

Consultative Meeting on Metadata Clearinghouse and National Geoinformation Infrastructure Networking: A Report

Raja Ram Chhatkuli

Project Chief, NGIIP Survey Department

Mahendra Prasad Sigdel

Chief Survey Officer, Survey Department

Dev Raj Paudyal

Survey Officer, Survey Department

Introduction

The long term policy of the land reform and management sector in tenth plan (2002-2007) is to bring about social justice and good governance and contribute in achieving the national goals of poverty alleviation through the development of an effective, reliable and qualitative land utilization and management system in Nepal. One of the key sectoral strategies related on it is the development of an infrastructure for sharing geoinformation in order to make easy access to geographical information. The National Geographic Information Infrastructure (NGII) Programme of Government of Nepal has launched and developed a portal for GI networking for both data producers and data users. A wider networking and interaction between data producers and data users was realized and a Consultative Meeting on Metadata Clearinghouse and National Geoinformation Infrastructure Networking was organized by Survey Department (SD), Ministry of Land Reform and Management (MOLRM) in Kathmandu, Nepal on March 31, 2006. A total of 74 participants, top Govt. officials of Government of Nepal were invited from 13 Ministries and 28 Governmental Departments.

Objective of the Programme

The main objective of the meeting was to develop a strategy for populating their metadata in the NGIIP metadata clearinghouse and building up a networking arrangement between data producers and data users for furthering NGII in Nepal. To fulfill this main objective the following three sub objectives were outlined for the meeting:

- To present the philosophy and status of the NGII and the structure and importance of the metadata clearinghouse developed at the Survey Department.

- To develop a strategy for populating the metadata clearinghouse with available information.
- To build consensus on how to build up a networking at institutional and technical level for the optimal use of geoinformation resources in Nepal.

Session of the programme

There were two sessions: inauguration session and discussion session. The event was inaugurated by lighting an auspicious lamp. The then officiating Secretary of MOLRM chaired the first session.

Toya Nath Baral, Director General of Survey Department welcomed to the participants and distinguished guest. He expressed that National Geographic Information Infrastructure (NGII) under Survey Department has developed a core foundation for last four years to reduce the duplication efforts, optimal utilization of available information and to strengthen the geoinformation network throughout the country. He hoped that this meeting would help in developing a strategy to strengthen NGI network and to populate the metadata in the NGI clearinghouse.

Two working papers were presented during the occasion. The objective of the presentation was to provide a status report of NGII in Nepal and provide the agenda for the discussion. R.R. Chhatkuli presented the first paper entitled "Status of Building a National Geoinformation Infrastructure in Nepal with particular focus on the activities carried out by Survey Department". He started his presentation with a query from a GI user quoting an email from one of the professors (user) of Lund University/ Cardiff University. This conveys the message to the participants

that NGIIP is practically becoming the focal point for geoinformation/ data users on Nepal. He explained about the institutional (organizational aspect, capacity building, pricing and commercialization), legal (data ownership/ custodianship, copyrights/IPR, confidentiality/privacy, liability) and technological (data quality, interoperability, data custodianship/ownership, data pricing policy, data sharing) issues about NGII. He concluded that to work on the partnership (network) is the answer to make operational NGII. Durgendra Man Kayastha presented the second paper entitled “Metadata Clearinghouse developed at the Survey Department: How it helps in addressing geoinformation needs for decision makers.” He demonstrated the interface of NGII clearinghouse as well as metadata developed by NGIIP and showed various metadata search options (through theme, place, geographical location, organization’s name etc.) to the participants. He concluded his presentation providing the ground for discussion agenda to the participants.

The then Minister addressed that in spite of being in a very low profile comparing to the other ministries, he found MOLRM an important ministry which can play a pivotal role for national building and peace keeping by providing useful information to the government on national issues. He added that in this ICT age; the government should rationalize its service delivery system incorporating technological development and people’s need. People are expecting the prompt service delivery though the application of IT and related technology. He explained the importance of national level networking for sharing not only to geoinformation but other types of information as well. The provision of national level networking and accessibility of reliable information will help policy makers to formulate different policies to achieve the national objectives of the country. He thanked all the participants and hoped that this meeting will come out with very positive outcomes.

Yub Raj Bhusal, the then officiating Secretary. MOLRM closed the first session. In his closing remarks, he expressed that this is IT age and according to the demand of the age, MOLRM has initiated to use IT for effective service delivery. He added that, there is a need to revise IT policy to handle geoinformation. He opined that NGIIP of Survey Department could play the focal role, especially in the case of framework data, in Nepal including the 13 ministries and 27 departments represented in this meeting. He suggested that there should be more free-downloading facility of certain products provided by Survey Department through clearinghouse, as per user’s need, He quoted

‘several minds are better than few minds’ hoping that this gathering would work as a bridge between data producers and data users. At last, he thanked to all the participants for their active participation and closed the first session.

