



World Meteorological Organization

Weather, climate, water



Volta-HYCOS

THIRD REPORT

“The IMPLEMENTATION PHASE – January to June 2007”

Prepared by the Secretariat of WMO

Geneva, 5 July 2007

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Volta-HYCOS

Third progress report on the implementation of activities

5th July 2007

1. INTRODUCTION

1.1 The World Meteorological Organization (WMO), in collaboration with the French Institute for Development Research (IRD), prepared a draft project document in February 2003 to implement the Volta-HYCOS project. The ultimate objective of this project is to develop a system of reliable information on the water resources in the Volta Basin, using quality data, with easy access, through the Internet. The project intends to consolidate the technical and institutional capacities of the NHSs in the participating countries (*Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali, and Togo*), reinforce hydrological observing networks, by using different technological options in remote data acquisition, promote development of national and regional data bases, foster regional cooperation and organize training programs. The project will also strengthen the institutional capacity of the Volta Basin Authority (VBA).

1.2 The total cost of the project is € 2.220 million. The Fonds Français pour l'Environnement Mondial (FFEM) through the Agence Française de Développement (AFD) is funding the project with € 1,000,000, IRD providing € 780,000 in kind and € 440,000 in kind from 2iE and participating countries. An agreement between WMO and AFD for funding the project was signed in December 2004. WMO is the Executing agency of the project and provides technical supervision for its implementation. WMO has signed two more working agreements with 2iE and IRD. The Project Regional Centre (PRC) is hosted by the International Institute for Water and Environmental Engineering (2iE, previously Groupe d'Ecoles Inter-Etats EIER-ETSHER - GEE) located in Ouagadougou, Burkina Faso. The French institute of Research for Development (IRD) provides scientific and technical support to the project.

1.3 During the First Steering Committee (SC) meeting in September 2006, country representatives recommended that the project budget should be revised to include funds to support and enable the newly established Volta Basin Authority enhance its operational capacity and strengthen its role in the Volta-HYCOS project. After revising the project document to incorporate recommendations of the SC members, an additional amount of seven hundred and seventeen thousand three hundred and fifty four Euros (€717 354) was identified to complete the project activities. This amount is being sought from the African Water Facility but has not yet been secured.

1.4 The preparatory phase was successfully completed and has achieved its objectives. The First progress report was submitted to FFEM in July 2006 supplemented by another one in October 2006. The Second progress report was submitted in January 2007. The second phase, which constitutes the Field Implementation phase of the project, started after the preparatory phase. Four Regional Training modules have been organized; a detailed project document is available in English and French and procurement of equipment has started.

1.5 As per the Agreement between WMO and AFD on the implementation of the VOLTA–HYCOS project; WMO is expected to submit a progress report bi-annually on work accomplished under the project. This is the third semi-annual report. It covers activities undertaken during the period, January to July 2007.

2. CURRENT STATUS OF PROJECT MANAGEMENT UNIT (PMU) (30th June 2007)

2.1 The Project Coordinator (appointed by WMO) as well as the Senior Hydrologist and the Hydrological technician (Seconded from IRD to the project) are working since January 2006.

2.2 In July 2006, Mr. Robert OUEDRAOGO, a technician in IRD Burkina Faso was temporarily transferred to fill the post of Webmaster in the PMU. He is still with the PMU and is expected to stay there until a qualified Webmaster is identified.

2.3 From 12-17th March 2007, Mr. Thierry VALERO, the Computer/Data base Expert in the project, made his first mission to the Project Regional centre (PRC). Since then, he has remained in touch with the PMU from Montpellier. IRD has proposed that he will undertake his duties through missions to PMU (8 months). His last visit was useful but the duration was very short. As work progress in developing the regional and national data bases, the Computer/Data Base Expert is required to be present full time in PRC to provide technical support to the Regional/National Data Bases and solve any problems arising from the software application.

