Evaluation Summary

1. Outline of the Project
Country: United Republic of Tanzania

Project Title: Strengthening of the National Bureau of Statistics in Data Providing Service

Issue/Sector: Governance (statistics)
Cooperation Scheme: Technical Cooperation Project

Division in Charge: Social System & Peace Building Team, Group I, Social Development Department
Total Cost (at the time of evaluation): approx. 210 million yen

Period of Cooperation
(R/D): 23 December 2003
3 years (5 February 2004 - 4 February 2007)
Partner Country's Implementing Organization(s): National Bureau of Statistics

1-1 Background to the Project

The National Bureau of Statistics (NBS) of the United Republic of Tanzania compiles, manages and provides various kinds of statistics, including the Population and Housing Census (hereinafter referred to as "Population Census"). NBS is also responsible for ensuring that poverty monitoring is implemented effectively according to the Poverty Monitoring Master Plan, which has been formulated as part of the Poverty Reduction Strategy Paper (PRSP). However, NBS was inadequate in its capacity to compile, manage, and provide statistical data. The results of statistical surveys conducted by the relevant sections and departments of NBS, and the statistical units of other government offices were stored at different places, including foreign research agencies. The Tanzanian government requested to implement this Project, which was designed to compile statistical data distributed among NBS, other government offices, and other countries, store them in an integrated statistical database, and develop the capacity of NBS to manage and provide statistical data. In particular, the Tanzanian government wanted the Project to realize the following objectives:

• Establishment and management of an integrated statistical database
• Refurbishment of the Statistical Library
• Training in utilizing the database

On February 5, 2004, JICA launched the Project with the assignment of a long-term expert in the field of database system establishment and a short-term expert in the field of the Statistical Library and editing. The assignment of another expert in statistical data management in March 2004 put the Project into full operation.

1-2 Project Overview

(1) Overall Goal

To ensure that statistical information is fully utilized for policy formulation and implementation with regard to poverty reduction in Tanzania

(2) Project Purpose

For NBS to be able to provide policymakers, administrators, academics, NGOs, development partners and the public with more reliable statistical data in a timely manner

(3) Outputs

1. The Integrated Statistical Database will be established at NBS and operated appropriately.
2. Statistical Library acquires the capacity to compile and disseminate the statistical data such as statistical directories and other publications through its own web site and library.
3. Users of statistical information (officers at NBS Regional Offices, line ministries, etc.) will be able to access to the database.

(4) Inputs (until the time of evaluation)

Japanese side:
Long-term Experts: 2 experts Equipment: approx. 2.19 million yen
Short-term Experts: 18 experts Local cost: approx. 17 million yen
Trainees received: 6 persons

Tanzanian side:
Counterparts: 10 persons Equipment purchased
Land and facilities Local cost:
Others

2. Evaluation Team

Team Members

Team Leader: Satoru WATANABE Director, Administration Team, Social Development Department, JICA
Evaluation on Statistics: Ayumi AKASAKA Director for Information Processing, Statistical Survey Department, Statistics Bureau, Ministry of Internal Affairs and Communications
Planning Evaluation: Yuichi MASUNO Thematic Support Unit, Social System & Peace Building Team, Group I, Social Development Department, JICA
Evaluation Analysis: Atsushi TOKURA Senior Consultant, IC Net, Ltd.

Period of Evaluation: 26 August - 10 September 2006

3. Results of Evaluation

3-1 Achievement Level

Output 1: The Integrated Statistical Database (ISD) will be established at NBS and operated appropriately.

The Objectively Verifiable Indicators for Output 1 in the PDM-- Number of censuses and surveys that are stored in the ISD and the establishment of data flow system between IT and Marketing Department and other departments --were replaced for this terminal evaluation because they were considered inappropriate for measuring the performance of Output 1.

Objectively Verifiable Indicators for Output 1
Performance

(1) The results of statistical surveys are stored in the ISD.

• The results of population censuses and other statistical surveys that were conducted in the past are increasingly stored in the ISD.
• Past statistical reports are scanned and proofread before being stored in the ISD. Temporary staff for this scanning and proofreading are hired with funds coming from JICA.
• Data storage is conducted by the System Establishment and System Management Section of the IT Department. This section faces such problems as unstandardized file formats for raw data and poorly organized property information. Japanese experts provide support in this area as needed.

