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**Republic of Ghana
Upper West Agricultural Development Project
Interim Evaluation**

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Photo on cover page:
Republic of Ghana
A Women's Credit Group at Tankasie (Upper West Region)
IFAD Photo by: Fabrizio Felloni

Republic of Ghana

**Upper West Agricultural Development Project
(UWADEP) - Loan No. 388-GH**

Interim Evaluation

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(*) All Annexes are available upon request from IFAD's Office of Evaluation (evaluation@ifad.org).

CURRENCY AND EXCHANGE RATES

Currency Unit	Ghanaian cedi (¢)
Exchange Rate at time of Appraisal (1995)	¢2 355 = 1 USD
Exchange Rate at time of Interim Evaluation (2005)	¢9 100 = 1 USD
Other units of measure	Hectare (ha) = 10 000 m ²

ABBREVIATIONS AND ACRONYMS

ADB	Agricultural Development Bank
ADRA	Adventist Development and Relief Agency
AEA	Agricultural Extension Agent
AT	Animal Traction
BoG	Bank of Ghana
BUSCOBANK	Builsa Community Bank
CCMC	Community Credit Management Committee
CGAP	Consultative Group to Assist the Poor
CLW	Community Livestock Worker
DADO	District Agricultural Development Officer
DDA	District Director of Agriculture
DDA	District Director of Agriculture
EPA	Environmental Protection Agency
FABS	Food and Agriculture Budget Support
FAO	Food and Agriculture Organization of the United Nations
FLG	Farmers Literacy Group
FASDEP	Food and Agricultural Sector Development Policy
FTD	Farmer Training Demonstration
GCB	Ghana Commercial Bank
GIDA	Ghana Irrigation Development Authority
ICPM	Integrated Crop and Pest Management
IFAD	International Fund for Agricultural Development
LACOSREP	Land Conservation and Smallholder Rehabilitation Project
M&E	Monitoring and Evaluation
MOFA	Ministry of Food and Agriculture
MOU	Memorandum of Understanding
NGO	Non-Governmental Organisation
NORPREP	Northern Region Poverty Reduction Programme
NRI	Natural Resources Institute
PAR	Portfolio At Risk
PB	Participating Bank
PCR	Project Completion Report
PFI	Participating Financial Institution
PIGA	Promoting Income Generating Activities
PSU	Project Support Unit
RAAP	Rural Action Aid Project
RB	Rural Bank
RCF	Revolving Credit Fund
RRI	Reference Rate of Interest
SARI	Savannah Agricultural Research Institute
SGA	Seed Growers Association
SSP	Single Super Phosphate
UNOPS	United Nations Office for Project Services
UWADEP	Upper West Agricultural Development Project
VGA	Village Group Animator



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Source: IFAD

The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

Republic of Ghana
Upper West Agricultural Development Project
Interim Evaluation

Agreement at Completion Point¹

I. The Core Learning Partnership and the Users of the Evaluation

1. In 2005, the Office of Evaluation of the International Fund for Agricultural Development (IFAD) conducted an Interim Evaluation of the Upper West Agricultural Development Project (UWADEP) in Upper West Region (UWR), Ghana. An approach paper was discussed with partners in Ghana in April 2005, and socio-economic surveys were fielded between April and June of the same year. A core learning partnership (CLP) was formed comprising representatives of the Ministry of Food and Agriculture (MoFA), the Department of Agriculture in UWR, the UWADEP Project Support Unit (PSU), the United Nations Office for Project Services (UNOPS), the IFAD Regional Division for Western and Central Africa and the Office of Evaluation of IFAD. A draft evaluation report was distributed in September 2005. A final evaluation workshop was organised in Accra on 9 November, 2005, to take stock of the evaluation findings and prepare this Agreement at Completion Point (ACP). The workshop was attended by the members of the CLP and other stakeholders. The ACP reflects the stakeholders' understanding of the evaluation, findings and recommendations, their proposals to implement them, and their commitment to act upon them.

II. Main Evaluation Findings

2. **Implementation progress. a) Rural credit for income-generating activities.** The project reached 5 805 beneficiaries in 379 groups for a total of circa € 5.6 billion, equivalent to USD 640 000 (about 60% of target). Women constituted 56% of this number, but received only 47% of the total loan amount. **b) Dams and irrigation.** When the project finally closed, irrigation infrastructure was left incomplete on numerous sites. The Project Completion Report mentions 41.5 ha under dry season cropping with 154 ha available for irrigation against an Appraisal Report target of 220 ha. However, this figure includes hectareage already in use, exploiting seepage from existing dams. Through interviews with Water Users Associations (WUAs) officials, the evaluation team could find evidence for only 23 ha of additional irrigable area resulting from the project. **Hand-dug wells and rural roads.** About 35 hand dug wells were sunk, against 40 at appraisal, 12 in 2004, by an NGO (PRONET, Wa). The target for feeder road infrastructure was 140 km and this has generally been exceeded. **Community and women participation in UWADEP interventions.** Total WUA membership was 4 434, of which 3 166 were male and 1 268 female. Executive committee members were 294, of which 221 were male and 73 female. **c) Agricultural extension and seed production.** Prior to UWADEP, the Seed Growers Association in the region had only 12 growers producing seed, mostly maize, under contract to seed supply firms. The number of growers increased from 12 to 60 by 1999, but fell to 30 in 2004. **On-farm demonstrations.** The number of assisted groups was 210, including 2 508 farmers (70%

¹ This agreement reflects an understanding among the key partners to adopt and implement recommendations stemming from the evaluation. The agreement was formulated in consultation with the members of the CLP. The CLP members that attended the workshop were: Hon. Ernest Debrah, Minister of Food and Agriculture (MoFA); Hon. Boniface Gambila, Regional Minister for the Upper East; Hon. Ambrose Dery, Regional Minister for the Upper West; Mr Kwaku Owusu Baah, Chief Director, MoFA; Mr Roy Ayariga, Regional Director of Agriculture (Upper East) and Project Coordinator, LACOSREP II; Mr Emmanuel D. Eledi, Regional Director of Agriculture (Upper West) and Project Coordinator, UWADEP; Mr Joseph Y. Faalong, National Coordinator, AgSSIP-MoFA; and Mr Mohamed Manssouri, Country Programme Manager (IFAD/PA). The workshop was also attended by Ms Caroline Heider, Deputy Director (IFAD/OE); Mr Fabrizio Felloni, Lead Evaluator (IFAD/OE); Mr Mark Keating, Evaluation Information Officer (IFAD/OE); Mr Roger Blench, consultant, Evaluation Mission Leader; Mr Gordana Kranjac-Berisavljevic, consultant, irrigation specialist; and Mr David Andah, consultant, rural finance specialist. A list of workshop participants is provided in the appendices to the main report.

of the target of 3 600 farmers in 300 groups) representing a planted area of 251 ha. **Animal traction.** No clear targets were set at appraisal, but only 130 carts, 65 ploughs and 65 ridgers were made available to 260 individuals. Training was conducted and refurbishment of one blacksmith's workshop at Tarsaw was refurbished. A second workshop was halted before completion. **Upgrading of local sheep and goats.** During 1998 and 1999, 242 rams and 90 bucks were distributed to farmers in the five districts. High levels of mortality led to concerns over the approach and the programme was suspended for two years. It was restarted in 2002 and some 219 offspring of the 50% improved rams and 123 offspring of improved bucks have been recovered for redistribution. This is remote from the appraisal target of 7 500 households benefiting from improved sheep. **Upgrading poultry and guinea-fowl.** Facilities for brooding the commercial cockerels and guinea keets, together with residential accommodation for technical personnel, were provided as part of the rehabilitation of the Bussa Livestock centre. A total of 4 000 birds were supplied by the project up to 1999, but it was decided that this was interfering with the business of commercial suppliers of cockerels and was discontinued. The focus shifted to upgrading guinea-fowl stock and between 1998 and 2004 some 13 640 keets were imported from Belgium for distribution. 30 000 households were to benefit from the poultry component in the appraisal, although this consisted largely of vaccination rather than improved stock. **Training and support to community livestock workers (CLW).** The CLW scheme recruited, trained and provided with basic livestock kits 150 (as appraised) volunteers to help improve livestock health and nutrition within project groups and in time, within their whole community.

