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of Afghanistan**



**Ministry of Rural Rehabilitation and Development
(MRRD)**

RuWatSIP Department

DRAFT version

draft

Planning Report for 2013

Capacity Building and Institutional Cooperation in the field
of Hydrogeology for Faryab Province
Afghanistan

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.ACRONYMS AND ABBREVIATIONS

AFG	Afghanistan
ARTF	Afghanistan Reconstruction Trust Fund
AUWSSC	Afghan Urban Water Supply & Sewerage Corporation
CAD	Computer Aided Design
CAWSS	Central Agency for Water Supply and Sewerage
CDC	Community Development Committee
CLTC	Community Led Total Sanitation
DACAAR	Danish Committee for Aid to Afghan Refugees
DDA	District Development Assemblies
DPSI	Direct Project Implementation Section
e.g.	For example
GIS	Geographical Information System
GIZ	German International Development Cooperation
GPS	Global Positioning System
ha	Hectare
HGS	Hydrogeological Study
ICCB	Institutional Cooperation and Capacity Building
IP	Induced Polarisation
ISAF	International Security Assistance Force
Km ²	Square kilometres
MAIL	Ministry of Agriculture Irrigation and Livestock
MFA	Ministry of Foreign Affairs - Norway
MIS	Management Information System
MoMI	Ministry of Mine and Industry
MEW	Ministry of Energy and Water
MoPH	Ministry of Public Health
MRRD	Ministry of Rural Rehabilitation and Development
MUDH	Ministry of Urban Development and Housing
NABDP	National Areas Based Development Program
NCA	Norwegian Church Aid
NGO	Non Governmental Organisation
NOK	Norwegian Kroner
Norad	Norwegian Agency for Development Cooperation
NRAP	National Rural Access Program
NSP	National Solidarity Program
O&M	Operation and Maintenance
PCU	Project Coordination Unit
PRRD	Provincial Rural Rehabilitation and Development
PRT	Provincial Reconstruction Team
RFP	Request for Proposal
RuWatSip	Rural Water Supply, Sanitation and Irrigation Department in the MRRD
TMU	Technical Monitoring Unit
TNA	Training Needs Assessment
TOR	Terms of Reference
UN	United Nations
UNICEF	United Nations International Children Emergency Fund
U.S.	United States
WASH	Water and Sanitation and Health
WSG	Water and Sanitation Sectoral Group
WSIP	Urban Water Supply Improvement Program
%	Percentage

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1 PROJECT SYNOPSIS

The Planning report presents the overview and status on how the project stands and how the implementation phase will be organised to see the project to its completion.

The project has met many challenges which have affected progress. The report will briefly describe how some components have proceeded relatively well while other activities are behind schedule. This has resulted in some activities still being in the planning phase while other activities are well into the implementation phase. The report indicates reasons for variations in implementation schedules and modifications in some of the activities.

The report present the outputs to be prepared during the implementation period which include

Hydrogeology	GIS	Water & San	Training
Survey method	Designed system	Town survey	Designed 30 training courses
Survey report Faryab	GIS maps for hydrogeo	Conceptual design	Trained 400 staff
New equipment with trained operators	Web GIS Ground Water Atlas	Preliminary designs	New methods for hydrogeology
	GIS-MIS unit established	Generated awareness for water testing quality control.	Manuals

In addition to the above, much has been achieved with stronger links between all agencies working in the field of hydrogeology. This will generate mutual support and strengthen sustainability of activities. This is described in the report.

The report highlights the capacity building activities under the program (ICCP) The program is large and will cover over 30 different courses and perhaps close to 50 short curses implemented.

The progress is good in the field of hydrogeology covering development of survey methodology. Also field surveys in Faryab for the hydrogeological report is in good progress and will be finalised during the implementation phase.

The development of the GIS system for hydrogeological mapping is now proceeding well, but it was nearly 9 months late in starting because of the need to recruit a local adviser to start a MIS-GIS unit in RuWatSIP. Given the late start this process in now moving quite well and some of the first outputs are shortly to be demonstrated on the GIS desktop system.

The mobilization of water supply survey, planning and design for rural towns have been grossly delayed and has not really taken off. There have been many challenges including effective communication links with Faryab.

The taxation and duties problems caused uncertainties the first year in particular resulting in the project being behind schedule. It is proposed that the whole project needs an additional 6 months to be completed. Most activities would by then have been completed, but with some uncertainties for activities in Faryab where the provincial government and local security situation may define the pace of development.

This plan argues for the need to strengthen staffing, particularly for practical training in hydrogeology. The project has been fortunate to find an expert who covers hydrogeology, geophysical investigations and GIS, where he has extensive practical experience. This is just what is needed and this time has been increased as the most used short-term consultant. The management of the project also has required more staff time and this is shown in the report.

Fortunately the security situation has been containable and most of the work has proceeded without much interference in Kabul. In Faryab the varying security situation affects access to some of the districts.

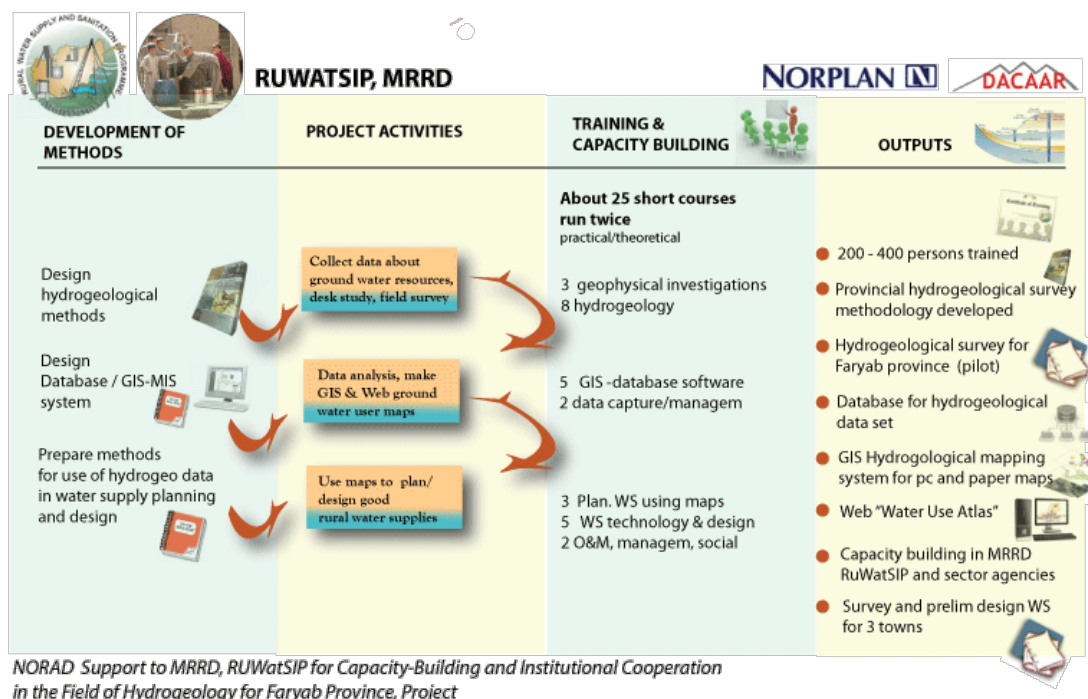
The report highlights that the client's limited capacity to participate in the project at senior levels is a challenge and has affected the project. This is also a concern for the future sustainability of some of the project activities. Counterpart staff have not been available on a regular basis due to other heavy engagements by key staff in the department.

