya naa kulemba nzila mbuli zyintu mbozyeenda kuya kumbele antela pe.

Lozi: Kunyakisisa nako ni nako kubona lika mo li zamaela, ilikuli buitukiso bubeteni haiba kunani mafosisa fahali mwaa lika zesweli kutalimwa.

Kaonde: Lukinkizho lwa kikupu, kusopa ne kupana lujimuno pa bantu nangwa ku nempa bibena kumwekana nangwa muteto wa kwingijilamo pandamino ya bintu biji na bumi abyoye biji nabulume bwa kusemu nuna kuchina kuleta lukaji ku bantu nangwa kubuzhokoloko.

28. Notification

Definition according to the CPB & Biosafety Act: Providing information to and, where appropriate, the lodging or depositing of samples with the Authority.

Lunda: Kuhana nsang'u kvyinateleli kuhanewa hela kuhana yinjikijilu ku mutayi wa NBA nayidimu yazantang'awu.

Luvale: Kwijivisa chinapu kulweza vakulwane chipwe munthango vatata milimo namutonda kuzata kuzango ya NBA, hachihela na milimo namuzachilaho.

Bemba: Ukwishibisha ubutungulushi bwa NBA ifyo muli nokusunga atemwa ukubomfya ifintu mumulimo wenu.

Nyanja: Kudziwitsa za nchito yanu ndi, ndi malo kumene muzasungila zinthu zimene muzagwilita nchito.

Tonga: Kupa mulumbe antela kuzyibya baabo alimwi, aawo mpoceeela, kutondezyegwa kwazyikozyanyo zyamakatazyo aayo abonwa kuli ba Silutwe mukabunga ka NBA.

Lozi: Kuzibisa, kapa a kukonahala, kuunga kalulo ya lika zeo mutu abata kupeta, kuisa ku babafilwe maata a kutalima lika zeo.

Kaonde: Kupana lubulang'ano ku, bajiji inge kyawaina, pakufikila nangwa pakulamina bintu bicheche byakumwenakoku kije kitala pa mashinda kuvimbila bumi bwa bantu ku lukaji lufuma ku bintu biji na bumi (NBA).

29. Organism

Definition according to the CPB & Biosafety Act: A biological entity, cellular or non-cellular, capable of metabolism, replication, reproduction or transferring genetic material and includes a microorganism.

Lunda: Chuma chikweti wumi, hela tuyuma twanyanya tukweti wumi twakubula kumona na mensu, inlang'a twakumona hohu kuzatisha ikina da microscope, nawa tukweti wuswa wa kusemununa nakufwanisha nyana yikuvwalika.

Luvale: Chuma chosena chili na mwono chipwe khala kachuma kakandende kamwono kakumwena kaha kuhichila mulikina lya microscope kanahase kusema nakusemunwina kunugulula nakuhana chifwanyisa chacho kuchuma nachisemuka.

Bemba: Icintu icili conse ica mweo, icakwata insande-sande nangu icishakwata insande-sande, icakwata amaka yakusanduluka nangu ukupela mbela yaciko kufintu fimbi ifya mweo apo pali no tuntu utunini-nini utwa mweo uto muntu ashinga mona na menso yakwe kanofye ukupitila mukubomfya icisolobelo ca microscope.

Nyanja: Icintu iciliconse cymene cili ndi moyo, cymene cili ndi majini (genes) cymene cingasinthidwe mu cilengedwe cake pomwe palinso ngakha le tunthu twa moyo tumene siti ngaone ndi maso.

Tonga: Cintu coonse cipona antela cilaa buumi naa Cizo nokuba citali Cizo, cikozya kuzyalana mucii ndi nocikomona, kuzyalana naa kulonzya bube, bwazyizo alimwi akusanganya atuntu uniini tupona tutakonzyi kubonwa ameso nyaanya.

Lozi: Nto ye pila. Sika sesipila, sesi buyela, sesi fumanwa mwa mali kapa mokusi mwa mali, sesikona kufa bupilo kusesimu.

Kaonde: Kintu kiji na bumi, kya mu mutundu wa tubese-kache nangwa ine, kiji na bulume bwa kwifyatula, kusemununa, nangwa kutepulwilwa mubipangwa ne bijimwazhi bi kwabo, kubikapotu ne tuntu tucheche bingi twakumonatu

30. Permit

Definition according to the CPB & Biosafety Act: A permit issued under this Act.

Lunda: Lusesa lunahanewi kufuma kudi mutayi wa zhatalang'a na kuking'a wumi wa muntu na yuma yikwawu ya wumi, na nshimbi ya Biosafety nambala 10, kwa muchaaka cha 2007.

Luvale: Lipepa lyakwitavisa linapu lize nalifuma kuzango yatala hakukinga myono yavyuma vyakuyoya kwesekesa nalushimbi lwa Biosafety Act lwanambala 10 lwamumwaka wa 2007.

Bemba: Ukupela icitupa cakusuminisha umuntu ukubomba umulimo mukukonka nefunde lya Biosafety nambala 10 ilya mu mwaka wa 2007.

Nyanja: Cilolezo cimene capelekedwa kulingana ndi lamulo (Biosafety Act ya nambala 10 ya caka ca 2007).

