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An Integrated Information System for IFSP and Partners

Database Management GIS Remote Sensing

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Summary

The objective of this in-process consultancy was to assess the information system (IS) of the Integrated Food Security Programme Trincomalee (IFSP) and to assist the IFSP management in making the IS operational. The integrated mission included inter alia a training course for monitoring staff of the IFSP and partner staff and a brief reconnaissance mission to review the experience of other projects with database management, in particular for framework planning. In addition, the mission advised the partner institution, Provincial Planning Secretariat (PPS, NEP), on the intended procurement of remote sensing data.

The mission conducted a review of the spatial data sets. The GN / GS-Division-boundaries (1:63,360, one-inch-to-one-mile-series) could be introduced as a new spatial data set to the IFSP and partner institutions. This opens the way to two levels of presentation: the level of villages, and the level of GN / GS-Divisions which comprises a number of villages (up to 500 families). Still an update of other spatial data sets are needed, because scale difference might cause problems if an overlay of data is intended. Topographical maps in a scale of 1:50,000 are available. To increase the accuracy of presentation, it is recommended to transfer spatial data sets in a Transverse Mercator Projection.

The analysed thematic data of the database system MoRe Impact, comprising data on the socio-economic situation as well as project activities could be linked with the spatial data sets. Analysis of the thematic data can now be conducted on two levels of analysis: village level and GN / GS-Divisions. The linkage with spatial data sets is functional. One constraint is that MoRe Impact is currently only operational with MS Access '97. Conversion of MoRe Impact to MS Access 2000 should be assured. Still some modifications in MoRe Impact should be clarified: is a format for GN / GS-Division available? Can the number of components (representing the field of project activities) be reduced?

There are a number of donor-funded projects which intend to or are currently involved in establishing information systems in the North Eastern Province (NEP), e. g. Jaffna Rehabilitation Project (JRP) and the North East Community Restoration & Development Project (NECORD). Also the North Eastern Provincial Council (NEPC) runs a database management system. The mission recommends to coordinate the various efforts more efficiently to create synergy effects and also to avoid duplication of data generation. The World Food Programme (WFP) conducts a programme on Vulnerability Analysis and Mapping (VAM) in Sri Lanka as a pilot country (besides three other pilot countries). Information exchange could offer new opportunities of Vulnerability Mapping as a tool to improve targeting of project interventions.

The mission also reviewed the potential of remote sensing techniques for information management. A current and thorough land use map, which could be derived from remote sensing data, would support framework planning in a post-conflict situation. However, the partner institution, the PPS, faces several constraints and weaknesses, especially a high fluctuation in qualified staff.

The mission recommends to carefully explore further avenues of cooperation with the PPS to assure sustainability and quality management in the provincial information systems.

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Abbreviations

CGIAR	Consultative Group on International Agricultural Research
DS	Divisional Secretariat
GIS	Geographical Information System
GN	Grama Niladari
GS	Grama Sewaka
GTZ	German Development Cooperation (Deutsche <u>G</u> esellschaft für <u>T</u> echnische <u>Z</u> usammenarbeit)
IRS-1C/D	Indian Remote Sensing Satellite
IFSP	Integrated Food Security Programme Trincomalee
IS	Information System
JRP	Jaffna Rehabilitation Project
NECORD	North East Community Restoration & Development Project
NEP	North Eastern Province
NEPC	North Eastern Provincial Council
PPS	Provincial Planning Secretariat
RRAN	Rehabilitation and Resettlement Authority of the North
WFP	World Food Programme
VAM	Vulnerability Analysis and Mapping

1 Introduction

In Trincomalee district an alarmingly high percentage of the population is malnourished and exceptionally impoverished. With a large number of houses, village infrastructures and the production base destroyed, large sections of the population are suffering from alarming chronic and acute malnutrition. The vulnerability of female headed households is particularly striking. The prevailing destabilising security situation is a serious constraint for long-term oriented development co-operation.

The purpose of the Integrated Food Security Programme Trincomalee (IFSP) is to enable conflict-affected and impoverished groups whose food situation is precarious to raise and diversify their nutrition and income levels as well as improve their health. The IFSP was set up in August 1998 and is now in its second phase, which lasts until the end of 2003. With its focus on development rather than relief, the guiding principles of the IFSP comprise people's participation, mobilising local capacities and contributions, facilitating better services and promoting stability.

