Food and Agriculture Organization of the United Nations

SUSTAINABLE DEVELOPMENT GOALS

AFRICAN COMMISSION ON AGRICULTURAL STATISTICS

28TH SESSION

4–8 December 2023
Johannesburg (South Africa)

AFCAS 28

LEVERAGING DATA & STATISTICS FOR AGRIFOOD SYSTEMS TRANSFORMATION IN AFRICA

AGENDA ITEM 9:

NEW DEVELOPMENTS IN OPEN DATA AND AGRICULTURAL DATA DISSEMINATION

AFRICAN COMMISSION ON **AGRICULTURAL STATISTICS**

TANZANIA2019/20 NATIONAL SAMPLE CENSUS OF AGRICULTURE (NSCA) DISSEMINATION STRATEGY

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Outline

- Context
- Dissemination strategy - Serving the users.
- NSCA 2019/20 Resources available to the users:
  - Written-types publications
  - On-line statistical tables
  - Public Use Microdata sets
- Lessons learnt and perspectives

Context

- The National Sample Census of Agriculture (NSCA) 2019/20 was the fifth Census of Agriculture conducted in Tanzania;
- Very rich information collected;
- Collaborative effort: National Bureau of Statistics (NBS), Ministry of Agriculture; Ministry of Livestock and Fisheries; President's Office, Regional Administration and Local Governments; Ministry of Industry and Trade; Ministry of Agriculture, Irrigation, Natural Resources and Livestock, Zanzibar; and Office of the Chief Government Statistician, Zanzibar with the support of a consortium of international partners.

Context

Main objective of the NSCA 2019/20 was to provide baseline data on Agricultural Statistics

- ✓ to inform national agricultural planning, implementation and policy intervention;
- ✓ for the purpose of improving agricultural sector through increased productivity and promoting agro-processing for industrial development and improving farmer's livelihood; and
- ✓ To facilitate monitoring and evaluation of the Sustainable Development Goals (SDGs), African Agenda 2063, MALABO declaration, third Five Year Development Plan (2021/22–2025/26) and Agricultural Sector Development Programme Phase II (ASDP II).

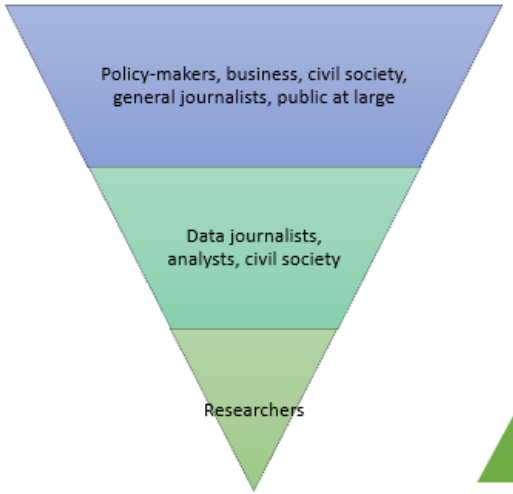
- ➢ Robust recognition from NBS and its collaborators regarding the significance of establishing a comprehensive dissemination program to achieve this goal and extract the complete value from the data; and
- ➢ There was a heightened anticipation from users that NBS was committed to fulfilling, ensuring accessibility to the data.

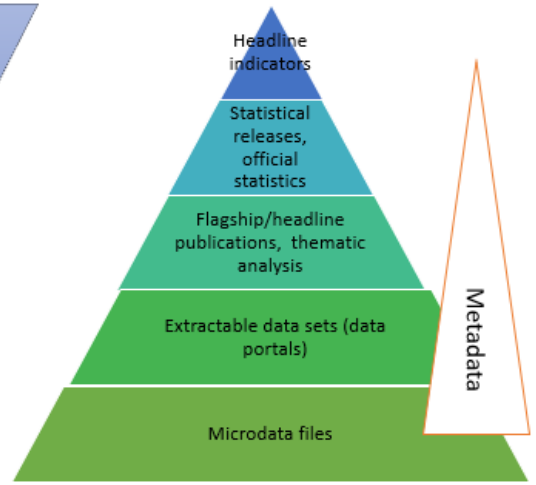
Dissemination strategy
Serving the users.

Essential aspects of the dissemination policy:

Recognition the wide variety of users with different needs

- Multiple outputs for various user groups;
- Make best use of modern web-based technologies to meet the wide range of needs;
- Different data formats: Aggregated data/indicators, microdata, visualizations, etc; and
- Different dissemination channels: Written type, data portal, microdata archives, etc.