Tonga: Kuzumizyigwa kupegwa kwiinda mumulawo ooyu wa Biosafety namba 10 wamu 2007.

Lozi: Pampili ye lumeleza. Ki pampili ye fiwangwa kwa batu, yeba lumeleza kueza sika, kulikana

ka mulao wa bu lishumi wa Biosafety wobona za silelezo ya ze pila wa silimo sa 2007.

Kaonde: Luusa lupanyiwa kulondela na muzhilo wa Biosafety wabu jikumi wa mu mwaka wa 2007.

31. Person

Definition according to the CPB & Biosafety Act: Any research, university or other academic institution.

Lunda: Muntu wudi wezhima hela kushilahu tuhu, mukwakusanduzhola, shikola yeneni ya University na mashikola makwawu.

Luvale: Muthu napu uze vanahane lisesa lyakuzata mulimo khana chipwe zango, kambani, numba shikola yayinene.

Bemba: Umuntu uuli onse apali iciputulwa cabakafwailisha, isukulu likalamba ilya University, akampani, akabungwe, iciputulwa nangu icipani.

Nyanja: Munthu aliyense ndiponso kuonjezelapo malo azinchito za kafukufuku, ma sukulu amaphunzilo apamwamba kapena masukulu ena.

Tonga: Muntu uulionse kusanganya akubbikita cikolo cipati kwiinda na University nokuba cikolo cili coonse ciyisya kubaaluziyibo.

Lozi: Mutu, kuungelela cwalo liluko ze eza lipatisiso, ni likolo ze pahami (universities).

Kaonde: Ke muntu uji yense, kubikapotu ne mwingilo waimana pakulumbulula, kuwamisha ne mashinda akwingijilamo, tumpanyi twamingilo, ma sukulu akatampe nabiji University, bipanyi bya ntanda.

32. Phenotype

Definition according to the CPB & Biosafety Act: This is an organism's expressed physical traits such as height of a plant and colour of flowers.

Lunda: Imwekeni ya chuma chikweti wumi nanomu muchamwekenang'a; chachilehi, cha chihi, chichinana hela chitooka, na yaaku yayu.

Luvale: Kusoloka cha chuma cha mwono navilyo vyacho vyakufwana nge mukusuhwa chipwe kuhihya, muulombo, wajitemo.

Bemba: Imimonekele ya cintu kunse ica mweo ifili nga umusango wa ciko, ubutali atemwa ubwipi elyo nelangi lye luba.

Nyanja: Maonekedwe acinthu camoyo kubwalo monga utali wake, kapena ufupi wake mwina mtundu wake mu maonekedwe a mayani kapena maluwa.

Tonga: Mbociboneka cintu cipona mubube bwa kunze mbuli kulampa kwa cisyango naa kasyango alimwi amubala wa malubaluba.

Lozi: Ponahalo ya nto yepila, kamutala, butelele, bukuswani, mubala wa mutu kapa mubala wa sika kamutala, bufubelu kapa busweu bwa nto yeo, mbonyi ye kuswani, komu ye nsu, komu ya singungunya, kapa komu ya manaka.

Kaonde: Mwekelo ya mubiji wa kintu kiji na bumi ne byubilo bakyo, na biji bula nangwa bwipi bwa kipangwa, ne musombelo wakyo, nabiji jiiluba.

33. Placing on the market

Definition according to the CPB & Biosafety Act: Supplying, selling, advertising, donating or making available to any third party of any genetically modified organism or product of a genetically modified organism.

Lunda: Kutwala, kuladisha, kubilela, na kuhana hela kulandisha kudi antu akakulanda yuma yina himpewi yikweti wumi.

Luvale: Kuhaka hachisano chinapu kutwala nakulanjisa hamwe kaha nakufungulula vathu valandevyuma vyamwono vanafwatula kuhichila mukuchingasana jingolo jama njini (gene).

Bemba: Ukusalanganya, ukushitisha, ukusabakanya, ukupela, nangu ukubika pamushika icintu ico umweo waciko wapilibulwa nangu ifintu ifyapangwa ukufuma kucintu ico umweo atemwa mbela yaciko yapilibulwa ukucila ifyo cali kububumbo bwaciko.

Nyanja: Kupeleka, kugulitsa, kutsatsa, kupatsa kapena kupeleka ku anthu ena zinthu zosinthidwa cilengedwe kapena kuti zinthu zocokela kuzinthu izi zimene zasinthidwa cilengedwe cake motenga majini (gene) yena kucotsa kwina ndi kuyikamo pofuna kusintha maonekedwe.

Tonga: Kupa, kusambala, kwaambilizya cijanika, mumusyika, kwaabila, kwakusanga, naa kuzyibya abamwi nokuba umwi muntu ciliko alimwi azyizo izyakabambwa kupa kuti bantu bak kabotu antela cintu cimwi cakabambwa kuzwa mububambe bwakuti bantu kabapona kabotu, kubelesya zyitu ziyipona.

Lozi: Kotalusa, kufungula lika zeyo lekiswa fa Musika, kulekisa, kufundota, kufa lika ze beilwe lijini (gene) za zeng'wi, kapa lika ze zwa fa lika ze beilwe lijini.

