

Verification Report-Final

Eastern Africa Regional Statistics Program-for-Results, for the United Republic of Tanzania, March 2025

United Nations Economic Commission for Africa (UNECA), Addis Ababa

Executive Summary

The Eastern Africa Regional Statistics Program-for-Results (EARSP-for-R) aims to support the harmonization, availability and use of core economic and social statistics in East Africa. Funds under the program are disbursed to Kenya, Rwanda, and Tanzania's national statistics offices (NSO) to accomplish specific Disbursement Linked Indicators (DLIs) requiring independent verification. The United Nations Economic Commission for Africa (UNECA) is contracted by the East Africa Community (EAC) to undertake independent verification of a subset of the EARSP-for-R Disbursement Linked Results (DLRs) following established verification protocols and methodologies. Hence, UNECA is contracted as the Independent Verification Agency (IVA) for the three NSOs.

In the fourth verification window (January 2025), the National Bureau of Statistics (NBS) of the United Republic of Tanzania (URT) thru the Ministry of Finance (Ref. CDA.441/624/01, 17th January 2025), submitted five (5) DLRs for verification. In particular, the NBS through the East African Community (EAC) – the Regional Program Coordinating Unit (RPCU) Secretariat requested UNECA to verify the following DLRs:

- **DLI 2.2: Improved availability of enterprise-based survey data:** DLR 2.2(f) Employment and Earnings Survey (EES) 2022/23 completed.
- **DLI 2.3: Improved availability of agricultural statistics:** DLR 2.3(a) Integrated Agricultural Survey (IAS) completed for 2022/23, with report disseminated and anonymized microdata well documented, archived and available online.
- **DLI 2.4: Improved availability of administrative data:** DLR 2.4(d) Publication of Regional Profiles Report (RPR) using data from 2022 PHC and an interactive dashboard including a mapping platform is available on the NBS and OCGS websites for all key census variables.
- **DLI 2.6: Gained experience with big data and new technologies:** DLR 2.6(a) Completed geospatial database (GSD) with information from the 2022 census made available to users where justified.

- **DLI 2.6: Gained experience with big data and new technologies:** DLR 2.6(d)
Remote sensing facilities (RSF) upgraded, including satellite imagery, licenses software, and spatial data portal.

The verification procedures include checking the required documents, reports, and microdata and their availability and accessibility from the NBS and OCGS websites and existing databases, systems, and related documents during the onsite and online verification. Before this report, UNECA shared its initial findings, as well as the preliminary assessment report to the RPCU/EAC and the NBS and OCGS for comments.

The results of the January 2025 verification process are:

- DLI 2.2(f) –Achieved.
- DLI 2.3(a) – Achieved.
- DLI 2.4(d) – Achieved.
- DLI 2.6(a) – Achieved.
- DLI 2.6(d) –Achieved.

I. Introduction

1. Background

The Eastern Africa Regional Statistics Program-for-Results aims to strengthen the harmonization, availability, and use of core economic and social statistics generated from the national statistics programs of Kenya, Rwanda, and Tanzania. The Program under the East African Community (EAC) and Africa Union Commission (AUC) supports statistical activities of implementing countries from 2022 - 2027 within the strategic themes of Strategy for the Harmonization of Statistics in Africa (SHaSA). The World Bank finances the program following the disbursement-linked results mechanism which focuses on the achievements of specific results.

The EARSP-for-R is structured into three result areas with disbursement-linked indicators (DLI) and identified disbursement-linked results (DLR). Hence, implementing agencies, particularly the national statistics offices, are expected to report their country-specific achievement of DLRs to the Regional Program Coordination Unit (RPCU) of the East African Community (EAC). These results must be independently verified to disburse the next tranche of funds.

To verify the results of the DLIs reported by national implementing agencies, the UNECA through the African Centre of Statistics (ACS), has contracted as the Independent Verification Agency (IVA) by the EAC for a set of DLIs.

This Verification Report is the final main report prepared as a follow-up to the ECA submission of the initial findings and preliminary verification results of the DLRs. The report contains some questions and clarifications raised in the previous UNECA submissions and recommendations. NBS and OCGS addressed or considered these before UNECA submitted this final verification report.

