Food and Agriculture Organization of the United Nations

Country report

PROGRESS REPORT ON THE IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION FOR ANIMAL GENETIC RESOURCES – 2014 TO 2019

Country *

Tanzania

Note: Please provide further details in the text boxes below each question, including, if relevant, information on why no action has been taken.

July, 2019

GPA Survey

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Country	TANZANIA
1. Which of the following options best describes your country's progress in building an inventory of its animal genetic resources covering all livestock species of economic importance (SP 1, Action 1)?	c. Partially completed (further progress since the adoption of the GPA)
2. Which of the following options best describes your country's progress in implementing phenotypic characterization studies covering morphology, performance, location, production environments and specific features in all livestock species of economic importance (SP 1, Actions 1 and 2)?	c. Some information has been generated (further progress since the adoption of the GPA)
Please provide further details:	Some information available reveals that, Tanzania is having a high diversity Animal Genetic Resource of different breeds of indigenous livestock including:- Cattle that has three breeds such as Tanzania Shorthorn Zebu-TSZ with Strains such as Chagga, Gogo, Iringa red, Maasai, Mkalama Dun, Mbulu, Singida white, Sukuma and Tarime; Sanga breed which has only two Strains such as Ankole and Fipa and another breed is Tanzania Boran with no strains. For Goats there is only one breed which is Small East African (SEA) that has several strains such as Gogo, Luguru, Maasai, Newala, Pare white, Sonjo Red, Sukuma and Ujiji. Sheep has several strains including East African Blackheaded (EBh), Red Maasai (RM) and Tanzania Long-tailed (TLt) and for chickens there is only one Indigenous breed that has several strains including Bukin, Kawaida, Kinyavu, Kishingo, Kuchi). In all those Species and Breeds there are other undocumented breeds that should be considered.
3. Which of the following options best describes your country's progress in molecular characterization of its animal genetic resources covering all livestock species of economic importance (SP 1)?	c. Some information has been generated (further progress since the adoption of the GPA)
Please provide further details:	Some information has been generated on molecular characterization which has has been scantly and scattered done. These include information on analysis of genetic diversity and relationships of Tanzanian indigenous Cattle, Goats and Chicken populations using microsatellite DNA markers and other molecular characterization tools, thus call for more efforts on molecular work

4. Has your country conducted a baseline survey of the population status of its animal genetic resources for all livestock species of economic importance (SP 1, Action 1)?

c. Yes, a baseline survey has been undertaken for some species (coverage increased since the adoption of the GPA)

Please provide further details:

The last baseline survey conducted in October, 2018 as a step towards establishment of National Compact Strategies and Action Plan (NCSAP) to implement Global Plan of Action for Animal Genetic Resources (AnGR) in Tanzania, financed by AU-IBAR.

Brief Results and discussion:
Five livestock species (cattle, goat, sheep, pig and poultry) were common. Their number varied with chicken ranked the highest followed by goats, cattle, pigs and sheep respectively. Improved cattle and goats for milk composed the lowest proportion.

The extent to which different drivers have affected trend of AnGR in the country were considered. The effects were classified into low and high impact, results on the past 10 years shows that the effect was low as compared to the future. However, breeding strategies, Loss of grazing land, demand, poor economy, difficult market access and international trade were and still the most factors perceived by about 70% respondents that affected and continue affecting the trends of AnGR in the country. On the other hand, climate change seemed to be one of the crucial factors to consider as it was emphasized 43-57% respondents for low and high contribution. If such trends left to continue, the following should be expected (a) diversity of AnGR will be reduced due to changing into highly productive animal in terms of Meat, Milk and Egg production; (b) Loosing of AnGR will increase and remain with highly market demanded breeds; (c)Importation of Livestock products will be reduced; (d) Locally adapted with high reproductively and productivity will remain; (e) There will be a change of Livestock Production systems and most likely the intensive systems will be highly adopted; (f) There will be specialized farming based on livestock products; (g) Pastoral communities will change into Aro-pastoral; (h) Multiple Ovulation and Embryo Transfer (MOET) will dominate and (i) There will be a regulatory mechanism.

