Status of Educational Management Information System in Iraq and Suggestions for Improvement

REPORT
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BACKGROUND

Like other countries, Iraq has a tradition of collecting data on different aspects of education and has developed a set of about seven formats which are in use. Through these formats, information is collected from early-childhood (Kindergarten) education to higher education. During the recent war, most of the records have been destroyed and the country remains practically with rudimentary data whose quality is often questioned. In the absence of reliable and timely data, UNICEF conducted a nation-wide survey on school statistics in 2003-04 to collect first hand information major finding of which were published in 2005. Information about number of schools, enrolment, repetition rate etc. was collected through the survey. Since this was only one time activity, it will not be repeated and hence there is a strong need to collect, analyze and assimilate educational statistics as well as to strengthen the EMIS in Iraq.

During the presentations in the Workshop on EMIS and Education Statistics jointly organized by the UNESCO and UNICEF, the participating officers highlighted a number of limitations in the present information system with reference to school education in Iraq some of which are briefly presented below:

- Lack of understanding of the basic concepts, standards, terms and definitions of different educational indicators;
- Lack of capacity building exercises at different levels;

- The respondent, Principal/Head Master do not understand the importance of collection of information on school education and do not correctly know filling up of the statistical formats;
- Non-availability of tools for data storage, preservation and retrieval;
- Difficulty in linkages and coordination and communication: Lack of communication between lower and higher levels of administration;
- Inadequate staff for EMIS work;
- Collection of data from the remote schools is a problem in view of the alarming security and restricted mobility;
- The officers involved in EMIS lack practical experience and do not understand the importance of data collection and its use in planning;
- There is also lack of understanding about the techniques of planning in perspective (medium and long-term planning);
- Lack of computers at lower levels;
- Planning and statistics staff have little or no experience in use of computers;
- Those who collect data have no role in planning and implementation of educational programmes;
- Lack of strong feedback mechanism;
- Late supply of filled-in formats by the schools; etc.

The Data Capture Formats (DCF) are developed at the national level in the Ministry of Education and are provided to all the Directorates. The Directorates distribute the DCF to all the schools through the district administration. The School Principal is the respondent and is responsible to fill and supply the completed data collection instruments directly to the Directorate. The frequency of data collection is annual but because of war, statistics for 2004 and 2005 could not be generated. The Directorates have adequate computer hardware and software but data entry hardly takes place at that level. However, the Directorate is required to check the completed formats and pass it on to the Ministry of Education for data entry. The data entry in the MOE is handled by its Computer

Centre. The district administration is not playing any role so far collection and dissemination of school statistics is concerned. It may also be noted that only big directorates have district as a unit of administration but the same is not true in case of the small directorates. Baghdad has six directorates due to its relatively large size. After the completion of data, the Planning Department of the MOE uses and disseminates the statistics. Use of Computers is sporadic and highly limited in the Computer Centre. EMIS software has not been installed so far impeding seriously the scientific collection, assimilation, collation and analysis of data.

In one of the presentations during the workshop, it was mentioned that UNESCO has developed EMIS software and the same would be made operational soon. But not much detail was provided and the software for strengthening of EMIS in Iraq was also not demonstrated. Instead, EMIS software used in two other countries (Syria and Sudan) were explained. In the light of the above, and in absence of EMIS software for Iraq, the following points may be considered while initiating the process of strengthening EMIS in Iraq which are based upon the successful implementation of computerized EMIS in India and other Asian countries such as Thailand, Myanmar, Viet Nam, etc.

SUGGESTIONS FOR IMPROVEMENT

PLANNING FOR STRENGTHENING EMIS

- While planning for the strengthening EMIS and developing software for it, successful experiments in the neighbouring region should be explored and reviewed.

- Efforts should be made to strengthen Directorates of Education in all the Governorates. Similarly, Computer Centre (EMIS Unit at the national level) at the MOE level should also be strengthened adequately both in terms of manpower and equipments.

- Initially, an EMIS Unit in all the Directorates should be established with at least one System Analyst, one Computer Programmer and one Data Entry Operator. Later, similar units should also be established at the district level. The EMIS unit in the Directorate should be provided all the modern computer hardware and software exclusively for the work relating to EMIS. It should also be provided Internet Connection. However, development of a web enabled EMIS software should be decided in view of the present availability of computers and internet connectivity. The software so developed should be flexible for any eventual modifications.

- The strengthening of EMIS should have an element of Sample checking of data (on 5 per cent basis) for which agencies outside the Directorate may be entrusted the task. Formats for sample checking and procedure for drawing sample be specifically outlined and developed.