NSCA 2019/20
Written type publications

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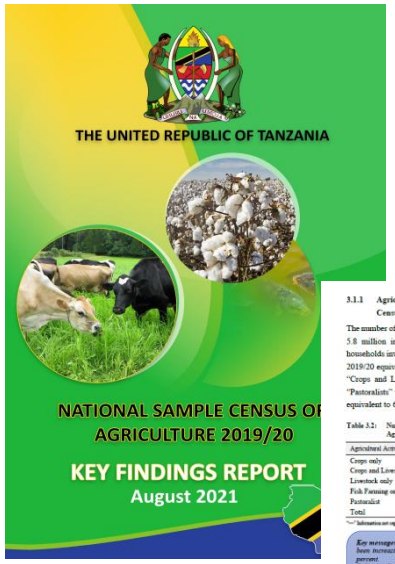
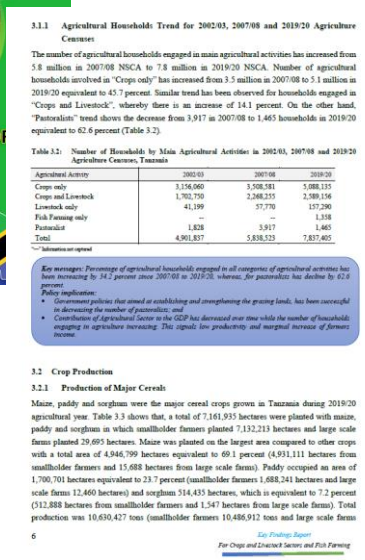
Several reports were produced with different levels of focus





3.1.1 Agricultural Households Trend for 2002/03, 2007/08 and 2019/20 Agriculture Censuses

The number of agricultural households engaged in main agricultural activities has increased from 5.8 million in 2007/08 NSCA to 7.8 million in 2019/20 NSCA. Number of agricultural households involved in "Crops only" has increased from 3.5 million in 2007/08 to 5.1 million in 2019/20 equivalent to 45.7 percent. Similar trend has been observed for households engaged in "Crops and Livestock", whereby there is an increase of 14.1 percent. On the other hand, "Pastoralists" trend shows the decrease from 3,917 in 2007/08 to 1,465 households in 2019/20 equivalent to 62.6 percent (Table 3.2).

Table 3.2: Number of Households by Main Agricultural Activities in 2002/03, 2007/08 and 2019/20 Agriculture Censuses, Tanzania

Agricultural Activity	2002/03	2007/08	2019/20
Crops only	3,156,060	3,508,581	5,088,135
Crops and Livestock	1,702,750	2,268,255	2,589,156
Livestock only	41,199	57,770	157,290
Fish Farming only	--	--	1,358
Pastoralist	1,828	3,917	1,465
Total	4,901,837	5,838,523	7,837,405

-- Information not captured

Key messages: Percentage of agricultural households engaged in all categories of agricultural activities has been increasing by 34.2 percent since 2007/08 to 2019/20, whereas, for pastoralists has decline by 62.6 percent.
Policy implication:
- *Government policies that aimed at establishing and strengthening the grazing lands, has been successful in decreasing the number of pastoralist; and*
- *Contribution of Agricultural Sector to the GDP has decreased over time while the number of households engaging in agriculture increasing. This signals low productivity and marginal increase of farmers income.*

3.2 Crop Production

3.2.1 Production of Major Cereals

Maize, paddy and sorghum were the major cereal crops grown in Tanzania during 2019/20 agricultural year. Table 3.3 shows that, a total of 7,161,935 hectares were planted with maize, paddy and sorghum in which smallholder farmers planted 7,132,213 hectares and large scale farms planted 29,695 hectares. Maize was planted on the largest area compared to other crops with a total area of 4,946,799 hectares equivalent to 69.1 percent (4,931,111 hectares from smallholder farmers and 15,688 hectares from large scale farms). Paddy occupied an area of 1,700,701 hectares equivalent to 23.7 percent (smallholder farmers 1,688,241 hectares and large scale farms 12,460 hectares) and sorghum 514,435 hectares, which is equivalent to 7.2 percent (512,888 hectares from smallholder farmers and 1,547 hectares from large scale farms). Total production was 10,630,427 tons (smallholder farmers 10,486,912 tons and large scale farms