3. **Major strengths - (i) relevance.** UWR is the third poorest region of Ghana and evidence for improvements to overall living standards is scarce. The components of UWADEP were designed to add value to rural production enterprises. Despite its commitment to donor strategies on poverty reduction, the government of Ghana has made limited additional funding for the development of these regions, making IFAD's approach to UWADEP all the more relevant. Given the rainfall characteristics of the UWR, it may be appropriate to explore intensive use of soil and water conservation facilities, in combination with dams, to achieve the most significant impact possible. In retrospect, one important lessons learned from UWADEP is the feasibility of social protection, devising better strategies to assist the socially excluded, such as the disabled and single mothers².

4. **Impact.** Few irrigation infrastructure facilities were completed and functional by project closure, making it difficult to assess impact properly. Primary data collected by the evaluation suggests that some households served by the project had increased their assets, but non-beneficiaries have also seen improvements in the decade 1995-2005. Those households that have received financial services from participating banks have reported income increases through opportunities for investments in trading and farming. However, the overall impact of UWADEP has been quite modest, due to limited implementation achievements.

5. **Design weaknesses and misplaced emphases.** Due to the transposition of project design from UER, major areas of agricultural production were omitted: tuber cultivation, diversification into higher humidity crops, tree crops and riverside gardens. In addition 'garden' crops, such as Bambara and Kersting's groundnuts, particularly grown by women, were not taken into consideration, despite their potential to contribute to women's incomes. Training, particularly in animal traction, was emphasised at the expense of implement supply, despite farmers' expressed wish to the contrary. **Marketing not adequately addressed.** The viability of the interventions depending heavily on the market for horticultural products in the area with a poor road infrastructure, and far away from the main markets is questionable. Monitoring prices and facilitating market access, along with promotion of crop diversification, should have been integral to project design. **Supervision of engineering.** The use of a single agency, GIDA, to supervise irrigation infrastructure design and construction has led to low-grade outcomes and did not allow for more modern designs to be adopted. The drainage network on many dam sites was neglected. **Community mobilisation.** Failure to appoint a gender officer led to a marked dominance of men in community organisations (in contrast to UER). **Micro-finance.** The promotion of subsidised credit has resulted in very limited commitment to term loans by the banks involved.

² In one dam site, Karni, social protection (assistance to the blind, disabled and single mothers) is a major element, showing that this can be made to work.

6. **Implementation weaknesses. Timeliness and quality of work** by local contractors was a major problem throughout UWADEP. **Agricultural extension**. The balance of expenditure was weighted excessively towards infrastructure, with only rather modest achievements in terms of extending new technology to farmers. **Credit**. Access to credit by farmers remains at low levels and may decline further with the closure of the project. **Collaboration with NGOs** has generally not occurred. Rather than jointly developing strategies, PSU typically employed NGOs as executing agents without adequate emphasis on their feedback. **Health and environmental issues** were not addressed by the project in spite of the evidence of increases in water-borne diseases and environmental degradation in the region.

7. **Threats to sustainability**. Sustainability has been constrained in the rural finance component by below-market interest rates to final borrowers and poor credit discipline. The sustainability of the Seed Growers' Association is not assured because of the failure to link the group effectively with inventory credit and missing links in the chain between small farmers' demand and supply. In the irrigation component, the main issues are the incomplete irrigation infrastructure and the poor quality of works. Few WUAs have been in operation long enough to judge their sustainability, but in many cases these social groupings are robust because they have existed in a different form prior to UWADEP, managing the hand-dug well irrigated land below the dams, sometimes for decades. The division between the roles and responsibilities of WUA and consulting/construction agencies has not been well understood by beneficiaries in some cases, leading towards future maintenance problems.

8. **Main weaknesses in partners' performance**. IFAD too readily accepted a project design with features that were clearly inappropriate for UWR and responded inadequately to structural and implementation problems which surfaced during the course of UWADEP. **UNOPS** supervision seems to have been inconsistent and lightweight, in that many of the problems and claims of achievements of UWADEP were not verified. **Government and its agencies**. A characteristic feature of the PSU was its use of available MoFA staff, and a failure to seek out sectoral specialists. Thus the Project Support Unit had no specialised staff to supervise infrastructural work, or to monitor and encourage gender awareness, or to deal with the credit component. Changes in project management to introduce dynamic individuals took place late. The failure to engage with NGOs and the use of Agricultural Extension Agents (AEAs) to do the work of NGOs 'after hours' is a doubtful practice at best and hardly furthers the grassroots and innovative approaches expected by IFAD. Project documentation was also weak, and there were discrepancies in accounts due to inadequate reconciliation between the Bank of Ghana and the participating banks. The decision to use GIDA as a sole consultant for the irrigation infrastructure on the project caused many problems in the quality of project execution, as well as delays in implementation.

III. Recommendations

9. The project design and implementation modalities clearly need radical improvements. The following recommendations start from those tasks that should be undertaken before the closure of the project and proceed to those strategic and operational issues to be considered in the design and implementation of future interventions, should the corresponding activities be part of them.

A. Immediate Tasks: Completion of Irrigation Infrastructure and Health Issues

10. UWADEP has closed and much of the irrigation infrastructure remains unfinished or requires remedial work. The completion of existing works is a major priority, but will only be a useful exercise if closer supervision is introduced, preferably using alternative arrangements.

Summary Recommendation:

- Regional Directorate, MoFA to complete civil works and ensure full functionality, seeking alternative consultants for supervision of works. Given that the IFAD loan has been closed, it is recommended that government funding be used.

Partners involved: Regional Directorate, MoFA.

11. Health issues need to be addressed urgently to avoid deterioration in health conditions of the users. There is evidence for high levels of soil-transmitted helminths throughout Northern Ghana associated with standing water. An absence of public health measures in relation to small dams may lead to increased incidence of related infections, with debilitation and greater susceptibility to a range of other pathologies, especially among children. Such issues were not adequately tackled during the life of the project, apparently due to the absence of key partners in Ministry of Health (MoH). To judge by available documents, in-country expertise exists to conduct such monitoring in institutions such as the Ghana Health Service and through the Parasitic Diseases Research Centre based in Tamale. NGOs such as the Catholic Relief Services and Adventist Development and Relief Agency (ADRA) have both shown previous interest in health monitoring and awareness and are likely partners with MoH in this area.