The Special Guest for the second session was the then Honorable Member of the National Planning Commission (NPC) Dr. Ram Prasad Chaudhary. Director General of Survey Department Toya Nath Baral chaired the session. R.R. Chhatkuli facilitated the discussion programme. He raised seven questions to for the participants to concentrate upon, mentioning however that the discussions may not be limited on these issues only. Each of the participants expressed their individual views and actively participated on the discussion programme. The seven guideline questions were as followings.

1. Whether the GI networking is necessary or not? If yes how?
2. How to build up a networking arrangement between data users and producers?
3. What will be the role of Survey Department for development of NGII?
4. What will be the organizational structure of NGII? What will be the organizational mandate?
5. What strategy should be developed to make operational NGII ?
6. What strategy should be adopted to populate the metadata on the clearinghouse?
7. How to make the metadata clearinghouse operational?

Dr. Chaudhary expressed that his views would not be different than the views expressed by this forum regarding the GI networking. He added that National Planning Commission needs reliable and updated information to formulate policy hence NGII is the GI portal to get valuable information for policy makers. The analysis of data is equally important for decision makers. We have to make the use of collected data and make them easily accessible and affordable to the users. There is a need to setup Monitoring and Information Centre at each of the Ministry. For solving various research issues in GI domain, he recommended to make collaborative joint research activities with academia especially with foreign universities. He assured to the participants that NPC is ready to execute the findings recommended by this forum. Finally, Toya Nath Baral from the chair summarized the findings and answered most of the unclear questions raised by the participants. He thanked

to all the participants for their valuable contribution and closed the discussion programme.

Findings from the Discussions

Each of the participants was actively involved in the discussion programme. The following are the main findings from the discussion.

1. It was realized that GI networking is necessary for data producers and data users. For startup the process, at least physical networking and available data sharing mechanism should be developed. There should be at least a focal point at every organization to initiate for GI networking. A coordinating committee should be formulated for GI networking. The sharing of resources is equally important for GI networking.
2. The level of understanding of NGII concept was found different from each participant. Hence, there is a need of classification of data producers and data users. The GI networking should be developed according to the classification.
3. Survey Department should play a leading role with open mind. In the case of spatial datasets, the custodianship of framework data should be with Survey Department. The custodianship of other thematic data should be with other related organizations. In the case of attribute data, Central Bureau of Statistics should have the custodianship of census data and other organizations should have the custodianship of their related datasets.
4. It was realized that some mechanism for pacing NGII under National Planning Commission (NPC) umbrella for inter agency coordination should be realized. The GIS Steering Committee should be reactivated and made operational. The proposed three tier organizational structure comprising of policy level, management level and the operational level with cross- sectoral representation need to be executed. The National Mapping Committee and Census Council should be made activate for data standardization.
5. It was realized that more interaction and discussion among the stakeholders is necessary to make operational NGII. All producers and users of geoinformation need to work together.
6. For populating metadata on the clearinghouse, the Excel based metadata editor developed by NGIIP is good. Still there is a need to provide training to the operational level staffs to prepare their metadata. The concept of a decentralized database system and a centralized metadata clearinghouse was realized as a rational strategy in the present scenario.

7. It was realized that to make operational NGII, interagency networking is a must. The data should be accessible, affordable and interoperable.

Besides the main findings, the following are the other issues and results from the discussion programme.

1. There is a need to define framework data again. For urban mapping cadastral maps and high resolution imagery should be taken as a foundation data layer in GIS. Hence, they should also be taken into account for framework data.
2. We can use the resources of organizations that are working at the local level for networking and data collection. The local authority can play a leading for GI development at local level. Equally, the concept of local SDI should come for effective NGII networking.
3. The pricing of SD products is very high. Since the SD framework data are foundation for practically all GIS applications in Nepal, it is very much necessary that the prices of SD products need to be reviewed.
4. Survey Department should acknowledge the work done by other agency. But the quality of data should be verified and standardized.
5. There is a need for adopting a National Geoinformation Policy for inter-agency networking. Also there is a need to define a comprehensive legislative framework to cope with latest issues like copyright, intellectual property rights (IPR), rights of information, digital signature, liability for miss-information etc.
6. About the data format and contents we need to support all the user's needs. If users are asking for the products in settlement-wise, ward-wise or district-wise, we have to provide them.

Conclusions

The meeting has given an opportunity to understand the views of top executives of ministries and departments who are representatives from main stakeholder agencies of NGIIP. The participants showed great interest on NGII, actively participated in the discussion programme and provided valuable guidelines and suggestions for building up a networking arrangement between data users and data producers. The notion that Survey Department should play a leading role for the development of NGII in Nepal was reconfirmed from this meeting. It was realized from the meeting that interagency networking and more interaction between stakeholders is necessary to make operational NGII. The meeting Programme concluded successfully and was able to achieve its defined objectives.