

QUANG NGAI RURAL DEVELOPMENT PROGRAM (RUDEP) - PHASE 2

Management Information Systems



VIETNAM-AUSTRALIA

Prepared for

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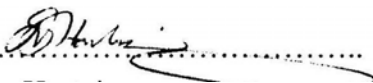
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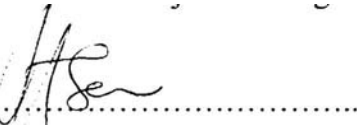
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CONTENTS

1	Background	1
2	System Analysis	2
3	The New System	3
3.1	Define Technical Requirements.....	3
3.2	Define New Data Entities.....	3
3.3	Develop a Data Management Model	4
3.4	Develop a new interface	5
4	Coding Systems and Indicators	9
4.1	Problem Codes.....	9
4.2	Activity Codes.....	12
4.3	Activity Group Planning Codes	13
4.4	DDO Output Monitoring	14
5	Next Steps	15

TABLES

Table 1:	Location of master and replica databases.....	4
Table 2:	Available reports.....	7
Table 3:	Available charts	8
Table 4:	Needs codes	9
Table 5:	Activity codes.....	12
Table 6:	Activity Group planning codes	14
Table 7:	DDO output monitoring indicators	14

FIGURES

Figure 1:	MIS data model	4
Figure 2:	Key elements of the RUDEP MIS design	5
Figure 3:	RUDEP MIS home page	6
Figure 4:	Example of a query	7
Figure 5:	Indicator charts.....	8

ANNEXES

Annex 1: Data Entries

Annex 2: MIS Instructions

1 Background

The database was designed and developed to house, analyse and present monitoring and evaluation for the Quang Ngai Rural Development Program (RUDEP). Specifically, the database was designed to have four main components:

- **Participants** – for information about participants at all scales relevant to the Program including community and institutional stakeholders at individual, household, commune, village and district scales.
- **Group work** – for all information regarding workshops, meetings, and other groupings that formed as part of the Program such as PPP meetings, activity groups, credit groups and capacity building groups.
- **Activities implemented** – for all the detailed data surrounding the implementation of Program activities, as detailed in each annual operating plan. These data include for example, stock weights, prices and feed rations, or number of wells constructed, buildings planned or commune infrastructure completed.
- **Targets** – the quantitative and qualitative targets established in each operating plan for all activities and indicators that will be reported against in RUDEP. These are reviewed at the beginning of each annual reporting cycle and automatically compared with actual results for reporting purposes.

Further background information on the database and the M&E plan that it is designed to support, is given in the QRNDP Monitoring and Evaluation Plan (URS, February 2003).

In March 2004, the M&E/Database Specialist was requested to visit the project site and provide advice on how to append data from the various district databases to a central database. A quick analysis revealed that given the current structure of the database, appending data from other datasets was not possible. A TOR, given below, was prepared to address this and other issues that were identified during this cursory analysis.

- Create replicas. Convert the central database to a master file and provide replicas to the remote locations.
- Re-engineer the interface and transfer the data tables to a separate MS Access file. Include simple procedures to prevent undesired modifications to the data or changes to the data structure.
- Review existing forms and reports and rectify the problems identified.
- Develop the pre-formatted reports required for project progress, and M&E reports.
- Train the MEGO in the operation and maintenance of the system.
- Provide email back-stopping support to the MEGO to ensure currency, integrity, relevance and accuracy.
- Submit a written report to the Australian Team Leader and the Program Manager (emailed) in English at the completion of the mission.

The in-country component of the TOR was conducted from April 30 to May 14, 2004. The in-Australia component was completed in June 2004.

2 System Analysis

The first task undertaken was a more thorough analysis of the system. As no system documentation was available, this required analysing the M&E Plan to determine the key outputs that system must provide. It is also included analysing the processes and procedures that have been established to capture the data, process that data to provide information; and to disseminate that information to project managers and stakeholders. Some of the issues identified are summarised below.

- The structure of the database does not allow the capture of time-series data. As a result, the system cannot automatically generate the data required for the majority of the indicators given in Annex 2 of the M&E plan.
- Built-in data integrity and data validation routines have not been adequate to ensure that key data fields are completed by the user. For example, 20% of planning and activity group events are lacking dates. 2286 household records do not include the name of the household.
- Duplicate Records. The system uses the household leader's name to uniquely identify a household. The database currently contains 1473 records (11% of all household records) with the same household and hamlet name' that have been entered more than once. It is likely that the majority of these records are duplicates i.e. the same household has been added to household list more than once. The same situation exists for the participants table where 10% of the records are probably duplicated.
- The system is used to remotely capture data at several locations. The data files are regularly transferred (using a memory stick) to the project office. The system does not provide the facility to upload remote datasets to a central database. As result, project staff have been manually extracting data from the various district datasets and entering this into spreadsheets to prepare the required M&E reports. This approach is time consuming and vulnerable to data entry errors. The database cannot be appended with the current data structure. This is because unique record identifiers have not been provided for entities such as households, groups, group membership, problems and solutions. A system autonumber field has been used for these tables. When an autonumber field is appended, a new autonumber is generated and the link to related records is lost.
- The interface (forms, queries, reports, macros etc.) and the data are currently stored in a single Access database. With this structure, if improvements are made to the interface (such as developing new reports) and then sent to the remote locations for installation, existing data at these locations will be lost.
- No security is provided in the current system. Any user is able to make modifications to the database, change picklists etc.
- The system provides a limited number of pre-formatted reports and none of the reports/charts required to report on the indicators given in Annex 2 of the M&E plan. Staff are required to transfer the data to Excel to prepare the required reports. This is particularly time consuming.
- As only a Vietnamese interface is available, Advisers are alienated from the system and rely on translated reports provided by local staff.
- Some aspects of the data structure are too rigid. For example, the interface has to be reprogrammed to allow for the collection of new indicators.

3 The New System

The existing system has served as a very useful prototype. There have been many valuable lessons learned and project staff are now in a better position to further refine the data management needs for project monitoring and evaluation.

The key objective of this input is to design, construct and operationalise the new information system and the steps taken to achieve this are described in the following sections.

3.1 Define Technical Requirements

The following are the application design technical requirements for the MIS:

1. Uses a relational data management system
2. Must provide referential integrity
3. Operate in Windows 9X/2000 environment
4. Operate in a multi-user environment (Windows 9X/Windows NT Server)-support file sharing, record locking etc
5. Must include user-level and group-level security
6. Include data validation routines
7. Users must be able to easily sort and query data and display the results
8. Query results can be easily printed or exported to another application such as Excel and Word
9. Must allow users to create advanced data queries
10. Capable of creating charts and graphs which can easily be transferred to other applications – such as Excel or Word
11. Additional data views, forms and reports can be added to the system without the assistance of a programmer
12. Export tables, forms, queries and reports as HTML files

The technology versions used for the development are as follows:

- Microsoft Access 2000 (front end interface and data)
- Microsoft Excel 2000
- Microsoft Word 2000
- Microsoft Chart 2000

3.2 Define New Data Entities

A new entity-relationship model was developed and the database restructured accordingly. The new data structure of the database is given in Annex 1. All data has been converted to the new structure.