Sector coordination has been very good and active participation in the training courses is most encouraging. In addition to MRRD (whose staff always attends the training sessions), MEW, MoM, Afghan Geological Survey, the Universities, MAIL and NGOs and others have actively participated. Information on the project and its planned activities is disseminated through these sources and via the project web page (www.norplan.af)

In conclusion, it is believed that the project is moving forward relatively well. The components of hydrogeology, GIS and ICCP training shows good progress and can be expected to achieve their output targets by extending the completion date by 6 months. The elements which may have higher risk of not making desired progress are water and sanitation planning in Faryab, and exploration drilling in that province.

The project website can provide further project details of status and on-going activities, which suggest that the project can obtain reasonable success. The support by DACAAR, in particular, and by MEW and other NGOs, in general, lead us to believe that the project is needed and appropriate.

Project diagram shown below:



2 BRIEF BACKGROUND

2.1 Background and reporting

The Inception report was submitted at the beginning of April 2012. First in December 2012 after the Annual meeting between NORAD and MRRD was the inception report approved and revised budget endorsed. In addition, there was a problem concerning general Agreement between NORAD and MRRD covering the project. The challenge was that it appeared that the tax and duty exemption for the services and equipment under the project needed approval from Central Government which it did not have. The resulting uncertainty caused delays in payment of consultant, clearance of cars in bonded warehouses and uncertainty whether the project could proceed or not. Thus overall unclarity caused delays.

The mentioned delays also influenced the planning and reporting. For that purpose of providing a general progress overview format, a project web page was created (www.norplan.af). Though this web page the client and his staff, partner organizations and sector actors and funding agency could follow project progress and see project status. This mode of information has been used throughout.

By using the web page, for provide general information, the formal reporting is slightly behind schedule. The report presented here should be prepared after the planning phase. The difficulty has been that while some activities are progressing well and are well into the implementation phase, other activities are still in the planning phase. Even so, since the project is now approaching mid-term, it is timely that the planning report is submitted as an input for the implementation phase.

The content of this report is outlined in the TOR and shown below and this will to a large extent be followed herein:

Planning Report (including First Progress Report)

- Project synopsis
- Presentation of a detailed approach and methodology for the next stage, taking into consideration the prevalent security and political situation in the Province and the country at large.
- Formulation of the project outputs/deliverables in the Implementation Stage and the outcomes.
- Preparation of a detailed ICCB training program for the Implementation Stage (based on the outline scope of training and TNA presented in the Inception Report).
- Design of the HGS (including, procedures for borehole siting using geophysical survey techniques (electrical resistivity, magnetometer, seismic etc), provision/, organisation of the drilling activities, the drilling team set-up, the proposed location of test drilling holes, sampling and analysing of water quality, test pumping, data collection/compilation and database entering, identification of gaps in the data, quality assurance).
- Adaptation of the existing MIS in MRRD taking into consideration what currently exists and what new development is required. Standardisation in order to easy transfer data between the relevant actors is an important element here.
- A conceptual outline design of up to three water supply schemes to smaller towns (less than 5,000 inhabitants) within Faryab Province. (Towns selected in close cooperation with provincial authorities),
- Assess various alternatives for water supply to the three selected small towns (including use of brackish water with treatment), including outline financial analysis of the various alternatives and assumptions/risks of implementation
- Updated work plan, time and personnel schedules for the Implementation Stage.
- A detailed budget for the Implementation Stage.
- A updated listing of constraints, risks and assumptions, related to the activities in the Implementation Stage.

The structure of the report follows the key thematic areas covered by the project namely

- Hydrogeology
- GIS and data management
- Water supply and sanitation
- Training and capacity building

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- Institutional development
- Project management
- Variations from original TOR
- Project risks

For each of the components will be discussed covering the issues outlined in the report format in the TOR.

2.2 Progress reports

Progress reports and revised budgets will be submitted in separate documents.

Revised budget September 2013

Progress report will be attached to the report

2.3 Web site. (www.norplan.af)

As indicated above the web site provide background information, documentation relevant for the project, and project progress. The web also show news, and photos of training activities.

The web can be used to provide supplementary background information for this report.

MAIN MENU LINE for the web:

HOME	OBJECTIVE	ACTIVITIES	OUTPUTS	FARYAB	ADJUSTMENTS	KEY ACTORS	NEWS	CONTACT US
RuWatSIP	STAFF	Coordination	HYDROGEO.	GIS-MIS	Wat-San	TRAINING	Management	Progress

The top menu cover general issues while the lower line cover information about

- RuWatSIP, Organization, WSG, WASH,
- Staff from all MRRD, DACAAR and NORPLAN.
- Coordination focus on key agencies involved,
- Hydrogeo; covers surveys, design, hydrogeological methods, results ,
- GIS_MIS covers progress with work, proposed system designs.
- Wat-San covers activities to be covered in Faryab,
- Training cover all components for the capacity budging program and training. Planned courses, course reports, equipment, resource persons,
- Management covers Norplan office, procurement, equipment and software acquired .
- Progress covers progress reports.

3 HYDROGEOLOGY.

3.1 Methodology for provincial surveys and mapping

A methodology for provincial surveys have been drafted and presented. Part of the methodology has already been used by DACAAR for field surveys. For the implementation phase, what remains is to discuss the methodology, try to apply the approach in other test provinces and make revisions and adjustments so as to make the methodology fit for use in Afghanistan by the different government and sector organizations.

Remaining work constitutes feedback on methodology, from discussions in during training courses and workshops and from applied use, followed by revision.

3.2 Data collection for hydrogeological survey report for Faryab

Much of the field data collection in Faryab has been completed. Surveys have been carried out by DACAAR. Collected sampling bottles have been sent overseas for analysis for high precision ICP-MS and ion chromatography chemical analysis, but also for stable isotope (^2H and ^{18}O) analysis, in order to trace origin of water found at the different water facilities. Surveys were conducted according to developed methodologies (see Website, under Hydrogeology).

- Precipitation sampling
- Soil sampling
- Registration and sampling of wells, boreholes and springs in Kohistan, Gurziwan, Bilcheragh, Qaysar, Andkhoy, Qaramqol, Qurgan and Khani Chahar Bagh districts.
- River profile registration and sampling in the Maimana and Shirin Tagab rivers.

Although most of the field sampling has been completed, and all samples have been sent abroad for analysis, the results from the analysis have not been received yet for all samples. BGS laboratories in UK has analysed the samples

The field surveys conducted by DACAAR have been implemented quite well. The work should have started autumn 2012, but with the late first visit and project launch workshop in November 2012 in Maymane, Faryab, the field work could first start in December 2012.

3.3 Field surveys and geophysical investigations in Faryab.

During the desk study and preliminary study of the hydrogeological data, a workshop of hydrogeologists in Kabul proposed two areas for further field investigations and possibly exploratory drilling in order to quantify ground water resources in potential aquifers near Maymane and Shirin Tagab. In addition, it was further proposed that exploratory boreholes could be considered near Andkhoy where NCA has identified two possible water sources with "less saline water". . David Banks, hydrogeologist, has developed desk studies of the proposed Shirin Tagab and Maimana Airport areas, and a plan for implementation of geophysical and exploratory drilling investigations. According to this plan, geophysical investigations and water features surveys should commence in Autumn 2013.

3.3.1 Geophysical investigations in Faryab

It is proposed (and supported by MRRD) that the senior hydrogeologist from MRRD and a hydrogeologist from DACAAR should travel to Maymane to commence the site walkover survey, water features survey and geophysical investigations proposed for potential aquifers near the airport. If the security situation permits, similar investigations should also commence at the proposed Shirin Tagab investigation area. The timing of the work was proposed to take place after the training courses in resistivity analyses has been completed (June 2013). These investigations in Faryab should thus commence in Autumn 2013.