This report is structured into four sections: introductory section (1), verification methodology (section II), detailed final findings (section III), and conclusion (section IV), which also includes the recommendations for consideration by the NBS and OCGS. It also includes relevant Appendices after the concluding section.

2. Disbursement-Linked Indicator (DLI)

The EARSP-for-R program is structured into three results areas (RA), in which the DLRs are linked with respective RA. The result areas have specific Disbursement Linked Indicators (DLIs). This verification focuses on ***RA 2: Availability and New Data Sources with the following DLIs:***

- DLI 2.2: Improved availability of enterprise-based survey data.
- DLI 2.3: Improved availability of agricultural statistics.
- DLI 2.4: Improved availability of administrative data.
- DLI 2.6: Gained experience with big data and new technologies.

3. Independent Verification

For the January 2025 verification window, the following DLRs were subjected to a set of verifications procedures/protocols undertaken by UNECA.

- DLR 2.2(f) Employment and Earnings Survey (EES) 2022/23 completed.
- DLR 2.3(a) Integrated Agricultural Survey (IAS) completed for 2022/23, with report disseminated and anonymized microdata well documented, archived, and available online.
- DLR 2.4(d) Publication of Regional Profiles Report (RPR) using data from 2022 PHC and an interactive dashboard, including a mapping platform available on the NBS and OCGS websites for all key census variables.
- DLR 2.6(a) Completed geospatial database (GSD) with information from the 2022 census made available to users where justified.
- DLR 2.6(d) Remote sensing facilities (RSF) upgraded including satellite imagery, licenses software, and spatial data portal.

II. Methodology

The verification procedures followed by UNECA:

- **DLR 2.2(f). EES completed for 2022/23:** NBS provided necessary links with relevant documents and data. The methodology for checking the DLR involved UNECA verifying that the links provided by NBS will enable downloading the EES 2022/23 analytical report from the NBS [website](#). UNECA also verifies that the report adapts relevant international classifications, acceptable standards, coverage, and disaggregation by gender with sampling and non-sampling errors, and checks if [microdata](#) is available and downloadable.
- **DLR 2.3(a). IAS completed for 2022/23:** NBS provided necessary links with relevant documents and data. The methodology for checking the DLR involved UNECA checking that the Annual Agriculture Sample [Survey report](#) (AASS), the [Key Findings report](#) and the Non-standard unit ([NSU](#)) conversion factor report covering 2022/23 are available and downloadable from the NBS and OCGS websites. It also verifies the microdata is well archived, labelled, and accessible through the NBS microdata platform [shared link](#); assesses sampling methodology, confidence intervals, and overall representativeness; evaluates survey quality using established statistical frameworks, quality control measures, and non-response analysis; assesses whether the reports included gender-disaggregated data; implementing cross-referencing and validation

techniques to ensure data integrity and reliability, and checks the survey adhered to international classifications and standards where applicable.

- **DLR 2.4(d). Publication of RPR from 2022 PHC and an interactive dashboard:** NBS shared the necessary links with relevant documents and data. The methodology for checking the DLR involved UNECA checking that URT published the Regional profile report and downloadable from the NBS [website](#). Further, UNECA confirms if the 31 regions report covering all census dimensions from the 2022 PHC disaggregated by region, residence, age, and gender accessible on NBS and OCGS websites; checks the dashboard including mapping data portal is interactive to generate custom-made tables and charts, equipped with the necessary dataset, and checks if [microdata](#) is available and downloadable from the NBS and OCGS.
- **DLR 2.6(a). Completed GSD and made it available to users.** NBS provided necessary access to the geospatial database, relevant documents, and data. The methodology for checking the DLR involved UNECA reviewing the database and information provided at regional, district, and ward levels onsite and confirming if the URT has completed the online geospatial database with information from the 2022 PHC as well as ensuring that shapefiles for facilities and all Enumeration Areas (EAs) are available to users.
- **DLR 2.6(a). RSF upgraded including satellite imagery, licenses software, and spatial data portal.** NBS provided necessary access to the remote sensing facilities, portals, software, relevant documents, and data. The methodology for checking the DLR involved UNECA reviewing and checking the upgraded remote sensing facilities, including satellite imagery licenses, software, spatial data portal, and dashboard analysis, which are justified. The purpose is to verify if the URT has completed the acquisition and implementation of satellite imagery, software, geoportal/[spatial portal](#), and dashboard. Further, UNECA is to verify a report produced showing upgrades are available and downloadable.