3. STATUS OF IMPLEMENTATION OF PROJECT ACTIVITIES (January – July 2007)

The project duration is for 3 years, including an initial phase of 6 month preparatory phase, which started in January 2006 and the implementation phase of 30 months (field activities). From January 2007 through to 30 June 2007, noticeable progress has been achieved.

3.1 Preparation of Technical Specifications

3.1.1 Technical specifications for the supply of hydrological equipment, computers, ADCPs and Hydrological Data Base Management Software were prepared in English and French. The required procedures are being pursued by the project executing agency, WMO in consultation with FFEM, for a call of tenders for supplying hydrological and computer equipment to the participating countries.

3.1.2 Arrangements have been concluded for a regional call of tenders to be launched regionally for the supply of the computer equipment within the sub-region. WMO and FFEM will discuss modalities of processing tenders and payment. The 2iE (PRC host) agreed to undertake the task after transfer of the estimated funds.

3.1.3 Regarding Hydrological data management software, approval has been sought from the funding agency for the Volta-HYCOS to directly order software similar to that being identified by Niger-HYCOS. This will ensure synergy between the two projects.

3.2. Development of Hydrological Information system for the Volta basin

3.2.1 From 17 - 22nd March, the Computer/Data base Expert of the Volta-HYCOS project, Mr. Thierry VALERO, (based in Montpellier) visited the PMU to acquaint himself with the project and discuss ways of continuing his task. He also visited the Directorate General for Water Resources (DGRE) in Ouagadougou to seek their views on data and information management practices. He also held discussions with the computer departments of 2iE and IRD in Ouagadougou regarding the operation of their computer systems. He has continued his activities with the PMU from Montpellier.

3.2.2 A draft webpage was prepared by IRD based on the webpage they had developed for the Department of Water Resources (DGRE) of Burkina Faso two years ago. WMO gave its views on the draft and provided IRD with a template and guidelines to ensure that the final version conforms with the WHYCOS webpage. The Webpage is undergoing further improvement and will be circulated to the counties for comments.

3.2.3 Work on the Hydrological Information System is in progress with collaboration between the PMU and IRD in Montpellier, drawing from the experiences of existing institutions with similar information systems. A dynamic map of the Volta basin has been developed by IRD based on Google Earth and is being improved before circulation for comments. The PMU has designed a format for countries to send historical data to the Project Regional Centre. It is planned to collect the available hydrological data at PRC and also from ORSTOM sources.

3.3 Regional Training

3.3.1 During the reporting period, three regional training events have been organized. This makes a total of four regional training modules including the first training on "Hydrometry and Topography" organized in December 2006. The training conducted since January 2007 are:

- Flow Measurements (Classical and ADCP),
- Hydrological Expertise and IWRM and
- Establishment of Rating Curves.

3.3.2 The Training was conducted as Training for Trainers and was designed for engineers and technicians of the National Hydrological Services of participating countries. Full reports on the training, including their evaluation by participants are included in Annex 1, 2 and 3 of this report.

a) *Training module on Flow Measurements*

3.3.3 A training on the above topic was organized jointly with Niger-HYCOS project, in Niamey, Niger from 19th February to 2nd March 2007. Eighteen participants from eleven participating countries, NBA and 2iE attended the workshop. The training was carried out by IRD with support from AGHRYMET which provided the necessary hydrometric equipment for the fieldwork.

3.3.4 The training was useful for participants as it is directly linked to their work in their countries. They were pleased to be involved in field exercises and carryout analysis in the computer laboratory. They appreciated being introduced to the use of a new and powerful flow measuring device, the ADCP. In their view the field exercise was short and more time is needed with supplier representative to allow more discussions on maintenance and repair of the ADCP. Interpretation and

translation facilities during training need to be improved to ensure maximum benefits of the material provided.

b) *Hydrological Expertise and IWRM*

3.3.5 This training was organized only for Volta-HYCOS in Ouagadougou from 26th to 30th March 2007. It was attended by nine (9) participants, mainly technicians and engineers from the Hydrological Services of six (6) countries of the Volta basin. In addition, three (3) participants from the 2iE took part in the training. The programme was designed and delivered by the International Institute for Water and Environmental Engineering (2iE) in collaboration with IRD.