3.3 Develop a Data Management Model

The new RUDEP data management model is based on a replication/synchronisation model. Database replication is a technique used to support multiple users of an application where the users are not connected to a central network. Collectively, the copies of the database are called a replica set. One member of the replica set must be designated as the Design Master; any other copy is a replica. The RUDEP Replica set is summarized in the table below.

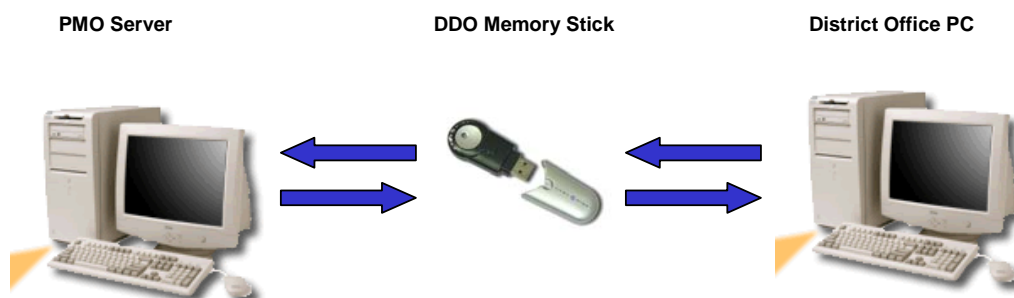
Table 1: Location of master and replica databases

Location	Replica type
Project Management Office	Design Master
Binh Son PC	Replica
Duc Pho PC	Replica
Mo Duc PC	Replica
Nghia Hanh PC	Replica
Son Ha - Son Giang PC	Replica
Son Ha - Son Trung PC	Replica
Son Ha PC	Replica
Son Tinh PC	Replica
Tu Nghia PC	Replica

Synchronisation is the process whereby replicas within the replica set exchange data with each other. As shown in the diagram below, the DDO's memory stick plays an important role in the RUDEP replica set. It is used to synchronise between the District PC and the PMO server. The key steps in the process are:

- The DDO synchronises the database on the memory stick with the database on the District Office PC. This should be done at least monthly.
- The DDO then synchronises the database on the memory stick with the master on the Project Management Office server. Any new data (or updates) on the memory stick will be transferred to the PMO server and vice-versa.
- Upon return to the District Office, the DDO synchronises once again with the District Office PC. This will ensure that the latest changes from the PMO and other districts are transferred to District Office database.

Figure 1: MIS data model

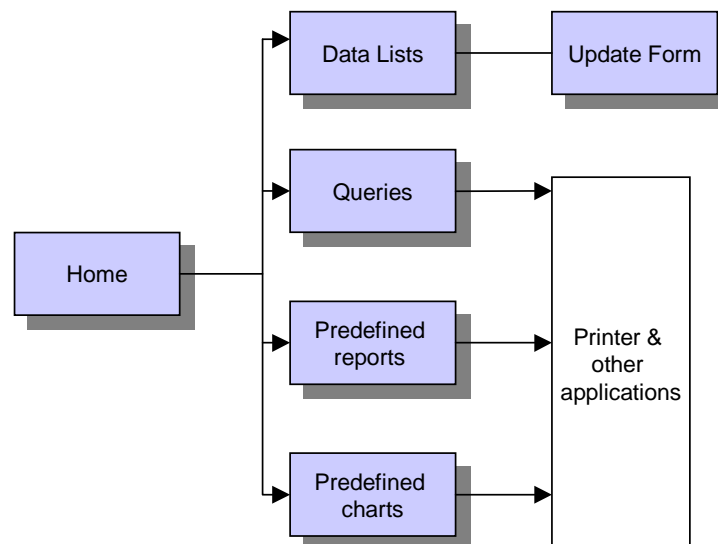


3.4 Develop a new interface

A common complaint about database applications is that they successfully capture and store data but do not promote the flow of useful and timely information back to the users. Users often find database applications too rigid – particularly if they are used to the flexibility of a spreadsheet application. A common complaint is that it is easy to get **data into** the system but difficult to get **data out** in the format that is required to produce useful information.

Programmers often deal with this situation by trying to predict what outputs will be required and then providing numerous predefined report formats. In reality, it is impossible to predict all of the needs of all users and an interface needs to be able to deal with this uncertainty. Users need to be able to readily extract the data they require and easily convert it to an output e.g. a printed report, a graph, a spreadsheet or a word processing file.

Figure 2: Key elements of the RUDEP MIS design



The interface designed for the RUDEP MIS attempts address the issues discussed above. This type of interface has been tested in a number of locations, with a high level of user involvement, and has been progressively improved over a number of years. The key elements of this interface are shown in Figure 2 and described below.

Home

The Home page is a form that assists the user to navigate the system. It provides direct access to all data entry, queries, reports and charts as shown in Figure 3.