The IFSP perceives itself as a site of learning, i.e. as a system which is constantly promoting knowledge and disseminates it based on effective, sustainable practices and in-process learning. IFSP's areas of innovations include participatory planning approaches, community mobilisation and institutional capacity building.

2. Background, objective and implementation of the in-process consultancy

Since 1999, IFSP has been focusing on the establishment and consolidation of an Information System within IFSP as well as within partner institutions in the North Eastern Province (NEP). The integration of an Information System (IS) was undertaken in three steps which are described below:

The first step comprised two consultancies, which were conducted in 1999 and 2000 to establish a monitoring and reporting system within IFSP. During these missions, a relational database system called MoRe Impact was established, personnel recruited and trained in order to operate the computerised system (KRIMMEL / PRUM 1999, 2000).

In a second step, IFSP commissioned a consultancy to assess the feasibility for establishing an IS for the North Eastern Province. This mission focused on reviewing the basic conditions, constraints and efforts to develop an adequate IS for the NEP (BUENNING, 2000).

The present in-process consultancy which was undertaken from 30 January to 22 March, is considered as a supplementary step to the two earlier missions.

The specific objectives of this in-process consultancy were (see TOR, Annex I):

Assessing the state of the art of the IS in IFSP focusing on spatial and thematic data.

Reviewing existing spatial data and maps.

Aggregating new data sets and linking GIS and with MoRe Impact.

Conducting a training in GIS and database management.

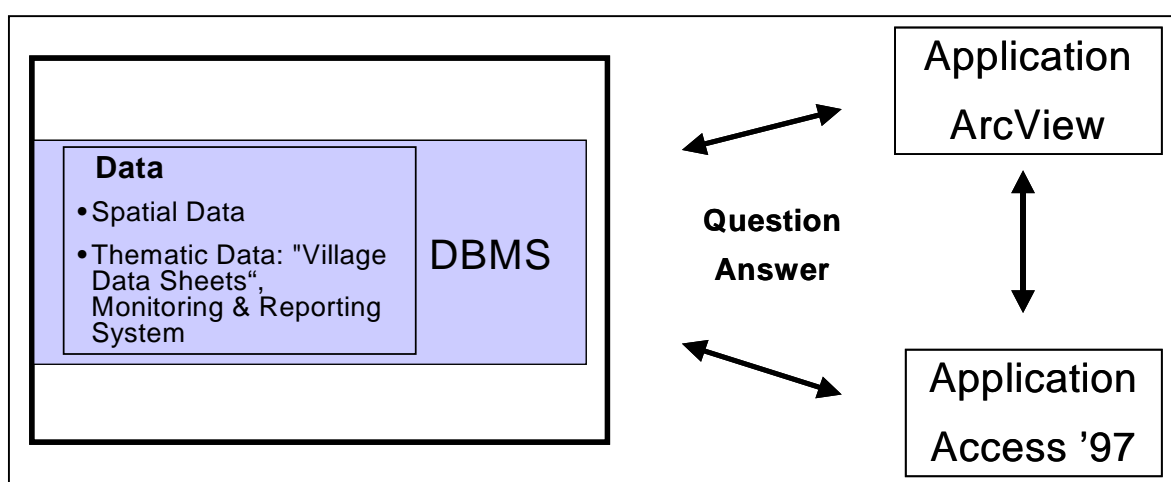
Supporting the partner institution Provincial Planning Secretariat (PPS) (NEP) in aggregating spatial raster data sets (remote sensing).

Reviewing data bank management approaches in selected projects.

The challenge of the present mission was that many constraints and problems encountered in the established information system of IFSP were not detected in advance. It was therefore necessary to re-adjust the terms of references and the working programme of the consultant flexibly to the upcoming most urgent requirements of the IFSP. For example, training did not cover database management as earlier considered important, since the overall structure of the information system MoRe Impact could not be clarified during the present mission.

3. Conceptual aspects of the information system in IFSP and partner institutions

The information system in the IFSP comprises two stages: one stage contains the databank, storing data from different sources and with different thematic topics, which are managed by a Database Management System (DBMS). The other stage refers to the possible applications for monitoring and evaluation by the IFSP.