3.3.6 The training was useful for participants as it will help in the implementation of IWRM principles in their countries. Participants were pleased to participate in group exercises which enabled them to solve real problems based on the Volta basin. They recommended that more case studies from the Basin and field visits be included to ensure maximum benefits from the course. They also faced problems of interpretation and translation.

c) *Establishment of Rating Curves*

3.3.7 A training on establishment of Rating Curves was organized in collaboration with the Water Research Institute (WRI) in Accra, Ghana, from 23rd to 27th April 2007. It was attended by nine (9) participants, including three from Ghana, five from other riparian countries and one from the International Institute for Water and Environmental Engineering (2iE).

3.3.8 IRD experts provided the training with a day of field work. Participants provided real data from Volta Basin for a case study which was discussed. The training was relevant to the activities of the participants in their countries. They showed great interest in the course, field work and the case study.

3.4 National Training

3.4.1 The Niger-HYCOS and Volta-HYCOS agreed that for the joint courses, the four common countries in the two projects would be divided with two of the Volta-HYCOS and two for the Niger-HYCOS. Ghana and Togo will always be supported by Volta-HYCOS. Volta-HYCOS will support training activities on Flow measurements in four countries (Benin, Burkina Faso, Ghana and Togo). Regarding the other three training modules, Volta-HYCOS will support only Ghana and Togo as the other four riparian countries benefited from the Niger-HYCOS training programme.

3.4.2 This aspect of the training cannot be carried out at the country level as the PMU is still waiting for all the training material to be available in English and French. The PMU is also still waiting for requests from countries indicating the estimated budget and workplan for National training.

3.5 Consultation Meeting

3.5.1 Within the framework of cooperation between WMO and IRD, a one-day consultative meeting was held at the WMO Secretariat in Geneva on 30th January 2007. Its objective was to review and discuss the role and responsibilities of each of the partners and revive cooperation between the two institutions regarding activities related to WHYCOS projects.

3.5.2 WMO and IRD had detailed discussions regarding implementation of the Volta-HYCOS and agreed to continue cooperation to ensure successful implementation of Volta-HYCOS.

3.5.3 IRD agreed to fill the remaining posts in PMU through seconded staff according to the agreement between IRD and WMO. It was also agreed that IRD will collaborate and work closely with WMO in designing the training modules and schedules right from planning stage. It was also agreed that IRD will ensure that highly qualified and experienced personnel are available for conducting the courses. The courses will be conducted both in English and French and course materials will be provided simultaneously.

3.5.4 As follow up to Geneva meeting a consultation meeting was held at the PMU in Ouagadougou between PMU staff, the WMO representative, the IRD representative and the Vice Chairman of Commission on Hydrology (CHY) in February, 2007. It aims was to review progress of work on the project, especially the establishment of the Volta-HYCOS Webpage and measures to ensure synergy between the Niger and Volta-HYCOS projects. It was concluded that the Webpage being developed by IRD should be improved and circulated to the countries for comments before finalizing it. IRD was also requested to ensure that the training materials are available in English and French during the future training courses.

3.6 Collaboration with Niger-HYCOS project and other Regional Initiatives

3.6.1 During the First Steering Committee Meeting, countries recommended that strong communication links be maintained with the Niger-HYCOS Project for exchanging experience, information, ensuring synergy between the two projects and organizing joint training courses to ensure cost-effectiveness.

3.6.2 PMU staff organized several missions to NBA in Niamey to exchange views and experience in project implementation. As a result of this collaboration a joint training module on Flow Measurements was implemented and more are planed in the future. The Project Manager also participated in a workshop in Kinshasa, DRC on the preparation of a Strategic Action Plan for the Congo Basin. The workshop offered a good opportunity for the project manager to exchange information with CICOS and other international experts.

4. Financial Status

4.1 During the First Steering Committee Meeting, countries recommended that the project budget be revised to include funds to enable the newly established Volta Basin Authority enhance its operational capacity and strengthen its role in the Volta-HYCOS project.