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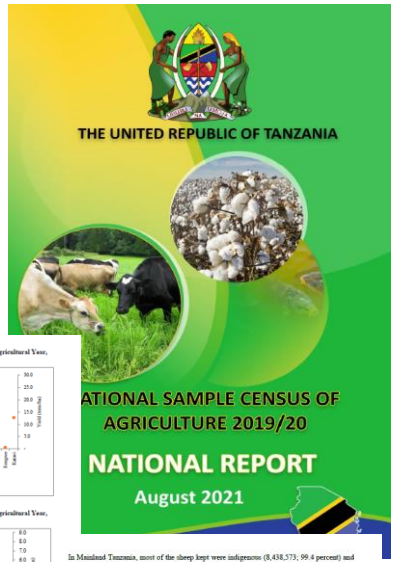
Key Findings Report
For Crops and Livestock Sectors and Fish Farming

The **Key findings report** highlighting key results and policy implication statements



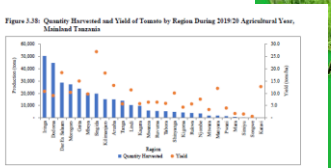


Figure 3.38: Quantity Harvested and Yield of Tomato by Region During 2019/20 Agricultural Year, Mainland Tanzania

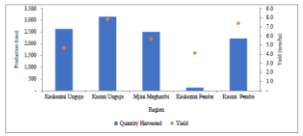


Figure 3.39: Quantity Harvested and Yield of Tomato by Region During 2019/20 Agricultural Year, Tanzania Zanzibar

3.1.5.2 Onions

The 2019/20 NSCA results reveal that, a total of 22,691 households were engaged in growi
ainy season (22,648 households were in Mainland Tanza
anzibar). During long rainy season, 52,097 households w
ainland Tanzania, while there were no households reported
.

was 28,352 ha, out of which 28,336 ha were from smallhol
e farms. From the total planted area by smallholder farme
nia and 13 ha in Tanzania Zanzibar.

2019/20

In Mainland Tanzania, most of the sheep kept were indigenous (8,438,573; 99.4 percent) and there were only 53,471 (0.6 percent) improved sheep for mutton. Arusha region had the largest number of sheep (1,576,091; 18.6 percent) kept by smallholder farmers, followed by Manyara (937,541 heads; 11.0 percent) and Mwanza (604,674 heads; 7.1 percent). In Tanzania Zanzibar, sheep were reared in two regions, Kusini Pemba (570 heads; 65.4 percent) and Mjini Magharibi (301 heads; 34.6 percent). The census results show a steady increase in the number of sheep raised from 5.7 million in 2008 to 8.5 million in 2020 equivalent to 48.6 percent increase (Map 4.3).

Map 4.3: Sheep Population Reported by Smallholders by Region as of 1st August 2020, Tanzania

4.1.4 Pig Population

The number of households reported rearing pig in Tanzania during 2019/20 agricultural year was 536,986 of which 536,841 households were in Mainland Tanzania and 145 households in Tanzania Zanzibar. The total number of pigs raised in Tanzania was 3,208,405 (3,203,372 pigs from smallholder farmers and 5,123 from large scale farms). The number of pigs reared by smallholder farmers in Mainland Tanzania was 3,201,163 heads, while in Tanzania Zanzibar was 2,209 heads.

National Sample Census of Agriculture 2019/20 146

The **national report on main results** with detailed information and long collection of statistical tables.