III. Detailed Verification Results for the DLR

3.1. Inspection/ Review

The verification was done using a hybrid approach or a combination of onsite and online checking of the results.

3.2. Findings.

a. DLR 2.2(f). EES.

i. Report published for EES 2022/23

The checks confirmed that NBS produced the analytical report of the 2022/23 Employment and Earning Survey and downloaded it from the NBS [website](#). The report contains statistics on employment and earnings disaggregated by **gender**.

ii. International classifications and definitions

UNECA checked that acceptable international standards were observed in the conduct of the survey and analysis of data. However, some definitions are not aligned with the latest ICLS resolutions such as ICSE-18 on status in employment and the definition of formal sector. *NBS clarified that “The definition of the formal sector as per the 18th ICLS is broader designed for household-based surveys and cannot be fully utilized for establishment-based surveys which consider registration only. More efforts will be made to examine the usability of other conditions (record keeping and employment size of establishment) in future surveys. Moreover, the three-month cut-off for casual workers will be implemented in future surveys”.*

iii. Statistical errors for core indicators.

UNECA verified that statistical errors for some core labour indicators were not reported which NBS later generated and shared. The errors highlight the need to report some indicators at more aggregate levels where variables have a long list such as industry to improve the quality of the statistics. *NBS explained that “sampling errors for EES were based on earnings only, others based on employment (by type of activity and regions) have been shared with UNECA for more comments and the NBS management will consider including an addendum into the analytical report”.*

iv. Access for Microdata.

The verification confirmed that microdata is available and downloadable from [the link](#) upon request through online registration. Metadata is also freely accessible online.

Finally, UNECA recognized the clarification of NBS and verified the ESS report with data disaggregated by gender and microdata are available online. Hence, the DLR is **achieved** by NBS, an implementing agency.

b. DLR 2.3(a). IAS completed for 2022/23

i. IAS Reports produced for 2022/23

The verification confirmed that the AASS, the Key Findings report, and the Non-standard unit (NSU) conversion factor report covering 2022/23 are available and downloaded from the NBS [website](#). The reports are well-structured and available online, with links provided to facilitate user access.

ii. International classifications and standards.

UNECA verified that the IAS 2022/23 methodology aligns with international agricultural frameworks, including FAO, SDG, and CAADP guidelines. The classification of agricultural activities adheres to international standards, improving cross-country comparability.

While national land tenure classifications follow Tanzanian regulations, explicit mapping to international classifications is not fully documented. NBS acknowledged this and committed to enhancing documentation in future survey cycles.

iii. Gender-disaggregated data

UNECA assessed the extent to which gender-disaggregated data was incorporated into the IAS 2022/23 reports. The survey includes statistics on agricultural household structures, land ownership, and participation in farming activities, disaggregated by the sex of the household head. However, gender-disaggregated data collection remains largely limited to household heads, restricting more detailed gender analysis at the individual level. NBS acknowledged this limitation and confirmed that the 2023/24 IAS will include a Women Empowerment and Nutrition module to enhance gender-specific insights into agricultural labor, land tenure, and resource access.

iv. Sampling Procedures and Quality Assessment

The verification process found that the IAS 2022/23 adhered to a robust two-stage sampling methodology, ensuring the representativeness of results at national and regional levels. The NSU report provides essential details on the conversion of non-standard units, improving the accuracy and comparability of agricultural production data.

UNECA identified areas where further documentation would strengthen the transparency of results. While the sampling errors for earnings were well-documented, the employment-related sampling errors required additional elaboration. In response, NBS agreed to include an addendum in the analytical report to address this gap. Furthermore, while a post-enumeration survey is not mandatory for agricultural surveys, NBS has committed to implementing one in future IAS exercises to enhance data validation and accuracy.

v. Access to Microdata

UNECA checked that the microdata is well archived, labelled, and accessible through the NBS microdata platform [shared link](#). This platform ensures proper data storage and retrieval for researchers, policy analysts, and other users. However, while the data was publicly accessible, UNECA noted that the required registration process posed

challenges for some users, particularly external researchers. The NBS clarified that this requirement is a standard security measure aimed at monitoring data usage, and trusted users typically receive access without delay.