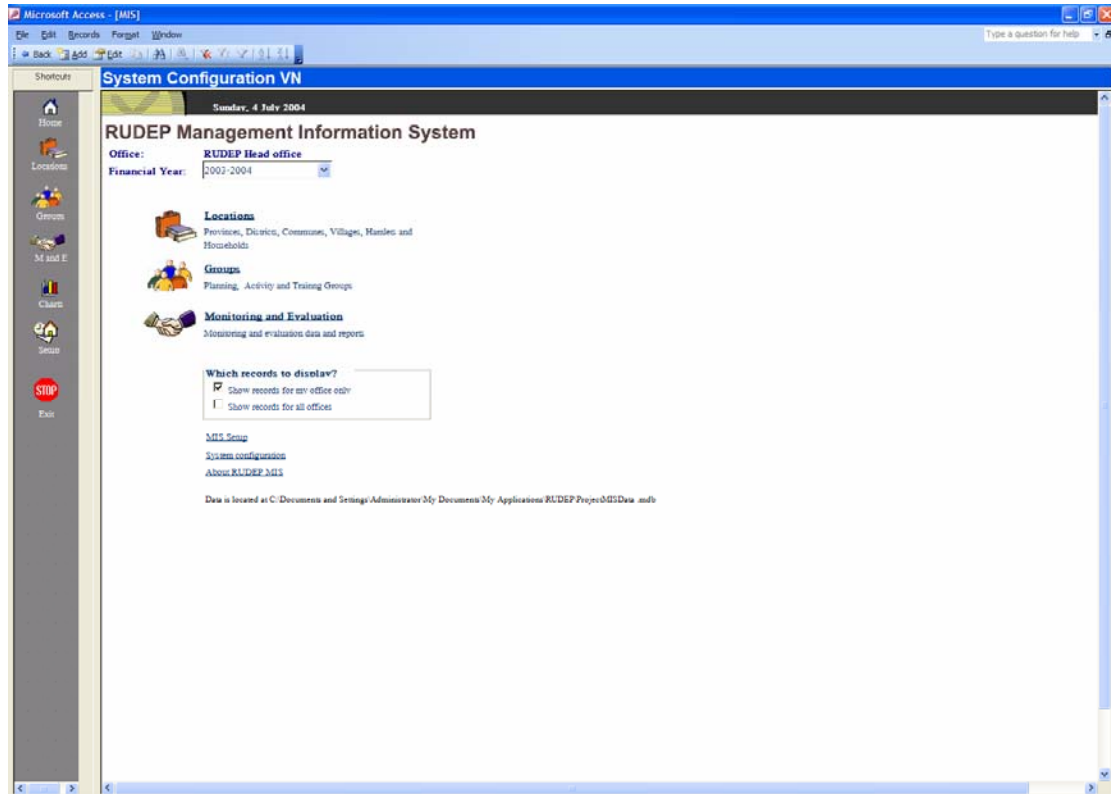
Data Lists

A data list, is list of data that can be edited. By displaying the data as a list, a user can easily locate the required record and call up an update form to edit the data. The update form is also used to add new records.

Update forms

The Update Form is accessed via the data list and is used for adding, modifying and deleting records. All data validation procedures are included in the update form. All update forms have the same “look and feel” to ensure consistency for the user. Only users with the appropriate authority are given access to the update form.

Figure 3: RUDEP MIS home page



Queries

Queries are displayed in much the same way as in a spreadsheet Figure 4. Using queries, a user can:

- Hide or display columns
- Sort using any column
- Freeze and unfreeze columns
- Filter by selection
- Filter using a form
- Filter using a query
- Customise the appearance of the screen (fonts, colours, grids etc.)
- Be assured that they are not modifying data (data cannot be modified in Views)
- Quickly find data
- Sort and filter the view and output the result to a printer, Excel or Word

Experience shows that with about one hour of “on the job” training, even new users quickly become competent in using the above features.

The advantages for the database developer/administrator are that queries are quick to program and because users are able to easily manipulate and print the data, fewer predefined reports are required.

Figure 4: Example of a query

Year	District	Commune	Hamlet	Village	Household	Code	Indicator	Unit	Males	Females	Total
2000	District 2	District 2 Commune 1	Binh Thy	The Thy	Trin Dinh Lung	201	Number of household members	No.	0	0	0
2000	District 2	District 2 Commune 1	Binh Thy	The Thy	Trin Dinh Lung	202	Number of household members mig	No.	0	0	0
2000	District 2	District 2 Commune 1	Binh Thy	The Thy	Trin Dinh Lung	203	Duration of migration (total days for	Days	0	0	200
2000	District 2	District 2 Commune 1	Binh Thy	The Thy	Trin Dinh Lung	204	Household income	VND/year	0	0	0
2000	District 2	District 2 Commune 1	Binh Thy	The Thy	Trin Dinh Lung	205	Household in DOLISA 'Poor' list	0=No;1=Yes	0	0	0
2000	District 2	District 2 Commune 1	Binh Thy	The Thy	Trin Dinh Lung	206	Household using institutional credit	0=No;1=Yes	0	0	0
2000	District 2	District 2 Commune 1	Binh Thy	The Thy	Trin Dinh Lung	207	Household participating in RUDEP	0=No;1=Yes	0	0	0
2000	District 2	District 2 Commune 1	Binh Thy	The Thy	Trin Dinh Lung	208	Household defaulting on credit	0=No;1=Yes	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	La Chua	201	Number of household members	No.	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	La Chua	202	Number of household members mig	No.	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	La Chua	203	Duration of migration (total days for	Days	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	La Chua	204	Household income	VND/year	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	La Chua	205	Household in DOLISA 'Poor' list	0=No;1=Yes	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	La Chua	206	Household using institutional credit	0=No;1=Yes	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	La Chua	207	Household participating in RUDEP	0=No;1=Yes	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	La Chua	208	Household defaulting on credit	0=No;1=Yes	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	La Chua	209	Number of household members	No.	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	La Chua	210	Number of household members mig	No.	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	La Chua	211	Duration of migration (total days for	Days	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	La Chua	212	Household income	VND/year	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	La Chua	213	Household in DOLISA 'Poor' list	0=No;1=Yes	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	La Chua	214	Household using institutional credit	0=No;1=Yes	0	0	1
2000	District 2	District 2 Commune 1	Chua co	The Thy	La Chua	215	Household participating in RUDEP	0=No;1=Yes	0	0	1
2000	District 2	District 2 Commune 1	Chua co	The Thy	La Chua	216	Household defaulting on credit	0=No;1=Yes	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	Nguyen Phatc	201	Number of household members	No.	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	Nguyen Phatc	202	Number of household members mig	No.	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	Nguyen Phatc	203	Duration of migration (total days for	Days	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	Nguyen Phatc	204	Household income	VND/year	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	Nguyen Phatc	205	Household in DOLISA 'Poor' list	0=No;1=Yes	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	Nguyen Phatc	206	Household using institutional credit	0=No;1=Yes	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	Nguyen Phatc	207	Household participating in RUDEP	0=No;1=Yes	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	Nguyen Phatc	208	Household defaulting on credit	0=No;1=Yes	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	Nguyen Thi Phatc	201	Number of household members	No.	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	Nguyen Thi Phatc	202	Number of household members mig	No.	0	0	0
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2000	District 2	District 2 Commune 1	Chua co	The Thy	Nguyen Thi Phatc	207	Household participating in RUDEP	0=No;1=Yes	0	0	1
2000	District 2	District 2 Commune 1	Chua co	The Thy	Nguyen Thi Phatc	208	Household defaulting on credit	0=No;1=Yes	0	0	1
2000	District 2	District 2 Commune 1	Chua co	The Thy	Phan Hy	201	Number of household members	No.	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	Phan Hy	202	Number of household members mig	No.	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	Phan Hy	203	Duration of migration (total days for	Days	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	Phan Hy	204	Household income	VND/year	0	0	2000
2000	District 2	District 2 Commune 1	Chua co	The Thy	Phan Hy	205	Household in DOLISA 'Poor' list	0=No;1=Yes	0	0	0
2000	District 2	District 2 Commune 1	Chua co	The Thy	Phan Hy	206	Household using institutional credit	0=No;1=Yes	0	0	1

Reports and Graphs

The home page provides a list of predefined reports. When new reports are developed they are simply added to the list. All reports can be previewed and either printed or exported to other locations. At list of available reports is given in Table 2.