Overall results show that government had the highest YES score that they operate AnGR management. in Tanzania, most of AnGR conservation activities taking place under government farms and or Research. This could have contributed to awareness among the respondents. Surprisingly, YES scores for livestock keepers was the lowest while most of AnGR is kept by livestock keepers.

The scores on the roles/values & contribution of AnGR to agro-ecology is particularly important in the provision of regulating and/or supporting ecosystem services. Results show that most of the AnGR have relatively equal roles as suggested by 57.2% respondents. However, scores on values and contribution varied, where by dairy cattle, dairy goats and pigs ranked high 71-85.8% respondents. The observation is in agreement under Tanzania context. Moreover, multipurpose cattle scored highest 85% followed by chicken 57% in terms of contribution.

Generally, results show that respondents consider all the conservation strategies and methods are taking place. Both in-situ and ex-situ conservation revealed to be common in all the breeds though the extend differs.

Among the strategies, ex-situ conservation is considered to the best (28%) respondents while combine strategies like In-situ + Ex-situ In-vivo + Ex-situ In-vitro was considered the worse strategy (42.9%) respondents. On the other hand, all AnGR breeds policy and regulations guiding their management do exist (57.1%) respondents said yes. However, the respondents also suggested that late formulation and availability of these policy and regulations has resulted into poor sustainable recording systems/breeding programs, low productivity of AnGR, poor genotypes animals in terms of productivity, high disease incidences and inbreeding. However, about 28.6% respondents complained that during formulation of these policy and regulations they are not involved.

There several changes suggested by the expert that hinders AnGR management in the country.
1. Lack of systematic data collection and recording system
2. Accessibility of AnGR regulation
3. Weak financial resource to sustain and implement AnGR management
4. Storage of AnGR germplasm, that there a worry of losing the indigenous AnGRs
5. Shortage of power supply
6. Characterization not well covered
7. Lack of government financial support
8. Insufficient number of personnel with relevant skills and knowledge to manage AnGR
9. Lack of breeding goals
10. Lack of bred association
11. Lack of special van to transport AnGR breeds
12. Lack of capacity building programs
13. Lack of awareness creation programs
14. Lack of demonstration and commercial farms dealing with indigenous AnGR
15. Lack of conservation breeding programs under Public Private Partnership (PPP)

Conclusion
The baseline survey has indicated major gapes that will assist in formulation of National Strategy Action Plans for Management and improvement of Animal Genetic Resources in Tanzania (AnGR) in Tanzania. However, due to unavailability of data, the survey could not develop Population status that refers to the total size of a National Breed Population and also the proportion that is actively used for breeding and the number of male and female breeding animals

5. Have institutional responsibilities for monitoring the status of animal genetic resources in your country been established (SP 1, Action 3)?

b. Yes, responsibilities established after the adoption of the GPA

6. Have protocols (details of schedules, objectives and methods) been established for a programme to monitor the status of animal genetic resources in your country (SP 2)?	b. Yes, protocols established after the adoption of the GPA
7. Are the population status and trends of your country's animal genetic resources being monitored regularly for all livestock species of economic importance (SP 1, Action 2)?	c. Yes, regular monitoring is being undertaken for some species (coverage increased since the adoption of the GPA)
Please provide further details:	Regularly, the National Bureau of Statistics (NBS) gives population data based on Species level, something which becomes difficulty to extract and make into breed level. However, to qualify and quantify the population data into breed level we have to conduct Animal Breeding Expert Opinion Meeting that should also include members of National Advisory Committee to do interpolation and extrapolation of the population data and came up with such figures in breed level. Actually, Tanzania needs technical assistance in motoring the Livestock Population Data.
8. Which criteria does your country use for assessing the risk status of its animal genetic resources (SP 1, Action 7)?	a. FAO criteria
Please provide further details. If applicable, please describe (or provide a link to a web site that describes) your national criteria or those of the respective international body:	As advocated by FAO, we use demographics (Number of breeding females) and Genetic criteria (Resilient to local environment and Genetic Values to the communities).
9. Has your country established an operational emergency response system (http://www.fao.org/docrep/meeting/021/K3812e.pdf) that provides for immediate action to safeguard breeds at risk in all important livestock species (SP 1, Action 7)?	f. No, but action is planned and funding is sought