In conclusion, UNECA verified the IAS 2022/23 report disaggregated by gender and microdata is available online. Hence, the DLR is **achieved** by the implementing agency.

c. DLR 2.4(d). Publication of RPR from 2022 PHC and an Interactive dashboard.

i. **Publication of RPR and Gender disaggregation.**

The verification confirmed that the RP report for 31 regions is produced and available on the NBS [websites](#). The profiles highlight key dimensions of the census such as an overview of the 2022 PHC, population size, age-sex, household composition, citizenship, education, employment, disability, land ownership, economic activities, and housing, among others. Disaggregation was also done by key variables such as sex, residence and council. The report is fundamental for planning, monitoring, evaluation and decision-making at the regional level.

ii. **Interactive dashboard.**

The onsite verification proves that a census information dissemination [platform](#) was developed, which is functional and accessible with a good amount of data & variables from the 2022 PHC. The platform has several functionalities such as data visualization and a dashboard for the generation of charts, tables and maps from predetermined indicators at the regional level. However, it does not allow the production of custom-made tables and charts with breakdowns by region, district, urban rural, gender and age groups. *NBS clarified that the Census Dashboard is interactive and equipped with a wealth of key indicators for the Current Census and Previous Census as well, Data is well organized in Sections reflecting the published publications, The dashboard has all the data that has been officially released for all key indicators and other indicators too. It provides dynamic visualizations that allow users to explore and analyze data effectively. Additionally, the dashboard supports data downloads in multiple formats for easy access and deeper analysis.* Thus, it was observed that higher levels of interactivity of the dashboard may be explored for user-defined outputs which NBS agreed to explore to improve utilization of census data.

iii. **Access to Microdata.**

UNECA confirmed that about 10% of microdata is available in SPSS format and accessible by [online](#) request. The turnaround time for microdata requests varies for different users and making it uniform is not within the control of NBS. Further, the access of census 2022 microdata through the NBS found successful. However, access through the OCGS website

is not yet verified since the link is unavailable. *NBS indicated that the link of OCGS microdata will be shared with ECA.*

Lastly, UNECA verified that the 31 regions' profile reports with key census dimensions, disaggregated by gender are available, and the interactive dashboard and microdata are accessible. Hence, the DLR is **achieved** by the implementing agency.

d. DLR 2.6(a). Completed GSD and made available for users

The onsite verification confirmed that NBS had a geospatial database with information from the 2022 Census at the Regional, District, and Ward levels. The verification indicated the following findings:

- The data collection methods were improved with modern tools using tablets for geospatial data collection, and spatial data collection known as ArcGIS Survey 123 was deployed for data collection and transfer to servers with location-based data or geographical coordinates and attributes information included.
- The NBS website was upgraded with a few uploaded geospatial shapefile layers made available for users.
- There was an upgraded ESRI software from ArcGIS Desktop to ArcGIS Pro, which has fostered data analysis, modeling, forecasting, simulation, and AI (Deep Learning). They also use ArcGIS data store and PostgresSQL.
- A geodatabase system has been developed with a license ESRI ArcGIS Pro software. A Central Server is present and used for data storage (ArcGIS Enterprise Server).
- Making use of the ArcGIS WebAppbuilder tools such as Dashboards, Experience Builder and Survey 123 are functional and are being used for data collection, management, and visualization.
- The following geospatial shapefile layers (including but not limited to): administrative areas, administrative boundaries, and population and habitat census data PHC 2022 have been included in the database: -
 - i. Administrative areas shapefile layers: - Constituencies, Councils, Districts, Divisions, EA, Regions, Villages/Mitaa, Wards, are updated accordingly as indicated in verification terms and conditions.

