

GIS

INSTITUTIONALIZATION AT WARDS



Concept and process

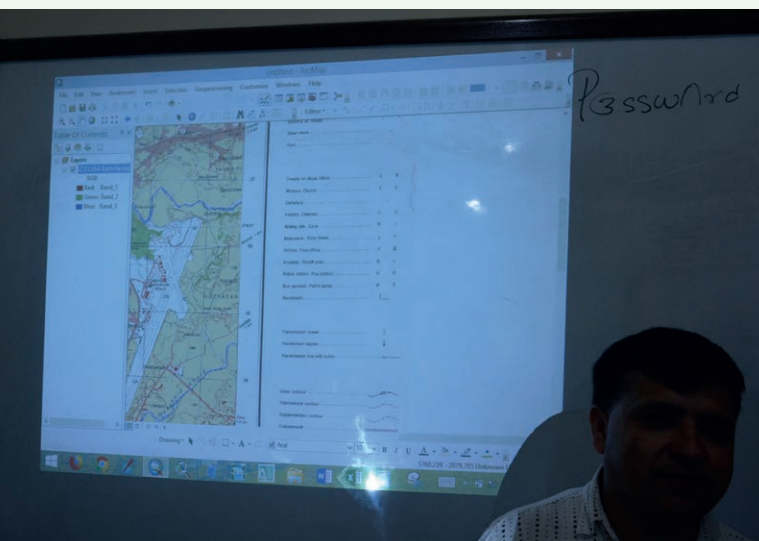
GIS is a tool for modeling natural, economic, social processes and situations, tracking their relationships, interactions, predicting development in space and time, obtaining new qualitative and quantitative information, and, most importantly - a means of providing (support) decision-making of a managerial nature and presenting conclusions.*

Only a few wards of Kathmandu and Lalitpur have a GIS facility. ISET-Nepal, through the Safer City Project, supported six Wards of Kathmandu Metropolitan City (number 10,12 and 31) and Lalitpur Metropolitan City (number 2, 9, and 11) with a GIS system. The system will enable the wards to use the GIS to store and display maps to make better decisions and solve

problems. The project also built their capacities to use the GIS system. ISET-Nepal carried out the following process for the GIS institutionalization in the project implemented Wards.

Orientation: ISET-Nepal organized a one-day orientation to the elected representatives and officials of all six project wards to build their awareness of GIS's uses and advantages.

Advanced GIS training: ISET-Nepal organized a 5-day advance GIS (Arc and Q) training for the Ward officials and the community people. Participants' selection criteria included minimum educational qualification of 10+2 pass and the necessary skills to operate a computer.



Example of GIS map shown during GIS training.



Participants of GIS training

*DV, Andreev, 2020

GIS working station: ISET-Nepal provided the supporting systems like computer table, chairs, PC, GPS, USB, printer, wardrobe to enable efficiency while using the GIS platform.

GIS-based resource maps: The project prepared a Geodatabase and resource map of each ward and handed over to the respective wards to display on the Ward premises. The maps included geodatabase of schools, hospitals, market places, police stations, temples, and open spaces in each ward.

Refresher GIS training: The wards requested ISET-Nepal to provide refresher training to help them solve problems encountered while using the GIS. The organization provided refresher training to the ward staff.

Disaster Management Information System (DIMS): The project supported the Ministry of Home Affairs



Prof. Ashhutosh Shukla providing orientation to the elected representatives about the importance of GIS.

to implement a Disaster Management Information System (DIMS).

Digital display board: Display boards installed at wards for displaying DRR related information.

Achievement/output

After the orientation and training, each of the selected wards of KMC and LMCA formed a human resources team trained on GIS application. They have hardware materials necessary for the operation of the GIS system. The GIS application at wards has helped them record disaster-related data systematically to extract data when required immediately. This efficiency in retrieving disaster-related data has helped elected representatives to make a quick decision. The team member maintains regular operation and updating of GIS information.

The supporting material has helped the staff work independently, and materials such as the computer, printer, desk, table, cabinet, and other accessories used for DRR purposes. It has helped the Ward offices to become efficient and effective. They are now managing a historical database and are planning future disaster management along with proper decision-making mechanisms. Resource mapping of each ward has helped to get relevant information about the ward's capacities and vulnerabilities.

Learning

SCHEDULING EVENTS Elected representatives are busy most of the time with their regular services. Hence interaction programs have to be tailored to suit their busy schedule.

ARC GIS During implementation, it was learned that the Arc GIS would be expensive for the wards to renew the license annually because of the unavailability of a separate budget for the purpose. Thus, open access Q-GIS was selected and installed.

THE PRIORITY OF GIS GIS orientation and training, installation and use, and management of GIS received less focus in the Wards. It is because they are not used to working in a new GIS environment. A regular iteration and engagement with the ward officials on the importance of GIS disaster management and decision-making are required. An orientation on GIS helped them understand the importance of establishing a GIS system in the ward offices.