Summary Recommendation:

- Regional Directorate (MoFA) to establish effective sustainable monitoring system in conjunction with NGOs, MoH. Regional Directorate (MoFA) and MoH and environmental health units to initiate public health campaign based on results monitoring, using MoH funding and in conjunction with NGOs.

Partners involved: Regional Directorate (MoFA), in consultation with NGOs and MoH.

Suggested timing: Immediate. Progress to be reported prior to IFAD's formulation of future interventions.

12. The failure to work with the Environmental Protection Agency (EPA) on the environmental impact of small dams and to take appropriate measure for catchment protection must be remedied before any future intervention. Regional Directorate/MoFA should approach EPA to undertake the environmental impact assessment for each dam functioning or still under construction, and establish a smooth linkage in this regard for all future engineering work.

Summary Recommendation:

- Regional Directorate (MoFA) to work with EPA to ensure environmental impact assessments are completed for all dams as required under Ghanaian law.

Partners involved: Regional Directorate (MoFA).

Suggested timing: Immediate. Progress to be reported prior to IFAD's formulation of future interventions.

B. Future Intervention Concepts

13. **Communicating and discussing project experience as a contribution to policy dialogue.** UWADEP offers important lessons (not always positive) that are grounded in the reality of the field. These experiences should be documented and widely discussed not only at the regional but also at the national level (including sharing of knowledge with other IFAD projects), using donors' coordination mechanisms. This report has highlighted areas of weak institutional impact, resulting, for example, in little evidence of interactive approaches where ideas and concepts from the village should feed into project design. A major lesson would seem to be the inadvisability of developing a project format based on one deemed to have worked elsewhere. UWADEP has not observed and adapted the lessons from NGOs and their successful ideas.

14. **Integration and sequencing of components.** If IFAD is to consider further investment in UWR, then the evaluation of UWADEP suggests the rethinking of some elements in project design. Projects with so many components but no clear integrative strategy are open to activities being carried out with no linkages, with the consequence that management costs are high. Project design should consider sequencing much more carefully.

15. **Considerations of equity.** UWADEP and comparable projects such as LACOSREP raise broader concerns. Basing a development strategy on the rehabilitation of existing infrastructure risks perpetuating inequality. Although hunger remains widespread and may be increasing throughout UWR, there are also ‘bypassed communities’, i.e., those in remote areas where there is no government infrastructure and no NGOs operate. Such communities need to be more clearly targeted. Similarly, targeting of special categories, such as the blind, physically impaired, and single mothers was not part of the UWADEP design, but experience with these groups at the Karni site shows that some components have the potential to assist the socially excluded and this should now be considered integral to design.

16. **Improve M&E systems.** Monitoring and evaluation was weak, particularly the assessment of impact. For future projects, in-country long-term consultancies to support M&E should be sought. **Background data collection.** Projects should collect relevant background data including climatic, market and socio-economic indicators.

Summary Recommendations:

- IFAD to take the opportunity of donors’ coordination mechanisms to present and discuss the main lessons learned from its experience in UWR and in UER. In view of its lack of field presence, IFAD should estimate the level of human and financial resources to be devoted to it.
- Project formulation to draw on the lessons learned by stakeholders at all levels. In the design of a future intervention, IFAD (and indeed other multi-laterals) should take care not to waste the time of potential beneficiaries with ‘sensitisation workshops’, as, by and large, they have already fully articulated their requirements.
- IFAD to articulate clearer sequencing and integration of components at design. Typically, the project components are listed and the links between them are somehow taken for granted. But in implementation, components are often executed independently. Project design must spend more time spelling out the links, both in terms of its argument and practical action by the PSU.
- Target communities *without* irrigation infrastructure and categories of users in need of social protection following a successful example.
- IFAD, in consultation with MoFA to discuss M&E support requirements including in-country support. Henceforth monitoring should be conducted in conjunction with communities and be subject to joint assent. Projects should collect relevant background data.

Suggested timing: At design of future interventions. Communication and discussion on lessons learned to be a continuous element of IFAD’s strategy.

Partners involved: IFAD, in consultation with MoFA, NGOs, and other donors.

C. Components of Future Projects

C.1. Agricultural Action Research and Extension

17. The project design omitted a number of areas significant for farmers in UWR, presumably due to the adoption of components from LACOSREP, situated in a significantly different agro-ecological zone in terms of rainfall, soil fertility and demography. In UWR, these included commercial maize production, tuber cultivation, diversification into higher humidity crops³, tree crops and riverside gardens. Despite considerable investment in infrastructure (buildings for research organisations), farmer-oriented research has been out of touch with the actual crops many farmers are growing. Research should grow out of current production systems (as listed above) and be able to respond more flexibly to requests emerging from the farm. This would require a radical revision of existing approaches and seeking out partnerships with

³ The evaluation encountered farmers experimenting with bananas and oil-palm production, which would be quite impractical in UER.

alternative providers such as NGOs based in UWR or UER or other research centres that have adequate experience. Linkages with other programmes of IFAD emphasising roots and tubers should also be sought.

Summary Recommendations:

- MoFA, IFAD and other relevant partners to conduct reviews of current crop and livestock production systems in UWR with a view to designing interventions based on actual farmers' activities, placing additional emphasis on crops grown by women. IFAD should consider future intervention strategies based on a commodity chain approach.
- In view of the constraints of the existing research institutions, IFAD to discuss alternative arrangements for action research with MoFA and NGOs.

Suggested timing: Specify these requirements at design. Implement them during future interventions.

Partners involved: MoFA, IFAD, International Water Management Institute, universities, Council for Scientific and Industrial Research, NGOs and farmers' organisations, SARI.

18. Livestock. The 100% improved stock introduced by the project do not survive for long under the traditional husbandry system, and are only of use to a minority of wealthier farmers. It is suggested to promote and expand the introduction of 50%-improved Sahelian stock to enable a greater number of farmers (particularly women) to take advantage of the intervention more quickly. Pilot the introduction of fertile guinea-fowl eggs for local hatcheries.

Summary Recommendation:

- Review policy on the composition of introduced stock and identify levels of cross-breeding with high survivability suitable for households unable to supply high levels of inputs.

Suggested timing: Specify these requirements at design. Implement them during future interventions.

Partners involved: MoFA, IFAD, farmers' organisations.

19. Animal traction is clearly much in demand (particularly by women) and most farmers are able to learn to handle implements without the need for expensive training courses. Future project designs should consider how to disseminate implements as cheaply as possible, something which has been achieved in Mali and Burkina Faso. Farmers are requesting a wider variety of animal traction tools (for example ridge weeders and robust furrow weeders). Tools and carts for donkeys are also in demand and should be supplied alongside those for oxen. This would almost certainly preferentially benefit women. Implement repair is also important, but workshops must have electricity to be effective.

Summary Recommendations:

- MoFA and IFAD to assess likely demand for types and numbers of animal traction implements, and develop a solution for supply to rural areas at realistic prices.
- Implement repair workshops should be revived on a commercial basis.

Suggested timing: Specify these requirements at design. Implement them during future interventions.

Partners involved: MoFA, IFAD, Tamale Implement Factory, Intermediate Technology Transfer Unit, farmers' organisations.

C.2. Irrigation Component

20. **Irrigation infrastructure is one strategy in a basket of options for improving household incomes.** Construction of small-scale dams is relatively cheap and improves life for poor people living under adverse conditions as well as incorporates an element of social protection. But their benefits should be weighed against other rainfed-based options for UWR already discussed, including supplementary irrigation.