- ii. Administrative boundaries shapefile layers: - Constituency, Council, District, Division, EA, International, Regional, Village, Ward, Hamlet, are available and uploaded and will be modified as any administrative changes occur.
- iii. Population and housing characteristics were verified: and data such as and not limited to: - Abattoirs, Boreholes, Cattle dips, Cemeteries, Charcoal dams, Diplomatic Houses, Education _Facilities, Godowns, Government Offices, Guesthouses, Health Facilities, Hotels, Institutions, Landmarks, Markets, Milling Machines, Protected Areas, Public buildings, Religious Buildings, Shops, Small-scale Industries as per the 2022 census were collected.
- The geodatabase exists only to tackle internal geospatial management issues, (upload, organize, and storage) of geospatial data by the geospatial personnel and is not yet put at the disposition of public users.
- The geospatial data geodatabase has been utilized in creating a spatial geoportal that contains functions for importing and analyzing the spatial data but is still privately used by the geospatial personnel of NBS and not yet for public use. The reason why users are not able to have access to the spatial portal is that the content of the geodatabase and spatial portal has to be checked by the government of Tanzania for security purposes. Secondly, the geoportal still awaiting from the government of the United Republic of Tanzania for its official launching before being made available to public users.

Finally, UNECA confirmed that the geospatial database has significant improvement but is yet completed for users. Hence, the DLR is **achieved** by an implementing agency.

e. DLR 2.6(d). Remote sensing facilities upgraded including satellite imagery licenses/software/spatial data portal

The verification confirms that the capacity of the remote sensing facilities is upgraded, and the upgrade report is available. According to the verification protocol, the following findings are observed from the upgraded remote sensing facilities: -

- A licensed ESRI product for ArcGIS Pro was purchased and is being used with authoritative data sources to create additional shapefiles adding more information on facilities and infrastructures.
- Inbuilt imageries of basemaps are available in the license ArcGIS Pro that serves as background images to support the editing, adjustment, and visualization of shapefile data.

- Raw Landsat 9 images of 30m resolution, were processed to carry out a supervised classification map of Land cover and land-use change, consisting of settlements (rural and urban areas), vegetation (forest, green space etc.), bare ground and water system (rivers and water bodies).
- Making use of [available](#) geoportal to produce several geographic outputs such as Dashboards and maps, Perform Analysis, and Geospatial analytical reports have been undertaken as well.
- From the map gallery one can perform actions such as Save, View, Print, Publish, and Share content with different parameters.

In summary, UNECA verified that the RSF includes the spatial portal, licenses are upgraded, and the upgrade report is available. Hence, the DLR is **achieved** by the implementing agency.

IV. Conclusions

UNECA as IVA has successfully conducted the five (5) DLRs verification in line with the procedures. The process went well during the verification period. Some advantages, challenges, lessons learned and recommendations are provided below. The summary of the verification of DLRS for NBS and OCGS of the URT for January 2025 verification is provided in Annex 1.

4.1. Advantages and Challenges during the Implementation.

- **DLR 2.2(f), DLR 2.3(a), DLR 2.4(a), DLR 2.6(a) and DLR 2.6(d).**
 - **Resources for verification.** NBS and OCGS provided the necessary links and documents for DLR verification. They are instrumental in completing the assignment on time. The reports are easily downloaded, and microdata sets are available and accessible to users.
 - **Coordination of the Verification.** The NBS assigns responsible personnel and coordinates the result verification to be completed on time.
 - Slow or intermittent connection interrupts or affects accessing the reports and datasets related to the DLRs.
- **According to DLI 2.6,** the interaction between the UNECA team (leads, assistants, consultants) and the NBS team during the verification protocol was fluent, both in situ and online, with detailed clarification from both sides. The preliminary phase

of the geospatial database is available, with additional geospatial datasets for facilities that are currently accessible to users on the NBS website.

- **The advantages related** to collecting geospatial data include issues such as:
 - ✓ **Data Availability:** improvement in quantity of data, collected using innovative methods such as ArcGIS Survey 123, where locations are picked based on data, including dwellings and coordinates. In addition, shapefiles for facilities and features were obtained for the geospatial database.
 - ✓ **Data Quality:** The authenticity of the geospatial data sources was obtained through purchasing, downloading from Open Street Maps, and field collection with integrated GPS. The enumeration areas were created based on households (with a maximum of 150 households and an average of 100 households). As such, geospatial data are of good quality and reliability, including accuracy, completeness, and consistency.
 - ✓ **Data Accessibility:** Performing first-level minimal grammar correction. This correction should be light, meaning that there should not be too many changes made to the original text. The fixes should be minimal and only address obvious grammar mistakes. Refrain from being overly pedantic, changing the style or tone of the text, or using different words. Keep grammar fixes to a minimum, even allowing some mistakes to remain. Only correct the most obvious grammar mistakes. Again, refrain from changing words for synonyms and keep the word usage the same. Allow minor grammar errors to remain and only focus on correcting the most evident mistakes.
- **Challenges:**
 - **DLR 2.6(a).**
 - Though recommended, ArcGIS Software and hardware infrastructure remain quite expensive and require annual fees for maintenance, while the use of Open-source software remains a big challenge due to and technical support required to operate this open-source software.
 - Internet speed is unstable to accelerate access to content during retrieval processes of data in the geoportal. That needs to be optimised.
 - The geospatial database is accessible only to geospatial personnel and not yet accessible to public users through Geoportal, as a reason for waiting for the government to approve its official use.
 - **DLR 2.6(d).**

