

# **Towards SDI Decision Support for Agricultural Planning in Tanzania**

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## **SUMMARY**

Spatial Data Infrastructures (SDIs) are important subject in the current global development agendas for management and sharing of spatial data at national, regional and global level or within sectors and organisations. Agriculture is among important areas for SDIs application to improve performance and food security. SDIs concept was considered important in organisation of existing fragmented spatial data. The SDIs initiative was internalised in the Ministry of Agriculture, starting with an awareness seminar of officials and policy makers on February 20, 2004. The meeting acknowledged the need to establish agricultural SDI to be able to collate and organise huge volumes of spatial data scattered all over the country to be readily accessible to support decision-making. The meeting recommendation was to undertake spatial data inventory as a foundation for establishment of SDI.

The objective of the inventory was to track agricultural based spatial data to support establishment of SDI to improve agriculture production and food security in the country. The specific objectives were to: (i) raise awareness of policy makers and generators of spatial data on SDI (ii) track available spatial data so as to avoid duplication (iii) identify institutions for SDI collaborations and (iv) assess resources capacity implementing SDI initiatives.

Methodology used was through questionnaires that were sent to institutions to capture information on spatial data. Limited visits were made to facilitate information capture and sensitisation of stakeholders for collaborations and data contribution to SDI. A total of 100 questionnaires were distributed to government ministries, departments, research institutions, universities and district councils.

Preliminary results indicate that many institutions have limited use of spatial data mostly with old technology. Most data are in analogue and few in digital format with no link to current agricultural challenges. There are great variation of software and datasets in GIS-based databases that are mostly standalone systems. In most cases there is no established mechanism for regular data updates and minimal use of remotely sensed data. Human resource capacity is weak, having few specialists trained in handling geographic information and the worst situation is in remote sensing. Data policies are not elaborate, restrictive data sharing mainly tied with a notion of costs recovery. Most spatial data and GIS workstations were established with donor-funded projects.

The study reveals inconsistent, uncoordinated and duplicated efforts on spatial data generation and management across the country. Not a single project was found with a focus on the current agricultural main agenda of food self-sufficiency and food security. We are highly optimistic that spatial data and SDIs initiatives have potential application to improve

the performance of agriculture sector a key for improving livelihood of Tanzanians. All starts with a comprehensive SDIs program to be prepared as a result of the inventory. The agricultural SDI complements current efforts to establish National Spatial Data Infrastructure (NSDI).

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