Table 2: Available reports

Report Title
Activity Group Annual Plan Summary
Activity Group Summary Report
Activity Group Details
Commune Planning Meeting Details
Commune Details and Indicators
Contact Group Details
DDO Monitoring Report
DDO Targets
District Details and Indicators
GAS Results
Hamlet Details

Report Title
Household Profile and Indicators
Problem Identification Summary
Province Details and Indicators
Summary of Proposed Activities
Village Planning Group Details
Village Details

A charts module has been developed (Figure 4) and is used to access all the charts required for the indicators given in Annex 2 of the M&E plan. A list of available charts is given in Table 3. Charts can be copied to the clipboard and inserted into Word reports.

Figure 5: Indicator charts

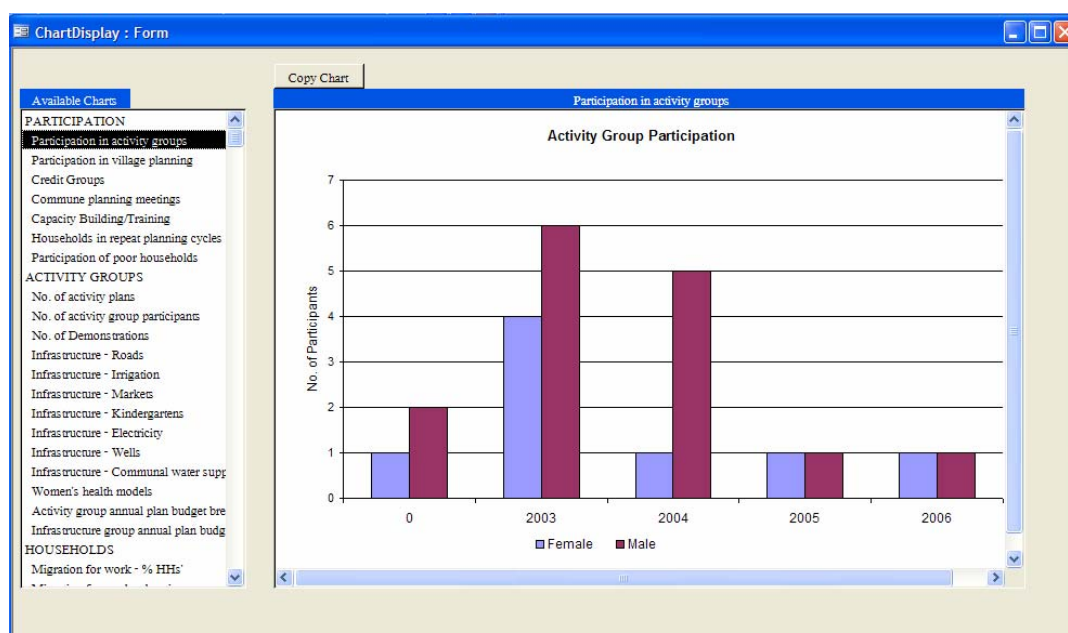


Table 3: Available charts

Chart Title
Activity Group Participation
Village Planning Group Participation
Commune Planning Meeting Participation
Capacity Building/Training Participation
Households Participating in Repeat Planning Cycles
Participation of Poor Households
No. of Activity Group Plans Prepared and Funded
No. of Activity Group Participants
Demonstrations Implemented
Roads Constructed
Irrigation Constructed
Markets Constructed

Chart Title
Kindergartens Constructed
Electricity Systems Constructed
Wells Constructed
Communal Water Supply Systems Constructed
Women's Health Models Implemented
Activity Group Funding Breakdown
Infrastructure Group Funding Breakdown
Migration for Work - % Households
Migration for Work – Duration
VSCF Default Rates
Households Using Institutional Credit
Household Income
Secondary Education Participation Rate
Child Malnutrition Indicators

Security

Security has been included to ensure that:

- Only users with appropriate access rights can access each database module.
- Some users are only allowed to view data in each module. Others are able to view and update data.
- Users can only modify records for their own district.
- Only system administrators able to assign user access rights.

Language

The interface can be displayed in either English or Vietnamese. This includes all forms, queries and reports.

4 Coding Systems and Indicators

4.1 Problem Codes

The RUDEP team revised the Problem Codes and the new codes (now known as Need Codes) are given in Table 4.

Table 4: Needs codes

Need Codes
1 Loans
1.1 Income generation
1.11 Livestock
1.12 Crops
1.13 Forestry/Tree Crops
1.14 Aquaculture

Need Codes	
1.15	Non-farm
1.16	Other
1.2 Livelihoods	
1.21	Health
1.22	Education
1.23	Disaster prevention/mitigation
1.24	Consumption
1.25	Other
2 Training	
2.1 Income generation	
2.11	Livestock
2.111	Production
2.112	Veterinary/pest/disease
2.113	Information/Markets
2.114	Post-harvest
2.12	Crops
2.121	Production
2.122	Veterinary/pest/disease
2.123	Information/Markets
2.124	Post-harvest
2.13	Forestry/Tree Crops
2.131	Production
2.132	Veterinary/pest/disease
2.133	Information/Markets
2.134	Post-harvest
2.14	Aquaculture
2.141	Production
2.142	Veterinary/pest/disease
2.143	Information/Markets
2.144	Post-harvest
2.15	Non-farm
2.151	Production
2.152	Veterinary/pest/disease
2.153	Information/Markets
2.154	Post-harvest
2.16	Other
2.161	Production

Need Codes	
2.162	Veterinary/pest/disease
2.163	Information/Markets
2.164	Post-harvest
2.2 Livelihoods	
2.21	Health
2.22	Education
2.23	Disaster prevention/mitigation
2.24	Consumption
2.25	Other
3 Provision (non-infrastructure)	
3.1 Income Generation	
3.11	Livestock
3.12	Crops
3.13	Forestry/Tree Crops
3.14	Aquaculture
3.15	Non-farm
3.16	Other
3.2 Livelihoods	
3.21	Health
3.22	Education
3.23	Disaster prevention/mitigation
3.24	Consumption
3.25	Other
4 Provision (Infrastructure)	
4.1	Irrigation/drainage
4.2	Roads
4.3	Bridges
4.4	Water wells
4.5	Communal water system
4.6	Kindergartens/nurseries
4.7	Electricity
4.8	Markets
4.9	Other infrastructure

4.2 Activity Codes

The RUDEP team prepared a list of Activity Codes that will be used to categorise Activity Groups. This will facilitate better reporting of problems and solutions being addressed by Activity Groups. The new list is given in Table 5.