Kaonde: Kukumbanya, kupotesha, kubulang'ana, kupana kyatu nangwa kufikizha kupichila mu muntu mukwabo kwa bipangwa ne kijimwazhi bya mu chi nangwatu kibese kya kipangwa ne kijimwazhi kyamuchi.

34. Product

Definition according to the CPB & Biosafety Act: Any material derived by processing or, howsoever, from any genetically modified organism.

Lunda: Chuma chidi chezhima china himpewi kuhitila munzhila yidi yezhima kufuma ku yuma yakuhimpashana ya wumi ya majini (gene).

Luvale: Khala chuma vanafwatula kuzachisa vyuma vyamwono vanatungu mujila yakuchingasana vyuma manjini (gene).

Bemba: Icintu icili conse icipangwa ukufuma kucintu ico umweo waciko atemwa mbela yaciko yapilibulwa ukucila ifyo cali kububumbo bwaciko.

Nyanja: Cinthu cili conse cimene capangidwa kupyolela munjila yogwilita nchito cinthu cimene cilengedwe cake casinthidwa.

Tonga: Kufumbwa cintu cili coonse cijanwa kwiinda munzila zyibelesyegwa kubamba naa, kufumb wa biyo, kuzwa muzyintu ziyambidwe kutibantu kabakkala akupona kabotu

Lozi: Nto kamukana ye zwelela fa lika ze beilwe lijini.

Kaonde: Kintu kiji kyonse kyafuma mukulengwa kwa kipangwa ne kijimwachi kya muchi kiji kyonse.

35. Registrar

Definition according to the CPB & Biosafety Act: A person appointed as Registrar under the Biosafety Act.

Lunda: Muntu anatonduwu kwikala mukwakusonekesha na nshimbi ya Biosafety, mutayi watalanga hakuking'a wumi wa muntu na Yuma yikwawu.

Luvale: Muthu vanasakula kupwa mukakusonekesa kwesekesa najishimbi ja tala ha vyuma vyamwono javakazango ya Biosafety.

Bemba: Umuntu uwasantwa ukuba Registrar ukupitila mwifunde Iya Biosafety.

Nyanja: Munthu osankhidwa kutsogolela nchito zimene zaikidwa padela kulingana ndi lamulo la Biosafety Act.

Tonga: Muntu wakasalwa kuba Sikulembesya kwiinda mumulawo ooyu wa Biosafety wakkumi mu mwaka wa 2007.

Lozi: Muzamaisi ya ketilwe mwatasaa mulao wo sileleza za Biosafety.

Kaonde: Muntu wapewa ngovu yakunembesha, kusopa ne kulumbulula biji mu muzhilo wa Biosafety wa bu jikumi wa mu mwaka wa 2007.

36. Release

Definition according to the CPB & Biosafety Act: Any intentional introduction in to the environment, of a genetically modified organism or a product of a genetically modified organism for any commercial purpose, food aid, remediation, research purpose in any field experiment, use of a genetically modified organism or product of a genetically modified organism in any greenhouse , aquaculture facility, animal accommodation.

Lunda: Kwidisha hanzhi namuchima wezhima chuma cha wumi china himpewi kwikala chuma chikwawu nakuchizatisha muyuma yambooka neyi; chakuda, nyidimu ya kusanduzhola, nyidimu ya mali na maheta, na kwesekelahu yakuhimpilamu yuma yikweti wumi.

Luvale: Kusuula na muchima wosena muchitungilo vyuma vyamwono vinatungiwa mujila yakuchingasana manjini (gene) kupwa mujila yeka nakuvizachisa mukulya, kusekasana, milimo yakusandasanda, numba mukhala vyeseke vyamutunyama numba jimbutu.

Bemba: Ukusuminisha mukwishiba, atemwa ukulenga icintu ico umweo waciko wapilibulwa na fyonse ifipangwa ukufuma kucintu ico mweo waciko wa pilibulwa ukuba pabwelu muncende yatushinguluka ukufuma uko fyali ifya cingililwa pakuti finga bomfibwa mushila isha pusana pusana apo pali ukucita amakwebo, ukupela ifityo, ukufwailisha fwailisha nafimbipo ifi ibelele.

Nyanja: Kulola kubweletsa zinthu zomwe zinasinthidwa mukalengedwe kake moyikamo majini ena (gene) akunja pofuna kusintha maonekedwe acinthuco, kuzilola kuti zigwiliitsidwe nchito zomwe zingaphindulile anthu.

Tonga: Kuzuminzya antela kugwasyilizya caali, zyintu zyakabambilwa kugwasya bantu kukkala kabotu, kuziyileta na kuzyinjizya muluwo lwa zyintu zytuzingulukide kuzwa kooko nkuzya kakasyidwe kuti zyibelesegwe mumilimo yaandeene mbuli yabuvwubi ayimwi.

Lozi: Kulukulula lika ze beilwe lijini (gene) kapa lika ze pangilwe fa lika ze beilwe lijini mwa

libaka, kuli li itusiswe mwa mileko, kufa batu babasina sico, ku ezisa mwa lipatisiso, mwa mandu a lifolofolo, mwa masa a litapi, ni mwa mandu a licalo. Libaka ze liswanelwa kulumelezwa ka mulao, ku itusisa lika ze beiwe lijini.