- The EMIS package should have a strong element of dissemination. Without dissemination, data is unlikely to be utilized optimally and if this is so, data quality will be highly sub-standard and it could hardly be improved. Data should be disseminated in both print and electronic forms as well as through internet and in Compact Disk (CD). Access to raw and processed data should be provided to users at all levels.

- The MOE should develop a plan and log-frame for regular and timely publication of data highlighting clearly types of publication, their coverage and the level at which data will be disseminated. It should not be handled in ad-hoc manner. The Governorates should also be given some freedom and autonomy to bring their own publications containing district and sub-district level data. Other publications such as Governorate Report Cards and District-level Data Sheets are important possibilities for wider dissemination of data at sub-national and grassroots level. Cards such as these need to be designed in such manners that they not reflect progress towards achieving the EFA goals but also provide a clear insight as to the

emerging realities with respect to the planning and management of basic education in Iraq.

- Prior to the initiation of data collection process, attempts should be made to engage collectively all the officials in building their capacities in the use of the software. Training materials and manuals should be provided on definitions, use, meaning, interpretation and methods and techniques of educational planning, analysis of different variables, terms, and the indicators used in the Data Capture Formats.

- As the data respondents are primarily school headmasters. They also need training to better understand and comprehend the importance of EMIS and the ways and means for completing the several instructions of data collection.

- The EMIS so developed should ensure flow of information- bottom to the top and vice-versa. However, for ensuring the quality of data at this level it is an imperative to organize periodic meetings and discussion with all the possible stakeholders of educational database.

DATA CAPTURE FORMATS (DCF)

- Revise and re-look into the existing formats. The Data Capture Formats should be developed in close coordination and consultation with stakeholders following participatory processes. The Directorate of Education in different Governorates should play the lead role in this direction. Educational Planners, Policy Makers, Administrators etc. should also be consulted. Pilot testing of formats should be made before the finalization of the Data Capture Formats.

- The format should contain only core variables which are common to all the Governorates and it should be coded scientifically.

- Efforts should be made to involve the community in the data collection work at the lowest, village level. It will also help in improving the quality of data. Every school covered under EMIS should display by any distinct means key indicators on regular/daily basis.

FLOW OF INFORMATION

- One of the important limitations in the existing system is that information flow only in one direction from lower to the top level. Hardly, any feedback is provided to schools – the basic unit of data collection. Similarly, the Directorates, districts and sub-districts should also be provided feedback. At each of these levels accountability should be ensured for timely and correct supply of data.

- As of now data is collected from school and verification and data checking are carried out at the Directorate which is then passes the filled-in formats to the MOE for data feeding. In view of maintaining consistency, the formats are returned to the Directorate which in turn sends them to the lower level for necessary corrections. This is highly centralized and time consuming procedure and needs to be decentralized to the extent possible. It is recommended that Governorate level administration should oversee the data entry and the district administration should be strengthened to take charge of EMIS related tasks.

- Districts should be considered and should be reorganized as administrative units for the use of EMIS and for planning the school education. All data and information should be analyzed at district and sub-district levels. District as a unit of planning in a decentralized and participatory planning mode is highly recommended.

- Across the country the data should be collected on a particular date and the record date (date of reference) should also be the same. The

frequency of data obtained from the school may be annual but a few monitoring variables may be identified on which information can be collected bi-annually or quarterly.

COMPUTERISATION AND DEVELOPMENT OF SOFTWARE

- Process of computerized EMIS across the country should be initiated in a decentralized mode for which comprehensive planning covering all the administrative, non-administrative and technical aspects concerning EMIS should be covered.

- By using the powerful database management software, such as, Oracle, software should be developed on a priority basis. The software so designed should have pre-defined codes presented in a drop-down menu.

- The software so designed should be menu driven and user friendly and by supported by a user manual. If connectivity available, EMIS group of users should be formed to share problems of common nature. The EMIS manager at the MOE level will respond on-line to queries of the users.

- The software should have all necessary modules. Top most priority should be given to built-in report generation at all levels. It should have internal data consistency check, graphic, analyzer, report, data feeding and other modules. The schools containing inconsistent data should be highlighted.

- The software should have provision to add governorate–specific variables as supplementary variables. Not only it should facilitate data feeding but it should also support report generation. This will help Governorate to add variables as per their requirements.

- Initially data feeding can be undertaken at the Governorate level in the Directorates. The concerned District and sub-district level officers, should

be made available at the time of data feeding will ensure on-line validation of data.

- One of the important activities of EMIS is the transmission of data from the lower to the higher and the highest level. If the computers are installed at the lowest possible level, such as school, then the software should take care of automatic transmission of data. If not, alternative mode of transmission should be explored. As the data entry takes place at the Governorate level, data can be transmitted either through a CD or an email. In view of small number of schools, it may not be difficult to transmit the data through the emails in the compressed/zip format.