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THE NATIONAL COUNCIL STANDING COMMITTEE ON URBAN AND RURAL DEVELOPMENT COMPRISED OF MEMBERS AS LISTED BELOW:

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ACKNOWLEDGEMENT

The National Council Standing Committee on Urban and Rural Development expresses its sincerely gratitude to the Parliament of Ghana, Namibian High Commissioner in Ghana, Ghana Social Opportunities Projects, Bob Farm Complex - Poultry Farm, Council for Scientific and Industrial Research – Food Research Institute, Plant Genetic Resource Centre and the farming community members for taking off time from their busy schedule to welcome and accommodate the committee during its benchmark visit.

The Committee further acknowledges and appreciate efforts by the officials from the Parliament of Ghana, Ministry of Food and Agriculture and District Assembly representatives for taking the Committee to farms, projects and different institutions and for provide necessary information regarding farming practices, achievements as well as challenges. All contributions during meetings and deliberations by all stakeholders contributed to the valuable information collected and captured during the visits.

The Ministry of Agriculture, Water and Forestry's presentations and inputs during the preparations of the committee's trip is most valued.

Background

The National Council Standing Committee on Urban and Rural Development was tasked to look at best practices with regard to mix-farming projects, consult relevant stakeholders on the feasibility of the project and to report findings and recommendations as per a motion that was moved in the house.

The Committee researched on African countries that practices mix-farming and identified Kenya and Ghana for possible benchmarking. Even though Kenya had the best practices compared to Ghana, the Committee resolved to undertake the benchmark study in Ghana due to political unrest in Kenya during the intended period of study. The Committee further explored local farming practices particularly in the //Kharas region for comparative purposes.

1. Introduction

- 1.1 The Committee on Urban and Rural Development undertook a benchmark study visit to Accra, Ghana from the 11th 19th November 2017. This report comprise of information obtained during visits, meetings, discussions and deliberations the Committee had with farmers, government officials, Constituency and District Councillors during its benchmark study.
- 1.2 The purpose of the Standing Committee's visit to Ghana was necessitated by a Motion that was tabled in the house on the establishment of a National Mix Farming Project aimed at:
 - (i) Minimising migration from rural to urban areas
 - (ii) Reducing unemployment amongst the youth; and
 - (iii) Promoting agro-industrialisation
- 1.3 The Committee was therefore tasked to look into the motion with the following Terms of Reference (ToR):
 - (i) To look at best practices with regard to mix-farming projects;
 - (ii) To consult relevant stakeholders on the feasibility of the project
- 1.4 The objective of the committee's visit to Ghana was to benchmark on best practices with regard to mix-farming projects and focused on the following issues:
 - (i) To establish what is regarded as mixed farming in Ghana;
 - (ii) Determine how mixed farming is classified (Classification Measures in place);
 - (iii) Asses the benefit of mixed farming on rural urban migration;

- (iv) Assess the benefit of mixed farming on youth involvement, employment creation and on vulnerable and woman participation.
- 1.5 The Committee paid a courtesy call on the Namibian High Commissioner in Ghana, His Excellency Charles Josop to inform him of the purpose of the visit. During discussion, the High Commissioner stressed the importance of sharing and exchanging ideas with relevant stakeholders on exports and imports. He pointed out that Namibia was excelling in animal husbandry and meat export, and thus, encouraged the Committee to establish links that would foster trading between the two nations. The High Commissioner further encouraged the Committee to familiarise themselves with some Governmental Policies and initiatives in Ghana such as the "Feed yourself" initiative as it would be beneficial for implementation in Namibia.
- 1.6 The National Council Standing Committee on Urban and Rural Development further paid a courtesy call on the First Deputy Speaker of the Parliament of Ghana and counterpart Committee of the Parliament of Ghana where they deliberated on various issues of common interest.

2. Methodology

Information gathered and presented in this report was sourced from meetings held with identified farmers on the outskirt of Accra, officials from the Ministry of Food and Agriculture and representative from the District Assembly. Written information was also obtained from the farmers and institutions visited.