Graphic 1: Information system in IFSP Trincomalee as Question – Answer – System (modified, BILL / ZEHNER, 2000)

As a user you might address questions to the information system, which are processed and analysed by either one application or in a concerted procedure. The answer will be presented in a cartographic edition as a map, containing e. g. socio-economic data in combination with their spatial reference such as the village. The data can be utilised for progress reporting, monitoring of outputs and evaluation of impacts of the IFSP.

General information on the MoRe Impact system can be derived from various documents (KRIMMEL 1999, 2000). The next two sections of this report will therefore focus on the database management system and its data “contents” as well as on the processing in an information system. As additional aspect, the potential of remote sensing as a tool for planning and enriching the information system will shortly be discussed.

3.1 Database management system

The database management system in the IFSP contains two main data categories:

- the spatial data sets in the Geographical Information System (GIS)
- the thematic data sets in the database and application MoRe Impact

Spatial sets in GIS

The spatial data include all topographical and attribute data processed by ArcView and differentiated by their topology as outlined in the following table:

Topology	Data	Scale
Line	Roads of Trincomalee District and neighbouring Districts	1:250000
	Rivers	1:250000
	Bridges	1:250000
	Ferry Network	1:250000
Point	Village coordinates of Trincomalee district: 120 villages (20.03.02) geo-referenced out of 582 and primarily processed in MoRe Impact Health facilities of Trincomalee District (partly) Tourist sides of Trincomalee District	GPS-Readings
Polygon	Country	1: 250000
	Provinces of Sri Lanka	1: 250000
	Districts of Sri Lanka	1: 250000
	Divisions Secretariat (DS) Divisions of Trincomalee District (on the base of GN / GS-Divisions)	1:63360(one-inch-to-one-mile-series)
	Grama Niladari Divisions of Trincomalee District (partly) ¹ (ca. 1997)	1:63360(one-inch-to-one-mile-series)
	Soil map of NEP	1:250000
	Land use map (1982-88)	1:100000

Table 1: Spatial data sets

During the review of existing data, an informal map with the GN / GS-Divisions (one-inch-to-one mile-series) from the late 1990ies could be identified. This map is not based on the common understanding and agreement of the responsible GN / GS-Officers. The map claims the status of documenting the state of the art. The existing constraints have been considered between the IFSP management and the consultant and it was agreed to generate a map of the GN / GS-Divisions in digital form. It was decided to elaborate a digital version and to include digitisation and editing in the training course with the worthwhile support of the PPS (NEP). In addition, a renewed, more detailed digital version of the DS-Divisions was also provided. At present, the IFSP monitoring staff continues with completing the GN / GS-Divisions with names. As reported by email the process is in the final stage and near completion.

The spatial data sets are still processed in the geographic projection. The common projection for Sri Lanka is the Transverse Mercator Projection. This could be one reason for the encountered inaccuracy of village coordinates. In some cases village coordinates appeared at impossible locations e. g. beyond country frontiers / in the Indian Ocean. Furthermore, it was observed that GPS readings are sometimes conducted at the outskirts of the village instead at the centre of the village. This could also increase inaccuracy. The system requirements are included in Annex II. The International Water Management Institute (IWMI), Colombo, offered technical support in this matter (see below).

¹ The political boundaries in Sri Lanka comprise six different units:

Country, Provinces, Districts, Divisional Secretariat Divisions, Grama Niladari / Grama Sewaka-Divisions and villages. The unit Grama Sewaka Divisions (GS, Tamil term) as well as Grama Niladari Divisions (GN, Sinhala term) is used to summarize villages up to a number of 500 families.

Thematic data sets

The thematic data, mainly processed in MoRe Impact, an MS Access '97 application, contain two sets in a data bank:²

- Data on the socio-economic situation in Trincomalee District, further compiled and analysed in the so called "Village Data Sheets". These data refer to the village level as "Base Unit"
- Data on the activities and progress of the IFSP Trincomalee, targeting the impact assessment of the IFSP

The "Village Data Sheets" give a comprehensive picture of the villages in the Trincomalee District. The village data sheets focus on the socio-economic situation describing with defined "cornerstones" of important socio-economic indicators for each respective village, such as the education facilities, vulnerability, employment situation, food production, water and sanitation, employment situation, living conditions. From these cornerstones, three "Summary Poverty Indicators" are compiled in interpolated formulas: Conflict Affectedness, Food Insecurity and Inadequate Social Services. The indicators refer to a ranking scale (1 = lowest until 5 = highest value). The data collection for the village data sheets was organised by the IFSP in cooperation with the Samurdhi Task Force. Data processing (data entry, interpolation, analysis) was done by the IFSP.