- **Data Resolution and Quality** – It is increasingly hard to get high-resolution imagery, especially in remote areas where even some data is not captured.
- **Image accessibility and cost.** The cost of acquiring high-cost images is also a big challenge. At the same time, high-resolution images take a lot of storage space.
- **Data and Interface Accessibility:** Restrictions on accessing certain geospatial data, and the geoportal and dashboard are still accessible to geospatial personnel and not public users, due to privacy, security, or proprietary concerns.

4.2. Lessons Learned and Recommendations

- **DLR 2.2(f).**

- ✚ International labour statistics standards are updated every five years through the International Conference of labour statisticians (ICLS). Future employment and earning surveys require improved alignment of concepts and definitions with prevailing international standards to facilitate international comparability.
- ✚ Statistical errors for core indicators of a survey guide users on the quality of statistics and how best to do further analysis where necessary. The additional statistical errors generated during the verification may be published as an addendum to guide the readers of the report.
- ✚ Although the reference period is the same, there should be efforts to synchronize the data collection period for Tanzania mainland and Zanzibar to improve data quality.

- **DLR 2.3(a).**

- ✚ **Enhance documentation:** Expand documentation on sampling methodologies, non-response handling, and post-enumeration validation.
- ✚ **Improve accessibility:** Consider refining data access mechanisms to balance security with ease of use.
- ✚ **Expand gender analysis:** Collect individual-level gender data in future surveys to strengthen policy relevance.
- ✚ **Improve classification transparency:** Clearly document how national classifications map to international agricultural standards.

- **DLR 2.4(a).**

- ✚ The existing census information dissemination platform may be considered a work-in-progress and explore opportunities to integrate higher-level interactive features for users to facilitate user-defined or customized outputs (tables, charts, graphs or maps) to take advantage of the enormous data generated from the 2022 PHC.

- **DLR 2.6(a).**

- ✚ *There is a need to engage other MDAs and sectors* such as social, economic, and environmental with census data by using spatial analysis to examine, interpret, and visualize spatial relationships, patterns, and trends in data. It allows decision-makers from different sectors to understand complex geographical and spatial phenomena, leading to more informed and strategic decisions.
- ✚ *Update of tags and metadata* - Tags and metadata play a crucial role in organizing, categorizing, and retrieving content from the portal efficiently. They enhance searchability and improve data management.
- ✚ *Training and capacity building/development* – this will be essential for staff and organizational growth, ensuring that people acquire the necessary skills, knowledge, and competencies to help maintain the GIS infrastructure thus improving efficiency and productivity.
- ✚ *Communication, advocacy and buy-in.* The Geospatial Section has a critical mass of spatial data. It will therefore require much advocacy to ensure ideas, policies, and strategies are understood, supported, and implemented effectively
- ✚ *Server to be optimized by indexing and caching.* The server was noticed to be very slow while rendering maps. The team was advised to make sure that it is properly optimized, caching and indexing well configured as well.
- ✚ *ArcGIS ecosystem carries a lot of features with it.* It is recommended that the team makes use of other tools in AppBuilder like story maps to enrich the content and presentation of their products.
- ✚ *Enhance the use of dashboards.* These dashboards play a crucial role in enhancing decision-making, efficiency, and business intelligence across various industries.
- ✚ *Self Service capabilities* to be encouraged at the Ministerial/departmental level based on the existing population data - Self-service dashboards empower users to access, analyze, and visualize data independently as per their self-defined parameters.
- ✚ *Begin the use of Simulation, Forecasting and Suitability models in ArcGIS Pro* for geospatial data processing.
- ✚ *Keep track of Spatial Portal access statistics.*
- ✚ *More satellite images such as Sentinel, Landsats, ASTER DEM and SRTM DEM* can be downloaded freely in NASA Earthdata to be uploaded on the website and used for Simulation, Forecasting and Suitability analysis, modelling and remote sensing monitoring.

