



MFUNDO ZIKULUZIKULU

Momwe Mbewu Zokonzedwanso Munjira Yasayansi Zomwe Ziri Pa Msika Zikuchitira Pa Dziko Lonse La Pansi: 2012

Wolemba Clive James, Wapampano komanso yemwe anayambitsa bungwe la ISAAA

Zalembedwa ndi mlembi poganzira anthu 1 biliyoni osawuka ndi anjala, ndi momwe angapezere zosowa zawo.

Ndime zomwe panadzalidwa mbewu zokonzedwanso munjira yasayansi zinawonjezeleka kochulukana ndi zana limodzi muchaka cha 2012 kuchoka pa mahekitala 1.7 miliyoni kufika pa 170miliyoni

Mchaka cha 2012, mbewu zokonzedwanso bwino munjira yasayansi zinadzalidwa pandime zokwana mahekitala 170.3 miliyoni padziko lonse, komwe kanali koyamba kudzala mbewuzi mochulukana chmwechi, ndipo zinakwera ndi 6% pachaka, ndikuwonjezeleka ndi 10.3 miliyoni kuchoka pa 160miliyoni yachaka cha 2011.

Mbewu zokonzedwanso bwino kudzera munjira yasayansi zinadzalidwa kochulukana ndi zana limodzi mchaka cha 2012, kuchoka pamahekitala 1.7miliyoni mchaka cha 1996 kufika pa 170miliyoni mchaka cha 2012 . izi zikutanthawuza kuti mbewu zokonzedwanso bwino munjira yasayansi ndi njira yaluso lamakono imene yavomelezedwa ndi anthu ochulukana kuposa njira zina zonse muzaka zaposachedwapa chifukwa cha phindu lake.

Muzaka zapakati pa 1996 ndi 2012 alimi mazanamazana am'mayiko 30 padziko lonse anapanga ziganizo zapaokha zodzala mbewuzi m'mahekitala ochulukana oposa 1.5biliyoni, yomwe ikuposa ndi 50% kukulakwa nthaka pa mayiko monga America kapena China; zimenezi zikusonyeza chikhulupiliro chachikulu chomwe mazanamazana a alimi alinacho mumbewu zokonzedwanso bwino munjira yasayansi, zomwe zimapindulitsa kwambiri munjira zosiyanasiyana.

Mayiko ena atsopano awiri, omwe ndi Sudan (thonje la mbewu yokonzedwanso bwino munjira yasayansi) ndi Cuba (chimanga chambewu yokonzedwanso bwino munjira yasayansi) anadzala mbewu zamtunduwo koyamba mchaka cha 2012. Mayiko a German ndi Sweden sanalime mbatata yotchedwa Amflora chifukwa inaleka kugulitsidwa; dziko la Poland linaleka kudzala mbewu ya chimanga chokonzedwanso bwino kupyolera munjira yasayansi chifukwa cha malamulo ena oletsa.

Mwa mayiko 28 amene anadzala mbewu zokonzedwanso munjira yasayansi mchaka cha 2012, mayiko 20 anali mayiko omwe akungokwera kumene ndipo mayiko 8 anali mayiko otukuka kwambiri; pamene mchaka cha 2011, mayiko 19 ongokwera kumene ndi mayiko 10 otukuka ndi amene anadzala mbewuzi.

Mchaka cha 2012, alimi okwana 17.3 miliyoni, omwe anawonjezeleka ndi 600,000 muchiwelengero poyelekeza ndi mchaka cha 2011, analima mbewu zokonzedwanso munjira yasayansi. Chopatsa chidwi kwambiri ndichakuti mwa alimiwa, 15miliyoni, kapena alimi 90

mwa alimi 100 aliwonse anali alimi ang'onoang'ono osauka, a mmayiko omwe akungokwera kumene. Alimi ndi akatswiri odziwa kupanga chiganizo popewa chiwopsezo chomwe chingachitike mtsogolo ndipo mchaka cha 2012, alimi ang'onoang'ono ochuluka okwana 7.2miliyoni mdziko la China ndi enanso okwana 7.2 miliyoni mdziko la India anapanga chiganizo chodzala mbewu ya thonje yokonzedwanso munjira ya sayansi pamahekitala pafupifupi 15miliyoni, chifukwa cha phindu lomwe mbewuzi zimapeleka.