3.3.2 Exploratory boreholes

It is envisaged that about up to 10 – 11 exploratory boreholes will be sunk (2-3 production wells and c. 7-8 observation boreholes) at the Shirin Tagab and Maimana Airport test sites. The exploratory drilling with subsequent test pumping is planned in 2014.

3.4 Preparation of hydrogeological report

The hydrogeological report for Faryab can first be finalised when all the field investigations have been completed. The senior hydrogeologist David Banks is drafting the report which will be delivered in mid-2014 as a draft version for comment, and later in the year as a final version. It is envisaged that this report will be published as a high-quality publication, forming the basis for the Hydrogeological Atlas of Faryab.

3.5 Activity schedule Hydrogeology

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4 GIS

4.1 General status for GIS

The GIS component is a very important in order to be able to communicate valuable information the user of information for groundwater resources.

At the onset of the project, it became apparent that the international experts providing project support did not find suitable and qualified expertise in RuWatSIP to handle the needed dialogue in order to establish a unit which could handle the GIS mapping requirement. NORAD agreed during the Annual Meeting that a local GIS expert could be recruited for 2 years to establish the GIS-MIS unit. The adviser started work in December 2012 and his mandate was to serve RuWatSIP and parallel and complementary UNICEF supported data water supply data for mapping rural water supplies, drinking water quality and functionality of rural water supplies as well as covering the Capacity building project for hydrogeology implemented by NORPLAN.

International experts has in 2012 drafted a framework for the hydrogeology system as can be seen on the web (First draft system under the GIS menu).

After the arrival of the adviser, a the format for maps has been developed and is now in draft form. The GIS adviser and the deputy team leader has also visited the NORPLAN office in Abu Dhabi for training and for formulation of the web water user atlas which is planned as a web based presentation of the GIS maps prepared on the desk top computers. Necessary software programs have been acquired, and computers procured and the GIS-MIS unit established in RuWatSIP.

The web based hydrogeological mapping solution is temporarily under development at NORPLAN using the following address: ruwatsip.avinet.no. The files will later be transferred to the project server.

4.2 Plans for the implementation period.

4.2.1 Finalise the map format framework with attributes

The developed map display framework with the different attributes are being developed and discussed internally. It is expected that the format can be finalised within a two months. It is suggested that the format and design should be presented to potential users in a one day workshop of such information before finalise the design. This is planned within two months.

It will be focussed on format for different users which could be:

- Hydrogeologists
- Water engineers planning water supplies
- Water programme planners
- Others.

The importance is that different users may be interested in different type of detailed information. Thus by inviting the users for discussion the chances increase for users to make use of the developed tool.

4.2.2 Establish and structure the GIS-MIS unit and prepare a plan to render the unit and staff sustainable

The GIS- MIS unit has two other staff supporting the unit headed by Prof. S. Zarinkhail. A plan will be prepared for RuWatSIP with proposal what may be needed to secure sustainability of the unit. Linking to external institutions for a period will be explored and considered

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4.2.3 Prepare a proposal for the institutional support framework at provincial and project level needed to support replication of the surveys to other provinces

Proposal for staff needs and training needs at provincial and project levels will be prepared. This will be developed also when considering the data collection requirements for the Water supply, water functionality and water quality surveys planned for large scale data collection within RuWatSIP and with support of UNICEF.

4.2.4 Test system for two other provinces

Once the system is established for two provinces, preferably provinces which already is relatively well covered with technical data from existing water points. Provinces A or B could be Nangahar or Ghazni or similar provinces with much technical data available. The main technical data readily available can be collected from the WSG or DACAAR database providing most technical data.

This testing exercise will show that the designed data collection, and data cleaning system works as well as establishing the data in GIS on the laptop and subsequently converting this for display in the web- water user atlas.

4.2.5 Review training of personnel

The GIS adviser will review and test the adequacy of the training plan organised and modify this if needs require adjustments

4.2.6 Establish methodology for data collection, data entry and cleaning of data for entry in GIS

For the data collected from Faryab. The cleaning of data has been done by an international expert to assure adequate quality control. An instruction will be prepared to cover the mentioned task and this will be used when testing the system for two other provinces.

4.2.7 Establish the web water use atlas based on GIS maps

The web presentation of the GIS maps which here will be called web user atlas, will be published and established on the local server. Norplan propose that links and support should be agreed with external organization to secure that the services will be providing continued services for a minimum of 5 years by which time external support may not be needed

4.2.8 Plan and implement training to secure continuity of web user atlas.

For the web data presentation, the project through the GIS adviser, adequate training will be provided in MRRD but also extended training to other organizations using the same tool.

4.2.9 Prepare documentation and manuals for continuity of work

In line with the TOR the project will prepare manuals and documentation describing who all parts of the GIS system works and is organised. This work will be organised by the GIS adviser.

4.2.10 Organise and planning of National GIS Conference

It is proposed that during the last 6 months of the project, a national conference will be organised to present the expertise of GIS in Afghanistan and the use in all different

applications as desk top solutions and as web based presentations. The conference needs many external partners

4.2.11 GIS- Activity schedule

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5 WATER SUPPLY AND SANITATION

It has been difficult to mobilise activities in Faryab for different reasons which we need to mention briefly in order to appreciate proposed action forward.

5.1 Defining settlement areas

The TOR propose that the project should survey and plan for water supply in three towns and it also states that those towns should have less than 5000 inhabitants as not being an urban area outside MRRD jurisdiction. In order to clarify what a towns is or whether areas like Maymane or Andkhoi or a cluster villa

Planning process for water supply and sanitation for Faryab have to fit within the following framework :

- Rural towns or settlements within the jurisdiction of MRRD
- Focus on water and sanitation policy framework in line with National policies as defined by Water and Sanitation coordination group as chaired by MRRD which means activities covering
 - Water supply with capacities of 25 l/p/day
 - Sanitation
 - Hygiene education
 - Community management.

5.2 Prioritizing areas for planning

The provincial government should provide a priority list for the candidate rural towns to be considered for planning. The rural towns or settlements for planning should be identified by the province. Based on criteria given NORPLAN would then review and assess which areas a water supply plan would be possible based on the hydrogeological data.

5.3 Support to strengthen Province for improved coordination for WS activities

The provincial governor requested during the last meeting that the project should provide one officer at the provincial office to strengthen the coordination of the project. The flow of information is week and the province seems unable to coordinate the activities

5.4 Planning closer coordination other implementing agencies for training and project planning and possibly implementation

For effective planning close coordination and discussion with all actors in Water supply actors in Faryab is desirable. DACAAR is NORPLANs partner for the project and will provide invaluable support for field work as well as experiences form projects in the province of what works and what seems to be good and sustainable solutions. Also NCA, ACTED and INTERSOS are also experiences organizations which NORPLAN hope to work closely with for affective planning and evaluation of sustainable solutions.

It is planned that each province will also have a WASH cluster coordination committee and one will be established. When this is functional, this will also be used for enhanced effective coordination.

5.5 Geophysical investigations for selected or identified areas

Once potential rural towns or settlements have been identified, the project plans to start with technical walk-over surveys, collection of data from existing water sources in the locality and subsequent conducting geophysical investigations where appropriate. The investigations will be based on techniques covered in the previous training programmes under this project.