21. **Quality control and phased contracting of consultancy services.** Procurement of services should be in line with the Ghana Public Procurement Act No. 663 (2003), thereby opening the bidding for consultancy assignments to a wide range of professional companies by seeking their proposals, and then holding a proper competition. This procedure should be followed also in the downstream phase, even where a consultant has performed satisfactorily. Services should be segregated into phases according to a project implementation schedule and contracts signed separately, subject to satisfactory performance. A validation forum should be organised after design completion and before construction start-up, involving: MoFA, district assemblies, consultants, contractors and WUAs. This should be followed with regular work progress review meetings. Payment schemes to the consultant should include performance incentives, not lump sums. In order to better understand bottlenecks, IFAD may consider conducting an audit of contract awarding during project implementation.

22. **Irrigation infrastructure construction methods.** Many of the dams constructed under UWADEP (and its sister-project LACOSREP) use open channel irrigation methods which waste considerable quantities of water. 'Closed' systems are now being introduced by many organisations, including international NGOs and even other projects under MoFA. These technologies should be carefully considered.

23. **Virtually nothing has been done to comply with existing Ghanaian environmental regulations.** This must be rectified as soon as possible, by MoFA in conjunction with the EPA.

24. **Fisheries.** Although some action was taken in the area of stocking dams with fish, it was inconsistent and entirely opaque to the WUAs. Since fish have considerable potential to increase output from projects and to improve nutritional standards, this area should be given much greater attention in any future project design.

25. **Pumping water** from the White Volta River for riverside horticulture, which was introduced under LACOSREP II in UER and gardens along rivers in UWR using hand irrigation and small pumps, is becoming common. It is recommended that adequate attention be given to these cost-effective technological packages.

26. It is important to recognise that **irrigation infrastructure needs maintenance**, some of which is beyond the capacity of WUAs. This situation should be addressed by realistic budgeting and assignment of responsibility in such cases to MoFA, the regional and district departments of agriculture and donors.

Summary Recommendations:

- Contracting and procurement of all phases of dams and other civil engineering projects must conform to recent government guidelines [Public Procurement Act No. 663 (2003)].
- IFAD to consider requesting an audit of contract awarding under UWADEP.
- New, more environmentally-sound methods of irrigation infrastructure construction, such as those introduced by NGOs and others, to be considered a high priority by both IFAD and other donors for future projects.
- IFAD and MoFA to study the feasibility of fisheries in the dams, in consultation with WUA members.
- MoFA, in consultation with NGOs, should identify most cost-effective technology options (for example those tested in Burkina Faso and Nigeria) and packages for riverside horticulture (e.g.,

pumping irrigation) and disseminate information about these. Surveys to be made to identify suitable areas (such as valley bottoms).

- Realistic assignment of responsibility for different levels of maintenance. MoFA to clarify with WUAs what type of maintenance is their own responsibility, what problems can be assigned to defective work by contractors and should be brought to the notice of the regional/ district departments of agriculture. IFAD, in consultation with MoFA and other donors, to estimate the availability of maintenance funds within government agencies and provide for those operations that may exceed existing budgets and should be dealt with by extra-systemic assistance.

Suggested timing: Formulation and implementation of future interventions.

Partners involved: MoFA, Water Resources Commission, NGOs, IFAD, WUAs.

C.3. Processing and Marketing Issues

27. Producers remain at the mercy of buyers with high monopoly power, particularly because of the lack of an all-weather road linking UWR to the rest of the country. Crop diversification, dissemination of new techniques in marketing and a variety of crop processing strategies could rapidly increase incomes and reduce nutritional insecurity in UWR. A review of these issues and action by MoFA should be undertaken. Much knowledge already exists in neighbouring countries, notably Burkina Faso, so some type of farmer information exchange is recommended.

Summary Recommendations:

- MoFA to conduct reviews and disseminate recommendations on:
- Crop diversification to reduce the problem of bottlenecks in the market and crop processing to increase storage flexibility and allow farmers to 'play' the market.
- Spreading of information on market prices (radio, farmers' organisations) allowing producers to confront buyers more effectively.

Suggested timing: Specify these requirements at design. Implement them during future projects.

Partners involved: MoFA, NGOs.

C.4. Additional Area for Inclusion: Functional Literacy Groups

28. Functional Literacy Groups (FLGs) have seen considerable success in the sister IFAD project, LACOSREP II in UER, both increasing numeracy and literacy and establishing solidarity among groups for other purposes such as collective work and microfinance.

Summary Recommendation:

- Work with NGOs on strategies to develop FLGs (review experience of ActionAid) and ensure that writing systems are in line with standard Ghanaian orthographic conventions.

Suggested timing: FLG to be considered in coming operations, as appropriate.

Partners involved: IFAD, MoFA in consultation with NGOs.

C.5. Rural Finance Issues

29. While credit was appreciated by the beneficiaries, coverage was limited and the project did not significantly contribute to promoting sustainable rural finance institutions. There is a wide range of credit options, especially offered by NGOs and government programmes that include subsidized rates. Some may create problems for interventions based on market rates. It is important that: (i) rural banks be allowed to

apply interest rates that cover all costs and allow for profits; (ii) partners work towards strategy harmonisation (in particular by avoiding interest rate subsidisation in public programmes); (iii) training be provided to participating banks' staff using regional rural finance hubs; (iv) discussions be held with participating banks on available techniques and products that can help reduce transaction costs in rural areas; and (v) the rural finance component be fine-tuned and well sequenced with other components.

Summary Recommendations:

- Review with the participating banks, BoG, and with the help of specialists and regional rural finance hubs those options and products that can make rural finance both viable economically and practical for beneficiaries. Review and discuss the experiences in institutional strengthening and policy dialogue stemming from the Rural Financial Services Project.

Suggested timing: During future project formulation.

Partners involved: IFAD, the Bank of Ghana, rural banks, Micro Finance and Small Loan Centre, Ministry of Finance and Economic Planning, Apex Bank, Ghamfin, RFSP.

Republic of Ghana
Upper West Agricultural Development Project

Interim Evaluation

Executive Summary

I. INTRODUCTION

1. In accordance with the Evaluation Policy of the International Fund for Agricultural Development (IFAD), the Office of Evaluation (OE) conducted an Interim Evaluation¹ of the Upper West Agricultural Development Project (UWADEP) in Ghana in May-June 2005, given the interest of both the Government of Ghana and IFAD's Western and Central Africa Division to proceed with further investments in the area. This evaluation adopts the standardized IFAD methodological framework for project evaluations.

2. **IFAD projects in Northern Ghana.** Northern Ghana consists of three regions, Upper East (UER), Upper West (UWR) and the Northern Region (NR). IFAD has projects in each of them: Land Conservation and Smallholder Rehabilitation Project (LACOSREP), UWADEP, and Northern Region Poverty Reduction Programme (NORPREP) for the Northern Region. UWADEP originated from a FAO General Identification mission in 1993, was appraised by an IFAD team in mid-1995 and modelled on the example of the existing LACOSREP I. UWADEP was approved by the IFAD Executive Board in September 1995, became effective in March 1996 and closed in December 2004. The total project cost is USD 11.3 million, out of which IFAD provided a loan for USD 10.0 million. As of August 2004, the disbursement rate reached 94.64 % of the total loan amount. IFAD is the only international financier of the project, which was supervised by the United Nations Office for Project Services (UNOPS) for most of its implementation.