Table 5: Activity codes

Activity Codes	
1 Income Generation	
1.1 Livestock	
1.11	Pigs
1.12	Cattle
1.13	Goats
1.14	Chickens
1.14	Ducks
1.15	Buffaloes
1.16	Other
1.2 Crops	
1.21	Rice
1.22	Maize
1.23	Cassava
1.24	Sugarcane
1.25	Peanuts
1.26	Grain legume
1.27	Vegetables
1.28	Other
1.3 Forestry/Tree Crops	
1.31	Fruit trees
1.32	Industrial trees
1.33	Forestry
1.34	Other
1.4 Aquaculture	
1.41	Rice/Fish
1.42	Fish pond
1.43	Marine Fishing
1.44	Other
1.5 Non-Farm	
1.51	Agricultural processing (not post-harvest)
1.52	Non-agricultural production
1.53	Service industries
1.54	Other

2. Livelihoods
2.1 Health
2.11 Child nutrition
2.12 Gynaecological disease
2.13 Digestive/common health problems
2.14 Malaria
2.15 Tuberculosis
2.16 Other
2.2 Education
2.21 Child education
2.22 Literacy/Basic Adult education
2.23 Vocational training
2.24 Other
2.3 Disaster prevention/mitigation
2.31 Floods
2.32 Drought
2.33 Storm
2.34 Fire
2.35 Other
3. Infrastructure
3.1 Irrigation/drainage
3.2 Roads
3.3 Bridges
3.4 Water wells
3.5 Communal water system
3.6 Kindergartens/nurseries
3.7 Electricity
3.8 Markets
3.9 Other

4.3 Activity Group Planning Codes

A new coding system (Table 6) has been introduced to categorise the activities undertaken by Activity Groups as given in their action plans. This data is required to report on several of the indicators given in the M&E plan.

Table 6: Activity Group planning codes

Item	Unit
1. Study tours	No.
2. Materials and Equipment	VND
3. Formal technical training	No. of events
4. Demonstration-Livestock	No.
5. Demonstration-Cropping	No.
6. Demonstration-Forestry	No.
7. Demonstration-Aquaculture	No.
8. Demonstration-Other	No.
9. Roads	km
10. Irrigation	ha
11. Markets	No.
12. Kindergartens	No.
13. Electricity	No. of systems
14. Wells	No.
15. Communal water supply system	No.
16. Women's health model	No.
17. Other	

4.4 DDO Output Monitoring

DDO output monitoring indicators have been revised as shown in Table 7. Output monitoring reports have been included in the system and DDOs will no longer need to prepare a separate report.

Table 7: DDO output monitoring indicators

Indicator	Unit
1. No. of income generating groups	No. of groups
2. No of livelihood groups	No. of groups
3. No. of infrastructure groups	No. of groups
4. No. of VSCF groups	No. of groups
5. No. of income generating group annual plans	No. of plans
6. No. of livelihood group annual plans	No. of plans
7. No. of infrastructure group annual plans	No. of plans
8. No. of VSCF group plans	No. of plans
9. % of activity group members who are female	% women
10. % of activity group members who are from poor households	% members

5 Next Steps

The recommended next steps are as follows:

1. RUDEP to complete interface translations.
2. MEGO to create the district replicas from the Master database. Instructions are given in Annex 2.
3. MEGO to install the new system in all districts and provide training.
4. DDOs to update the database. Instructions are given in Annex 2.
5. DDOs/MEGO to synchronise datasets monthly. Instructions are given in Annex 2.
6. The next M&E/Database Specialists input should include: a review of system performance; rectifying and problems identified; addition of reports and charts identified by the PMU team; assisting the DDOs to identify information that can be fed back to stakeholders; training for MEGO and DDOS on using the system and interpreting M&E data; developing system documentation and user manual.

Annex 1

Data Entities

Columns

Name	Type	Size
CommuneID	Long Integer	4
CommuneCode	Long Integer	4
CommuneName	Text	50
DistrictID	Long Integer	4
RUDEPOfficeID	Long Integer	4

Columns

Name	Type	Size
ContactGroupMemberID	Long Integer	4
ProvinceID	Long Integer	4
DistrictID	Long Integer	4
CommuneID	Long Integer	4
Name	Text	50
Organisation	Text	50
Phone	Text	15
Email	Text	50
Active	Yes/No	1
GenderID	Long Integer	4
RUDEPOfficeID	Long Integer	4
Position	Text	50

Columns

Name	Type	Size
ContactTypeID	Long Integer	4
ContactTypeEN	Text	50
ContactTypeVN	Text	50

Columns

Name	Type	Size
DDOID	Long Integer	4
DDOName	Text	50
Active	Yes/No	1
RUDEPOfficeID	Long Integer	4
DistrictID	Long Integer	4

Columns

Name	Type	Size
DDOID	Long Integer	4
CommuneID	Long Integer	4
DDOTargetTypeID	Long Integer	4
DDOTargetYear	Long Integer	4
Target	Single	4

Columns

Name	Type	Size
DDOTargetTypeID	Long Integer	4
DDOTargetTypeVN	Text	100
DDOTargetTypeEN	Text	100
InUse	Yes/No	1
UnitEN	Text	50
UnitVN	Text	50
DDOTargetTypeCode	Single	4

Columns

Name	Type	Size
DistrictID	Long Integer	4
ProvinceID	Long Integer	4
DistrictCode	Long Integer	4
DistrictName	Text	50
RUDEPOfficeID	Long Integer	4

Columns

Name	Type	Size
GASGroupID	Long Integer	4
GASGroupName	Text	100
PCGLocationID	Long Integer	4
CCGLocationID	Long Integer	4
DCGLocationID	Long Integer	4
AGLocationID	Long Integer	4
GASDate	Date/Time	8
GASLocationTypeID	Byte	1
RUDEPOfficeID	Long Integer	4

Columns

Name	Type	Size
GASIndicatorID	Long Integer	4
GasIndicatorNo	Byte	1
GasIndicatorEN	Text	100
GasIndicatorVN	Text	100
InUse	Yes/No	1
GasIndicatorShortTitleEN	Text	100
GasIndicatorShortTitleVN	Text	100

Columns

Name	Type	Size
GASIndividualID	Long Integer	4
GasIndividualCode	Text	10
GenderID	Long Integer	4
GASGroupID	Long Integer	4
RUDEPOfficeID	Long Integer	4