5.6 Project planning and implementation modality

Once the preliminary technical screening have been done, then the survey and planning strategy have to be developed. This is necessary since the Capacity Building Project does not have funds for construction of physical features. It was suggested by the Governor and Norplan that a planning sessions should be held with all key water supply and sanitation actors in Faryab to seek a planning and implementation approach prior to starting close interactions and surveys with the communities. This is very important since it is not possible nor advisable to try to mobilise a community for participatory planning for important infrastructure development is resources are not available for implementing the plans. By merely working with communities creates expectations which have to be managed based on what realistic support the project can support. Interactive planning is based on developing community trust for joint planning, implementation and for future operation and maintenance of services. The whole process is very important and have to be handle using best practices in the province and region for sustainable interventions.

5.7 Preparation of conceptual plan

Once the preliminary technical data has been collected, a conceptual design presenting alternative solutions will be prepared. The conceptual design will yield possible service levels, benefits, cost implications and funding organizations and beneficiaries, and operation and maintenance arrangement for sustainable services.

The framework for the conceptual design will be based on government policiies for rural water supply and sanitation policies as presented by WSG and MRRD.

The issues for discussions will include:

- Water source
- Water quality
- Water quality
- Proximity to users
- Technology options for water supply and sanitation
 - Water supply:
 - Springs
 - Wells
 - Borewells with handpumps
 - Borewells with pumping and distribution network
 - Treatment facility and technology
 - Storage facilities
 - Sanitation

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- Community management for operation and maintenance
- Costs and affordability for users

With the conceptual plan, various feasible options could be presented to the different communities for discussion of service levels, preferences and community commitment for assuring the services sustainable.

During this phase, the financial analyst will be involved in assessment of financial feasible and sustainable solutions.

It is envisaged that different solutions may be selected for different communities.

Based on an agreement and understanding with the communities, and subject to selected solutions being secured funding, the project can proceed to project design.

5.8 Preparation of water supply design

With an agreed selected water supply and sanitation service framework for the different rural towns, a detailed design will be prepared. At this stage it is not possible to describe what this may entail, since this could just cover describing standard designs for borewells with handpumps, it could cover different types of pumping schemes with smaller networks for community management, design arrangement for small desalination units, etc.

The design will be sufficiently clear so that documents can be prepared for making preparation of bidding documents easy based on designs.

5.9 Preparation of implementation plans for rural towns or settlements.

As the project is proceeding to detailed design, and implementation plan will have to be made. At this stage it is not know what this will look like and how the facilities in the selected towns will be handled. There could be different alternatives which could include:

1. Norwegian Government propose that funding made available through NGOs working in Faryab should could be used to cover the implementation of the plans prepared by the Capacity building project. This assumes of cause that the NGO is question has been a close project partner during the planning phase of the project
2. The HGS project provides technical input for the project such as hydrogeological surveys, engineering support, while an Norwegian funded NGO handles the social mobilization, community capacity building and project implementation
3. Government secure funding for the project and the plans once agreed are tendered under the government framework. This the RRD will be responsible for project supervision and contract supervision from Faryab while the overall contract is managed by RuWatSIP.
4. Other arrangements

The financial framework need to be agreed before active community interaction can take place because the information flow to the communities must be correct and clear at the earliest possible stage.

5.10 Water Supply and Sanitation - Activity schedule

The proposed activity schedule for work in Faryab is indicated below. Needless to say, the project should not move faster than the provincial government can move in order for them to develop ownership the project. The activities listed below are also to a large extent dependent to many outside factors which the project cannot control including:

- Provincial Government listing of priority areas to be considered
- Security situation in the selected areas and ease of travelling between Kabul and Faruyab
- Hydrogeology in the selected areas
- Funding arrangement for project implementation
- Capacity of participating organizations

The project will prepare reports for covering the activities covered.

5.10.1 Time schedule and completion

Project activities in Faryab are well behind schedule. The launch workshop was first possible in November 2012, and by September 2013, the province had still not identified or submitted prioritised towns for consideration. This means that the field survey and planning can now first be undertaken in 2014. Any implementation will at best start late 2014 or in 2015 if all goes well. If there are still delays, more time in 2015 would be needed prior to implementation.

		2012- March 2013	2013										2014										2015									
#			A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J		
2	Visit Faryab/ discuss locations for possible towns	Nov12																														
3	Identify towns for survey	Apr 13																														
4	Visit Maymane	Apr 13																														
5	Coordination meetings DACAAR/NCA Faryab																															
	Review proposed areas																															
6	Walk-over survey areas																															
7	Hydrogeological surveys																															
8	Town W&S survey																															
9	Coordination Prov. DACAAR - NCA																															
10	Prepare conceptual design																															
11	Discuss and agree implementation modus																															
12	Prepare implementation plan for towns/ settlements																															
13	Agree implementation framework																															
14	Implementation of W&S in towns																															
15	Establishment of town O&M committees																															
16	Organise training of managers and operators																															
17	Prepare planning reports																															
18	Prepare implementation reports																															

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TRAINING AND CAPACITY BUILDING

The training and capacity building is some of the most important the project can develop and instill.

5.11 Training need assessments

TNAs were originally planned and prepared for the training needs within the areas of operation. It soon has become clear as the training has proceeded and the project has developed that the training courses have to be modified for fit actual needs. The original TNAs as presented in the inception report gave possible numbers of staff to be trained, but it was at the early stage difficult to understand and to discuss the training framework because many of the elements were quite new to many.

5.12 Training focus and short course design.

The training has focussed on practical training. A topic and presented and interactive discussions, work groups and practical exercises are used to see that that the participants has gained the knowledge and expertise. In other words the training is focussing on short courses from 1 to 8 days duration. All courses have discussions and group work, practical's and field work. The number of participants in the courses have been kept low to about 15 if possible in order to increase effectiveness for all participants so that all can receive better personal attention. Focus is made between theory and practical applications, problem solving and data quality control. By using experienced staff in the training the balance seems to work well. We have though practical work in the causes also observed how courses need to be modified so at to capture essential training needs. For instance, it has become clear that many of the hydrogeologist do not master Excel spread sheet. This is so basic for use of handling data. A separate course has been proposed to cover this training need.

5.13 Focus groups for training

Although there may be many courses, with about 15 per course the selection of participants have to be planned in order to make best impact. For that purpose focus has been at the beginning go cover potential trainers who can continue giving the courses to others later. -

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5.14 Training expanded to cover quality control for water laboratories

When executing the survey in Faryab many water samples were collected and analysed. In order to do a quick test of the local laboratories, NORPLAN sent the same samples to different laboratories. This was unsatisfactory and we followed up by 3 more samples being distributed and analysed at local as well as overseas laboratories. Unfortunately, we had to conclude that for the survey about to start in Faryab Norplan needed to have the samples analysed in a way the results could be trusted so the samples were sent to BGS laboratories in UK.

The analytical problems seems to be with some of the parameters which are quite common and regularly analysed. So Norplan concluded that there were a quality control laboratory or lack on internal control and is the local laboratories established an internal quality control system or introduced a ring testing system, it should be unnecessary to sent samples abroad for analysis unless for special analysis. I quality control awareness course discussed with the client who that this would be a good idea to generate better awareness. The first course of workshop was held in June 13, and implemented together with UNICEFs laboratory training consultant.

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More training workshop covering this issue will be planned.

5.15 Training topics and categories

5.15.1 Hydrogeology

This is the main technical areas of training because this is the main focus of the capacity building program in for hydrogeological surveys, investigations and mapping. 14 courses has been planned, three has been completed.

The list of courses are shown in the table below. Hydraulics 1 group of courses are implemented by Norplan largely with the support of international staff. Hydrogeology 2 courses will be implemented by DACAAR and to a large extent implemented at provincial levels.

