

## Annex -G Data Management Assignment

During the planning phase of Balochistan MICS 2003, the Government of Balochistan realized that the handling and processing of MICS data (more than 10 thousand forms) would be beyond the existing capacity of the department and it would be further stretching the resources of Bureau of Statistics that was already overburdened with pressing demand for routine data by P&D. It was therefore decided in a review meeting held under the chairpersonship of the Chief Economist that the data management should be outsourced to private sector agency having required resources and expertise in undertaking such complex and voluminous data processing.

The assignment was designed to achieve the following objectives:

1. To develop a Comprehensive “Data Management Plan”
2. To perform pre-entry manual processing (checking/scrutiny of forms)
3. To carry out data entry in computer (with over 99% accuracy)
4. To clean data through computerised consistency checking
5. To perform preliminary tabulations and frequency distributions
6. To provide readily usable dataset of the survey in electronic form for subsequent in depth analysis.

An important aspect of this assignment was to maintain very high quality standards throughout the data processing phases. M/S Eycon Solutions was therefore asked to institute an internal quality assurance mechanism based on complete documentation of every step performed as well as close supervision and monitoring of the process.

In addition to this, a third-party monitoring was commissioned by hiring Bunyad Literacy Council, Lahore (the same agency also monitored survey field work) to assist the Bureau of Statistics in achieving the following:

1. Review M/S Eycon Solution’s methodology and tools including software;
2. Spot check each step of data processing; and
3. Certify the quality of work performed by Eycon.

The Planning and Development Department coordinated the efforts of data processing and guided the agency on technical issues such as policy on data editing, and referring back to field in case of inconsistent responses.

The MICS data entry software, developed in Microsoft Access 2000 and earlier used in NWFP in 2001 was adapted for the purpose of MICS Balochistan. However, due to major differences in the two questionnaires, the entry screens had to undergo major changes, as well as some additional functions were built into this version. A significant feature of the software was “intelligent” data entry that restricted erroneous data entry through the application of some 140 range checks, 25 logical skips, and 19 conditional entries in addition to structural arrangements and interface features to minimize entry errors.

The data entry software was extensively reviewed by: a) International MICS Consultant; b) independent monitoring agency; and c) MICS Core Group comprising P&D and UNICEF officials.

Office editing of data, then computerised data entry started in early January 2004 and completed end of March 2004. Secondary data cleaning continued during the data review process jointly undertaken by the International Consultant, and Eycon during tabulation and preliminary analyses.

For further details, readers are referred to “Balochistan MICS 2003 Data Management (Technical Volume)” by Eycon Solutions.