The second part of MoRe Impact targets the activities and the advance of the IFSP. It refers to the ZOPP logic with the different target levels Goal, Purpose and Results. During a planning workshop in 1999, the IFSP and its partners agreed on certain indicators as "milestones" (KRIMMEL, 1999, p. 5f; conceptual approach: p. 7 - 15).



The Monitoring and Report System addresses six components including three sub-components following the six results of the project planning matrix of the first project phase (1998-2001). The thematic components are listed in the graphic, the starting module for the data entry in MoRe Impact.

Graphic 2: MoRe Impact and the thematic components

The project progress review mission recommended a modification and adaptation of the components to the new Project Planning Matrix (PPM) for the second project phase (SCHALL ET AL 2000, p. 50).

During the planning workshop with partner institutions conducted during the review mission, the stakeholders agreed on the following four results for the second project phase:

² For further information on concepts and software solution of MoRe Impact, please refer to KRIMMEL, 1999.

1. Infrastructure Measures
2. Promotion of Health and Nutrition
3. Promotion of Services
4. Institutional Strengthening and Social Mobilisation

The mission also recommended to reduce the number and type of indicators to focus more on *impacts* rather than outputs. Therefore, it was discussed to reduce the number of target levels. A working proposal as example was prepared and discussed (see Annex 3). The proposal includes two reference levels:

- Area of Impact
- Target of Activities

During the assessment of MoRe Impact, several problems were encountered concerning the structure of MoRe Impact and its programming language in MS Access '97. The existing manual of MoRe Impact has proven to be insufficient for the consultant and the project staff to handle more sophisticated problems and to adapt the system to upcoming requirements (see also KRIMMEL, T / NARETH, P, 2000), in particular since it lacks commonly understandable references for the data sets and sub-components. MoRe Impact currently runs with MS Access 97 and it is not possible to convert neither the database nor the application MoRe Impact to an upgraded MS Access version. The consultant discussed this issue with Mr. Martin Winterer and Mr. Suraj, both involved in supporting the IFSP in software and hardware development. According to their understanding, the used programming language would most probably cause problems, since MS Access 97 bases on SQL, and MS Access 2000 requires a Visual Basic environment. This could make a conversion complicated and time consuming and should be carried out by software experts.

It was furthermore not clear up to the end of the present mission whether or not a form for data entry of GN-coding system does exist within the system. The latter would be an essential tool to analyse the aggregated data in MoRe Impact on the level of the GN / GS-Divisions as well as on village level (the latter is currently possible). A test conducted by the consultant showed that the linkage of the queries on the level of GN / GS-Divisions with the spatial reference (polygons) are functional and working. However, up to now, changes in data sets are not entered by project staff, because changes on the structure of MoRe Impact could affect the working procedures in MoRe Impact. The reduction from eight to four components could therefore not be carried out by the consultant. The application developer was contacted and asked to assist and advice the IFSP in the encountered problems.

3.2 Information system in IFSP

The information system is capable to give a common picture with its spatial reference at two levels of analysis and representation:

- the village level
- the Grama Niladari (GN) / Grama Sewaka (GS)-Divisions level
-

The most detailed picture presents the village level. On the level of GN / GS-Divisions more than one village is presented, (GN / GS-Divisions comprise villages up to the number of 500 families). In the Sri Lankan administrative system, the GS / GN division is the lowest administrative entity. The advantage of the presentation on the level of GN / GS-Divisions is to aggregate data with similar meaning (generalisation) and its reference

to the geographical area (spatial reference). For certain topics to be presented it might be useful to include generalised data and present data in cartographic edition.

Important questions to be included in the thematic and spatial analysis could be for example: How are the different communal groups represented in the different GN / GS-Divisions? What portion of displaced persons do live in the GN / GS-Divisions?