10. Is your country conducting research to develop methods, technical standards or protocols for phenotypic or molecular characterization, or breed evaluation, valuation or comparison? (SP 2, Action 2)	a. Yes, research commenced before the adoption of the GPA
11. Has your country identified the major barriers and obstacles to enhancing its inventory, characterization and monitoring programmes?	a. Yes
Please provide further details. If barriers and obstacles have been identified, please list them:	1. Lack of awareness by stakeholders 2. Institutional framework 3. Capacity building
12. If applicable, please list and describe the measures that need to be taken to address these barriers and obstacles and to enhance your country's inventory, characterization and monitoring programmes:	Lack of awareness by stakeholders: There is general lack of awareness by stakeholders on what should be done so as to improve Animal Genetic Resources (AnGR) and what type of management is required for a given breed of livestock for optimum output, thus the need for creation of awareness. This is one of major barriers and obstacles to enhancing its inventory, characterization and monitoring programmes. Awareness also is important through local and international meetings, our local Radio, television, magazine, farmer exchange visits and cell-phones. But all these need financial support Institutional framework: There are some intermingling issues which impairs the focus on improvement of AnGR in the country which are related to Institutional frame work set ups. The Department of Livestock Production and marketing has mandate to create the necessary environment for improved production of livestock and livestock products on a sustainable basis. The department focuses mainly on application of animal breeding, animal nutrition, animal husbandry and, development of rangelands and livestock marketing infrastructure. While, Department of Research, Training and Extension is given mandate to work on Animal Breeding research but at the same time there is no Breeding Policy that could come up with Breeding Act. Formulation of Animal Breeding Act is very essential and it is in process Capacity building: This includes infrastructure, technical aspects and financial support. There are modern technologies on livestock improvement and increased productivity developed by local institutions which are shelved; including inventory, characterization and monitoring, thus the need to train staff on these technologies. Both short and long trainings are recommended. Also, Government budget is limited to assist in inventory, characterization and monitoring of AnGR in the Country. This calls for Government to increase budget for Animal Breeding activities and also Development partners are humbly invited to give assistance.

14. Does your country have adequate national policies in place to promote the sustainable use of animal genetic resources (see also questions 46 and 54)?	d. No, but action is planned and funding is sought
15. Do these policies address the integration of agro-ecosystem approaches into the management of animal genetic resources in your country (SP5) (see also questions 46 and 54)?	c. No, but action is planned and funding is sought
16. Do breeding programmes exist in your country for all major species and breeds, and are these programmes regularly reviewed, and if necessary revised, with the aim of meeting foreseeable economic and social needs and market demands (SP4, Action 2)?	f. No, but action is planned and funding is sought
Please provide further details:	To date, Tanzania does not have National Breeding Policy which is supposed to provide guidance towards management of animal breeding programme. However, the formulated National Compact Strategy and Action Plan (NCSAP) to Implement Global Plan of Action (GPA) for Animal Genetic Resources, 2019 taken care of breeding programmes for all major species and breeds
17. Is long-term sustainable use planning – including, if appropriate, strategic breeding programmes – in place for all major livestock species and breeds (SP4, Action 1)?	f. No, but action is planned and funding is sought
Please provide further details:	The long-term sustainable use planning for strategic breeding programmes is not in place. However, the formulated National Compact Strategy and Action Plan (NCSAP) to Implement Global Plan of Action (GPA) for Animal Genetic Resources, 2019 has taken care of long-term sustainable use planning for strategic breeding programmes
18. Have the major barriers and obstacles to enhancing the sustainable use and development of animal genetic resources in your country been identified?	a. Yes