- **DLR 2.6(d).**

- ✚ NBS to try and acquire free imagery from sources e.g. European Space Agency and others.
 - ✚ Enhance capacity building and development in this area.
- **Coordination and communication of the verification team.** The engagement and communication of the UNECA team (onsite/physically presented and online verifying team) with the NBS and OCGS teams were good in meeting the mission objectives. This should be strengthened in the subsequent verification of DLR.
 - **Conducting onsite verification for the DLR.** The mission recognizes that some DLRs strongly require onsite verification. The offsite (online) verification of the DLRs has limitations. UNECA and NBS deem onsite verification as necessary for effective verification of results, in particular; and for creating an open discussion that could further improve the statistical work/activities in Tanzania, in general.
 - **Transformation of the geospatial database.** The current geospatial database has been transformed with substantial geospatial data and the census of 2022. Henceforth, the final product of a geospatial database has been created as a Geospatial Web Portal to provide a platform for users to access and interact with the database, even though it is not yet readily available and usable for authorized users
 - **Overall Observation.**
 - The collaboration, support, and prompt action of the NBS, OCGS, and the EAC/RPCU in clarifying and providing feedback on issues related to the DLRs; as well as taking appropriate actions on the comments were critical in the timely completion of the DLR result verification.

Annexes.

Annex 1: Summary Table. Verification of Disbursement-Linked- Results (NBS and OCGS) United Republic of Tanzania, January 2025

Disbursement-Linked-Indicator	Disbursement-linked-Result	Remark	Evidence of attachment	DLI Verification procedure	Code	UNECA Verification procedure	Result of Verification	Scalable	Links	Comments / Questions
DLI 2.3-TZA: Improved availability of agricultural statistics	DLR 2.3 (a) Integrated Agricultural Survey (IAS) completed for 2022/23, with report disseminated and anonymized microdata well documented, archived and available online.	Integrated Agricultural Survey (IAS) report and microdata are published online.	https://www.nbs.go.tz/uploads/statistics/documents/en-1728554042-NSU%202022-23%20NATIONAL%20REPORT%20.pdf . https://www.nbs.go.tz/uploads/statistics/documents/en-1734966261-AASS%202022-23%20KEY%20FINDINGS%20REPORT-ENGLISH.pdf . https://www.nbs.go.tz/uploads/statistics/documents/en-1727940459-AASS%202022-23%20NATIONAL%20REPORT.pdf . https://microdata.nbs.go.tz/index.php/catalog/52	Verification that (i) the survey reports with sampling errors and assessment of survey quality can be downloaded from the NBS and OCGS websites; (ii) where applicable, presents gender-disaggregated; (iii) Anonymized microdata is archived, fully documented, and is accessible through agreed data access protocols; (iv) Relevant international classification systems are used.; (v) A report on non-standard measurement unit conversion factors will be produced for crops, livestock and fisheries.	A(i)	ECA checks 4 ARSIAS reports sampling errors and assessment of survey quality downloaded from the NBS and OCGS websites; checks ARSIAS reports presents gender-disaggregated; checks ARSIAS microdata anonymised archived, fully documented, & accessible; checks ARSIAS used international classification systems; checks a report on non-standard measurement unit conversion factors produced for crops, livestock, and fisheries.	Yes, the AASS IAS reports with sampling and quality assessment are available online; Gender disaggregated data is presented; microdata is available online; International classification is used in the report; NUM report is produced and available online.	Yes	https://www.nbs.go.tz/uploads/statistics/documents/en-1728554042-NSU%202022-23%20NATIONAL%20REPORT%20.pdf . https://www.nbs.go.tz/uploads/statistics/documents/en-1734966261-AASS%202022-23%20KEY%20FINDINGS%20REPORT-ENGLISH.pdf . https://www.nbs.go.tz/uploads/statistics/documents/en-1727940459-AASS%202022-23%20NATIONAL%20REPORT.pdf . https://microdata.nbs.go.tz/index.php/catalog/52	Collecting individual-level gender data in future surveys to enhance the analysis of participation in agricultural activities by women and youth.