3. **Macro-economic and poverty indicators.** Located in West Africa, Ghana has an estimated population of 20.5 million, of which 63% rural. The structure of the economy is characterised by a large (in relative terms) services sector (42% of the total GDP, compared to 34% for **agriculture** and 24% for industry). It has an annual GDP per capita of USD 304 and GDP growth has averaged 1.8% in the last ten years (i.e., below population growth) although this has accelerated recently. Agriculture continues to be the mainstay of the economy, employing about 60% of the labour force. Ghana is classified as 131st out of 175 countries, by the UNDP Human Development Index (2004). The percentage of households below USD 1 per day has been estimated at 44.8%, and the percentage of poor households according to a national poverty line at nearly 40% (World Bank, World Development Indicators, 2004).

4. **Agricultural policy.** Agriculture contributes to ensuring food security, provides raw materials for local industries, generates foreign exchange, and provides employment and incomes for **most** of the population. Agriculturally-dependent rural households (72% of the population) form the largest potential domestic market for output from other sectors of the economy. Recent agricultural policy in Ghana is

¹ The Office of Evaluation of IFAD conducted an evaluation mission of LACOSREP II and UWADEP from 23rd May to 30th June 2005. Field visits in the UER took place from 12-27 June. The mission members were Mr Roger Blench (Team Leader), Mr David Andah (Credit and Micro-finance), Ms Liz Kiff (Agricultural Extension) and Mr Gordana Kranjac (Water resources and Rural Infrastructure). Preliminary quantitative and qualitative surveys were carried out by Mr Hippolite Bayor and Mr Edward Aboagye in early 2005. An ad hoc survey of non participant households was conducted in concomitance with the mission, under the direction of the Team Leader. Mr Fabrizio Felloni (Lead Evaluator, IFAD-OE) designed the evaluation methodology, made a pre-evaluation visit in April 2005, accompanied the mission for its first and final days in Ghana and supervised the evaluation process throughout. An aide-mémoire and an associated PowerPoint presentation were circulated at a workshop in Wa on 27 June 2005 under the chairmanship of the Regional Minister. A final presentation of the first findings from LACOSREP II and UWADEP was made in Accra on June 30th. The mission is grateful to national and regional authorities as well as to the project staff for their support.

reflected in the following key documents: (i) Medium-Term Agriculture Development Programme (MTDP) (1991-2000); (ii) Accelerated Agricultural Growth and Development Strategy (AAGDS); (iii) the Food and Agricultural Sector Development Policy (FASDEP) (2002); and (iv) the Ghana Poverty Reduction Strategy (GPRS) (2002-2004), currently under revision.

5. The **Ghana Poverty Reduction Strategy (GPRS)**. GPRS (2003) was revised in 2005 to focus on the identification of vulnerable groups and possible risk-reduction strategies. It recognises that rural farmers and fishermen are particularly at risk and specifically mentions Northern Ghana as a locus of perennial food deficits. Women are identified as particularly discriminated in this context and **instruments** to promote gender equality are emphasised. The document also notes the importance of environmental factors in increasing vulnerability. However, it does not put forward concrete measures to reduce risk in agriculture.

6. **The rationale for UWADEP** was summarised at appraisal as:

- strong demand for dam rehabilitation in rural communities;
- the potential for Water User Associations (WUAs) to be sustained and assure food security in the region; and
- build on existing credit experience to establish effective mechanisms for rural financial institutions.

7. **Strategic thrust.** UWADEP was intended to improve food security and increase the income of smallholders. Its components include:

- capacity building to strengthen project delivery and management skills of key implementing agencies;
- water resources development (rehabilitation of dams, formation and support to WUAs, catchment area protection, and demonstration/promotion of manually-operated tube wells);
- agricultural development, including farmer training and demonstrations, support to technology generation and research/studies, marketing and processing, and livestock development;
- promotion of income-generating activities through the supply of rural financial services; and
- rural infrastructure comprising rural road rehabilitation and the construction of hand-dug wells for drinking water and latrines.

8. **Project area.** The UWR is situated in the northwest corner of Ghana, with an estimated total population of 580 000, of which about 90% is rural. The average population density is 29.8 persons/km², about one fourth that of the UER. UWR is one of the poorest regions of Ghana, with an annual per capita GDP of USD 170 and on most social indicators, the most neglected region of the country. Infant mortality, seasonal hunger, cash incomes, school attendance, transport networks are weaker in UWR than other regions. Despite this, UWR has benefited from very few targeted development projects, and until recent years, not many NGOs were operating there. UWR has abundant land both for crops and livestock and much lower population density, but access to markets and off-farm opportunities is constrained by poorly maintained feeder roads and lack of transportation services.

9. **Components** of UWADEP at appraisal were as follows: (i) agriculture (33% of total base costs); (ii) water resources (17%); (iii) rural roads (16%); (iv) credit (22%); (v) community and women's development (6%); and (vi) project support unit (7%). The target group is poor farmers, which represent up to 80% of the population of UWR, some 20 000 households according to the 1995 appraisal. Overall responsibility of the project was with MoFA, with the Chief Director responsible for policy direction and the provision of counterpart funds at regional level. A Project Support Unit (PSU) was to be established within the Regional Office of Agriculture to assure project programming, prepare work programmes and budgets. Community mobilisation was to be the responsibility of an officer seconded to the PSU to establish linkages with the Community Development Department and Women In Agricultural Development, to assure the emphasis on gender.

II. IMPLEMENTATION

10. **Rural credit for income-generating activities.** The project reached 5 805 beneficiaries in 379 groups for a total of circa € 5.6 billion, equivalent to USD 640 000 (about 60% of target). Even though women constituted 56% of this number they received only 47% of total loan amount. The largest portion (64%) of the disbursements went to farming which is dominated by the males. Loans for income-generating activities such as trading and food processing, reserved for women, followed with only 24%.

11. **Dams, irrigation, water and roads .** After the end of extensions, the project finally closed, leaving irrigation infrastructure (dams and canals) incomplete on several sites. The draft Project Completion Report (PCR) states that 41.5 ha are under dry season cropping and 154 ha available for irrigation against an Appraisal Report (AR) target of 220 ha (70%). The Ghana Irrigation Development Authority (GIDA) Technical Review on completion (June 2005) mentions the same figure of 154 ha, but cautions that certain areas are not under the command from the canals, which means that hand watering or pumping has to be used. Farmers still largely depend on hand-dug wells, as was the case before the project rehabilitations took place. The evaluation team could find only 23 ha. of additional irrigable area resulting from the project (figures obtained from physical observations and cross-checked with WUA secretaries/chairmen in each case). Prescribed sanctions were not applied to defaulting contractors in several instances by PSU. Generally, no laboratory investigations for quality assessments of the work were conducted. This is a major problem, as many structures suffer from poor quality, and thus uncertain sustainability. After the two extensions, the project finally closed in 2004, leaving irrigation infrastructure incomplete on several projects. Through the Ministry of Food and Agriculture (MoFA), additional funds were provided from Food and Agriculture Budget Support (FABS) to cover the outstanding works. The AR mentions involvement and training of WUAs, as well as specifically-targeted interventions for women. In the AR, 40 hand-dug wells were planned at the dam sites to provide safe drinking water to participating communities. About 35 of these were sunk – 12 in 2004 alone, by an NGO (PRONET, Wa). The target for feeder road infrastructure in the AR was 140 km and this has generally been exceeded.