Kaonde: Kulumbulula konse kwa ntanda mu buzhokoloke bwa bipangwa ne bijimwazhi bya muchi nangwa kintu kyasemwa kubipangwa ne bijim wazhi bya muchi mu kusaka kumwenamo bunonshi, kajo ka kutuu ka, kupesapesa mu bya lweseko lwa kushinjilamo, kulenga nkunwa yawama, kwingijisha kipangwa ne kijimwazhi kya muchi nangwa kintu kya semwa ku ki pangwa ne kijimwazhi kya muchi mu kishi mikwa kyonse kya kingijiwa kya bijimwa nangwa mwa kulamina bilengwa bya mu mema ne mwa kulamina banyama.

37. Risk

Definition according to the CPB & Biosafety Act: The probability of incurring or causing a loss, injury, an adverse impact or misfortune on any human, plant or the environment

Lunda: Chuma chafwana chinateli kuleta kukala kudi muntu, imbutu na halung'a.

Luvale: Ukalu wakujimbalisa, kulemeka chipwe kuneha luvinda ku muthu, mbuto chipwe muchitungilo.

Bemba: Ukwenekela ukuti icintu icibi calaleta ubusanso, ubonaushi atemwa ishamo ku muntu uuli onse, imiti nangu kuncende iyatushinguluka.

Nyanja: Ciyembekezo cakuti mwina cinthu cina nkucitika cimene cingononge, kupweteka kapena kubweletsa tsoka ku umoyo wa munthu, ku zinthu zomela kapena ku malo otizinguila.

Tonga: Kukonzya kuba aakusowekelwa, naa kuletela kusowekelwa, kulicisa, bukaka bupati kapati naa kubula coolwe kumuntu uuli oonse, cisyan go cimena nokuba kuzyintu zytizingukude.

Lozi: Buino bwa kuli kozi kapa butata za kona kuezahala ku mutu, kwa limela, lifolofolo kapa mwa sibaka.

Kaonde: Lukaji. Kaanya kakubamba boono, kukozhewa, kwiya kwa lukatazho nangwa jishamo pa muntu uji yense, pa kipangwa nangwa pa buzhokoloke, pokaji.

38. Risk assessment

Definition according to the CPB & Biosafety Act: An evaluation of any direct or indirect, short, medium and long term risk to human or animal health, the environment, biological diversity and to the socio-economic conditions or ethical values of the people of Zambia arising from the the import, transit, contained use, release or placing on the market of a genetically modified organism or a product of a genetically modified organism

Lunda: Kupezelesha na kuwana hanashiki kukala hela kunashikeni muzhila yikwawu mu mpinji yantesha, mpiji ya yilehuku, ya kukalisha wumi na chihandilu cha muntu, halung'a na yuma yambooka yikweti wumi mumpiji ya mali na maheta hela yitongozhooka na yaaku ya wantu etung'a da Zambia kufuma kuyuma yi nakwinza kufuma ku matung'a aching'i

Luvale: Kuphezalisa na kuwana ukalu unahase kusoloka kukulikangula cha vathu, tunyama, chitungilo, vyuma vyamwono, nalufwelelo lwa vathu mulifuchi lya Zambia mulwola lwalundende chipwe lwalusuku mwomo yakunehako vyuma vize vanalumuna kupwa chavyo mujila yakuchin gasana manjini (gene) mangana vipwenga mujila yekha.

Bemba: Ukuceceta nokumona nga cakuti imisendele, imibofeshe ne misungile ya cintu ico umweo wa ciko wa pilibulwa ne fipangwa kufya mweo kuti fya bika umweo wa muntu mukayofi ne

nama atemwa ukuleta ubwafya ubuli bonse kucende iyatushinguluka.

Nyanja: Kuyanganila pofuna kuteteza kucitika kwa zinthu zoipa zomwe zingakhudze umoyo wa anthu kwa nthawi yocepa, nthawi ya pakati-mpakati kape na kwa nthawi ya itali kapena kukhudza umoyo wa nyama, malo otizu ngulila kupyolela mu kubweletsa kwa zinthu zosin thidwa chilengedwe cake poyikamo majini (gene) akunja pofuna kusintha maonekedwe acinthuco.

Tonga: Kulangalanga kwacigaminina nokuba kutali kwa cigaminina kwakuyanda kuzyiba akubona mbuli, mbokunga kwaboola kusowekelwa, kulicisa kumuntu, kumunyama akuzyintu ziyuzin gulukide, antenda zyimwi biyo, mukayindi kasyooto, kwaciindi cili mbocibede nokuba mukuwvula kwamazuba, mubuumi bwazyintu zyipona alimwi akubube kubuvwubi naa kuzyintu ziyandika kapati ku bantu bana Zambia, kuzyila mukuleta zyintu mucisi, kuyaabwenda amumulimo wacitwa uuli oonse mucilawo ncimunya, kuzuminzya naa kugwasylizya caali zyintu ziyabandwe kugwasya bantu kukkala kabotu, kuzyileta mumus yika muli zyintu zyipona antela cimwi cakazwa muzyintu eezyi.