Most of the courses are aimed active hydro geologists with some experience. Most of the software and equipment needed for the courses has been acquired but the geophysical logger has is still abroad waiting to be shipped to Kabul.

The target group are hydrogeologists for these courses are MRRD, MEW, University and Polytechnic, NGOs, It will be discussed that active hydrogeologist will first be trained as well as trainers/lectures. Later students and younger hydrologist will be covered with supplementary courses to the extent possible.

5.15.2 Training methods

The short courses developed for the training is much focussed on a good mixtures of theory, practical's, discussions, group work and problem solving exercises. In order to improve the training techniques, a special training course will be organised by international training specialists from CAWST, (Canadian Water and Sanitation Technology) working through DACAAR. One course has been planned, but a second course may be planned later.

Focus group will be trainers and course presenters from MRRD, MEW, University and NGOs.

5.15.3 GIS- MIS

This is the key tool to make hydrogeological information available to different users.

The status is now the system has been installed, map formats in the process of being finalised as a design and the web based solutions to launch desk top GIS maps onto the web is under development.

For the GIS and MIS there are three main categories of people in need of training:

- **IT staff** to design, maintain the data system and to update the information in the databases for preparation of the GIS maps and Web Water user atlas. Users: Staff in MRRD, MEW and other organization running similar applications. Relatively few.
- **Hydrogeologists** as user for hydrogeological information and data for hydrogeological data, geophysical investigations and for special design of water resource mapping. Users: not many and probably located in few government agencies, NGOs and consultants surveying Afghans clients.
- **Water engineers, planners and technicians** only interested in having maps showing where water can be found for rural water supplies, like depth to water and water quality. This is also

information needed for planners for rural water supplies. Users here could be many like water supply engineers for public projects, NGOs, drillers etc.

Developing data management system for GIS and hydrogeological data

The courses for IT (GIS and MIS staff) are listed below, and for the IT experts, system designers and staff for maintenance of data analysis and presentation in maps there are courses in ArcGIS. (4.1, 4.2 and 4.4). Staff at different levels (Central and provincial levels) will be involved in data capture and data management courses as listed.

Courses for Hydrogeologists are covered in one ArcGIS course for hydrogeologist 4.10, Also course for how to use the GIS maps and Web Water user maps are listed under RGIS (Rural GIS users). During earlier training it also became apparent that additional training in use of Excel and Access to handle hydrogeological data was needed for hydrogeologists. The cartography course will focus on hydrogeologists

Water engineers, technicians and planners for water supplies will focus on RGIS viewers and how to find maps showing availability of water, water quality and depth of ground water below surface if available. This is for knowing what types of drilling equipment is needed for exploration of water sources and what type of pumping will be needed to use the ground water.

The number of courses and course content will continuously be assessed based on needs. It should be mentioned that in parallel to the Hydrogeological data, RuWatSIP is developing a database covering water supplies, water qualities through rural water supplies, and functionality of supplies. Training of staff for this complementary data set with also will be coordinated within RuWatSIP and the GIS-MIS Unit in RuWatSIP.

5.15.4 Water supply and sanitation training

The list below shows the planned water supply and sanitation courses. Some of the courses has already been implemented by Norplan and by DACAAR. The courses are linked and aimed at staff involved in development of rural water supply and sanitation planning and implementation. This covers social mobilization, operation and maintenance in line with WSG government polities. Courses should also focus on conflict and gender issues linked to development of rural communality based water supplies.

Courses has also been included for surveying using total stations and training in use of software for water network design.

The course in quality control of water laboratories has been introduced and implemented based on discovered urgent need in Afghanistan. The first course has been implemented and more are expected to follow. These will probably take form as workshops of 2-3 days duration developing procedures, checklist, standards, ring-testing of water samples and certification of training for water analysis.

5.16 International visits

It is proposed to organise overseas visit to organizations developing hydrogeological mapping services of similar design as developed under this project. This could be to organizations in Norway or elsewhere. It is also proposed that a group travels to Norplan's office in Dubai for further training in design and updating of Web based maps transposed from GIS solutions.

International Hydrogeology conference in Morocco, 2014

It is proposed to send 5 persons to participate in the International Association of Hydrogeologists' Annual Congress in Morocco October – November 2014.

5.17 M.Sc. training abroad.

It is proposed that three candidates should be selected for M.Sc. for Training in hydrogeology. If trained in the region it could be possible that each student could get his or hers M.Sc. for USD 20,000 for each candidate. There is a budget for that.

It is furthermore proposed at for the three M.Sc. candidate one should come from Faryab and tow from elsewhere in Kabul. One of the scholarships should be earmarked for female candidate if at all possible.

5.18 Training and capacity building - Activity Schedule

		2012- March 2013	2013												2014												2015											
#	Activity- GIS- MIS		A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J								
	Training needs assessment	2012																																				
	Discussion training framework	2012-13																																				
	Training courses																																					
	HYDROGEOLOGY I																																					
1.1	Groundwater investigations		••									••																										
1.2	Geophysical investigations			••																																		
1.3	Well Drilling methods							••							••																							
1.4	Water Well Design							••																														
1.5	Well Hydraulics								••											••																		
1.6	Hydrochemistry, data interpretation																																					
1.7	Planning & implem. Prov. Hydrogeo. mapping surv.							••													••																	
1.8	Geophysical borehole logging								••											••					••													
1.9	Geophysical borehole logging interpretation of data									••										••																		
	HYDROGEOLOGY II																																					
2.1	Interpretation of Hydrochemical water quality data											••									••																	
2.2	Preparing of thematic																																					

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NORPLAN 

6 KEY OUTPUTS DURING THE IMPLEMENTATION PHASE

6.1 Hydrogeology outputs.

6.1.1 Methodology for planning and implementation of provincial hydrogeological survey

The methodology has already been prepared as a first draft. The method will be presented to senior hydrogeologists in Kabul for training and discussion so as to refine the document for use as an effective tool. The document is currently available in English but it will be available for users and for trainers alike.

6.1.2 Hydrogeological survey for Faryab Province

A hydrogeological report will be prepared for Faryab. This report is based on desk study, collection of existing geological, hydrogeological topographical, and administrative maps, field surveys, collection of water existing resource data, and drilling data where available. In addition, a number of water samples has been selected and sent abroad for analysis including for Isotopic analysis. Based on this and of selected further geophysical investigations and exploratory drilling boreholes a survey report will be submitted for Faryab.

6.1.3 Hydrogeological map for Faryab

Based on all the data collected, cleaned and analysed, a hydrogeological map will be produced by the GIS unit. The Map will be just another mode of communication of the results from the hydrogeological survey for Faryab.

6.1.4 Hydrogeological and geophysical equipment which MRRD staff will be trained how to use.

MRRD and other organizations have Syscal pro equipment for resistivity analysis. However the expertise how to use this was not there nor all the needed software. This is now in place and staff trained in the first course.

Special geophysical logger has been procured, and when received in Kabul this operators will be trained how to use this sophisticated tool. In addition, the operators and hydrogeologists will learn how to interpret data using such advanced instruments with supportive software.

6.1.5 Created awareness for quality control systems for water testing laboratories.

As an unforeseen observation, it was noted that local water laboratories did not manage to produce adequately consistent test results so the project had to send water samples abroad for analysis. This was to a large extent considered most undesirable since many laboratories had recently acquired equipment and trained staff in how to undertake different analysis. However, the problem seems to be lack of quality control in the laboratories such as consistent sampling procedures, systematic control of chemicals, regular calibration of equipment, testing of standards, certification of staff qualified for the different analysis etc. A first course of workshop has been undertaken and this work will continue with more workshops. The awareness is now created for all laboratories to establish internal control systems, ring testing of unknown samples, and establishing a forum for professional water laboratory staff. This is a good initiative and output from this project.