12. **Agricultural extension and seed production.** Prior to UWADEP, the Seed Growers Association (SGA) in the region had only 12 growers who had previously produced seed, mostly maize, under contract to seed supply firms. Considerable progress was made prior to decentralisation, with the number of growers increasing from 12 to 60 by 1999. Numbers have since reduced, with 30 successfully producing seed in 2004. **On-farm demonstrations .** Demonstrations of the application of single super phosphate (SSP) to groundnut were promoted throughout the project life. The project worked with a total of 3 600 farmers in 300 groups, 75% of the target of 4 800 farmers in 400 groups.² **Support and promotion of animal traction.** The implementation progress of the animal traction component has been very modest at field level, with only 130 carts, 65 ploughs and 65 ridgers made available to 260 individuals, training conducted and refurbishment of one blacksmith's workshop at Tarsaw.

13. **On-farm adaptive research.** The on-farm adaptive research component had two major activities: infrastructural support to the establishment of a research station in the UWR and implementation of research in support of improved crop production systems for the region. A permanent base was established for the Savannah Agricultural Research Institute (SARI) at Dokpong **Agricultural** Station at Wa, with the construction of an office block with laboratory facilities, accommodation for ten staff and a large conference hall. Initially SARI conducted a wide range of trials attempting to cover the issues identified during the initial project planning workshop held in 1995. Research subsequently focussed on two main areas; improvement of soil fertility, and identification of improved varieties of the major legume and cereal crops. Introduction of improved varieties of cowpea, soybean, sorghum, maize and rice have generated much enthusiasm among farmers, however access to certified seed remains a problem for small-scale farmers.

14. **Upgrading of local livestock.** During 1998 and 1999, 242 improved rams and 90 bucks were distributed to farmers in the five districts. High levels of mortality led to concerns over the approach and the

² Sources: MTR (2003, p. 17) and AR (Working paper 2, p. 23).

programme was suspended for two years. It was restarted in 2002, with a refocus on **beneficiaries** with sufficient resources to be able to afford improved housing, feed and recommended health measures. Some 219 (50%) offspring of the improved rams and 123 offspring of improved bucks have been recovered for redistribution. **Poultry and guinea-fowl.** Between 1998 and 2004 some 13 640 keets were imported from Belgium. The average survival rate for the first two batches was 84% (M&E unit, 2002). Keets were sold from the 1998 batch with 24% subsidy, but from later batches at full cost recovery. Beneficiaries report that the imported guinea fowls were robust and about twice the size of local birds. They fetch €35,000 as compared to about €20,000 for local birds. **Training and support to Community Livestock Workers (CLWs).** The CLW scheme recruited and trained 150 volunteers and provided them with basic livestock kits to help improve livestock health and nutrition within project groups and in time, within their whole community. Groups report significant reductions in mortality rates with the instigation of recommended management and health care.

III. PERFORMANCE

15. **Relevance.** The overall objective of UWADEP was to empower rural populations living in poverty to access improved technology services and credit. There is no doubt that the overall and specific objectives are relevant to these rural communities which depend almost entirely on agriculture. Ghana has signed up to various international undertakings to reduce poverty and UWADEP has this as its direct focus. Despite its commitment to donor strategies on poverty reduction, the government of Ghana has yet to make available additional funding for the development of these regions, which makes IFAD's approach all the more relevant. However, allocation of resources *within* sub-components between infrastructure development (SARI research station, animal traction centre and Livestock holding centre), training, demonstrations and practical interventions had limited relevance. As an example, the focus on training within the animal traction component seems misplaced in the context of working with groups of farmers who already own bullocks and donkeys.

16. **Effectiveness** has been low for the rural finance component: transaction costs are high for both banks and clients and credit discipline has been weak, with the exception of Sonzelle Rural Bank (RB). In the agricultural development component, AT interventions were limited in spite of high farmer demand. Areas of investigation in adaptive research have been limited, surprisingly excluding soil and water conservation. Research has ignored traditional farmers' crops such as yams (without practically any linkage with IFAD's Roots and Tubers Programme) and the spontaneous development of hand-watered gardens along rivers. Improvement of small ruminant and poultry/guinea fowl breeds has proved popular, in spite of an outgrower scheme that prioritised the better off, with delays to the servicing of poor farmers. Supervision of dam construction has been very weak and characterised by intra-government disputes.

17. **Efficiency** has been explored for irrigation, through the comparison of construction costs per ha between the two phases of LACOSREP and with cost ranges of other organizations (cost-effectiveness analysis). In the case of the rural finance component, productivity and efficiency (as per Consultative Group to Assist the Poor (CGAP) definitions), are compared with regional benchmarks. Unit costs for irrigation and rural finance compare favourably with their peer observations (in the case of irrigation this is partly due to the devaluation of the cedi). It is however important to contrast low costs with limited achievements (for example both in terms of delays and poor infrastructure quality).

IV. IMPACT

18. **Methods.** Findings are the result of triangulation between multiple sources: (i) quantitative surveys of beneficiaries and non-beneficiaries; (ii) a qualitative survey of five dam sites; (iii) an ad hoc survey of non-beneficiaries; (iv) participants' observations as recorded by mission members; and (v) secondary data.

19. **Outreach and impact.** Physical and financial assets of farmers assisted by the project are rising, but there is a general increase (i.e., also for non-project farmers) in access to material assets due to remittances. The choice of training topics has not always been appropriate, thus the impact on human capital was limited and limited attention has been devoted to human health hazards under the **water** management component, in

spite of the potential risks of water-borne diseases. A very important and originally unplanned development took place when under-privileged groups (blind, disabled and single-mother) were the object of the project's assistance in Karni dam site. This happened also thanks to preparatory work carried out by an NGO. Attention to gender issues has been limited throughout the components. The present implementation does not ensure that benefits spread rapidly to the resource poor and women. If there is one message that emerged clearly from the field visits, it is that training, research and sensitisation has been over-emphasised to the detriment of assisting farmers with practical requests.

20. **Innovation, scaling-up and replicability.** Few elements of UWADEP can presently be considered an unalloyed success and therefore the desirability of replicating them in their present status is **questionable**. Clearly more dams would be desirable; one option is to use the NGO sector to deliver more modern dams. The introduction of improved breeds and seeds has proven partially successful, but could have achieved a wider diffusion if they had been more responsive to farmers' requests. Improved breeds of small ruminants and fowl have been successful in increasing incomes for a range of farmers and would seem suitable for replication.

21. **Sustainability** has been constrained in the rural finance component by below-market interest rates to final borrowers and poor credit discipline. Sustainability of the SGA is not assured because of the failure to link the group effectively with inventory credit and missing links in the seed **chain** between small farmer's demand and supply. In the irrigation component, the main issues are: completion of irrigation infrastructure through FABS, which, given the pace of project implementation during UWADEP must be of concern to communities, and quality of works (which is manifestly poor). Few WUAs have been in operation long enough to judge their sustainability, but in many cases these social groupings are robust because they have existed in a different form prior to UWADEP, managing the hand-irrigated land below the dams, sometimes for decades.