(2) Data passing between the IT Department (Department of Information Technology and Marketing), and the sections and departments in charge of statistical surveys has been established and is operational.

• Data flow within NBS is being established.
• Data passing to and from other government offices needs improvement.
• An effective system is in place for passing data between the IT Department, and the sections and departments in charge of statistical surveys.

The outstanding issues in relation to Output 1 are shown below:

(i) The file format for raw data from statistical surveys is not standardized.
(ii) Property information is not well organized.
(iii) NBS is not ready for major system changes.
(iv) The officers in charge have only a limited capacity.
(v) Data passing is ineffective.
(vi) A data charging system has yet to be established.

Despite all these issues, Output 1 will likely be achieved to a certain extent by the completion of the Project. First, the database has been installed. Second, NBS is capable of storing data in the database on its own, although it needs external advice. Third, a data passing system is being established.

Output 2: Statistical Library acquires the capacity to compile and disseminate the statistical data such as statistical directories and other publications through its own web site and library.

For this terminal evaluation, new Objectively Verifiable Indicators have been set for Output 2 as well. New Indicator (1) is based on the fact that 3,700 people are expected to visit the Library by June 2006. It was estimated that more than 5,500 people would visit the Library by the time of project completion, in eight months time. New Indicator (2) rests on the fact that 690 books were sold by June 2006. It was estimated that more than 1,000 books would be sold in total by the time of project completion. Performance on New Indicator (3) has been evaluated based on the findings of user interviews since it is a qualitative indicator.

Objectively Verifiable Indicators for Output 2
Performance

(1) No less than 5,500 people are to visit the Statistical Library by the project completion.
A total of 5,107 people visited the Statistical Library by August 2006.

(2) No less than 1,000 books are to be sold at the Statistical Library by the project completion.
A total of 1,226 books were sold by August 2006.

(3) NBS set up its website and update it regularly.
The content of the website was improved, although there was room for further improvement.

The Project has achieved almost 93% of the target for Indicator (1), an indication that the target will be met by the end of the project period. It has already accomplished the target for Indicator (2). As for Indictor (3), this Evaluation Team asked development partners, government offices, and research institutions to evaluate the website of NBS, and received positive responses from them. Some experts, however, noted that there was room for further improvement. A major task ahead is to promote the use of the library search system to cope with the increasing number of books in the library.

In sum, the Evaluation Team concludes that Output 2 is being achieved, although continued effort should be made to improve the website of NBS.

Output 3: Users of statistical information will acquire the ability to use the statistical database appropriately.

For this terminal evaluation, new Objectively Verifiable Indicators have been set for Output 3 as well. Indicator (1) is grounded in the fact that the basic course was held nine times, accordingly the applied course should be held at least for the same number of times. Indicator (2) rests on the idea that all the 135 people who have completed the basic course should move on to the applied course. Performance on Indicator (3), which is qualitative in nature, was evaluated based on the results of the achievement tests for participants in the applied course.

Verifiable Indicators for Output 3
Performance

(1) The applied training course on "population and development" and "socioeconomic development" will be provided nine or more times in total.

The applied course had taken place twice by August 2006. It will take place 12 more times by the completion of the Project.

(2) No less than 135 people are to attend the applied course.

A total of 135 people attended the basic course, which has a quota of 20 participants at a time.

(3) The participants will acquire knowledge and skills necessary for analyzing data using the database.

The results of achievement tests for participants in the applied course showed that their scores improved remarkably after they had completed the course.

It is too early to judge whether the target for Indicator (1) will be met by the project completion, because the applied course started as recently as August 2006. This is also true of Indicators (2) and (3). The results of achievement tests for the first batch of participants in the applied course show that they increased their scores by an average of 35.4 points out of 100 after they completed the course. This indicates that a similar course, if held in the future, will definitely improve the skills and understanding of the participants.

Overall, it is too early to measure the performance on Output 3 at the moment.