6.2 GIS outputs

6.3 System design for data management for production of hydrogeological maps

The system of managing the hydrogeological data has been developed by GIS experts and hydrogeological experts. This work system is now in use but it will be refined over the next few months

6.3.1 Design of standard formats for attributes for hydrogeological maps

Map design formats has been drafted showing layout for A3 prints. The attributes to be used for the different layers for the different users in soon to be finalised. The designs will then be presented to Map users for comment and feedback prior to finalization.

6.3.2 Design and establish a web based Water User Maps based on GIS maps.

Having designed the GIS system for desk top computers using ArcGIS, this map format will be transposed for display on the web as a water user atlas. The web based solutions has is shortly ready for display as first draft. This product will be finalised for use when presenting data from Faryab.

6.3.3 Establish a MIS-GIS unit in RuWatSIP

The GIS adviser recruited under the project has established a GIS-MIS unit handling HGS project data as well as other information from RuWstSIP. The unit has three staff presently and is handling the work in RuWatSIP.

6.3.4 Manuals for GIS system

During the implementation phase, manuals will be prepared for the design and operation of the GIS system used. The manuals are part of the documentation to render the GIS unit sustainable

6.4 Water supply and sanitation

The outputs under this section are challenging. This is so because the project should not or cannot go ahead without the full endorsement of provincial government. Much delays has been experienced there. For such work it is important for work with both Government and communities. Sustainability of the project demands that the correct approach is being followed such as the national policy framework under WSG (see later under constraints about this section)

6.4.1 Conceptual design for water supply and sanitation for rural towns

A conceptual plan will be prepared for three rural towns or settlements. (see web for description of what this work entails)

6.4.2 Preliminary design for water supply for rural towns in Faryab

Preliminary designs will be prepared

6.4.3 Project implementation plan

A project implementation plan will have be prepared for the planned towns outlining the mode of implementation. This is at this stage also unclear how this will be handled since the funding of the rural town or settlements have not yet been identified.

6.5 Capacity building and training program outputs

6.5.1 Development of training courses and training course materials

More that 30 different training courses have been planned, 9 have already been implemented. All courses are prepared with course documentation formats, information sheets, information to participants, course evaluation forms, course agenda and handouts distributed. This will form part or the final training manual for course designs for be continued. Many courses will be run twice while others only once.

6.5.2 Training between 200 to 400 staff

From the courses with an average of 15 persons attending each training course, more that 600 persons could have benefitted from the training courses. We appreciate that many staff from the target organization will attend more that one training course so the number will be lower. But the training programme is large.

Many of the participants attending the courses will be trainers who in the future can repeat the courses at different fora.

6.5.3 Training documentation, manuals and developed methods

Much documentation will be provided and left behind for future training. This is methodology for conducting hydrogeological surveys, manuals for GIS systems, training manuals for different training courses. These manuals will be presented in hard and soft copies.

6.6 Enhanced coordination of sector actors in the field of hydrogeology

6.6.1 Strengthening links with actors in hydrogeology

The project has developed very close links between MRRD, MEW, MoM, University and Polytechnic, NGOs and other sector actors. This is in itself a step forward for strengthening of sector sustainability and strengthening of the professionalism of the people working with hydrogeology and GIS system for the water sector.

6.6.2 Preparing a information web page for sector actors to follow project activities

A web page (www.norplan.af) has been established in order to inform all staff involved in the project. This is an effective way or reach all with information, documentation which may be helpful for their work

7 CROSS CUTTING ISSUES - GENDER

Differences in needs, perceptions, strengths and capacities between men and women, boys and girls has increasingly been recognised as needed to be taken into account to ensure equitable development for the whole population. This has also been recognised by the Government of Afghanistan where gender is stated as a cross-cutting issue in ANDS, the 10 year long National Action Plan for Women in Afghanistan (NAPWA) was finalised in 2008 and Gender Policies has been developed in the different ministries. In MRRD the Gender Policy was signed by the Minister in 2011, and a subsequent Strategic Implementation Plan was developed. The policy and implementation-plan focuses both on programmatic as well as institutional levels.

7.1 Programme level: Capacity Building

Capacity building is the largest programme component of the overall project. Training will be conducted within the areas of hydrogeology; GIS/ MIS; Water & Sanitation; and training methods/ post-graduate scholarships. Particularly the main area of focus, hydrogeology, is largely male-dominated when it comes to professionals. To assess and ensure that both men and women will have equal opportunity to participate in the capacity-building, it is identified a need for establishing sex-disaggregated data of the employment in technical positions among MRRD/Norplan's key stakeholders/ cooperating institutions which are 'beneficiaries' of the capacity building. This to better identify who are eligible participants and encourage qualified professionals to take part in the capacity building. The stakeholders/partners should be encouraged to nominate qualified women for trainings, as in line with Afghan governmental policy.

To increase the number of qualified women in the selected field of work, Norplan should look into the possibility to include junior staff or university students/ graduates in selected trainings.

Milestone	Finalised by
Briefing, discussion and strategies developed regarding gender, with Norplan staff	2013, September
Disaggregated data on technical positions between men and women in cooperating institutions mapped (identified key institutions: MRRD, MEW, MoM, Kabul University & Kabul Polytechnic (lecturers), DACAAR)	2013, December
Female participation in capacity building encouraged (included internship, if relevant)	Continuously/ end of project
Courses suitable for junior staff/ students/ graduates identified	2013, December
Analysis of sex-disaggregated data on participants conducted, adjustment for project recommended	2014, September
3-5 capacity building courses held for juniors/ students (aim: equal no of men & women)	2015, April
Professionals, men & women have had equal opportunity to take part in capacity building	2015, end of project

7.2 Programme level: Implementation of Water & Sanitation

To ensure access for all to water, Norplan will strongly encourage any implementing partner of water and sanitation facilities to continue to follow the MRRD's policies as exemplified in the WASH implementation manual. Being aware of differences in needs and responsibilities depending on both gender and age, and being able to include and meet them will be crucial for an equitable development and sustainability.

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Milestone	Finalised by
Identified implementing partner's community mobilisation approach has been assessed with reference to gender and conflict sensitivity	2014, September
If need identified, capacity building plan developed	2014, September
If identified, capacity building finalised (under Water & Sanitation)	End of project

7.3 Institutional level

Norplan will keep updated on and continue to work within the gender framework of MRRD.

Milestone	Finalised by
Project assessed to be in line with MRRD gender policy and action-plan	2013, September
Cooperation with MRRD (RuWatSip) counterpart on gender established	2013, December
Project assessed to be in line with revised MRRD gender policy (expected revision end of 2013), adjustments if any to be implemented	2014, September

8 INSTITUTIONAL DEVELOPMENT

8.1 Strengthening RuWatSIP, MRRD

The hydrogeologists in RuWatSIP will continue to be the focus for participating in training and for covering all courses proposed. So far about 2 to 5 of MRRD personnel has participated in all courses held so far. In addition, after training staff will be used for field work covering geophysical investigations in Faryab. This work will later be review and discussed with the hydrogeologist by the international trainer.

In addition to receiving training , equipment and software has been procured for MRRD staff to use. This work will continue in till the end of the project implementation.

It is hoped that during the last phase of the project further training may would be provided for staff involved in exploratory drilling.