Kwanthawi yoyamba, mayiko amene akungokwera kumene analima mbewu zokonzedwanso munjira yasayansi zochuluka ndi 52% mchaka cha 2012 kuposa mayika otukuka kwambiri, omwe analima 48%. Mchaka cha 2012 chiwerengero cha mbewu zokonzedwanso munjira yasayansi zomwe zinalimidzwa chinakwera kattu mwachangu, ndipo chinakwelanso kasanu m'mayiko otukuka kwambiri ndi 11% omwe ndi mahekitala 8.7 miliyoni, poyelekeza ndi mahekitala 1.6 miliyoni omwe analimidwa mumayiko otukuka kwambiri.

Chitetezo chambewu chomwe chimayikidwa munjira yasayansi ndichofunika kwambiri – mchaka cha 2012, mayiko 13 anadzala mbewu zokonzedwanso munjira yasayansi zomwe zinali ndi mitundu iwiri yachitetezo kapena kupyola ndipo cholimbikitsa chinali chakuti mayiko 10 mwamayikowa anali mayiko omwe akungokwera kumene – mbewu zomwe zinadzalidwa pamahekitala 43.7 miliyoni mwa mahekitala 170miliyoniwo zinali zotetezedwa munjira imeneyi.

Dziko la Brazil kwachaka chachinayi mondondoza ndilimene linapititsa patsogolo kuchuluka kwa mbewuyi, ndipo linawonjezera mahekitala omwe linadzala mbewu zokonzedwanso munjira yasayansi kuposa dziko linalililonse. Dzikoli linawonjezera ndime yomwe linadzala mbewuzi ndi mahekitala 6.3miliyoni, yomwe ndi 21% kuyelekeza ndi chaka cha 2011 ndipo ndimeyi inafika mahekitala 36.6 miliyoni.

Dziko la United States linapitilira kukhalabe patsogolo poima mbewuzi mochuluka polima mahekitala 69.5miliyoni, ndipo linasiya kulima 90% yambewu zake zakale ndikuyamba kulima mbewu zokonzedanso munjira yasayansi. Zotsatira za chilala cha chimanga ku United States mchaka cha 2012 kunali kwakuti kuchuluka kwachimanga chomwe chimalimidwa kunatsika ndi 21% pomwe kuchuluka kwa mbewu ya soybean kunatsika ndi 12%. Dziko la Canada linalima mahekitala okwana 8.4miliyoni a mbewu ya *canola* ndipo anagwilitsa ntchito 97% yambewu yokonzedwanso munjira yasayansi.

Dziko la India linalima mahekitala okwana 10.8miliyoni ambewu ya thonje yokonzedwanso bwino munjira yasayansi, ndipo mbewu yatsopanoyo imayimira 93% kuchuluka kwake; ndipo alimi ang'onoang'ono osawuka amdziko la China okwana 7.2 miliyoni analima mbewu ya thonje yokonzedwanso munjira yasayansi yokwana mahekitala 4.0miliyoni, ndipo kuchuluka kwa mbewu yatsopanoni kukuyimira 80% poyelekeza ndi mbewu yakale, ndipo muli aliyense anamalima pafupifupi theka la hekitala. Chuma chadziko la India chochokera ku ulimi wathonje lambewu yokonzedwa bwino chinakwera kwambiri ndi US\$12.6billion pakati pa 2002 ndi 2011, komanso chinakwera ndi US\$2.3billion mchaka cha 2011 chokha.