Please provide further details. If barriers and obstacles have been identified, please list them:	1. Lack of awareness by stakeholders 2. Institutional framework 3. Capacity building
20. Have recording systems and organizational structures for breeding programmes beenestablished or strengthened (SP4, Action 3)?	d. Yes, recording systems and organizational structures for breeding programmes are partially in place (but no progress has been made since the adoption of the GPA)
Please provide further details:	Recording systems and organizational structures for breeding programmes are partially in place regarding that the Government initiated Livestock Identification Registration and Traceability Systems in 2006 that came up with Livestock Identification Registration and Traceability Act No 12 of 2010. The purposes of this Act is for controlling animal diseases and livestock theft, enhancing food safety assurance; regulate movement of livestock, improve livestock products and production of animal genetic resources; to promote access to market and to provide for other related matters. To date, Tanzania National Livestock Identification and Traceability System (TANLITs) is in place however, it is basically keep records up to species level and not breed level. On the other hand, it has to small extent done with Cattle only.
21. Are mechanisms in place in your country to facilitate interactions among stakeholders, scientific disciplines and sectors as part of sustainable use development planning (SP5, Action 3)?	c. Yes, mechanisms are partially in place (and were established or strengthened after the adoption of the GPA)
Please provide further details:	The Ministry has recently in 2018/2019 financial year established Private sector Desk to facilitate interactions among stakeholders, scientific disciplines and sectors as part of sustainable use development planning
22. Have measures been implemented in your country to provide farmers and livestock keepers with information that facilitates their access to animal genetic resources (SP 4, Action 7)?	c. Yes, measures partially implemented (and were established or strengthened after the adoption of the GPA)
23. Has your country developed a national policy or entered specific contractual agreements for access to and the equitable sharing of benefits resulting from the use and development of animal genetic resources and associated traditional knowledge (SP3, Action 2)?	f. No, but action is planned and funding is sought

Please provide further details:	Tanzania has developed a National Livestock Policy 2006 but does not have entered specific contractual agreements for access to and the equitable sharing of benefits resulting from the use and development of animal genetic resources and associated traditional knowledge
24. Have training and technical support programmes for the breeding activities of livestock-keepers been established or strengthened in your country (SP 4, Action 1)?	f. No, but action is planned and funding is sought
Please provide further details:	The training and technical support programmes for the breeding activities of livestock-keepers have been in a Ad hoc and not well established in Tanzania
25. Have priorities for future technical training and support programmes to enhance the use and development of animal genetic resources in your country been identified (SP 4, paragraph 42)?	a. Yes, priorities have been identified or updated since the adoption of the GPA
Please provide further details:	Priorities for future technical training and support programmes to enhance the use and development of animal genetic resources in Tanzania have been identified in the formulated National Compact Strategies and Action Plan (NCSAP) to Implement Global Plan of Action (GPA) for Animal Genetic Resources in Tanzania, 2019
26. Have efforts been made in your country to assess and support indigenous or local production systems and associated traditional knowledge and practices related to animal genetic resources (SP 6, Action 1, 2)?	d. Yes, some measures are in place (but no progress has been made since the adoption of the GPA)
Please provide further details:	In 2004, Tanzania had a project (Local and Indigenous Knoweledge financed by FAO-LinKS-FAO) on Preferences and criteria employed in livestock breeding and selection by the Maasai in Tanzania. LinKS-FAO report, August, 2004. Food and Agriculture Organisation of the United Nations
27. Have efforts been made in your country to promote products derived from indigenous and local species and locally adapted breeds, and facilitate access to markets (SP 6, Action 2, 4)?	c. Yes, some measures are in place (progress has been made since the adoption of the GPA)