Project Purpose: For NBS to be able to provide policymakers, administrators, academics, NGOs, development partners and the public with more reliable statistical data in a timely manner

Evaluating the performance on the Project Purpose requires considering what should be done in order to improve the reliability of statistical data and the timeliness of their provision in the first place. This reliability will be enhanced by improving the design of statistical surveys, the means of collecting data, analytical techniques, and data management in an integrated manner. While accessibility to statistical data is improved by refurbishing the Library and setting up a website, the timeliness of data provision will not be improved unless the entire workflow of statistical surveys is reviewed. The project stakeholders did not have a common view as to what should be achieved in terms of reliability and timeliness.

As for the Objectively Verifiable Indicators for the Project Purpose, the PDM included the number of users of the Statistical Library, the number of users who asked NBS for data, the number of statistical publications, and the number of hits for the NBS website. However, they are indicators for the outputs rather than the Project Purpose.

As for the indicator of the satisfaction level of data users, the Evaluation Team interviewed users at government offices, research institutions, and development partners. The findings of

the interview showed that the quality of NBS data had been improved. Some interviewees, however, noted that further improvement was needed, citing unchecked errors in the monthly trends of the consumer price index, for example.

The Project has made some contributions toward improving the reliability of statistical data and the timeliness of their provision. For example, the ISD provided a single point of access to raw data from statistical surveys as well as statistical tabular data. This represented an important opportunity for training in using and analyzing statistical surveys to improve the skills of officials and officers at NBS. Japanese experts offered technical advice as necessary, teaching NBS, for example, how to correct data in connection with age heaping* that occurred in the Population Census. Such technical advice has contributed to the improved reliability of data at NBS. Prompt disclosure of data on the NBS website has helped with the enhancement of the timeliness of data provision.

* In population pyramids and other age-specific statistics, heaps are often seen over the ages ending in 0 and 5, such as 50 and 55. This phenomenon occurs because responders in a survey tend to round their age up or down to the nearest number that ends in 0 or 5, according to the website of the Ministry of Internal Affairs and Communications of Japan.

Although some improvements have been made in terms of reliability and timeliness, it is difficult to measure them partly because the Project Purpose is not defined clearly enough (with regard to the indicators for the reliability of data and the timeliness of data provision).

3-2 Summary of Evaluation Results

(1) Relevance: High

The Master Plan for the Poverty Monitoring System, which was formulated in 2006, calls for timely provision of high-quality data as one of the objectives of the system. This objective is consistent with the Project Purpose. Since the Population Census and other statistical surveys are often financed by the basket fund for poverty monitoring, many of the other development partners support individual surveys. The problem is in the lack of integrated management of data gained from these different surveys. The Project is considered relevant in that it has focused on the management and dissemination of these collected data, instead of on the individual surveys. In its assistance strategy for Tanzania, JICA has identified implementation capacity building for poverty reduction as one of the major focuses. This strategic focus embraces technical cooperation for NBS. Moreover, Japan excels in the development of national statistics, as well as in the level of expertise and human resources concerned. In light of all these factors, the Evaluation Team considers the Project relevant.

(2) Effectiveness: Not high

Achieving all the three outputs of the Project may not lead to the attainment of the Project Purpose because of a few inconsistencies between them. In other words, the establishment of a database, the refurbishment of the Statistical Library and the provision of training on how to use the database do not necessarily mean that reliable data will be provided in a timely manner, unless the quality of statistical surveys is improved. Successful performance on the

Outputs have somewhat improved the reliability of data and the timeliness of data provision. It is difficult, however, to measure the performance on the Project Purpose partly because the project stakeholders had different levels of expectations for reliability and timeliness. The Evaluation Team concludes that the effectiveness of the Project is not as high as was expected.

(3) Efficiency: Leaving something to be desired.

The difficulty in securing Japanese experts affected the timing of applied training on the database. During the assignment of some Japanese experts, some counterparts were preoccupied with other duties, inhibiting collaboration between them. The equipment was provided as scheduled. As for the buildings and facilities for the Project, the Statistical Library was refurbished and the offices for Japanese experts were provided according to plan. On the other hand, the refurbishment work for the second floor of the NBS building has not been completed. As a result, the planned local area network (LAN) has not been installed yet. The Evaluation Team concludes that there is some room for improvement in relation to the efficiency of the Project.