Columns

Name	Type	Size
GASIndividualID	Long Integer	4
GasIndicatorID	Long Integer	4
GasResponse	Byte	1

Columns

Name	Type	Size
GASLocationTypeID	Long Integer	4
GASLocationTypeEN	Text	50
GASLocationTypeVN	Text	50

Columns

Name	Type	Size
GASReponseTypeID	Long Integer	4
GASResponseTypeNo	Byte	1
GasResponseTypeEN	Text	100
GasResponseTypeVN	Text	100
GASIndicatorID	Long Integer	4

Columns

Name	Type	Size
GenderID	Long Integer	4
GenderEN	Text	20
GenderVN	Text	20

Columns

Name	Type	Size
GroupID	Long Integer	4
GroupName	Text	50
DateFormed	Date/Time	8
Facilitator	Text	70
RUDEPOfficeID	Long Integer	4
Active	Yes/No	1
GroupTypeID	Long Integer	4
Notes	Memo	-
ProvinceID	Long Integer	4
DistrictID	Long Integer	4
CommuneID	Long Integer	4
VillageID	Long Integer	4
ProjectComponentID	Long Integer	4
ProjectOutputID	Long Integer	4
ContactTypeID	Long Integer	4
ServiceProvider	Text	50
RUDEPFunds	Currency	8
GoVFunds	Currency	8
OtherFunds	Currency	8
ParticipantFunds	Currency	8

Columns

Name	Type	Size
ParticipantID	Long Integer	4
GroupID	Long Integer	4
GroupYear	Long Integer	4
RUDEPOfficeID	Long Integer	4
GroupLeader	Yes/No	1

Relationships

ParticipantGroupMembership

Participant		GroupMembership	
ParticipantID	1	∞	ParticipantID
Attributes:		Enforced	
RelationshipType:		One-To-Many	

Columns

Name	Type	Size
GroupPlanID	Long Integer	4
GroupID	Long Integer	4
PlanYear	Long Integer	4
RUDEPFunds	Currency	8
GoVFunds	Currency	8
OtherFunds	Currency	8
ParticipantFunds	Currency	8
RUDEPOfficeID	Long Integer	4

Columns

Name	Type	Size
IndicatorID	Long Integer	4
ActualValue	Double	8
PlannedValue	Double	8
IndicatorYear	Long Integer	4
ActivityDescription	Text	100
GroupPlanID	Long Integer	4
GroupID	Long Integer	4
ItemNo	Byte	1

Columns

Name	Type	Size
GroupID	Long Integer	4
ProblemTypeID	Long Integer	4

Columns

Name	Type	Size
GroupID	Long Integer	4
SolutionTypeID	Long Integer	4

Columns

Name	Type	Size
GroupTypeID	Long Integer	4
GroupTypeEN	Text	50
GroupTypeVN	Text	50
InUse	Yes/No	1
ActivityGroup	Yes/No	1

Columns

Name	Type	Size
HamletID	Long Integer	4
HamletCode	Long Integer	4
HamletName	Text	50
Zone	Text	50
UTM_E	Long Integer	4
UTM_N	Long Integer	4
VillageID	Long Integer	4
RUDEPOfficeID	Long Integer	4

Columns

Name	Type	Size
HouseHoldID	Long Integer	4
HouseHoldName	Text	50
HouseHoldCode	Long Integer	4
Zone	Text	50
UTM_E	Long Integer	4
UTM_N	Long Integer	4
HamletID	Long Integer	4
RUDEPOfficeID	Long Integer	4
NoOfMembers	Byte	1

Columns

Name	Type	Size
ParticipantID	Long Integer	4
HouseHoldID	Long Integer	4
RUDEPOfficeID	Long Integer	4
DateJoined	Date/Time	8
Active	Yes/No	1
HouseHoldMemberTypeID	Long Integer	4

Columns

Name	Type	Size
HouseholdMemberTypeID	Long Integer	4
HouseholdMemberTypeEN	Text	50
HouseholdMemberTypeVN	Text	50

Columns

Name	Type	Size
IndicatorID	Long Integer	4
IndicatorCode	Single	4
IndicatorDescriptionVN	Text	50
IndicatorDescriptionEN	Text	50
IndicatorUnitEN	Text	50
IndicatorUnitVN	Text	50
Province	Yes/No	1
District	Yes/No	1
Commune	Yes/No	1
HouseHold	Yes/No	1
Group	Yes/No	1
InUse	Yes/No	1

Columns

Name	Type	Size
IndicatorID	Long Integer	4
MaleValue	Double	8
FemaleValue	Double	8
TotalValue	Double	8
ProvinceID	Long Integer	4
DistrictID	Long Integer	4
CommuneID	Long Integer	4
HouseHoldID	Long Integer	4
IndicatorYear	Long Integer	4
RUDEPOfficeID	Long Integer	4

Columns

Name	Type	Size
ParticipantID	Long Integer	4
OfficialCode	Long Integer	4
ParticipantName	Text	100
GenderID	Long Integer	4
ParticipantOrganisation	Text	50
ParticipantPosition	Text	50
RUDEPOfficeID	Long Integer	4
ProvinceID	Long Integer	4
DistrictID	Long Integer	4
CommuneID	Long Integer	4
VillageID	Long Integer	4
HamletID	Long Integer	4
HouseHoldID	Long Integer	4
DateAdded	Date/Time	8
Active	Yes/No	1

Relationships

ParticipantGroupMembership

Participant		GroupMembership
ParticipantID	1 ∞	ParticipantID

Attributes: Enforced
RelationshipType: One-To-Many

Columns

Name	Type	Size
PlanProblemID	Long Integer	4
Male	Byte	1
Female	Byte	1
Code	Text	50
Problem	Memo	-
Rank	Byte	1
GroupID	Long Integer	4
ProblemTypeID	Long Integer	4
PlanProblemYear	Long Integer	4

Columns

Name	Type	Size
PlanSolutionID	Long Integer	4
Solution	Memo	-
GroupID	Long Integer	4
SolutionTypeID	Long Integer	4
ProblemTypeID	Long Integer	4
PlanSolutionYear	Long Integer	4
VillageID	Long Integer	4
Problem	Memo	-
Rank	Byte	1
ComponentID	Long Integer	4

Columns

Name	Type	Size
ProblemTypeID	Long Integer	4
ProblemTypeCode	Single	4
ProblemTypeVN	Text	50
ProblemTypeEN	Text	50
InUse	Yes/No	1

Columns

Name	Type	Size
ComponentID	Long Integer	4
ComponentNo	Byte	1
ComponentEN	Text	100
ComponentVN	Text	100