NSCA 2019/20
Written type publications

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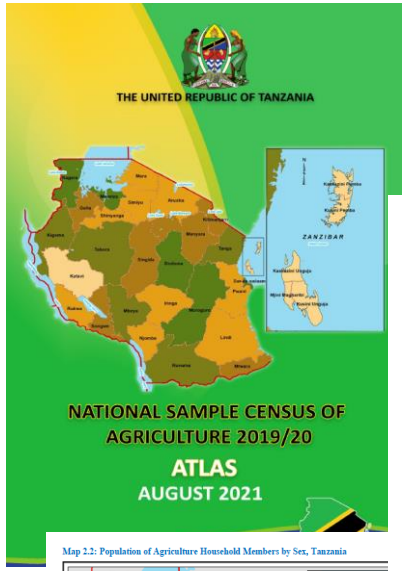
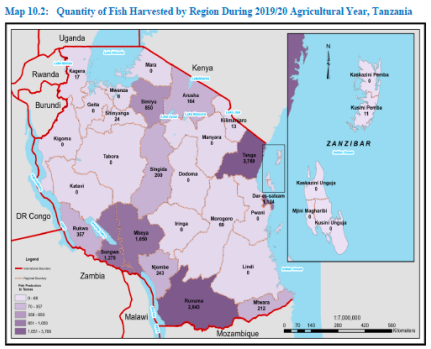
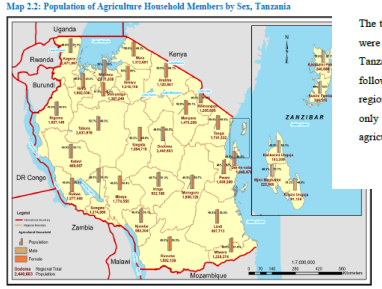


The **Atlas report** presents map visualization of key results



Map 10.2: Quantity of Fish Harvested by Region During 2019/20 Agricultural Year, Tanzania

The total production of fish from smallholder farmers was 12,626 tons, whereby 12,615 tons were produced from Mainland Tanzania and 11 tons in Tanzania Zanzibar. In Mainland Tanzania, Tanga region had the largest quantity of harvested fish (3,769 tons; 29.9 percent), followed by Ruvuma (2,643 tons; 21.0 percent) and Mbeya (1,650 tons; 13.1 percent). Tabora region reported the least quantity of fish harvested (1 ton; 0.004 percent). In Tanzania Zanzibar, only Kusini Pemba region reported to harvest a total of 11 tons of fish during 2019/20 agricultural year.



Map 2.2: Population of Agriculture Household Members by Sex, Tanzania

The Census results reveal that, the population of agricultural household members in Tanzania was 40,992,748 (39,902,860 in Mainland Tanzania and 1,089,888 in Tanzania Zanzibar), of which, 20,417,003 were males (19,874,879 Mainland Tanzania and 542,124 Tanzania Zanzibar) and 20,575,740 were females (20,027,976 in Mainland Tanzania and 547,764 in Tanzania Zanzibar).

In Mainland Tanzania, Mwanza region had the highest number of agricultural household members (2,531,638; 6.3 percent), followed by Kagera (2,471,868; 6.3 percent) while Katavi region, had the smallest number of agricultural household members (469,667; 1.2 percent). In Tanzania Zanzibar, Kusini Pemba region had 346,310 (31.8 percent) agricultural households' members, while the region with the lowest population was Kusini Unguja (91,136; 8.4 percent).

In every publication, meticulous attention given to the presentation and visualization to ensure that the results are easily understandable.

The reports designed

- ✓ to offer data at both the national and regional levels;
- ✓ to provide comprehensive statistics on various indicators, serving as a valuable planning tool for government planners, researchers, policymakers, and other stakeholders engaged in agriculture and rural development.

NSCA 2019/20
On-line statistical tables

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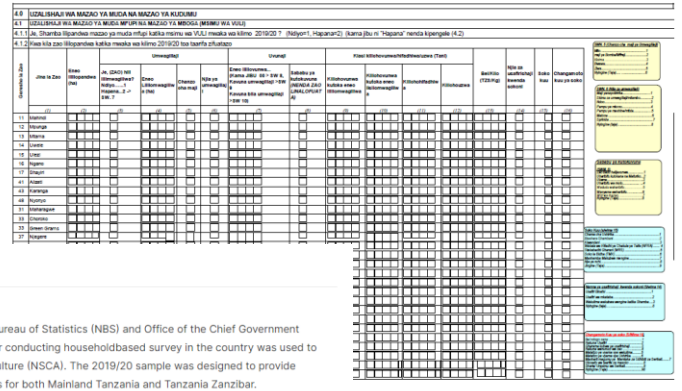
Statistical tables available on-line for more flexible analysis

Technical documentation was also provided to the users.



Sampling

SAMPLING PROCEDURE

The National Master Sample developed by National Bureau of Statistics (NBS) and Office of the Chief Government Statistician (OCGS) to serve as national framework for conducting householdbased survey in the country was used to design the 2019/20 National Sample Census of Agriculture (NSCA). The 2019/20 sample was designed to provide estimates disaggregated at regional and district levels for both Mainland Tanzania and Tanzania Zanzibar.