Lozi: Kubatisisa kubona foikuma kozi kapa butata bo bukona kuba teni kuzwela kwa lika ze beilwe li jini (genes) kwa batu, lifolofolo kwa bwino bwa lika ze pila, ni kukuteka litumelo za minelo yabatu banaha ya Zambia.

Kaonde: Kupima mukusaka kumona ponkapotu, mukuzhoka, mukapela, mu ka kimye kalepako pacheche, kimye kyalepa, pa lukaji lwa pa bumi bwa muntu nangwa nyama, buzhokoloke, nzhekolo ya lufundo pa ba nyama ne bijimwazhi ne pabwikalo ne bisho bya bantu bamu Zambia panyama yakuleta bipe mu kyalo, nsendelo ya kikizhiwa, kulumbulula kwa ntanda nangwa kubikiwa pakisankanyi kya bi pangwa ne bijimwazhi bya muchi nangwa kintu kya semwa ku bipangwa ne bijimwazhi bya muchi.

39. Risk Management

Definition according to the CPB & Biosafety Act: Measures necessary to prevent and manage adverse effects of any genetically modified organism or product of a genetically modified organism on human or animal health, non-genetically modified crop, biological diversity, the environment, or socio-economic conditions

Lunda: Kukehesha lukisa kuhitila muzhila yatelela zhaku kang'eshelamu na kutwesa kukala kudi kwezhima kuku mwekana ha kuzatisha Yuma yidi na wumi yina himpwei kwikala yuma ya cheng'i mu chi handilu cha muntu, anyama, imbutu, na halung'a na yuma yina kudami kuyuma ya lusemu.

Luvale: Jijila jakucingilamo ukalu unahase kusoloka kukulikangula cha vathu, tunyama, chitungilo, mbuto navyuma vikwavo vyakuyoya vize kavalumwine kuvyuma vize vanalumuna kupwa chavo mujila yakuchin gasana manjini (gene) mangana vipwenga mujila yekha hakuvifumisa kumafuchi ekha.

Bemba: Inshila shampomfu isha kwangalila, ukucingilila, no kutandula ub wafya ubuli bonse ubwinga fwaya ukuponekela abantu, inama, ifins abwa-nsabwa ne ncede iyatushinguluka kumulandu wakusangwa ne cintu ico umweo atemwa imbela yaciko yapilibulwa ukupitila mukubikamo jini (gene) nafyonse ifipangwa ukufuma kucintu ico umweo waciko wapilibulwa.

Nyanja: Njila zomwe zingathandize kuteteza ndi kuyanganila kucitika kwa cionongo cobwela ndi zinthu zosinthidwa mu cilengedwe cake poyikamo majini (gene) akunja pofuna kusintha maonekedwe ache kapena zinthu zopangidwa kucokela ku zinthuzo zomwe zingabwetelese bvuto ku umoyo wa munthu, nyama, zomela ndi malo otizungulila.

Tonga: Mayale aantamu ziyandika kukwabilila akweendelezya bubi buli boonse buletwa azyintu zyipona ziyambilwa kuti bantu bakkale kabotu naa zyintu eezyo zyipona munseba zya bantu amu banyama nokuba zisyango zyatakambilwa kuti zyakulya bantu, azyintu zytuzingukide, mubukkale amubube bwabuvwubi.

Lozi: Mihato yeengiwa ku fukuza, kapa, kufeza kozi, kapa butata bobu kona kutiswa ki lika ze beilwe lijini (gene) kwa batu, lifolofolo, kwa buino bwa lika ze pila, ni ku kuteka litumelo za miinelo ya batu ba naha Zambia.

Kaonde: Mashinda afwainwa akukainyamo ne kukwatankenyamo lukatazho lonse lwa bipangwa ne bijimwazhi bya muchi biji na bumi nangwa kintu kyasemwa kubipangwa ne bijimwazhi bya muchi biji na bumi pa bumi bwa muntu nangwa nyama, bijimwa byabula kulengwa na muchi, nzhokelo ya lufundo pa banyama ne biji mwazhi, bu zhokoloke nangwa bwikalo.

40. Socio-Economic Impact

Definition according to the CPB & Biosafety Act: Any direct or indirect effect to the economy, social or cultural practices, livelihoods, indigenous knowledge systems or indigenous technologies as a result of the import, transit, contained use, release or placing on the market of a genetically modified organism or a product of a genetically modified organism.

Lunda: kukala kwa mali ni maheta munshakaminu ya wantu kunayishikeni hela kunezhili munzhila yikwawu yidi neyi ya chisemwa, chihandilu, na nzhila ya maana kufuma ha kuleta Yuma ya wumi yina himpevi kwinkala Yuma ya cheng'i kufuma ku matung'a a cheng'i, yakubula kuzatishewa, ya kwidisha na yinekuwu ha chisakanu yuma yina himpevi kwikala yuma ya cheng'i.