Columns

Name	Type	Size
OutputID	Long Integer	4
OutputNo	Single	4
OutputEN	Text	100
OutputVN	Text	100
ComponentID	Long Integer	4

Columns

Name	Type	Size
ProvinceID	Long Integer	4
ProvinceCode	Long Integer	4
ProvinceName	Text	100
RUDEPOfficeID	Long Integer	4

Columns

Name	Type	Size
RUDEPOfficeID	Long Integer	4
RUDEPOffice	Text	50

Columns

Name	Type	Size
SolutionTypeID	Long Integer	4
SolutionTypeCode	Single	4
SolutionTypeVN	Text	50
SolutionTypeEN	Text	50

Columns

Name	Type	Size
UserID	Long Integer	4
Module	Text	50
AccessToModule	Yes/No	1
UpdateData	Yes/No	1
DeleteData	Yes/No	1

Relationships

UsersUserAccessRights

Users	UserAccessRights
UserID	1 ∞ UserID

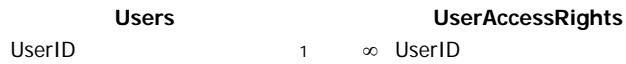
Attributes: Enforced, Cascade Updates, Cascade Deletes
RelationshipType: One-To-Many

Columns

Name	Type	Size
UserID	Long Integer	4
UserName	Text	50
Password	Text	50
RUDEPOfficeID	Long Integer	4

Relationships

UsersUserAccessRights



Attributes: Enforced, Cascade Updates, Cascade Deletes
RelationshipType: One-To-Many

Columns

Name	Type	Size
VillageID	Long Integer	4
VillageCode	Long Integer	4
VillageName	Text	50
Zone	Text	50
UTM_E	Long Integer	4
UTM_N	Long Integer	4
CommuneID	Long Integer	4
RUDEPOfficeID	Long Integer	4

Annex 2

MIS Instructions

QUANG NGAI RURAL DEVELOPMENT PROGRAM (RUDEP) - PHASE 2

MIS Installation Instructions



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42443858

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CONTENTS

1	Installing the RUDEP MIS	1
1.1	System Requirements	1
1.2	Install the MIS.....	1
1.2.1	To Install the MIS	1
1.3	Starting the MIS for the First Time.....	1
2	Setup Module	2
2.1	Setting up User Accounts	2
2.2	Changing Passwords.....	2
3	Replicas	2
3.1	Creating the Replicas	2
3.2	Installing the Replicas.....	3
4	Synchronising Replicas	3
4.1	Synchronising and District Office Database with the Memory Stick	4
4.2	Synchronising the Memory Stick with the Project Management Office Database	4
4.3	Viewing Different Data Files	4
4.3.1	To Change to a Different Data File	5
5	Priority Tasks for DDOs	5

FIGURES

Figure 1: MIS Data Model.....	3
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1 Installing the RUDEP MIS

Before installing the MIS, take a moment to review the system requirements listed below.

1.1 System Requirements

To use the MIS, your computer must have the following:

- Intel Pentium processor at 133MHz or better;
- At least 32 MB of RAM; and
- 6.5 MB of available hard disk space.

1.2 Install the MIS

The ProjectMIS.mdb must be loaded on every PC where access to the MIS is required. The MIS datafile (ProjectMISDataXXX) should be installed in the same folder as the ProjectMIS file.

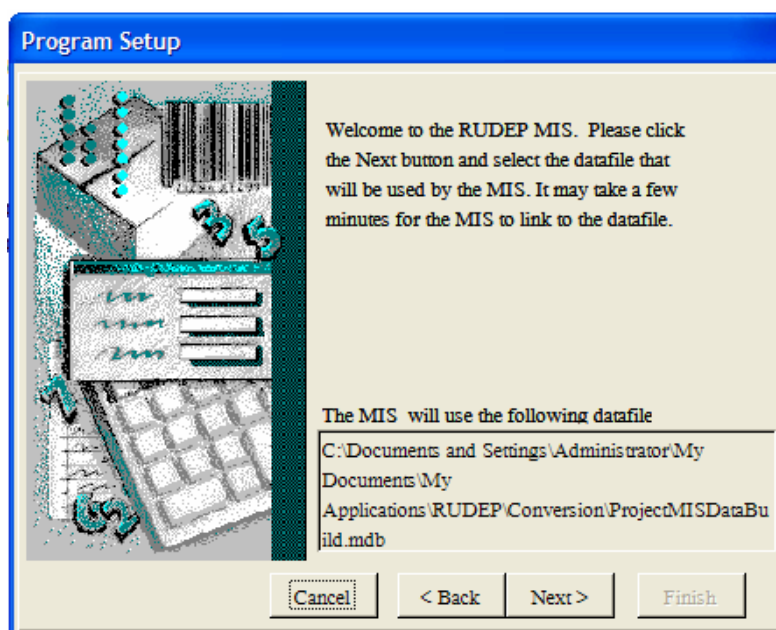
1.2.1 To Install the MIS

1. Create a folder on the hard drive called "ProjectMIS".
2. Copy ProjectMIS.mdb and ProjectMISData to this folder.
3. Create a shortcut to ProjectMIS on the Desktop.

1.3 Starting the MIS for the First Time

Call up the MIS by clicking on the ProjectMIS shortcut on the Desktop.

1. Click the **Setup** button on the Login screen to display the Setup Window.



2. Click the **Next** button and then find the required data file in the Explorer window.
3. Click the **Next** button and select the required District Office and language.
4. Click the **Finish** button and the MIS Login screen will be displayed.
5. Enter the **User Name** and **Password** and select OK (or press Enter).

2 Setup Module

The Setup Module can only be accessed by systems administrators and is used to manage user profiles and location data.

2.1 Setting up User Accounts

Login as a user with administrator privileges e.g. Admin

1. In the MIS Home page, click Setup.
2. In the Setup Module, click User Accounts.
3. In the Current Users list, click the Add button on the toolbar.
4. In the User form, enter a User Name, Password and District Office.
5. In the Access Rights window, add the modules that the user will have access to and the data that they can modify (note: All users must be given access to the Home module).
6. Click the Save and Close button.

2.2 Changing Passwords

All users can change their own password by doing the following:

1. Select **Change Password** from the File Menu.
2. Enter the current password and press Tab.
3. Enter the new password and press Tab.
4. Enter the new password again in the Verify field.
5. Click the **Save and Close** button to save the record.

3 Replicas

3.1 Creating the Replicas

Use Windows Explore to locate the ProjectMISDataMaster file. Hold down the shift key and double-click on the filename.

Note: holding the shift key down opens the database in design mode.