(4) Impact: Positive

Every year, the Tanzanian government measures the country's performance according to the indicators that have been identified in the Poverty Monitoring Master Plan. The government, as well as development donors, will likely become more aware of statistical data on Tanzania. The ISD, a major output of the Project, allows them to use statistical tabular data and raw data from statistical surveys for analysis. If the Tanzanian government publishes the ISD and establishes a system for providing statistical data, then it will facilitate the use of statistical data in the Poverty and Human Development Report, a major report on the poverty monitoring activities in Tanzania. It also encourages data-based discussion at the Poverty Monitoring Working Group. In that sense, the Project is moving toward the attainment of the Overall Goal.

During the project period, Japanese experts provided various kinds of technical advice. It is worth noting here that they devised and presented an innovative technique for data correction to cope with age heaping, which occurred in the Population Census 2002. This statistical technique provides an effective tool for other African countries as well because age heaping is a common problem in Africa.

While it is difficult to measure the performance of the Project Purpose because of the unclearly defined indicators, the Project, which is designed to build the capacity of NBS to provide statistical data, has not had any negative effects. It did have positive effects on the technical aspect of NBS. Although enhanced statistical literacy of data users is an Important Assumption in the PDM, the Project has had a positive impact toward the attainment of the Overall Goal.

(5) Sustainability: Requiring action to be taken at some levels

At the policy level. With the Poverty Monitoring Master Plan in place, the quality and importance of statistical data will likely be maintained.

At the organizational level. The government and development partners will likely continue to provide assistance for strengthening the statistical system, as NBS is expected to play a larger role toward the implementation of the Poverty Monitoring Master Plan. With the retirement of the current director-general of NBS in October this year, the sustainability of the Project will depend partly on whether the current support will be sustained under the leadership of the new director-general. The sustainability of the applied training course on how to use the database should be ensured by transferring the administrative functions that has been performed by the project coordinator from Japan to the Tanzanian side for the post-project structure and by training or securing new trainers in addition to the two current trainers.

At the financial level. NBS plans to charge its data providing service. After the pricing system is in place, the financial sustainability of the Project will be enhanced. On the other hand, it remains to be seen whether NBS will bear the operating costs that have been covered by JICA. It is necessary to develop a plan on how NBS will support the financial sustainability of the Project by the end of the project period.

At the technical level. The counterparts in the IT sector have acquired enough skills to administer the database and the network.

As shown above, various measures should be taken by the end of the project period to ensure the sustainability of the Project.

3-3 Contributing Factors

(1) Concerning the project plan

The Master Plan for the Poverty Monitoring System characterizes the Project as one of the objectives of the system. This has not only enhanced the relevancy of the Project but also helped win support from government officials and other donors. The Project is also relevant in that it has focused on data management and provision, a field to which other development partners have paid little attention.

(2) Concerning the implementation process

On his way to Japan for training, the director-general of NBS visited Statistics Indonesia in the Republic of Indonesia and inspected the statistical development projects there. The director-general said that observing the status in Indonesia, which positions itself between Tanzania and Japan in terms of statistical development, allowed him to see the interim goal for NBS. He added that Tanzania has a long way to go before it reaches the level of the Japanese statistical system.

3-4 Inhibiting Factors

(1) Concerning the project plan

It was found that a review of the PDM during the project period was inadequate. They included a weak link between the Project Purpose and the Outputs, Indicators that did not directly represent timeliness or reliability, and a lack of some Important Assumptions.

(2) Concerning the implementation process

The fact that the ISD is little known in Tanzania poses an obstacle to winning support from other government offices concerned. Not being known the value of the database may lead to the situation that data will not be provided in a timely manner.

3-5 Conclusions

The Project has produced the following outputs and outcomes.

• The ISD has been established. This database stores electronic files that contain statistical tabular data, raw data from statistical surveys and statistical reports. Officials and officers at NBS have now access to not only statistical tabular data or compiled results from statistical surveys but also raw data from them via LAN. The website of NBS provides people outside NBS with access to statistical tabular data of censuses and surveys and summaries of statistical reports.

• The Statistical Library has been refurbished. It now allows users to read and buy publications from NBS and have access to other references. They have access to statistical data in the ISD from terminals in the Library.

• Training courses on statistical data analysis are now available for users of statistical data.

The Project is highly relevant because the ISD contributes to improving the quality of poverty monitoring. Further action should be taken before and after the project completion to produce more outputs and ensure the sustainability of the Project.