Luvale: Ukalu muluheto, chiyoyelo chavathu, chisemwa, chinyingi chamwaka nechichachihya mwomoyakwingisa mulifuchi vyuma vyakwalumuna mujila yekha, chipwe kulamina muchihela chimwe, kusuula chipwe kulanjisa havisakano mbuto jize vanalumuna kupwa chayomwomo yakuchingasana manjini (Genes) mangana jalumuke mwekha.

Bemba: ukwaluka kwa fintu ukwanga pumfyanaya atemwa ukukuma mumusango uuli onse ubunonshi, imikalile nobumi bwa bantu, imiti, inama nafyonse ifyaba muncende iya tushinguluka kumulandu wakusangwa ne cintu ico umweo ne mbela yaciko yapilibulbulwa ukupitila mukubikamo jini (gene) na fyonse fipangwa ukufuma kucintu ico umweo waciko wapilibulwa.

Nyanja: kusintha kapena bvuto limene zinthu zosinthidwa mucilengedwe cake moyikamo majini (gene) ocokela kunja ndicolinga cofuna kusintha maonekedwe acinthuco, kungabweletse ku umoyo wa anthu, nyama, zinthu zomela ndi malo otizungulila.

Tonga: Bukkaka bwacigaminina kubuvwubi nokuba mubukukale, muziyianza zyicitwa lyoonse, bu boola kwiinda mukuleta akweenzya zyintu eezyi kuzyibikka mumisyika yazyintu zyipa bantu kukala kabotu.

Lozi: Buino bo bukona kutisa petuho ya sifumu sa naha, miinelo, sizo ni bupilo bwa batu. Buino bobutiswa ki zibo ya sicaba kabakala kutisa mwanaha, kubelekisa, kuitusisa mwa libaka ze kwalilwe, kapa kulekisa lika ze beilwe lijini (gene) kapa lika ze pangwiwa fa lika ze beilwe lijini.

Kaonde: Lupimpu lonse lwankonsha kubiwa ku bunonshi, bwikalo nangwa ku bya kisho, njilo, miteto yakushilang'enamo bintu na mambo aku letewa mukyalo, ng'endesesho, kukikilwa kwa bipe, kufikizha ne kubikiwa pa kisankanyi kwa bipangwa ne bijimwazhi bya muchi biji na bumi nangwa kipangwa kya semwa ku bipangwa ne bijimwazhi bya muchi biji na bumi.

41. Tissue culture

Definition according to the CPB & Biosafety Act: The methods of asexual propagation used to produce clones of a particular organism in large quantities.

Lunda: Hi nzhila yimu ya kuzatisha na kuvulisha yuma yinadifwani chakubula kuhumang'esha cha weyala na wa mubanda kulonda yimwekeshi iking'u na yaaku ya mwekeni yachina chuma chuma kwafumin lusemu. Neyi kabaka katooka anonamu lusemu (gene) lwakutowala, asha mu kabaka ka chinana, aka kabaka ka chinana chakakitubawu, kakasemununa kabaka katooka na kutowala nawa.

Luvale: Eyi yinapu jila yakuzachisa lusemwo muchuma chimwe chakuyoya nakuhaka muchuma chikwavo mangana chiseme vyavivulu.

Bemba: Inshila yakusandulwilamo (ukufusha) icintu ica mweo ukwabula ukuti icilume cikumane necikota, ifili inga ukubula amaluti (sperms) ya mwaume ukusanshinkanya ne lini lya kwa namayo kunse ya mubili pakuti umwana atendeka ukupangwa elyo nomba kwaba ukwingisha cilya icilepangwa (umwana) mucisa cakwa namayo.

Nyanja: Njila yothandiza pofuna kuculukitsa zinthu zamoyo popanda kukhala malo amodzi cinthu camoyo cacikazi ndi cinthu camoyo cacimuna. Mwacisanzo kutenga dzila kumunthu wamkazi ndi mphamvu zacimuna (sperm) ndikuziyika pamodzi kunja kwathupi kufikila mwana atapangika.

Tonga: Ninzila yabuzyale bwazyisyango iibelesegwa kakunyina kuswaangana kwabazyali kutegwa kuzyalwe bana bakonzyanya munzila zyoonse zykonzanyanya amuziyali.

Lozi: Linzila za kuitusisa tweemba totunyanani ku panga lika ze pila ku sina ku kopana kwa bashemi.

Kaonde: Kalume kazhi ka mu mashi kalengela mwana kusemwa wamukazhi nangwa wa mulume.

42. Trial release

Definition according to the CPB & Biosafety Act: The release of any genetically modified organism in to the environment in the open under conditions of where the degree of dissemination of a genetically modified organism is prevented by chemical or physical barriers or by built-in barriers which prevent the survival of the organism in the environment.

Lunda: Kweseka kwidisha chuma chezhima chikweti wumi china himpewi kwikala chuma cha cheng'i hanzhi, helung'a kuzatisha yitumbu hela nzhila yikwawu yaku kang'eshelamu kukalisha kuhanda kwa yuma yikwawu yikweti wumi, yidi neyi; antu, anyama hela mbutu.

Luvale: Kusuula muchitungilo vyuma vanalumuna kupwa chavyo mujila yakuchingasana manjini (genes) mangana vipwenga mujila yekha, oloze nawa hikhakako mikingo kuchina navitanda nakusemunwina nakwenyeka myono ya vyuma vikwavo vyamwono muchitungilo.