DLI 2.2: Improved availability of enterprise-based survey data	DLR 2.2 (f) Employment and Earnings Survey (EES) 2022/23 completed.	Employment and Earnings Survey (EES) report and microdata are published online.	https://www.nbs.go.tz/uploads/statistics/documents/sw-1736761937-Tanzania Formal Sector Employment and Earnings Survey 2022-23.pdf . https://microdata.nbs.go.tz/index.php/catalog/54	Verification that NBS conduct & produce the Employment and Earnings Survey (EES) 2022/23 disaggregated by gender, sampling and non-sampling error report and microdata available online.	F(i)	ECA checks the Employment and Earnings Survey (EES) 2022/23 report disaggregated by gender with sampling and non-sampling error reports and microdata available online.	Yes, the ESS report and microdata for 2022/23 are produced and available online.	Yes	https://www.nbs.go.tz/uploads/statistics/documents/sw-1736761937-Tanzania Formal Sector Employment and Earnings Survey 2022-23.pdf . https://microdata.nbs.go.tz/index.php/catalog/54	Refine the definition of formal sector in line with the latest ICLS resolutions
DLI 2.4-TZA: Improved availability of administrative data	DLR 2.4 (d) Publication of regional profiles using data from 2022 PHC and an interactive dashboard including a mapping platform is available on the NBS and OCGS websites for all key census variables.	Regional profiles and microdata are published online.	https://www.nbs.go.tz/statistics/topic/census-2022 . https://microdata.nbs.go.tz/index.php/catalog/45 .	Verification that the regional profiles covering all census dimension reports from the 2022 PHC, including results disaggregated by gender, region, and residence, an interactive data portal to ready custom-made tables and charts and microdata available to download both from the NBS and OCGS websites.	D(i)	ECA check produced regional profiles report covering all census dimension pdf reports from the 2022 PHC, including results disaggregated by gender, region, and residence available to download. Interactive data portal to ready custom-made tables and charts and microdata available.	Yes, NBS produced regional profile reports covering census dimensions disaggregated by gender, region, & residence available online. Interactive data portal functional and microdata available online.	No	https://www.nbs.go.tz/statistics/topic/census-2022 . https://microdata.nbs.go.tz/index.php/catalog/45 .	Built higher-level interactive features on the dashboard/portal to produce user-defined or customized output

DLI 2.6: Gained experience with big data and new technologies.	DLR 2.6(a). Completed geospatial database with information from Census 2022 and made available for users where justified.	A geospatial database with information from Census 2022 is in place and available to users on request.	The geospatial database with multiple layers was verified physically at NBS in Dodoma. https://www.nbs.go.tz/statistics/topic/gis	Verify and review the online availability of the geospatial database and confirmation of the availability of shapefiles for all Enumeration Areas (EAs), with multiple layers of boundaries, infrastructure, and buildings.	A (i)	ECA checks the online availability of the geospatial database and confirmation of availability of shapefiles for all Enumeration Areas (EAs).	Yes, NBS has a geospatial database with substantial geospatial shapefile facility data with EAs but PHC 2022 data need to be optimized and available to users.	No	The geospatial database with multiple layers was verified onsite. https://www.nbs.go.tz/statistics/topic/gis	Ensure the geospatial database is available to public users.
	DLR 2.6 (d). Remote sensing facilities upgraded including satellite imagery licenses/ software/ spatial data portal.	The license has been upgraded, and the portal is online.	UNECA\GIS-LICENSE UPGRADE REPORT.pdf https://gistz.nbs.go.tz/portal/home/	Verify and review of remote sensing facilities and verification of report produced showing upgrades.	D (i)	ECA checks remote sensing facilities upgraded and a verifying report is available.	Yes, the remote sensing facilities are upgraded with inbuilt basemap imageries in ArcGIS Pro. with few external images and a verifying report is available.	No	UNECA\GIS-LICENSE UPGRADE REPORT.pdf https://gistz.nbs.go.tz/portal/home/	Enhance capacity building on remote sensing.