Please provide further details:	Efforts have been made in Tanzania to promote products derived from indigenous and local species and locally adapted breeds, and facilitated access to markets through established Tanzania Modernization Initiatives (TLMI), 2015; Tanzania Livestock Master Plan (TLMP), 2017; Private sector Desk and formulated National Compact Strategies and Action Plan (NCSAP) to Implement Global Plan of Action (GPA) for Animal Genetic Resources, 2019
30. Does your country regularly assess factors leading to the erosion of its animal genetic resources (SP 7, Action 2)?	e. No, but action is planned and funding is sought
Please provide further details:	Tanzania Does not regularly assess factors leading to the erosion of its animal genetic resources. It is done in Ad hoc when need arise because of low budget
31. What factors or drivers are leading to the erosion of animal genetic resources? Please describe the factors specifying which breeds or species are affected:	In Tanzania, the threat of extinctions due to genetic erosion caused by: i). Indiscriminate crossbreeding and/or ii). Upgrading programmes. There have been some initiatives to develop farm animal genetic resource diversity since last 80 to 100 years. Some of the attempts include the establishment of Artificial Insemination (AI) centres. Donor agencies, NGOs and church organizations have also participated in direct importation of purebred cattle, goats, poultry, pigs and rabbits for small scale dairy and meat development projects for poverty alleviation and improvement of nutritional status of the rural households. However, Tanzania has a basic list of the breeds used in the livestock sector, but very little information on their production characteristics. This limits their control on the genetic erosion, especially that of the indigenous breeds which are being threatened by indiscriminate crossbreeding with exotic breeds
32. Does your country have conservation policies and programmes in place to protect locally adapted breeds at risk in all important livestock species (SP 7, SP 8 and SP 9)?	g. No, but action is planned and funding is sought
Please provide further details:	Tanzania Does not have conservation policies and programmes in place to protect locally adapted breeds at risk in all important livestock species. The conservation done by Government Research Centres is just one of the activities and not programme. The National Advisory Committee (NAC) has identified this as a priority area
33. If conservation policies and programmes are in place, are they regularly evaluated or reviewed (SP 7, Action 1; SP 8, Action 1; and SP 9, Action 1)?	d. No
Please provide further details:	NA

34. Does your country have in situ conservation measures in place for locally adapted breeds at risk of extinction and to prevent breeds from becoming at risk (SP 8 and SP 9)?	c. For some breeds (coverage expanded since the adoption of the GPA)
35. Does your country have ex situ in vivo conservation measures in place for locally adapted breeds at risk of extinction and to prevent breeds from becoming at risk (SP 8 and SP 9)?	c. For some breeds (coverage expanded since the adoption of the GPA)
Please provide further details:	Ex-situ in-vivo conservation Based on their high rate of extinction, there some livestock breed-types considered as Ex-situ in-vivo conserved. These are: 1. Caattle:- Mpwapwa (at TALIRI-Mpwapwa), Fipa (at TALIRI-Mpwapwa and Uyole), Ankole (at TALIRI-Mabuki) 2. Goats:- Pare white (at TALIRI-West Kilimanjaro), Sonjo (at TALIRI-West Kilimanjaro), Malya (at TALIRI-Kongwa), Boers (at Ngerengre LMU farm) 3. Sheep:- Red Maasai (at TALIRI-West Kilimanjaro) 4. Chickens:- Kuchi (at TALIRI-Mpwapwa), Horas (at TALIRI-Mpwapwa), Kishingo (at TALIRI-Mpwapwa), Kinyavu (at TALIRI-Mpwapwa), Kawaida (at TALIRI-Mpwapwa)
36. Does your country have ex situ in vitro conservation measures in place for locally adapted breeds at risk of extinction and to prevent breeds from becoming at risk (SP 8 and SP 9)?	f. No, but action is planned and funding is sought
Please provide further details:	No layout made for this type of AnGR conservation as a programme. However, to small extent semen conservation is done by AI centers led by National Artificial Insemination Centre (NAIC) located at Arusha.
37. Please describe the measures (indicating for each whether they were introduced before or after the adoption of the GPA) or provide a web link to a published document that provides further information:	NA