Bemba: Ukuleta muncende icintu icili conse ico umweo nangu mbela yaciko yapilibulwa ukupitila mukubikamo ama jini (gene) pakutilla kwaba ukumona ifyo cinga bomba, lelo kufwile kwaba ukucibakilila bwino, ukubikako icipinda atemwa ubucingo pakuti taciletele ubonaushi nangu ubusanso kubantu, inama, imiti na fimbipo ukubikapofye ne ncende iyatushinguluka.

Nyanja: Kubweletsa mu malo otizungulila moyeselela cinthu cili conse cosinthidwa mucilengedwe cake moyikamo majini ena (gene) akunja, pofuna kuona m'mene cinthuco cingagwille nchito, ndipo payanela kukhala citetezo cokwanila kotelo kuti pomwe cinthuco cabweletsedwa,

cisapeleke ciopsyezo ku umoyo wa anthu, nyama kapena kuononga malo otizungulila.

Tonga: Kusolekwa kwakunjiziyigwa mucisi zyintu zyiletwa kuti bantu bakale kabotu, muzyintu zytuzingulukide, caantagalala oomo kumwayikigwa kwazyintu eezyi zyipona, mokukwabililwa abukwabilizi buyakidwe bupa kuti zyintu eezyi zytakonzyi kuba aabumi muzyintu zytuzingulukide.

Lozi: Muhato wa kueza kuli, lika ze pila ze beilwe lijini (gene) za ze pila lisili, li itusiswe ka ku likiwa mwa libaka moo alina kukona kuhasana, ka ku itusisa miliani kapa miyaho ye ka palelwiswa lika zeo ku sa fufela kusili ni ku hasanela mwa masimu kapa mwa mezi.

Kaonde: Kuswisha bipangwa ne bijimwezhi bya muchi biji na bumi mubuzhokoloke bwa pambijibiji kulondela mafunde akuba 'mba ndupwilo ya kipangwa ne kijimwazhi kya muchi kiji na bumi yakanyishiwa na mikiika ya muchi (chemicals) nangwa yalengewa kumo nakishimikwa ikanya lupulukilo lwa kipangwa ne kijimwazhi kiji na bumi mu buzhokoloke.

43. Tribunal

Definition according to the CPB & Biosafety Act: The Tribunal established under the Biosafety Act.

Lunda: Chota cha wantu anatonduwu kutala nakutiylilila na kuwana nyilong'a na nyambu kufuma kudi antu na nshimbi ya Biosafety ya mwikumi, ya chaka cha 2007.

Luvale: Zango vanasakula kweseka nalushimbi lwakutala ha vyuma vyamwono lwa Biosafety lwanambala 10 lwamumwaka wa 2007 mangana yitale havihande vinapandama kumilimo khana.

Bemba: Akabungwe kasontwa ukucita icilye cakufwailisha ifishinka fyapamulandu atemwa impika shonse ishilipo mukukonka nefunde lya Biosafety nambala 10 ilya mu mwaka wa 2007.

Nyanja: Kabungwe komwe kayikidwa padela ndi colinga cofuna kuti kafufuze pa zina zace kulingana ndi lamulo la Biosafety ya caka ca 2007.

Tonga: Kabunga kakabambwa kuti kabbikite akujana mamanino aapenzi naa kupa kulombozya kwendelana abwaamba mulawo wa Biosafety wa kkumi mu mwaka wa 2007.

Lozi: katengo ka batu baba ketilwe kubatisisa taba mwatasaa mulao wa Biosafety wa silimo sa 2007.

Kaonde: Kije kyayikajikiwa kulondela na muzhilo wa kije kya Biosafety.

44. Transboundary movement

Definition according to the CPB & Biosafety Act: The movement of a living modified organism from one Party to another Party, save that for the purposes of Articles 17 & 24, of the CPB on Biosafety, transboundary movement extends to movement between Parties and non-Parties

Lunda: kubadika-ing'iza. kutwala yuma yidi na wumi yina himpewi kwikala Yuma ya cheng'i kufuma kwitung'a dimu na kuya kwitung'a dikwawu.

Luvale: Kutambukisa cha vyuma vyamwono vanalumuna kuhichila mukuchingasana manjini (gene) kufuma kulifuchi limwe nakutwala kulifuchi likwavo.

Bemba: Ukusenda icintu ico umweo ne mbela ya ciko yapilibulwa ukupitila mukufumyamo ama jinni (gene) ukwabusha umupaka ukutwala kucalo cimbi.

Nyanja: Kucotsa zinthu zosinthidwa mucilengedwe cake, kuzicotsa kudziko lina ndi kuzipeleka kudziko linanso

Tonga: Kuletwa kwazyintu zyipona kuzwa kucisi cimwi kuzya kuli cimwi kukosola minyiza.

Lozi: Zamaiso ya ze pila ze beilwe li jini (genes) ze zezwa ku kuza mifuta isili kuzwa mwa naha ling'wi kuya ku isili.

Kaonde: Nsendelo ya kipangwa ne kijimwazhi kya mucu kiji na bumi kufumya ku kyalo kimo ne kutwala ku kyalo kikwabo.