In case the data of villages are very different, it is more recommendable to focus on the villages itself and to emphasise the specific differences, for example the development of socio-economic indicators in villages with and without support of the IFSP & partners. The needed accuracy and details depends upon the specific objective of the presentation.

3.3 Information system in PPS (NEP)

The mission revealed several entry points with the IS of the PPS (NEP). The training in digitisation was carried out in close cooperation with the PPS (NEP). Another part of the mission was to discuss possibilities how and where to integrate remote sensing as a tool for planning in the partner institution PPS (NEP).

The need to include remote sensing data in the NEP lies on its spatial character as a guarantee for completeness and thoroughness. The PPS (NEP) still bases its framework planning on the land use maps of 1985, which do not give an actual picture of the situation in the NEP. In the last twenty years, however, dramatic changes in land use and land cover have occurred due to the conflict. It is essential that the PPS (NEP) disposes of an up-to-date stock of spatial data in order to prepare and plan post-conflict interventions in the province. (see Annex IV)

The PPS (NEP) faces certain constraints in establishing and managing an IS, which have to be addressed adequately. The main burden for the PPS is the high fluctuation of staff, in particular trained personnel in GIS, which leads to the situation that adequately qualified staff is not sufficiently available. The general institutional weaknesses of the administrative set-up in the NEP and the reasons behind have been outlined elsewhere (e.g. BAUER et al. 1999).

Another challenge is the conceptualisation of the IS and its implementation, in particular re-entering of existing data (duplication) as well as problems related to data consistency and reliability. The data collection seems to be neither streamlined and harmonised with the provincial ministries and departments nor with international funded projects. Data cemeteries and unrelated sectoral data bases have been found (see also BUENNING, 2000; VON SARNOWOSKI, 2001).

On the other hand, the progress achieved up to date by the NEPC should also be taken into account. The PPS (NEP) launched a web side (<http://www.nepc.lk>) at 15th of September, 2001. It is also intended to link all provincial ministries with a network based on ISDN connections in January 2002 and over time to expand the network to provincial departments, as well as other administrative units. General data of the NEP are processed by a data base management system (MS Access '97) and published in the *Statistical Handbook*. It is also important to consider that PPS (NEP) plays a significant role as a co-ordinating body for the cooperation of governmental organisations and international aid agencies. The commitment and openness of the PPS (NEP) could be the entry point for further considerations to promote cooperation.

4 Training in GIS and data base management

A 19-day (27.02. – 19.03.2002) training course was held at PPS (NEP) and the IFSP covering the following topics:

- concepts of GIS and data types
- digitising and editing of vector data
- analysis of data (clip, merge, intersect, dissolve)
- query building in MS Access '97
- introduction in principles of cartography and layout
- agreement on cartographic standards in the IFSP
- elaboration of thematic maps related to activities of the IFSP

The training included two engineers of the IFSP staff (Mr. Bhavan, Mr. Manoharan). During the digitising part two engineering draughtsmen (Ms. K. Kiroshnapillai, Mr. K. Umesh) participated as well. Digitising, editing as well as analysis of data have not been agreed in the TOR. After the reconnaissance mission, the IFSP management and the consultant agreed to include this part in the training to generate new spatial data sets.

The training consisted of theoretical lectures as well as exercises along the needs of the IFSP. The participants were also involved in small practical exercises during the lectures and constantly asked questions about topics that had already been covered in order to assure a common understanding on the related topics. Training manuals for the theory and practicals have been prepared and handed out to the participants (see Manual).

5. Experiences of other institutions with information systems and related topics

The state of the art in establishing information systems and ideas on further cooperation and exchange have been discussed with the World Food Programme (WFP), the Jaffna Rehabilitation Project (JRP), the Rehabilitation and Resettlement Authority of the North (RRAN), the International Water Management Institute (IWMI) and the Department of Census and Statistics.

5.1 World Food Programme (WFP)

The World Food Programme (WFP) conducts a cross-country programme on Vulnerability Analysis and Mapping (VAM) to assess the vulnerability of communities and geographical areas using 22 variables. The WFP launched VAM as pilot project in four sites. Sri Lanka is one pilot country for VAM besides one country selected in Africa and two countries in Latin America. The aim is to provide general data sets of vulnerability concentrating on socio-economic data as well as status of natural resources. The data reference is the divisional level. The data is statistically processed in two stages: by a principal components analysis and a factor course to identify clusters. The data are statistically processed with computer software (SPSS). The cartographic presentation is done in MapINFO.