The 2019/20 NSCA adopted a two-stage design with census enumeration areas as Primary Sampling Units (PSUs) and households as second-stage units. The stage one sampling frame comprises of selection of urban and rural EAs from the 2012 Population and Housing Census frame. The EAs were explicitly sorted by Region and District before employing a Probability Proportionate to Size (PPS).

The second stage was the selection of agricultural farming households from the selected EAs for data collection.

1.4.2 Sample Size

A total of 2,820 PSUs were selected from the 2012 Population and Housing Census (PHC) frame of which 2,670 PSUs were from Mainland Tanzania and 150 from Tanzania Zanzibar. Out of these, 2,560 PSUs were from rural and 260 from urban areas. The number of households differed from one PSU to another, it ranged from 5 to 30 households, making a total number of 33,808 households (32,008 households from Mainland Tanzania and 1,800 from Tanzania Zanzibar). The probability of selecting a household depended on the total number of households in the PSU. The sample was higher for rural EAs than urban EAs. The technic was designed to give estimates of different parameters with the error margin of 5 percent at 95 percent confidence leve

NSCA 2019/20
Microdata sets

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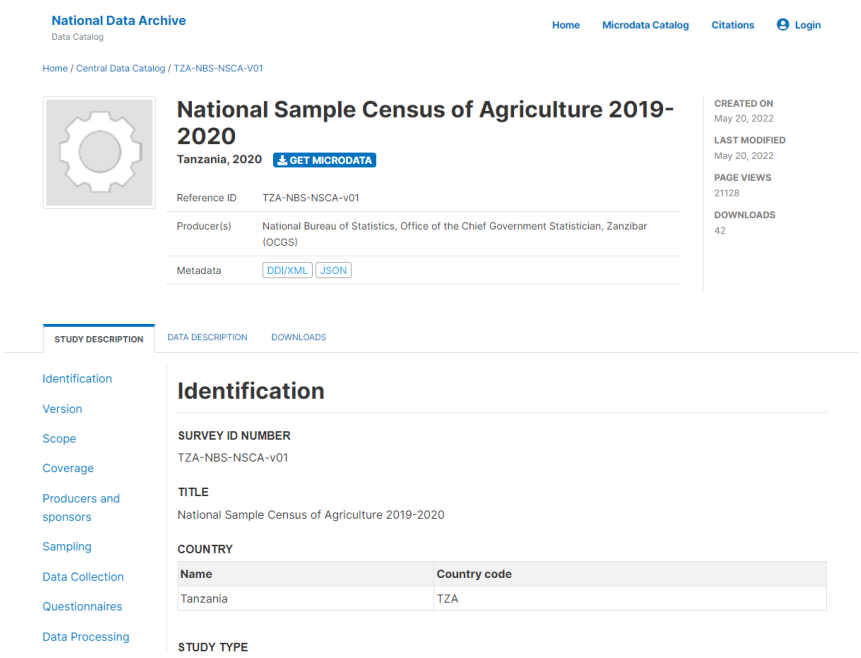

The NSCA 2019/20 micro-datasets accessible from the National Data Archive to enable granular analysis (research and statistical analysis purposes);

Datasets are anonymized, meaning they contain no identifying information, adhering to the requirements of the Statistics Acts, which ensure the confidentiality of respondents;

These files are distributed as Public Use Files through the National Data Archive: Registered users can download the data after agreeing on a set of terms and conditions of use.