3. Standing Committee's visit to Ghana Social Opportunities Projects (G.S.O.P) (Climate Change Mitigation Initiative, Adjumako Projects Central Region

- **3.1** The Ghana Social Opportunities project aims to provide technical support necessary to rationalize Ghana's national social protection strategy and make it more cost-effective in reaching the poor, expand employment and cash-earning opportunities for the rural poor communities during the agricultural off-season. It is a complex project with a vast number of stakeholders and fields of operations. In relation to the current global practices, the project support formulation of social protection policy, scaling up of the Labor Intensive Public Works (LIPW) and the Livelihood Empowerment Against Poverty (LEAP).
- **3.2** The Committee on Urban and Rural Development and officials from the Parliament of Ghana, Ministry of Food and Agriculture and District Assembly representatives travelled to Adjumako, Abaasa and Essiam Projects on the outskirt of Accra which forms part of the G.S.O.P. The projects intercrop fruits and vegetables such as cassava,

Pantene, ken key, palm nuts, maize, coconut, eggplant, cocoyam leaves and oranges. All crops produced at the project are rain fed and are marketed by the Ministry of Food and Agriculture as well as direct sales to interested individuals.

- 3.3 Each project is on a 5 to 7-hectare piece of land and is funded on a three-year term by the World Bank in collaboration with the Government of the Republic of Ghana through the Ministry of Food and Agriculture which is the custodian of the projects.
- 3.4 Since land in Ghana is owned by Traditional Authorities, Communities and individuals, the World Bank is in the process of legalising the beneficiary agreement between land owners, beneficiaries as well as the District Assembly. The move is necessitated to ensure that all beneficiaries benefit from the harvest and produce from the projects.
- 3.5 The Ghana Social Opportunities Projects (G.S.O.P) focus on preserving the environment and contributing positively to climate change, thus the communities are not in position to rear animals.
- 3.6 These projects are labour intensive projects and employs youth, vulnerable persons, and persons with disabilities, women and men from the age of 18 years. However, priority is given to person with disability and aged persons who are able to work. Currently each project employs about 50 beneficiaries, who are officially registered and are remunerated on a monthly basis by the World Bank.
- 3.7 Projects are identified by the District Assembly in consultation with the community on what type of projects they would want to embark on. the Ministry of Food and Agriculture provides assistance to the projects in terms of pests or insects control, provision of fertilisers, watering cans, seedlings as well as necessary training for the beneficiaries. Furthermore, the government support the projects by availing a Planning Officer who visits the projects, monitor progress and give advice to the farmers.
- 3.8 The Committee had an opportunity to engage farmers on how the projects has benefited their lives and they emphasised that their lives had changed to the extent that some could afford to send their children to further studies, hire labour and buy fertilisers for their private lands. One of the farmers informed the Committee that he managed to save his salary and built himself a decent house.

4. Challenges faced by the Projects

- 4.1 The Communities are not yet prepared to take over the projects once funding comes to an end, and requested the World Bank to continue assisting the projects until such time that the projects can sustain themselves.
- 4.2 Bugs and insects are a major challenge and threat to the plants as they destroy plants during infancy stages.
- 4.3 Encounter with reptiles such as snakes.
- 4.4 Lack of protective clothing such as safety boots.

5. Committee's visit to Bob Farm Complex - Poultry Farm

- 5.1 The Committee, Ghana parliamentary staff and officials from the Ministry of Food and Agriculture visited a farmer who is practicing integrated mixed farming. The Committee was informed that the farmer practice mixed farming on different farms. His areas of concentration being crop farming, cattle farming and poultry.
- 5.2 Although the Committee did not visit the crop and cattle farm, the farmer informed the Committee that he kept Thirty Thousand (30 000) layers at the farm, and produces more than Twenty-Four Thousand (24 000) eggs per day. In an effort to create employment, the poultry farm employs Fifteen (15) employees.
- 5.3 As part of his best practice and model of operating a profitable and self-sustaining business, the farmer imports quality layers from oversee.
- 5.4 Feed for the layers are sought from the crop farm, whereas he uses manure from the Poultry farm as fertiliser for the crop.
- **5.5** No major challenges encountered, however he indicated that he does not sufficient knowledge on the application of the correct vaccination doses and methods for the birds to prevent disease outbreak.