The profiling of the support areas is finalised by a qualitative approach where a baseline survey is conducted (“Village Profiling”). An assessment of existing assets takes place in order to identify the needs of the community.

Beside the VAM another interesting pilot project is the Wannu data base where a conflict mapping along certain indicators is conducted.

5.2 Jaffna Rehabilitation Project (JRP) and Rehabilitation and Resettlement Authority of the North (RRAN)

The aim of the GTZ-‘Eigenmaßnahme’ (self-financed action research of GTZ) is to develop an information system for the planning and co-ordination of rehabilitation and reconstruction programmes in Sri Lanka (VON SARNOWSKI 2002). The Rehabilitation and Resettlement Authority of the North (RRAN) is the main implementing partner of the GTZ funded Jaffna Rehabilitation Project (JRP). The district Vavuniya was chosen as a pilot district. The data requirements for planning rehabilitation and reconstruction has been defined with the help of a questionnaire.

During the reconnaissance mission, it was stated that the design of the database shows many similarities with the “Village Data Sheets” established in the IFSP. The aim of the database established at RRAN is to present a comprehensive and thorough picture of the Northern Province. The establishment is still in the starting phase, data collection is ongoing and existing flat files are transferred into the data base. A new village coding system is going to be introduced. The new system intends to transfer the existing system used in the administrative set-up (mixture of number and letters) into a purely number coding system (VON SARNOWSKI, 2002).

5.3 International Water Management Institute (IWMI)

The International Water Management Institute (IWMI) is an independent research institute of the Consultative Group on International Agricultural Research (CGIAR), based in Colombo. IWM focuses its research on the effects of human influences on the environment with emphasis on water resource management. IWMI is also a cooperation partner for WFP concerning VAM. For mapping and monitoring, a GIS is established and remote sensing is applied in selected sites.

Up to present, IWMI does not apply remote sensing in the NEP. Nevertheless, the IWMI should be considered as a potential partner for further cooperation and information exchange. The IWMI is willing to offer professional support in GIS as well as remote sensing.

5.4 Department of Census and Statistics

During the reconnaissance mission on spatial data sets, the consultant contacted also the Department of Census and Statistics. The existing map of GN / GS-Divisions-Boundaries which is available at the department, dates from the early 1960ies.³ Due to the conflict situation, government officials have limited access to certain areas in the NEP, which are under the control of the LTTE and local powerholders or the access is officially limited (uncleared area). A recent study commissioned by the IFSP (KORF et al. 2001) has pointed to the volatile situation of land use, in particular insecure and unregulated land use rights and land tenure systems. The regularisation of land use rights would be an important pre-condition for a peaceful life together among the various communal groups in

³ The newly generated map is a working base but does not present an agreed status of the official GN / GS-Divisions-Boundaries.

the NEP, especially in a post-conflict phase. The current status of land use rights does not support a peaceful resolution of communal resource conflicts.

It was discussed to offer support for an official cataster. Therefore a come-together-event and workshops of all GN / GS-Division- officers as well as Divisional Secretariats (DS) should be organised to agree on the GN / GS-Division-boundaries.

The proposal for the steps are as follows:

1. Meeting of all GN / GS-officers and responsible DS, Workshops
2. Elaboration of mental maps
3. Tracing on transparent paper
4. Eye-by-eye transfer on a enlarged copy of a topographical map.
5. Transfer on the map

The proposal is based on the experiences of the Department of Census and Statistics with similar campaign in the south of Sri Lanka. The Department of Census and Statistics mentioned project costs of Rs.1 Million, the estimated time frame is one month.