38. If your country has not established any conservation programmes, is this a future priority?	a. Yes
39. Has your country identified the major barriers and obstacles to enhancing the conservation of its animal genetic resources?	b. Yes
Please provide further details. If barriers and obstacles have been identified, please list them:	Among others, the major identified barriers and obstacles to enhancing the conservation of its animal genetic resources are Lack of National Strategy, Policy issues and Funds 1. Lack of National Strategy: The Global Strategy established a framework for developing national, regional and global policies, strategies and action. In this regard, FAO provided support to assist countries in developing and strengthening capacity to manage their AnGR. It is for this reason that Tanzania has foreseen and developed National Compact Strategies and Action Plan (NCSAP) for Animal Genetic Resources, 2019 that will becomes vital to optimize the economic benefits attainable from these Animal Genetic Resources (AnGR) while taking care of those species and breeds that may be at risk for conservation 2. Policy issues: Agriculture sector has since 1997 been guided by the Agriculture and Livestock Policy of 1997. In the above policy the sector (Agriculture) and sub-sector (crop and livestock) were well defined but the industry level and specific issue level policies were somewhat sketchy or were covered through sweeping statements that did not take into consideration issues of conservation of the indigenous resources. Together with other policy issues, led into formation of Ministry of Livestock Development in 2006 that came out with its own National Livestock Policy (NLP) released on December 2006. However, the released Livestock policy does not give great emphasize on Animal Breeding issues that calls for formation of Animal Breeding Policy (ABP). In 2006 Livestock Policy, only section 3.9 portrays animal breeding issues but is not adequately described the issue of conservation of the indigenous resources. 3. Funds: The Ministry experienced low budget that could not surface to large extent implement conservation of the indigenous resources programme. However, to small extent ex situ in vivo conservation is done in some centres of Tanzania Livestock Research Institute (TALIRI)
40. If your country has existing ex situ collections of animal genetic resources, are there major gaps in these collections (SP 9, Action 5)?	a. Yes
If yes, have priorities for filling the gaps been established?	a. Yes

Please provide further details:	The government and Development Partiners have started to to improve AI centres for semen production and conservation
41. Are arrangements in place in your country to protect breeds and populations that are at risk from natural or human-induced disasters (SPA 3)?	d. No, but action is planned and funding is sought
Please provide further details:	It is one of the priority areas in the National Compact Strategies and Action Plan (NCSAP) for Animal Genetic Resources, 2019 that will puts more ephasis on Characterization, Inventory and Conservation of AnGR
42. Are arrangements in place in your country for extraction and use of conserved genetic material following loss of animal genetic resources (e.g. through disasters), including arrangements to enable restocking (SP 9, Action 3)?	d. No, but action is planned and funding is sought
Please provide further details:	No clear arrangements in place in Tanzania for extraction and use of conserved genetic material following loss of animal genetic resources (e.g. through disasters), including arrangements to enable restocking. However, it is planned in future
43. Is your country conducting research to adapt existing, or develop new, methods and technologies for in situ and ex situ conservation of animal genetic resources (SP 11, Action 1)?	b. Yes, research commenced since the adoption of the GPA
44. Does your country implement programmes to promote documentation and dissemination of knowledge, technologies and best practices for conservation (SP 11, Action 2)?	d. No, but action is planned and funding is sought
Please provide further details:	Set as priority by the National Compact Strategies and Action Plan (NCSAP) to implement Global Plan of Action for Animal Genetic Resources (AnGR) in Tanzania