V. PERFORMANCE OF PARTNERS

22. **IFAD.** Two issues are critical in assessing the performance of IFAD; the acceptance of an appraisal document with features that were clearly inappropriate for UWR and an inadequate response to design and implementation problems which surfaced during the course of UWADEP. For all the participatory rhetoric, the design of UWADEP was top-down and failed to address the concerns of a high proportion of its target group. Design decisions in irrigation infrastructure should generally be flexible and appropriate to the actual environment, but those in the AR were too rigid, giving very little room for changes to suit individual sites.

23. **UNOPS supervision** seems to have been less accurate than in LACOSREP II (see the related evaluation for comparisons), the sister project in UER, in that many of the problems and inflated claims on achievements of UWADEP were not picked up. Given the time and resource costs of visiting individual communities to establish the exact implementation status, this may well be considered beyond the present resources and contractual arrangements between IFAD and UNOPS.

24. **Government and its agencies.** A characteristic feature of the PSU was its use of available MoFA staff, even when sector specialists were not present. Thus the PSU had no staff qualified to supervise infrastructural work, or to monitor and encourage gender sensitivity. There was no **specialised** staff member in the PSU dealing with credit. Changes in project management to introduce dynamic individuals took place late. The failure to engage with NGOs and the use of Agricultural Extension Agents (AEAs) to perform their tasks 'after hours' is doubtful practice at best and hardly develops the grassroots and innovative approaches expected by IFAD. Project documentation was lamentable, and even after considerable work, the numerical data on implementation presented in this report must be treated with caution. The decision to use GIDA as a sole consultant for the irrigation infrastructure on the project was a very questionable one, causing many problems in the quality of project execution, as well as delays in implementation.

VI. OVERALL ASSESSMENT

25. The overall impact of UWADEP must be considered modest. The number of dams functional by the closure of the project was small and the irrigated area limited. Many of the dams have engineering and technical problems which bespeaks a lack of supervision. As a consequence it is hard to evaluate the increase in social capital and the strength of WUAs, because they have had a limited chance to operate. Much of the irrigated area claimed by UWADEP turned out to be well-based gardens that were in operation prior to the project and are of greatest use to the younger and stronger members of the community. Appraisal targets for women's involvement were almost never met. The majority of resources were spent on capital goods and central infrastructure with very little visible return and the agricultural components were unresponsive to the needs of actual farmers. In the case of animal traction, for example, expenditure on training and buildings far exceeded sums spent on getting implements into the community, despite the strongly voiced requests of those communities. Partnership with NGOs was weak. Credit was taken up and clearly valued by its recipients, but little emphasis on supporting rural finance institutions and cumbersome procedures meant that its impact was far less than its potential; moreover, most of the banks appear to be simply withdrawing rather than continuing with their clients. A fundamental problem was the copying of many features of LACOSREP without due consideration for the different ecological, economic, social and demographic characteristics of UWR, a design shortcoming for which IFAD must take some responsibility. However, many problems also arose from weak supervision and the MTR process. It would not be desirable to replicate or extend UWADEP in its present form. Further interventions in the area, in principle justified by the severity of poverty, require major changes in the project design.

VII. INSIGHTS AND RECOMMENDATIONS

Insights

26. **Further investment?** If IFAD is to consider further investment in UWR, then the evaluation of UWADEP undoubtedly suggests major rethinking of structural elements in project design. A key problem is that projects with so many components, but no clear integrative strategy, are open to activities being carried out with no linkages, with consequently high management costs. The failure to link credit with other technical innovations suggests the added value that could be gained from a more coherent approach. The significance of delivering infrastructure in a timely manner cannot be overemphasised. No amount of training and sensitisation will compensate for this fundamental lacuna. Project design should consider sequencing much more carefully. Despite efforts to introduce greater clarity into contracting arrangements, the reality has been almost the reverse.

27. **What type of project?** In Ghana, in some sectors such as health and education, donors have started to fund multi-donor budget support initiatives. Although the pressure is not yet strong in the agriculture and water sector, the question is whether area development interventions deserve further funding. UWADEP illustrates that there is a very significant need on the ground **for** quite conventional projects that deliver services and inputs to impoverished farmers. It is yet to be demonstrated empirically that other formats can deliver the same benefits. Should IFAD decide to fund future investments, clearly a priority would be to improve the project concept and design. Another priority for IFAD and the Government would be to identify strategic partners. With its own resources only, IFAD's coverage will be inevitably limited.

Recommendations

28. **Project design and partnership with innovators.** UWADEP developed from the models of URADEP and LACOSREP, rather than being designed to address the specific situation of the UWR. This has been problematic, because its interventions are not necessarily those most valued by communities. Key areas of agricultural production such as yams and tree-crops were not considered, although these provide cash income and also help communities bridge the food gap experienced by cereal growers as well as reducing migration. In addition, the components were poorly integrated at the design level and continued largely to be managed separately, with consequently high transaction costs. NGOs are not necessarily better than their official counterparts, but major NGOs in UWR are rapidly developing capacity to cover many of

the same areas as government-based extension. A future project design that does not recognise these realities would be highly problematic. There is a strong need to learn from “good practices” by other organisations, including particularly NGOs in UER and UWR. These practices should be documented and discussed not only at the regional level but also in national fora, perhaps taking the opportunity of the donor’s coordination group in the agricultural sector.

29. **Dams are one strategy in a basket of options** for improving household incomes. Other options have been **discussed** in the report and are presented later in this section.

30. **Improve implementation support and monitoring and evaluation (M&E).** The MTR was delivered late, but even so, it is very evident that most of its recommendations were not taken into consideration by the PSU. The PSU needs to be more proactive and so do UNOPS and IFAD to ensure follow-up. UWADEP appears at first sight to have a comprehensive record of its impact. **However**, many of the figures recorded turned out to be inaccurate. Record-keeping in UWADEP collaborating institutions, notably the banks, has also been weak.

31. **Agriculture.** Despite the rhetoric of participation and ‘demand-led’, on-farm research as practised by the project is surprisingly similar to the testing of a package of improved technologies under farmer conditions. The almost universal use of organic manure by farmers, limited practice of composting and difficulty in affording and accessing fertilisers was not reflected in trial designs. More attention needs to be paid to women’s crops (such as vegetables) and cropping systems, where there is little use of chemical fertilisers. Farmers’ requirements with regard to animal traction tools (for example ridge weeders and robust furrow weeders) should be included in the selection of tools made available. Institutional arrangements for supply of tools at local level should be explored with NGOs. Exclusive focus on demonstrations of an application of SSP to groundnut led to limited results because of the unavailability of SSP and the farmers’ inability to afford fertiliser inputs following withdrawal of the project. The introduction of 50% Sahelian improved stock would enable a greater number of farmers to take advantage of the intervention more quickly. As the 100% improved stocks do not survive for long under the traditional husbandry system, the approach would be more popular with the majority of farmers.

32. **Additional areas for inclusion.** Despite their importance in the local economy, their expanding production and their capacity to bridge the ‘hungry season’ and the existence of the IFAD Roots and Tubers Programme, tuber crops have been virtually ignored. Yam and frafra potatoes have a good local market and in the case of yam, very good external markets. Agroforestry systems may be particularly suited to the region and help introduce permanent cropping alongside annual cropping to improve both production and income levels. Indigenous agroforestry systems based on the cultivation of yams and vegetables below certain trees, such as locust (*Parkia biglobosa*), neem (*Azadirachata indica*) and Acacia (*Acacia albida*) are a local response to soil fertility constraints and are worth investigating for wider application.