3-6 Recommendations (specific solutions, suggestions and advice for the Project)

<Measures to be taken by the project completion>

• To attain the Overall Goal, it is necessary that statistical data, whose quality has been improved by the Project, be used in the Poverty and Human Development Report, a major report on the poverty monitoring activities in Tanzania. It is also necessary for such data to facilitate data-based discussion at the Poverty Monitoring Working Group. The technical advice the Japanese experts provided to NBS is also relevant to government officials, researchers, NGOs, and development partners. Therefore, the outputs and lessons learned from the Project should be reported to the working group on the Poverty Monitoring Working Group.

• For financial sustainability, NBS and the Japanese experts should study, in a timely manner, how NBS should bear the operating costs that have been covered by JICA.

• For organizational sustainability, NBS and the Japanese experts should start developing a plan on how the applied training course on the database should be maintained and even developed after the Project is completed.

• The fact that the ISD is little known in Tanzania poses an obstacle to winning support from other government offices concerned. Not being known the value of the database may lead to the situation that data will not be provided in a timely manner. NBS and the Japanese experts should start promoting the ISD. The Poverty Policy Week in October will provide an important opportunity for that purpose.

<Recommendations to NBS>

The Evaluation Team recommends that NBS address the following issues in order to further improve the performance of the Project:

• Toward the attainment of the Overall Goal, it is necessary to introduce a system whereby the impact of a policy is measured based on statistical data. NBS should make efforts to enhance the statistical literacy of not only the developers of statistics but also the users of statistics, notably government officials.

• It is unlikely that the outputs of the Project alone will improve the reliability of statistical data. NBS should raise the in-house awareness of the need for quality improvement. It should also introduce a system whereby the quality of data is checked.

• NBS should preferably provide statistical training for its IT engineers to address the first and second outstanding issues for Output 1: (i) there is no standardized file format for raw data from statistical surveys; and (ii) property information is not well organized.

• NBS should consider making preparations for possible system changes to address the third outstanding issue for Output 1: (iii) NBS is not ready for major system changes. Such system changes include a change of the operation system in connection with the replacement of hardware, the introduction of input data checking functions for property information and the incorporation of public administration data.

• NBS should also strengthen data management to address the fifth and sixth outstanding issues for Output 1: (v) data passing is ineffective; and (vi) a data charging system has yet to be established. Specifically, NBS should develop a mechanism for data passing between NBS and other government offices and establish a data provision and charging system.

• In relation to Output 2, it is necessary to make preparations for a possible increase in the number of books in the Library. This is necessary for reducing the workload of the librarians. NBS should therefore make more effective use of the book retrieval system at the Library.

<Recommendations for future cooperation>

The Evaluation Team recommends that JICA continue to extend assistance to Tanzania in order to further ensure the project outputs and make the project outcomes sustainable.

It is important to create an enabling environment for statistics-based policymaking in Tanzania. To that end, JICA should continue its assistance at least until the ISD, a major output of the Project, attracts many users and get off the ground. Such assistance should focus on developing the infrastructure for managing statistical data at NBS with the ISD at the center and on improving data reliability.

The tasks ahead include (i) coping appropriately with the replacement of the director-general of NBS; (ii) studying to what extent the ISD should incorporate public administration data at other central government offices and local governments; and (iii) recruiting experts systematically based on turnkey contracts.

3-7 Lessons Learned (especially those that provide information that is useful for identifying/formulating, implementing, and administering similar projects)

• The PDM for the Project needed a closer link between the Project Purpose and the Outputs, more specifically-defined Objectively Verifiable Indicators, and more thought-out Important Assumptions. In general, the PDM should be meticulously formulated and fully shared with the counterparts. It is necessary to have an opportunity to review and amend the PDM during the project period.

JICA had difficulty in making arrangements for assigning appropriate JICA experts in a timely manner because of two major factors. First, it was difficult to recruit statistical experts in Japan. Second, the counterpart organizations in Tanzania were understaffed, resulting in a heavy workload of the counterparts. For the first factor, JICA should recruit statistical experts from the private sector. This may allow JICA to make more efficient coordination with other JICA projects in distributing experts. For the second factor, JICA should keep abreast of the operational plans of the counterparts so that it can assign experts in a more timely manner.