NSCA 2019/20
Lessons learnt and perspectives

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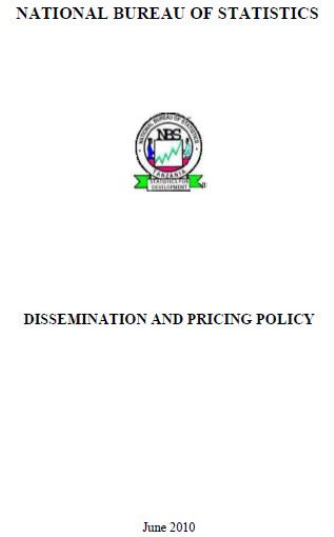
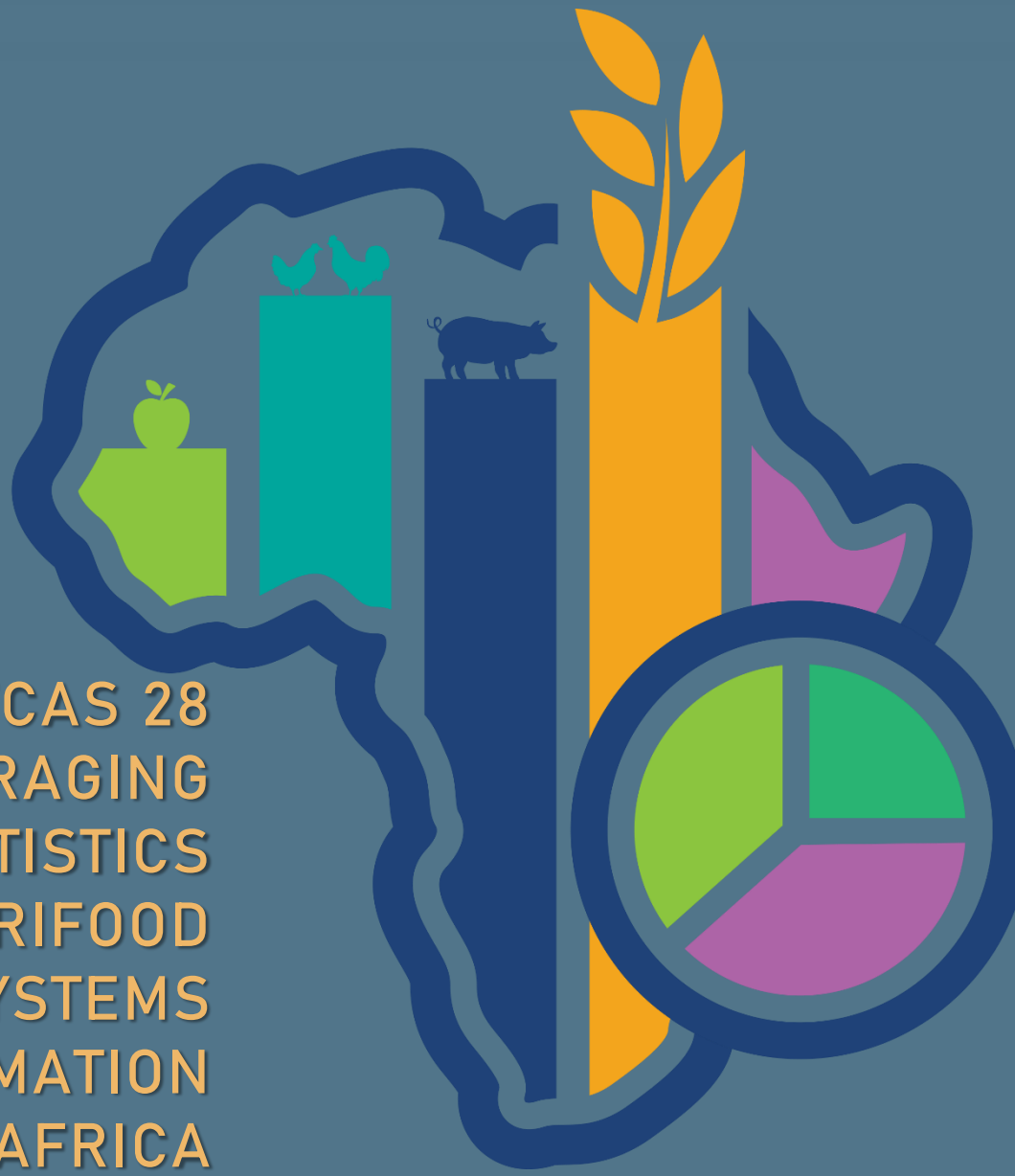
- ✓ The efforts toward building a comprehensive dissemination program was very well received by the users (direct positive feedback, usage statistics, etc.);
- ✓ The NBS recognizes that timely dissemination of data to specialized users for research purposes and other decision makers is beneficial;
- ✓ NBS committed to continuing achieving highest standards in the area of dissemination; and
- ✓ Yet, ensuring sustainability of dissemination programs requires technical resources, staff time and skills, IT-infrastructures, etc.



Data Collection Experience

- Data collection is an expensive exercise in Developing Countries;
- More resources are needed to fast-truck the data collection exercise; and
- Main actors, government being on the driver's seat need to commit more on financing the data collection exercise;

Thank you for Your attention!
Asante sana
Merci
Obrigado



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