45. Tumour

Definition according to the Concise Oxford Dictionary 9th Edition: A swelling, especially from an abnormal growth of tissue, whether benign or malignant

Lunda: (Wufu) chuma chaabula kutelela, chakubula kukewa cha kulilang'a muyuma mwadivung'ila wumi wa chuma chezhima (cell) wa muntu hela mbutu (mumutonde).

Luvale: Ufwa chipwe khala chuma chinalisokela mumujimba wa muthu, kanya ma chipwe mutondo.

Bemba: Cimufimba atemwa cimumena kukula kwa nsande-nsande sha mumubili wacintu ica mweo ukucila mucipimo.

Nyanja: Kukula mopitilila muyeso wa maselo (cells) amthupi la cinthu ca moyo, kupangisa kutupa kwa cinthu cimeneo ca moyo imene ili kansa (cancer).

Tonga: Kufutumuka kwacikoto mukati kazyizo zyamubili kutakonzyi kusinkilwa.

Lozi: Sikoto kapa sinama se si melile fa silama sa folofolo kapa fascalo se si pila.

Kaonde: Kuvimba kubula kubwela lunyuma kwa tulume-kazhi twa mu mashi tulengela mwana kusemwa wa mulume nangwa wa mukazhi kwa kintu kiji na bumi.

46. User

Definition according to the CPB & Biosafety Act: Any natural or legal person or institution responsible for the use of a genetically modified organism

Lunda: Muntu wudi wezhima hela mutayi wudi na ng'ovu zhaku kuzatisha yuma yidi na wumi yina himpewi.

Luvale: Khala muntu numba muthango uli nakuzachisa vyuma vyamwono vanafwatula kuhichila mukuchingasana manjini (gene) mangana visoloke mujila yekha.

Bemba: Akabungwe, iciputulwa nangu umuntu uuli onse uwashingwana no mulimo wapa lwamibomfenshe ya icintu ico umweo ne mbela yaciko yapilibulwa ukupitila mukufumyamo ama jinni (gene).

Nyanja: Munthu kapena bungwe imene imagwilitsa nchito zinthu zosinthidwa mucilengedwe cake motenga majini (gene) akunja ndi kuyika mu cinthuco.

Tonga: Kufumbwa buna muntu nokuba cibeela cibona kubelesyegwa kwamajini (gene) aazyila kunze.

Lozi: Mutu kapa liluko kaufela le li itusisa lika ze beilwe lijini (gene).

Kaonde: Muntu yense nangwa kipamo kyonse kiji na luusa lwa kwingijisha bipangwa ne bijimwazhi bya muchi biji na bumi.

47. Waste

Definition according to the CPB & Biosafety Act: Any matter, whether gaseous, liquid or solid or any combination thereof, which is, in the opinion of the person in whose possession or under whose control it is, an undesirable or superfluous by-product, emission, residue or reminder of any process or activity in connection with any genetically modified organism

Lunda: Mazhila amupempela, zha menzhi-menzhi, ya malola na yuma yawulembi yidi neyi wishu, hela tuyuma twashalang'aku neyi anazatishi yuma yikweti wumi yina himpewi.

Luvale: Majilo anapu khala chuma mujila yapeho, meya-meya, vyuma vyaku kola numba vize vanachingasana mukhala jila, evi kavyechi kusuulwisa muthu ali navyo, numba majilo chipwe navyanukisa muthu hamilimo yimwe yasolokele kunyima yakupandama kuvyuma vyakufwatula mujila yakuchingasana manjini (gene) mangana vyalumuke nakusoloka mujila yekha.

Bemba: Icintu icaba icamenshi-menshi, ica mwela-mwela nangu icakosa icifwile ukuposwa icikumine kucintu ico umweo ne mbela yaciko ya pilibilwa ukupitila mukufumyamo amajini (gene).

Nyanja: Zinthu zomwe zayikidwa kuti ziyenela kutaiwa, pomwe pali zinthu zampweya, zamadzi-madzi, zouma kapena zonse zosiyana-siyana kuziyika Pamodzi, mwakufuna kwake kwa munthu amene zinthuzo zili m' manja mwake ndipo zikhale zokhudzana ndi zinthu zosinthidwa mu cilengedwe cake

Tonga: Kufumbwa cintu cijanwa mumuyaa, mumenda aanyika coonse cisofweede calo cili, mumuzeezo wa muntu uli munsimunsi, inga caba cintu citayandiki kuli nguwe mbuli mbocimwayigwa muluo, matombe antela eeco ciyeezya mulimo mubi kujatikizya majini (gene).

Lozi: Lika kaufela ze sa tokwahali ze maswe, ze li mwa mezi, mwa moya, mwa lika ze tiile, ze swanela ku yumbiwa ze zwa kwa lika ze beilwe lijini (gene).

Kaonde: Bincha byaluuya, byameema-meema, bya mabulukusu nangwa byonse pamo byafukula mwinabyo kutaya, nangwa bintu bikwabo bya lunkoko-nkoko nangwa byakuvulukilamo jishin da nangwa mwingilo yense walamata ku kipangwa ne kijimwazhi kya muchi kiji na bumi.



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