45. What are your country's priority requirements for enhancing conservation measures for animal genetic resources? Please list and describe them:	It is stipulated in the Tanzania Livestock Master Plan (TLMP), 2017 (www.mifugouvuvi.go.tz). Also, Document available information on characterized breeds, characterise other breeds for each species and estimation of population size of each breed.
47. Does your country have sufficient institutional capacity to support holistic planning of the livestock sector (SP 12, Action1)?	d. No, but action is planned and funding is sought
Please provide further details:	Manpower and funding has been the main cornerstone, need also coordination at Ministerial level
48. What is the current status of your country's national strategy and action plan for animal genetic resources (SP 20)?	c. Completed and agreed by stakeholders
Please provide further details. If available, please provide a copy of your country's national strategy and action plan as a separate document or as a web link:	We have prepared and formulated a National Compact Strategies and Action Plan to implement Global Plan of Action for Animal Genetic Resources, 2019.
49. Are animal genetic resources addressed in your country's National Biodiversity Strategy and Action Plan (https://www.cbd.int/nbsap/)	a. Yes
Please provide further details:	Yes, to small extent Animal Genetic Resources are addressed in Tanzania National Biodiversity Strategy and Action Plan (NBSAP) 2015-2020. This document mainly talks about Plants. Only in the lessons lent item Na. 3.8 page 38 talks about Centre for ex-situ conservation of livestock genetic resources in the form of semen, ova and embryos; Ratification of the Nagoya Protocol on Access Benefit Sharing (ABS) of Genetic Resources (https://policy.asiapacificenergy.org/node/2942)
50. Are animal genetic resources addressed in your country's national livestock sector strategy, plan or policy (or equivalent instrument)?	a. Yes
Please provide further details. If available, please provide the text of the strategy, plan or policy or a web link to the text:	In the Livestock policy 2006 http://www.mifugouvuvi.go.tz

51. Has your country established or strengthened a national database for animal genetic resources (independent from DAD-IS) (SP 15, Action 4)?	f. No, but action is planned and funding is sought
Please provide further details:	The Ministry has established Tanzania National Livestock Identification, Registration and Treability System (TANLITs) of which has a room for establishment of National Database for AnGR in future
52. Have your country's national data on animal genetic resources been regularly updated in DAD-IS?	b. Yes, regular updates started after the adoption of the GPA
Please provide further details:	The National Coordinator for Management of AnGR updated in 2018
53. Has your country established a National Advisory Committee for Animal Genetic Resources (SP 12, Action 3)?	b. Yes, established after the adoption of the GPA
Please provide further details. If a National Advisory Committee has been established, please list its main functions:	Tanzania established a National Advisory Committee for Animal Genetic Resources in March, 2014. The main function is Technical advice to implement National Strategy and Action Plan for AnGR
54. Is there strong coordination and interaction between the National Focal Point and stakeholders involved with animal genetic resources, such as the breeding industry, livestock keepers, government agencies, research institutes and civil society organizations (SP 12, Action 3)?	d. No, but action is planned and funding is sought
Please provide further details:	The coordination has been and still weak
55. Does the National Focal Point (or other institutions) undertake activities to increase public awareness of the roles and values of animal genetic resources (SP 18)?	b. Yes, activities commenced after the adoption of the GPA
Please provide further details:	National Coordinator and Advisory Committee have taken some initiatives

56. Does your country have national policies and legal frameworks for animal genetic resources management (SP 20)?	c. Yes, some national policies and legislation in place (strengthened since the adoption of the GPA)
Please provide further details:	Soon the Animal Breeding Act will be enacted
57. Which of the following options best describes the state of training and technology transfer programmes in your country related to inventory, characterization, monitoring, sustainable use, development and conservation of animal genetic resources (SP14, Action 1)?	c. Some programmes exist (further progress since the adoption of the GPA)
Please provide further details:	Only at University level
58. Have organizations (including where relevant community-based organizations), networks and initiatives for sustainable use, breeding and conservation been established or strengthened (SP 14, Action 3)?	f. No, but action is planned and funding is sought
Please provide further details:	NA
59. Are there any national NGOs active in your country in the fields of: Characterization?	b. No
Sustainable use and development?	a. Yes
Conservation of breeds at risk?	a. Yes
If yes, please list the national NGOs and provide links to their web sites:	Mruazi heifer breeding farm in Korogwe Tanzania