6. Committee's visit to the Council for Scientific and Industrial Research – Food Research Institute

- 6.1 The Committee visited the Food Research Institute to familiarise themselves with the activities carried by the Institute and services offered to farmers in an effort to alleviate poverty, create employment and value addition.
- 6.2 The Committee was welcomed by the Director General of the Institute, together with heads of the various institutional departments.
- 6.3 The Director General informed the Committee that the Institute was mandated to conduct applied market oriented research into problems of food processing and preservation, food safety, national food and nutrition security, food utilisation and food storage, marketing and distribution.
- 6.4 The Institute has various programs under its research and developmental department such as Cereals, Grains, Legumes products, Roots and Tubers products; Fruits, Vegetables and Spices products; Fish, Meat and Dairy Products and Technology business incubation.
- 6.5 The Institute has a staff compliment of One Hundred and Forty-Five (145) of which37% are female. Notably, the Institute has 26 Research Scientists.
- 6.6 The Institute is equipped with Analytical laboratories for chemistry, microbiology, toxicology and food processing, test kitchen, dried fruits incubation plant, and a root and Tuber products development plant.
- 6.7 Analysing of samples in laboratories, equipment fabrication, sale of research byproducts, training and student internship trainings are offered by the Institute.
- 6.8 The Institute also focuses on value addition as part of its commercial activities. Some products researched and discovered by the institute are fruit based convenience foods, glucose syrup from cassava for the confectionary and pastry industry and high quality

cassava flour for the bakery industry as a composite flour and processed fruits such as bottled fruit juices, jams and desiccated coconuts.

7. Areas of major impact

- Pilot Studies and Technology transfer
 Different designs of solar dryers, improved maize storage cribs and small scale cassava processes have been developed and promoted to stakeholders.
- 7.2 Solutions of industrial problems Staff expertise are employed to solve technical problems in various industries. As a result of the interventions, operations are sustained and jobs maintained.
- 7.3 Food compositions tableThree Hundred (300) kinds of foods have been analysed in the raw, processes and cooked state for their nutritional value and published as a food composition table.
- 7.4 Contribution to agricultural development Maize storage and drying cribs designed by the Institute transferred to the Ministry of Food and Agriculture to benefit towns and villages. Training offered to farmers on various commodities on post-harvest handling practices and food processing.

8. Challenges faced by the Institution

- 8.1 Low financial support from Government for research programs;
- 8.2 Low recruitment of staff;
- 8.3 Customers consider cost for services to be too high;
- 8.4 Inadequate and old processing equipment;
- 8.5 Exorbitant electricity charges

9. Committee's visit to the Plant Genetic Resource Centre in Koforidua (Bunso Eastern Region)

- 9.1 The Committee visited the Plant Genetic Resource Centre and was welcomed by the Director of the Centre, who enlightened the Committee on the mandate, achievements and the future of the centre.
- 9.2 The Director informed the Committee that the Council for Scientific and Industrial Research (CSIR) is the main public Science and Technology Research Institution in

Ghana that generates and apply innovative technologies which efficiently and effectively exploit Science and Technology for socio-economic development.

- 9.3 The Centre is responsible for collecting and conserving different plants to avoid them from extinction. The need of collection and conservation is important because a lot of plant resources are being lost through anthropogenic activities and natural hazards. The plants are collected in Ghana and surrounding countries. The centre has a Plant bank where they keep all the conserved plants.
- 10. The Director further informed the Committee that 13 Research Institutes operates under the CSIR. Some of the critical Research Institutions and their fundamental functions are cited here below:

10.1 Animal Research Institute

Aimed at providing solutions to problems relevant to livestock industry in Ghana.

10.2 Crop Research Institute

Research into food and industrial crops, aiming at developing improved varieties.

10.3 Food Research Institute

Undertake applied research on processing, preservation, storage, transportation and distribution of staple and non-staple plants and animal food.

10.4 Forestry Research Institute of Ghana

Carry out research that generate scientific knowledge and appropriate technologies for conservation and efficient use of Ghana forest resource.

10.5 Oil Palm Research Institute

Provide scientific and technological support for the development of the oil palm and coconut industries country wide.

10.6 Plant Genetic Resource Research Institute

Mandated to collect, characterise, evaluate, conserve, document, distribute and utilise the plant genetic resources of Ghana.

10.7 Soil Research Institute

Carry out research and provide advice on maintaining soil fertility for agricultural production

10.8 Water Research Institute

Research on all aspects of water resources, to support the socio economic development of the country.

11. Major Achievements by the CSIR:

- 11.1 The centre has conserved 10,000 plants thus far;
- 11.2 Developed 4 new cowpeas rich in Iron and Calcium and transferred them to farmers across the country;
- 11.3 Developed 4 varieties of sweet potatoes and transfer them to farmers in the country; and
- 11.4 Collected 9 966 various crops species from all over the country to avoid extinction.