In the field of GIS a local GIS adviser has been recruited for RuWatSIP to set up the GIS-MIS unit. This unit has now been operational with the adviser present and two MIS staff. The two assistant is has participated in the GIS training courses being conducted. This training will continue and within the ent of the project the unit must be able to continue the activities undertaken by the project. The current GIS adviser will prepare a plan what is needed for handing over for continued activities in RUWatSIP. In addition of the HGS project, there is also UNICEF supported activities in the department who is also focussing of making GIS and MIS components sustainable. All activities in managed by the GIS adviser and that will strengthen the likelihood for continued activities.

The training program also covers the water supply and sanitation activities. Water engineers and planners will be involved in water and sanitation planning activities when such activities starts in Faryab.

8.2 Other key Water sector actors in Afghanistan benefitting from training and thus strengthen sector capacity.

8.2.1 Ministry of Energy and Water (MEW)

MEW has taken over the responsibility for ground water resources in Afghanistan from Ministry of Mines in February 2013. For that reason, it is very pleasing and important that MEW is taking so actively part in all activities covering training and capacity building covering hydrogeology, geophysical investigations and GIS. While MEW is in charge of water resources, both surface and ground water resources, MRRD is responsible for Rural Water Supply. So both have key roles in the water sector.

Through the training but also though sharing of information and knowledge in a transparent manner, MEW may in many ways provide additional support for sustainability of the project Norplan is currently undertaking with MRRD.

8.2.2 Kabul University and Polytechnic.

Professors from Kabul University and Kabul Polytechnic has been involved in the project at course presenters, course organizers, facilitators or even at participants. Although initially the professors were presenters and resource persons, the training approach and its methodology and course material is now something which may be interesting for university staff to use at

the university for their students. The training methodology and practical tutorials and focus on quality and application of theory for solving technical problems can be useful for the universities to make use of. The focus on including university lecturers in training with the possibility of making use of technical equipment and exposure to practical work in the Ministries and with other sector actors, the university and polytechnic can now be expected to be a key institution which can take some of the developed courses either to run the courses fully or partly for their students, or the university professors will also be able to conduct the courses for technical staff in Ministries or for other sector actors after the HGS project is completed. For the remaining part of the implementation period the focus of capacity building support towards the higher training institutions in Kabul will increase. This is very encouraging for sustainability.

8.2.3 DACAAR

DACAAR is the local partner for NORPLAN when implementing this project under RuWatSIP. DACAAR is in itself also an important training organization providing particularly short courses for most activities covering water supply and sanitation issues in Afghanistan. Under this project DACAAR and its WetCentre will provide a more than 10 training courses on the agenda. Key staff from DACAAR (and other NGOs) also participate in the training course and thus contribute and strengthen the courses but they also learn a thing or two which will benefit them in their work for implementing projects or when giving new training courses. The overall result is that DACAAR and its staff will also be able to continue the training courses after the end of the project to enhance sustainability of the activities. DACAAR will receive all the training material for use in any setting for the benefit of the water sector in Afghanistan.

It was also noted that DACAAR use University lectures in their training courses (part time) which again strengthen the links of knowledge in the sector from implementing agencies to training institutions.

8.2.4 Other Water Sector Agencies

Other NGOs and agencies participate in the training courses. In the first set of courses focus has been given to senior or active sector personnel who hopefully can apply the training immediately to key persons who would be important for continuing the training courses later (future trainers). More junior staff and students will participate in later courses.

9 PROJECT MANAGEMENT

9.1 General about project management

The project has met many challenges which as affected use of staff time. In particular the problems caused by the taxation issue has resulted in much time used for handle issues of delayed payments, cars in bonded warehouses, difficulties with importation or equipment etc. In addition limited capacity in MRRD has also loaded our local office with having to assist the client in following up much communication with various offices in Kabul.

9.2 Staffing

9.2.1 Increased staff time for management

The management of the project has taken much more time than anticipated particularly due to:

- Taxation issue
- Visa facilitation
- Limited capacity with client
- Difficulties with establishing links to Faryab and to visit Maymane safely.
- Coordination with sector partners
-

This reflects particularly the team leader who has to spend significantly more time to follow up

9.2.2 Increased time for Geophysical expert/ hydrogeologist Andreas de Jong

The hydrogeology is the key focus for this project. We have a senior hydrogeologist David Banks on the team, but his tasks has covers mainly

1. Preparing a methodology for Planning and implementation of provincial hydrogeological surveys
2. Plan and organize surveys for Faryab, and guide DACAAR to conduct sampling, conduct desk study for hydrogeological situation in Faryab and draft a hydrogeological report for that province.

Norplan were fortunate to manage to engage Andreas de Jong to this project. It is difficult to find experts willing to take an assignment in Afghanistan. Andreas de Jong is engaged to focus on training and capacity building covering geophysical investigations, hydrogeology but also GIS application for hydrogeological maps.

Initial training has shown that the hydrogeologist lack practical training particularly in geophysical investigations working with functional equipment. Some equipment has bee in MRRD and other organizations for some time but could not be used due to lack of adequate training. Also where equipment some equipment has been used, the problems have been practical and theoretical interpretation of data.

Three training courses have already been held and it is now quite clear that there is need for increased training, repeated courses, and more practical exercises under supervision by experienced experts. Andreas de Jong fit this assignment very well. In addition to being an experienced geophysical expert he also have practical working knowledge on use of GIS for preparation of hydrogeological maps. In this respect is a very good crossover also to tie the GIS activities to the data handling needs of hydrogeology.

9.2.3 Proposed increased project implementation time by 6 months till July 2015.

The project is proposed extended in time till July 2015. The reason for this proposal is that the project had a difficult start where many uncertainties made efficient work very difficult. The reason were:

- Challenges with clarity about taxation and duties.
 - The consequence was that procured cars were stranded in bonded warehouse and not available for the project
 - The Client was unsure whether he could pay the consultant or not. Invoices were withheld for more than 6 months and Norplan was uncertain whether to stop or go ahead
 - The project launch in province of Faryab did first take place in November 2012 thus blocking any field work planned for DACAAR to undertake since. It was considered most important that the Provincial Government was fully introduced to the project before the project started.
- When the Inception report were submitted in early April 2012, its revised version and revised budget was first endorsed by in December 2012.
- GIS: The project should start capacity building for GIS activities in RuWatSIP. Unfortunately, GIS is not something which can be thought only in short courses. It was then approved that a local GIS expert should be recruited in order to establish a GIS/MIS unit and also handle the development of the GIS activities for this project. The Local expert could first start the work in December 2012. Thus the GIS development activities were delayed in RuWatSIP by close to 9 months.

9.2.4 Revised staff time

In the table below the revised staff time is presented. This is a framework we believe is necessary to conduct the work to implementation.

- All times increase as a result of proposed 6 months project duration
- Andreas de Jong time increase to meet discovered large need for practical training
- Asbjørn Nordbø will leave the project and Stoveland takes over training section with increased support from Prof. Eqrar and de Jong
- In the earlier staff time estimate Prof. Zarinkhail
- In the earlier staff time estimate Prof. Zarinkhail was not present.
- Added training logistics officer Naseer
- Listed officer for Faryab province coordination support as requested by Governor.
- Increased staff time for financial officer Berit Hultmann at HQ for much work load with accounting and procurement.