4.2 WMO revised the project document and incorporated recommendations of SC members; subsequently the budget was also revised. The revised budget came to an amount of € 2,937,354 with an additional €717 354 (seven hundred and seventeen thousand three hundred and fifty four Euros) as indicated in Annex 4. WMO is assisting countries to secure the extra funds needed to complete project activities.

4.3 WMO is implementing the project within the approved funds from FFEM (€ 1,000,000. So far two installments have been received from FFEM each of € 69,000

totaling to € 138,000.00. The provisional budget for the year 2007 and current status of the project budget, including expenditures up to April 2007, is included in Annex 5.

4.4 The WMO/AFD Convention no CZZ 1222.01 U for the execution of Volta-HYCOS project was amended in December 2006. Upon request from AFD, WMO agreed to delete two sub-articles (4.3 "3" d & e) to facilitate the implementation of the project.

5. Revised Workplan

5.1 Due to unforeseen circumstances, there were delays in transferring the required funds for implementing the workplan as scheduled. The rescheduled workplan is attached in annex 6 of this report.

5.2 The next six months will focus on ordering, installing and operating the hydrological and computer equipment, develop a hydrological information system, a webpage for Volta-HYCOS and complete the training programme. It is planned to organize the second Steering Committee meeting in September 2007.

6. Project performance and lessons learned

6.1 Project Performance

6.1.1 The implementation phase started rather slowly due to a delay in receiving the required funds. In January 2007, as soon as funds were available, activities accelerated. During the reporting period (January – June 2007), considerable activities have been achieved. Sufficient funds were not available for all planned activities within the reporting period. Although an estimated €136 400 was required for the first half of 2007, only € 69,000 was made available. Consequently, some of the planned activities, especially field monitoring by countries could not be undertaken.

6.1.2 Despite a delay in receiving the required funds, noticeable progress has been made in implementing project activities. Preparations for international and regional calls of tenders for hydrological and computer equipment have been completed, four out of seven training courses planned, have been organized. The remaining three modules are pending on the acquisition of the hydrological and computer equipment and selection of a Hydrological Data Management Software.

6.2 Lessons Learned

6.2.1 The project still operates without a secretary/administrative assistant to provide PMU with the necessary logistic support.

6.2.2 Translation of documents from French to English and vice versa still present a problem to PMU Team as it consumes a lot of their time which can be used in technical matters.

6.2.3 A planned trip to Togo and Benin could not be implemented due to lack of transportation. A provision has been made for the acquisition of a vehicle in the revised project document.

6.2.4 Joint activities between Niger and Volta-HYCOS proved to be useful and cost effective. Cooperation between the two projects should be maintained and strengthened.

6.2.5 Regular consultations between partners involved in the project are necessary to clarify any pending issues and ensure fast implementation of the project.

6.2.6 The current available budget of €1000,000 from AFD is quite tight and makes it difficult to implement some of the project activities. WMO in consultation with AFD should consider revising the budget lines to ensure more realistic allocation for specific activities. For example, the budget allocated to the Steering committee for three years is only €11,000.

6.2.7 Hydrological equipment, computers and software should be provided by one supplier to Volta and Niger-HYCOS to facilitate maintenance and ensure sustainability.

6.2.8 The Computer/Data Base Expert is required to be present full time at the PRC to provide technical support to the Regional Data Base and solve any problems arising from the software.

6.2.9 Developing and maintaining the webpage, requires an expert with experience in designing and managing webpages. Such an expert can ensure an effective site for the Volta-HYCOS on the internet.

7. Conclusion and way forward

7.1 There were delays in implementing the project activities, due to insufficient funds. However, noticeable progress has been achieved even though it is slightly behind schedule.

7.2 There is an urgent need for a meeting between WMO and FFEM to review the workplan and other administrative procedures, which impact the implementation of activities and the project schedule. Regular meetings between WMO and IRD are needed to exchange views and solve problems.