Dziko la Africa linapitilira kupita patsogolo, ndipo dziko la South Africa linawonjezera ndime yomwe limalima mbewu zokonzedwanso bwino ndi mahekitala 0.6miliyoni ndipo ndime yonse inakwana mahekitala 2.9miliyoni. Nalonso dziko la Sudan linalowa nawo mumndandanda wa mayiko a South Africa, Burkina Faso ndi Egypt, kufikitsa pa anayi chiwelengero cha mayiko amu Africa omwe akulima mbewu zokonzedwanso bwino munjira yasayansi.

Mayiko asanu a EU anadzala mbewu yachimanga yokonzedwanso bwino yokwana mahekitala 129,071 ndipo ndipo kunali kukwera ndi 13% poyelekeza ndi chaka cha 2011. Dziko la Spain ndilimene linali patsogolo pamayikowa ndipo linalima mahekitala 116,307 a mbewu yachimanga chokonzedwanso bwino kudzera munjira yasayansi, komwe kunali kukwera ndi 20% kuyelekeza ndi chaka cha 2011.

Kuchokera chaka cha 1996 mpaka chaka 2011, mbewu zokonzedwanso munjira yasayansi zathandizapo kupezetsa anthu chakudya chokwanira komanso kuteteza nyengo. Zimenezi zathaka kupyolera mukuchuluka kwa zokolola zomwe mtengo wake ndi US\$98.2billion, kupangitsa kuti nyengo ikhale yabwino; populumutsa mankwala ophela tizilombo olemera 473million kg; kuchepetsa mpweya wa carbon ndi 23.1billion kg mchaka cha 2011 chokha, zomwe ndichimodzimodzi kuchotsa pamsewu galimoto zoposa 10miliyoni; kusunga chilengedwe populumutsa mahekitala 108.7 anthaka; komanso zinathandiza kuchepetsa umphawi pothandiza alimi ang'onoang'ono oposa 15miliyoni ndi mabanja awo, pamodzi anthu oposa 50miliyoni, omwe ena mwaiwo ndi osawukisitsa padziko lonse. Mbewu zokonzedwanso bwino munjira zasayansi ndizofunika kwambiri, koma sikuti pazokha zingathetse mavuto onse. Kotero, kutsata ndondomeko zofunika pamalimidwe, monga kusinthatintha mbewu ndi kutsata njira zotetezera mbewu kumatenda, ndikofunika kwambiri pambewuzi momga momwe zimakhallira ndi mbewu zina zonse.

Kusowa kwa ndondomeko zoyenera zotsatira mfundo zasayansi komanso zosawononga nthawi ndi ndalama ndiye chotchinga chachikulu pofuna kugwilitsa ntchito mbewu zokonzedwanso bwino munjira zasayansi. Pakusoweka kuhazkitsa ndondomeko zabwino ndi zoyenera kuti mayiko omwe akungokwera kumene azitsata.

Phindu lakulima mbewu zokonzedwanso bwino munjira zasayansi padziko lonse linayelekezedwa ndi ndalama zokwana US\$15billion mchaka cha 2012.

Malingaliro amtsogolo – kukhala ndi chiyembekezo mwatchelu ndi phindu lochuluka lapachaka powona momwe mbewu zamtunduwu zikutengera malo pakali pano m'misika yonse m'mayiko omwe akungokwera kumene ndi omwe ali otukuka kale.

ISAAA ndi bungwe lomwe silimagwira ntchito pofuna kupeza phindu, lomwe limathandizidwa ndi mabungwe aboma ndi omwe siaboma. Chiwelengero chonse chamahekitala aminda chomwe chimalembedwa m'mabuku a ISAAA chimawengedwa kamodzi, posawerengera kuti mumbewuzo mwayikidwa ndondomeko zingati zotetezera mbewuzo. Mbiri yofotokoza bwino yalembedwa mu ISAAA Brief 44 yotchedwa "Global Status of Commercialized Biotech/GM Crops: 2012" lomwe linalembedwa ndi Clive James. Ngati mungafune kudziwa zambiri, fufuzani pa address iyi pamakina a internet: <http://www.isaaa.org> kapena yankhulani ndi ISAAA *SEAsia*Center pa nambala iyi: +254 20 4223618, kapena *email* africenter@isaaa.org