12. Findings

- 12.1 The Republic of Ghana in collaboration with the World Bank established the Ghana Social Opportunities Projects (GSOP), that are practicing mixed farming by intercropping various fruits and vegetables such as cassava, Pantene, ken key, palm nuts, maize, coconut, eggplant, cocoyam leaves and oranges.
- 12.2 Even though land in Ghana is owned by Traditional leaders, there is an ongoing process to legalise acquisition of land to benefit land owners and beneficiaries.
- 12.3 The labour intensive project employs youth, vulnerable persons, persons with disabilities, women and men, however priority is given to disabled and aged persons.
- 12.4 The Food Research Institute conduct applied market oriented research into problems of food processing and preservation, food safety, national food and nutrition security, food utilisation and food storage, marketing and distribution which benefit the local farmers.
- 12.5 **The Plant Genetic Resource Centre** has the responsibility of collecting and conserving different plants to avoid extinction. The need of collection and conservation is important because a lot of plant resources are being lost through anthropogenic activities and natural hazards.

Committee's visit to //Kharas Region

13. Introduction

13.1 Following the benchmark study to Ghana on mix-farming, the Standing Committee on Urban and Rural Development undertook a visit to the //Kharas Region to visit local farmers practicing mix farming for comparative purposes.

14. Methodology

- 14.1 In an effort to get clarity and understanding on mix farming and its feasibility, the Committee consulted and invited the Ministry of Agriculture, Water and Forestry (MAWF) for a detailed presentation. Some of the crucial components of mix farming as highlighted by the MAWF representative was the definition of mix farming, its advantages and disadvantages as well as it's challenges.
- 14.2 The information contained in this report was obtained through a meeting with the leadership of the Karasburg West Constituency as well as interaction with farmers in the area.

15. Findings

- 15.1 Karasburg West Constituency Councillor, briefed the Committee on current activities in the constituency pointing out some issues of serious concerns faced by inhabitants of the constituency such as the influx of people in search of employment in the grape industry that contributes immensely to lack of housing or proper accommodation.
- 15.2 The Committee visited two different farmers in the //Kharas region to observe how they practiced mix farming. During the visit, the Committee observed that both farmers were not practicing mix farming, however they were farming conventionally. Although a small vegetable garden, a variety of orchards and small stock such as goats and sheep were found on the one plot, it is not of such nature that it can be termed or referred to as mix farming. According to the MAWF consultant, when a farmer practice mix farming, it is in such a manner that one product should be able to sustain the other economically or be an economical substitute.
- 15.3 The Committee further observed that only a few livestock such as 6 sheep, 1 goat, 13 pigs were kept on the piece of land meant for meat production. The land where the farming activities are taking place is in town which according to the Model Pound Regulation No.945 of 1994 which prohibits animals to be kept in town.
- 15.4 During the visit to the 2nd farmer, the Committee observed that the technique in which farming was done is diversified farming and not mix farming. Diversified system is

when the different components co-exit independently from each other. The farmer had a relatively big number of livestock such as cattle, sheep, goats and few chickens.

- 15.5 During interactions with the farmer, she informed the Committee that her farming method is sustainable as she sells milk to residents of the settlement, further generating income from the sales of goats and sheep to remunerate her workers as well as to support her family and acquire medicine for her animals.
- 15.6 The Committee observed that the farmer owns a small Lucerne garden that compliments free grazing during dry seasons.

16. Conclusion

- 16.1 Having visited Ghana and the //Kharas region the committee concluded that the model as stated in the Motion is not practised in Ghana, however they have projects involved in mixed farming where they intercrop fruits and vegetables such as cassava, Pantene, ken key, palm nuts, maize, coconut, eggplant, cocoyam leaves and oranges. These kind of projects require availability of land and sufficient water.
- 16.2 Taking into consideration that Namibia is a semi-arid country, the model of Mix farming intercrop as practiced in Ghana would not be possible to be implemented country wide, because it requires adequate water through out the year which is almost impossible in Namibia.
- 16.3 Therefore, the introduction of the national mix farming project in Namibia would only be viable in areas with sufficient water where plots would be demarcated and equipped with suitable irrigations system.
- 16.4 Based on findings during the visit to //Kharas region, the committee concluded that the farmers were not practising mixed farming model as per the Motion but rather more of a diversified farming model.

17. Recommendations

- 17.1 The Ministry of Agriculture, Water and Forestry to conduct further research on the Mix Farming model with respect to 5 hectares and advise on practicality and viability of a National Mix Farming project.
- 17.2 The committee further recommends that once the study has been carried out a detailed summarised report be presented to the National Council. (House)

21. Adoption of Report

This Report was adopted by the Standing Committee on Urban and Rural Development on 03 December 2018 in Red Room, National Council Building.

(Signed by)

Hon.Phillipus W. Katamelo Chairperson

03 December 2018