1. From the Tools menu select Replication then Create Replica.
2. Follow the instructions given on the screen and create the following replicas:

ProjectMISDataBinSon
ProjectMISDataDucPho
ProjectMISDataMoDuc
ProjectMISDataNghiaHanh
ProjectMISDataSonHaSonGiang
ProjectMISDataSonHaSonTrung
ProjectMISDataSonHa
ProjectMISDataSonTinh
ProjectMISDataTuNghia

These are the datafiles that should be installed in each of the respective districts.

3.2 Installing the Replicas

To install the MIS in the district offices, follow the instructions given in section 1.2 and 1.3. The datafile will need copied to the District Office computer as well as to the DDO's memory stick.

4 Synchronising Replicas

Synchronisation is the process whereby replicas within the replica set exchange data with each other. As shown in the diagram below, the DDO's memory stick plays an important role in the RUDEP replica set. It is used to synchronise between the District PC and the PMO server. The key steps in the process are:

1. The DDO synchronises the database on the memory stick with the master on the Project Management Office server. Any new data (or updates) on the memory stick will be transferred to the PMO server and vice-versa.
2. Upon return to the District Office, the DDO synchronises once again with the District Office PC. This will ensure that the latest changes from the PMO and other districts are transferred to District Office database.

Note: The DDO synchronises the database on the memory stick with the database on the District Office PC. This should be done at least monthly.

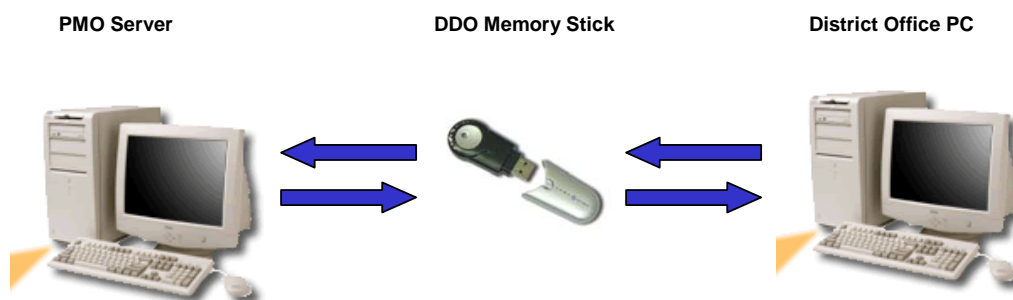
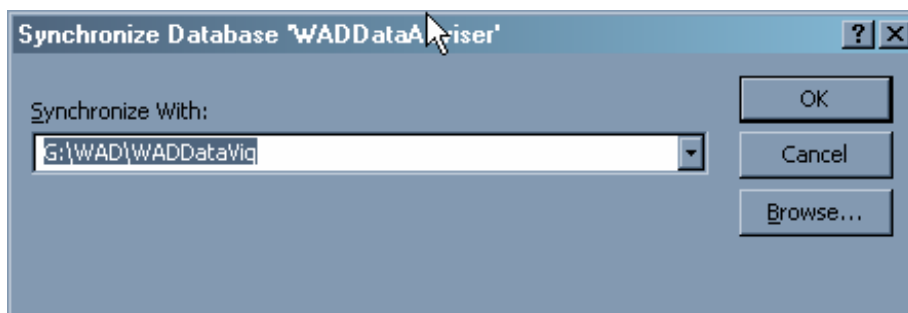


Figure 1: MIS Data Model

4.1 Synchronising and District Office Database with the Memory Stick

1. Plug the memory stick into the District Office PC.
2. Using My Computer or Windows Explorer click on the ProjectMISDataXXX (e.g. for Bin Sonh, the filename is ProjectMISDataBinSohn) on the Memory Stick.
3. Select **Synchronise Now** from the Tools Menu. You will be prompted to close the existing objects. Click **Yes**.
4. The window shown below will open. Use the browse option to locate the datafile on the C Drive of the PC (e.g. for Bin Sonh, the filename is ProjectMISDataBinSohn) click OK.



5. The Data Manager will synchronise the databases. Select **Yes** to close and reopen the Data Manager.

4.2 Synchronising the Memory Stick with the Project Management Office Database

Plug the memory stick into the MEGO's computer.

1. Using My Computer or Windows Explorer click on the ProjectMISDataXXX (e.g. for Bin Sonh, the filename is ProjectMISDataBinSohn) on the Memory Stick.
2. Select Synchronise Now from the Tools Menu. You will be prompted to close the existing objects. Click Yes.
3. Use the browse option to locate ProjectMISDataMaster on the C Drive of the MEGO's PC and click OK.
4. The Data Manager will synchronise the databases. Select Yes to close and reopen the Data Manager.
5. Upon return to the District Office, the DDO should synchronise the memory stick with the District Office database again. This will ensure that the latest changes from the PMO and other districts are transferred to District Office database.

4.3 Viewing Different Data Files

You can view different data files using the MIS. You may sometimes wish to access the data contained in the transfer file on your memory stick on another computer.

4.3.1 To Change to a Different Data File

1. Call up the MIS.
2. Click **Setup** on the logon screen and select the new data file. (Note: If you have already logged into the MIS you can simply select Data File from the File Menu).

5 Priority Tasks for DDOs

DDOs will need to check every record to ensure that:

1. District data is up to date. This includes District Contact Group and indicators.
2. Commune data is up to date. This includes District Contact Group and indicators.
3. Village Planning Group data is up to date. This includes group details, membership, problems and solutions identified.
4. Activity Group Data is up to date. This includes all fields for activity details, need and activity codes, membership and action plans. DDOs will also need to check that the Group Type is correct (e.g. Income Generation, Livelihood, Infrastructure) etc. It was difficult to determine the group type in the old database and some may have been incorrectly coded.
5. Credit Group Data is up to date. This includes all fields for credit group details, need and activity codes, membership and action plans.
6. Contact/Training/Capacity group data is up to date.
7. If a group is no longer active then the Group Status must be changed to "Inactive".

Limitations

URS Australia Pty Ltd (URS) has prepared this report in accordance with the usual care and thoroughness of the consulting profession for the use of the AusAID Quang Ngai Rural Development Program and only those third parties who have been authorised in writing by URS to rely on the report. It is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this report. It is prepared in accordance with the scope of work and for the purpose outlined in the Program Design Document.

The methodology adopted and sources of information used by URS are outlined in this report. URS has made no independent verification of this information beyond the agreed scope of works and URS assumes no responsibility for any inaccuracies or omissions. No indications were found during our investigations that information contained in this report as provided to URS was false.

This report was prepared during March 2003 and is based on the conditions encountered and information reviewed at the time of preparation. URS disclaims responsibility for any changes that may have occurred after this time.

This report should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties. This report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.