			Revised Staff time Sept 13.				Apr. 12
Ref	Name of Staff	Position	Project Total	Inception	Planning	Implement	Orig. Incept.
No	Foreign NORPLAN Staff	Project Phases Project Months	Months	Months	Months	ation Months	report
1	Dr. Svein Stoveland	Team Leader Water and sanitation sector expert	24.3	3.3	8.7	12.3	20.0
2	David Banks	Hydrogeology Expert	7.5	1.2	3.8	2.5	7.0
3	Asbjørn Nordbø	Senior Training Expert	6.5	0.7	5.6	0.3	7.5
4	Tor Gunnar Øverli/Frank Haugan	GIS expert	5.2	1.2	2.5	1.5	4.8
5	Andreas de Jong	Hydrogeologist- GIS expert	7.8	0.0	0.0	7.8	0.0
5	Alexander Kristiansen	Financial Analysis	2.5	0.5	0.8	1.3	2.3
6	Knut Terje Ellefsen	Socioeconomic analysis	8.5	1.5	3.5	3.5	8.5
7	Elisabet Eisaas	Social Anthropologist- Gender					
8	Trond Kaulum	*) Backstopping: Training & HRD					
9	Magne Kløve	*) Backstopping: Design Water Supply Systems					
10	Gisle Grepstad	Hydrogeology					
11	Berit Hultmann	HQ security Adm support/	10.0	0.2	2.3	7.5	3.5
Subsum:			62.3	8.4	24.8	29.1	53.6
Local NORPLAN Staff							
1	Naqibulla Abrar	Norplan deputy	37.8	4.0	9.3	24.5	30.8
2	Prof. Muhammad Hamid / Pr	Training expert	27.1	4.8	5.0	17.3	13.8
3	A. Munir	GIS spesialist	2.5	0.5	0.7	1.4	5.8
3	Prof. S. Zarinkhail	Local GIS_MIS full time RuWatSIP	29.8	0.0	4.8	25.0	0.0
5	Naseer	Logistics officer	28.5	0.0	3.5	25.0	0.0
5	To be recruited	Prov project coordinator, Faryab	20.0	0.0	0.0	20.0	0.0
4	Ramzia Yousofi	Admin finance officer, office support staff	38.5	1.5	12.0	25.0	33.5
5	Habib Rahman	Office reseptionist/office security, office support staff	38.0	1.0	12.0	25.0	0.0
Subsum:			222.1	11.7	47.2	163.2	137.5
Total manmonths			284.3	20.1	72.0	192.2	191.0
			total man months as revised Sept 2013				
			total man months as revised April 2012				
			Staff not included in original plan				

9.2.5 DACAAR manpower resource support:

The table below lists staff time agreed with DACAAR to provide support for the HGS project. The staff framework defines resources which NORPLAN can tap from DACAAR. The current agreement with DACAAR covers 2013 and 2014.

In addition, DACAAR will also provide training courses through the WETCENTRE. Its planned for 3 training courses per year.

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Staff time from DACAAR for project		2013	2014	2015
		Months	Monhs	Months
Head of Program		1	1	
WASH adviser	LV	2	2	1
Finance		1	1	
Senior hydrogeologist	6+3	9	9	3
Hydro- Geologist	6+3	9	9	3
Geologist/ field		12	12	
Database assistant 1		4	4	
Database operrator 2		4	4	
Security officer		3	3	
3 labourers	6 no	18	18	
Wet Centre		1	1	
Driver Faryab		12	12	
Subsum Dacaar personnel				

Note: Hydrogeologists (6 + 3):6 months with field work , 3 months training)

9.3 Physical facilities

Offices in RuWatSIP, MRRD

Norplan has been allocated two rooms which can be used for project staff. One is for Norplan staff only and the other is for GIS activities. RuWatSIP has recruited many people and there is shortage of space but the facilities are reasonable except for when international staff is visiting. Then it is very cramped. We developed a storage room but this RuWatSIP needed to other purposes. We have now been promised a container placed outside the building where we can store equipment used for the project.

Transport:

The project has three cars in bonded warehouses for the last 12 months. Norplan have had to hire cars on the local market. Two old Toyota Corolla has been hired, which are anonymous and in that sense serves well from a security point of view. However, NORPLAN will need to hire some newer for better reliability.

Office facilities

The offices are equipped to with printers, laptops and furniture as planned. The internet has been inadequate for holding the regular skype meetings with the team as we have used to earlier. The Minisitry's system seem to be overloaded. We have therefore decided too install our own network for increased capacity for NORPLAN staff and for effective skype meetings between Kabul and overseas.

Training localities

For most of the training courses the project has been able to use the RuWatSIP conference room when there has been less between 15 to 20 participants. This has actually worked quite well as long as the room is available. We plan to continue the conference room in RuWatSIP for training.

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10 PROJECT RISKS AND CONSTRAINTS

10.1 Security

- Security is an issue which can easily affect the project. Fortunately the situation in Kabul has generally been as expected so that office work has not been much affected except for days when both local and international staff has not been able to go to the office. We are relying on DACAAR security advise at all times.
- The security situation in Faryab is more difficult. This has affected the field work for DACAAR. Surveys in some of the districts has been delayed and some districts have not been accessible. DACAAR and its staff follow security instruction from its own organization. The situation in Faryab is unpredictable and could easily affect most of our planned activities there

10.2 Sustainability concerns:

10.2.1 Limited Counterpart Capacity for project support may affect sustainability

RuWatSIP has recruited more staff which may will strengthen the department. The HGS project has experienced difficulties when discussing strategic issue about the project. Such discussions often require more senior and experienced staff. It is appreciated what one of the key experiences counterparts , Dr, Taib, left RuWatSIP and that we believe resulted in an overload on the project coordinator Safi and the Director. A result is that none of the RuWatSIP staff in on a daily basis involved in the project implementation on a daily basis.

The lack of capacity has also affected the inability to vitalise the PCU as proposed in the TOR. Efforts will be made to remedy this in the near future.

10.3 Counterparts lacking

The project has not been able to enjoy counterparts participating in the project so as to be able to continue project activities at the end of the project. This may in particular be technical issues covering hydrogeology and training. This is a concern in the sense that RuWatSIP is not having the full benefit on hands on training as could have been the case.

An example with lack of counterpart staff is that activities which are to be done and effectuated by the client may not have counterpart available to follow up. Geophysical investigations were planned to be conducted in August by hydro geologists from MRRD and DACAAR. Unfortunately, this has not been followed up and thus delayed because roles and counterparts are not clearly identified.

However, some of the concerns with the sustainability is taken care of though the involvement and training of staff from other key organizations like MEW, University, DACAAR and others where trained resource persons can carry many of the project activities forward after the end of the project if RuWatSIP find it difficult.

10.4 Project constraints

10.5 Agreement NORAD- MRRD

The taxation problem has been with us for long. We understand that both the Norwegian Embassy and MRRD are pursuing this issue. NORPLAN can merely watch. The consequence for NORPLAN is:

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- Three cars are stuck in bonded warehouses for nearly 12 months and NORPLAN has to hire cars locally
- The time taken to follow up this issue also from the side of NORPLAN has taken a lot of time. It may still do so but we are hopeful that this issue is resolved
- Without the taxation issue resolved, NORPLAN has not been able to register at a company in Afghanistan, nor has NORPLAN been able to open a local bank account because this requires registration with AISA.
- As mentioned earlier in this report, an order geophysical logger for investigation of drilled wells is standing in UK ready for shipment. Shipment cannot be made before it is clear how the equipment will be cleared in customs in Kabul. The consequence is that the training courses waiting for this equipment may be lost.

10.6 Availability of drilling rigs at MRRD

This appeared to be a problem. A training borehole to be sunk in June 2013 has not been developed because a rig is lacking. Work is in progress to handle this, but without a rig training in drilling techniques will not be as good as planned.