6. Recommendations for IFSP and partners and IFSP management

6.1 Updating MoRe Impact

MoRe Impact covers many interesting aspects and offers the linkage with GIS. The linkage of the thematic data with the spatial reference on a small scale level make the information system attractive for information management. The mission recommends the following steps to render the system fully operational:

- Using the GN / GS-Coding system as unit of analysis:
Making use of the GN /GS coding system as an unit of analysis besides the village level are useful and practical for certain targets. It has to be clarified with the programmer of the application MoRe Impact if a format for the data entry in MoRe Impact already exists or has to be newly introduced.
- Completing the data collection of village coordinates by GPS readings and data entry:
Data collection of village coordinates by GPS readings is ongoing and should be completed. The coordinates of about 360 villages still have to be collected. The GPS-reading should be taken in the centre of the village to achieve best accuracy. An official permission should be carried with the team collecting village coordinates. The collected coordinates should be entered in the respective format in MoRe Impact.
- Modification of the PPM and transfer of changes in MoRe Impact:
After the agreed modification of the PPM the changes can be transferred in MoRe Impact. This includes a reduction of the components. The set of indicators for monitoring should be adapted to the current PPM and include more impact oriented indicators (see Annex III).
- Make MoRe Impact operational on MS Access 2000:
A conversion is required to make MoRe Impact operational with MS Access 2000 (see above) which should be done by a competent person, such as the software developer currently working with IFSP.

6.2 Updating spatial data base

The spatial data base can still be enlarged, finalised and improved. The following steps are recommended:

- Digitising topographical data sets in a scale of 1: 50,000:
The existing topographical data sets in digital form refer to a mapping scale of 1:250,000. This could create overlapping problems with the GN / GS-Divisions data set which is based on a scale of 1:63,360 (one-inch-to-one-mile-series). The accuracy increases if the spatial database such as roads, rivers, country shape, is updated on a scale of 1:50,000. It was also discussed to identify the “uncleared area” on the map, to digitise it and present the area at least for internal use.
- Transforming spatial data sets in Transverse Mercator Projection:
Up to now, the existing spatial data sets are processed without projection. To increase the accuracy, the mission recommends to transform the spatial data sets into the Transverse Mercator Projection. Technical support by the IWMI is envisaged. This opens also the way to the information exchange and overlay functions with VAM, carried out by WFP and processed by IWMI.
- Securing the follow-up of existing data:
The existing data base should be secured and complemented. The digital data set of the GN / GS-Divisions is still incomplete. The lacking information of the divisions of Padavisiripura, Gomerankadawela, Muthur and Kuchchaveli should be collected and introduced in the respective file.

The described steps above are summarised in the “Work plan for the GIS / Monitoring Unit”, which the consultant developed in collaboration with the monitoring unit of the IFSP (see Annex V).

6.3 Promotion of cooperation with PPS (NEP)

The PPS is the central government body for framework planning on a provincial level. Even though the PPS is still weak due to the difficult circumstances of the NEP, the mission recommends to strengthen cooperation with the PPS in information management, in particular with regard to:

- Introduction of MoRe Impact to partner institutions:
MoRe Impact should be introduced in the partner institutions and embedded in the monitoring units. Still some problem need some accompany and hamper this process, so MoRe Impact should move from the island solution towards a functional and common tool for monitoring and reporting. Training courses should be conducted to familiarise the relevant staff with operating the computer system.
- Cooperation in database management:
PPS (NEP) runs a data base system (MS Access '97). An assessment on needs and further cooperation plans in form of a workshop could avoid duplication and create synergy effects. A more intensive assessment of the state of the art of the database management is needed.

6.4 Institutional cooperation

The mission recommends that IFSP continues and expands its cooperation with other donor-funded projects. Concerted action in establishing information systems and network building addresses three key targets of development cooperation:

1. Synergy effects
2. Sustainability towards its implementing partner
3. Quality management
- 4.

This can be supported by:

- Information exchange and concerted action with RRAN / JRP:
Still it is not clarified how the common partner PPS (NEP) of the JRP and the IFSP will handle these databanks in the close future, especially a post-project phase. Therefore, JRP, IFSP and PPS (NEP) should explore avenues for more intensive cooperation. Support in the analysis of data with SPSS could be offered, a concerted query system could be developed.
- WFP information on vulnerability mapping in different scales:
The “Village data sheets” covers also many aspects of vulnerability. The different scaling levels make it interesting to keep a steady cooperation and regular meetings with the relevant unit of the WFP. With some minor technical adjustments (Transverse Mercator Projection), a digital overlay of data sets can be conducted, the data sets can be compared and analysed.

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