60. Has your country established or strengthened research or educational institutions in the field of animal genetic resources management (SP 13, Action 3)?	b. Yes, research and education institutions exist but still require strengthening (progress made since the adoption)
Please provide further details:	The Country has Tanzania Livestock Research Institute (TALIRI) which was established by Act No. 4 of 2012 and is charged with the mandate of coordinating and conducting livestock research that will provide technologies to improve and sustain the development of livestock sector in the country
61. Please provide further comments describing your country's activities related to Strategic Priority Area 4: Policies, Institutions and Capacity-building (including regional and international cooperation)	The country has been active in regional and international cooperation in in ensuring success in implementing SPA 4
62. Has your country established or strengthened international collaboration in (SP 16): Characterization?	c. No, but action is planned and funding is sought
Sustainable use and development?	c. No, but action is planned and funding is sought
Conservation of breeds at risk?	a. Yes
Please provide further details:	There are efforts on multiplication of the Mpwapwa cattle through use of MOET by construction of a laboratory at TALIRI Mpwapwa. The constraction of MOET Laboratory is is going on at Tanzania Livestock Research Institute (TALIRI), Mpwapwa, however, the main challenge is equipping it with tools and other materials for running MOET activities
63. Are there any international NGOs active in your country in the fields of: Characterization?	b. No
Sustainable use and development?	b. No
Conservation of breeds at risk?	b. No
If yes, please list the international NGOs:	NA

64. Has national funding for animal genetic resources programmes increased since the adoption of the GPA?	a. Yes
Please provide further details:	Yes, however, Funding limitations forced the Ministry to have little priority
65. Has your country received external funding for implementation of the GPA?	a. Yes
66. Has your country supported or participated in international research and education programmes assisting developing countries and countries with economies in transition to better manage animal genetic resources (SP 15 and 16)?	b. Yes, support or participation in place before the adoption of the GPA but not strengthened since
Please provide further details:	Some individuals participated in external workshops focusing on AnGR management
67. Has your country supported or participated in programmes aimed at assisting developing countries and countries with economies in transition to obtain training and technologies and to build their information systems (SP 15 and 16)?	f. No
Please provide further details:	NA
68. Has your country provided funding to other countries for implementation of the Global Plan of Action?	e. No, because country is generally not a donor country
Please provide further details. If relevant, specify whether funding was bilateral or multilateral; research cooperation or aid; and to whom and for what it was given:	NA

69. Has your country contributed to international cooperative inventory, characterization andmonitoring activities involving countries sharing transboundary breeds and similar production systems (SP 1, Action 5)?	c. No, but action is planned and funding is sought
Please provide further details:	NA
70. Has your country contributed to establishing or strengthening global or regional information systems or networks related to inventory, monitoring and characterization of animal genetic resources (SP 1, Action 6)?	a. Yes
Please provide further details:	The Country is one of the AU-IBAR member country that developed tool for monitoring and characterization of animal genetic resources
71. Has your country contributed to the development of international technical standards and protocols for characterization, inventory and monitoring of animal genetic resources (SP2)?	d. No
Please provide further details:	NA
72. Has your country contributed to the development and implementation of regional in situ conservation programmes for breeds that are at risk (SP 8, Action 2; SP 10, Action 1)?	c. No, but action is planned and funding is sought
Please provide further details:	NA
73. Has your country contributed to the development and implementation of regional ex situ conservation programmes for breeds that are at risk (SP 9, Action 2; SP 10, Action 3; SP 10, Action 4)?	d. No

Please provide further details:	NA
74. Has your country contributed to the establishment of fair and equitable arrangements for the storage, access and use of genetic material stored in supra-national ex situ gene banks (SP9, Action 3)?	c. No, but action is planned and funding is sought
Please provide further details:	NA
75. Has your country participated in regional or international campaigns to raise awareness of the status of animal genetic resources (SP19)?	c. No, but action is planned and funding is sought
Please provide further details:	NA
76. Has your country participated in reviewing or developing international policies and regulatory frameworks relevant to animal genetic resources (SP 21)?	c. No, but action is planned and funding is sought
Please provide further details:	NA
19. Have the long-term impacts of the use of exotic breeds on locally adapted breeds (e.g. economic, environmental or genetic impacts) and on food security been assessed in your country (SP4, Action 1)?	b. Yes, assessment made before GPA adoption