33. **Rural finance.** Financial sustainability depends very much on the participating banks profitability, which is based on financial income, operational cost and loan loss provision. As in several projects built around the ‘traditional’ view, rural financial institutions in UWADEP have been seen as a mere conduit to provide an input (credit) to farmers. Institutional strengthening of financial institutions has not been seen as a priority. In spite of this, Sonzelle RB has been able to enforce good credit discipline and attain operational (although not financial) self-sufficiency. It is the focus on sustainable institutions that should characterise future interventions, either through a project component or a dedicated programme (in which case the issue of dovetailing with agricultural interventions in other projects becomes crucial). There is a wide range of credit facilities available when the District Assembly Fund, international NGO and local NGO activities are considered. Specifically, a large number of organisations are involved in inventory credit and credit for agricultural inputs and all offer credit at different rates, i.e., there is predatory competition in a poorly regulated environment. Without region-wide co-ordination, market led microfinance cannot succeed, as it will be out-competed by politically and socially-motivated interventions.

34. **Water and infrastructure.** Civil works on dams and irrigation infrastructure were the major cause of delays in project implementation. A quite different approach should be considered in future, with checks

on quality mandatory at every step of implementation. Opening the consulting to a wide range of professional companies should be non-negotiable. Services should be segregated into the phases according to the project implementation schedule and contracts signed separately, whereby the contract for downstream works is not automatic, but subject to satisfactory performance in the first phase, if the same consultant is selected to undertake the assignment. For projects to be completed within the scheduled completion period, within the budget and to specification, stakeholders, comprising the project staff, consultants, DA, and the WUA should take active part in monitoring construction works. Finally, it should be recognised that irrigation infrastructure needs maintenance, some of which is beyond the capacity of the WUAs. This should be reflected by realistic budgeting.

Republic of Ghana
Upper West Agricultural Development Project

Interim Evaluation

Main Report

I. INTRODUCTION

A. Background of the Evaluation

1. **Upper West Agricultural Development Project (UWADEP).** Northern Ghana consists of three regions, Upper East (UER), Upper West (UWR) and Northern Region (NR). By many indicators these three regions are the poorest in Ghana and indeed comparable in poverty to some of the poorest countries in the world. IFAD has projects in each of them: the Upper East Region Land Conservation and Smallholder Rehabilitation Project (LACOSREP) and the UWADEP for Upper West and the Northern Region Poverty Reduction Programme (NORPREP) for Northern Region. UWADEP originated from a General Identification Mission of the Food and Agriculture Organization of the United Nations (FAO) in 1993 and was appraised by an International Fund for Agricultural Development (IFAD) team in mid-1995. It was modelled on the example of the existing LACOSREP I. The loan became effective in March 1996, the projected length was seven years. However, delays to civil works made two extensions necessary and completion was in June 2004, closing December 2004. In practice, although staff has reverted to Ministry of Food and Agriculture (MoFA) status, a physically separate IFAD office is still functioning. In anticipation that the project may move into a second phase, IFAD's procedures require an evaluation [referred to as an Interim Evaluation, (IE)]. This is the Main Report of that evaluation¹.

2. **Macro-economic and poverty indicators.** Located in West Africa, Ghana has an estimated population of 20.5 million, of which 63% is rural. The total fertility rate is estimated at 4.1 (5.8 is the average for West Africa), with an average annual population growth of 2.0% and a life expectancy at birth of 55 years (50 is the average for West Africa). The structure of the economy is characterised by a large (in relative terms) services sector (42% of the total GDP, compared to 34% for agriculture and 24% for industry). It has an annual GDP per capita of USD 304 and GDP growth has averaged 1.8% in the last ten years (i.e., below the population growth) although this has accelerated recently². For the immediate future, an overall growth rate of more than 5% is required to achieve substantial improvement in the economy and reduce existing poverty levels. Agriculture continues to be the mainstay of the economy, employing about 60% of the labour force. Cocoa is the major export crop, followed by timber and non-traditional products such as horticulture, fish/sea foods and pineapple. The agricultural sector is vulnerable to shocks caused by fluctuations in world commodity prices and to plant diseases. Ghana is classified as 131st out of 175 countries, by the UNDP Human Development Index (2004). The percentage of households below USD 1 per day has been estimated at 44.8%, and the percentage of poor households according to a national poverty line at nearly 40% (World Bank, World Development Indicators, 2004).

¹ An interim evaluation is mandatory prior to any further phase of investment. IFAD's Office of Evaluation conducted a mission from 12-27 June 2005 to UWADEP. The mission members were Mr Roger Blench (Team Leader), Mr David Andah (Credit and Micro-finance), Ms Liz Kiff (Agricultural Extension) and Mr Gordana Kranjac (Water resources and Rural Infrastructure). Preliminary quantitative and qualitative surveys were carried out by Mr Hippolite Bayor and Mr Edward Aboagye in early 2005. An ad hoc survey of non-participant households was conducted in concomitance with the mission, under the direction of the Team Leader. Mr Fabrizio Felloni (Lead Evaluator, IFAD-OE) designed the evaluation methodology, made a pre-evaluation visit in April 2005, and accompanied the mission for its first and final days in Ghana. An aide-mémoire and an associated PowerPoint presentation were circulated at a workshop in Wa on 27 June 2005 under the chairmanship of the Regional Minister and a further presentation was made in Accra on June 30th. Comments and emendations made in this exercise have been duly adopted here. The mission is grateful to national and regional authorities as well as the project team for their support.

² Figures and information have been drawn from the UNDP Human Development Report 2003, the World Bank World Development Indicators 2004, and the EIU Ghana Country Profile for 2004.

3. **Sectoral issues.** In the State of the Nation address in 2003, the President re-affirmed the five major areas upon which the Government would concentrate to quicken the pace of the country's economic progress. These are: infrastructure development, modernised agriculture (based on rural development), enhanced social services (with the emphasis on Health and Education), good governance, and private sector development.

4. **Agricultural policy.** Agriculture contributes to ensuring food security, provides raw materials for local industries, generates foreign exchange, and provides employment and incomes for most of the population. Agriculturally dependent rural households (72% of the population) form the largest potential domestic market for output from other sectors of the economy. Recent agricultural policy in Ghana has evolved gradually through the following key documents: (a) Medium-Term Agriculture Development Programme (MTDP) (1991-2000); (b) Accelerated Agricultural Growth and Development Strategy (AAGDS); the Food and Agricultural Sector Development Policy (FASDEP) (2002); and (c) Ghana Poverty Reduction Strategy (GPRS, 2002-2004), currently under revision³

5. **Medium-Term Agriculture Development Programme (MTDP).** MTDP was an agricultural services **rehabilitation** programme based on the results of the Irrigation Sub-sector Review carried out by the World Bank (1984-1986). The main points were to consolidate existing irrigation projects, select the areas of service delivery to irrigation users, strengthen national capacity for irrigation development and improve farmers' skills, incentives and services, as well as to initiate programmes for research and development. The main focus of the programme was small scale, valley bottom and supplementary irrigation provision. Privatisation of input supply services and land preparation activities was also a consequence of this programme.

6. **Accelerated Agricultural Growth and Development Strategy (AAGDS).** The AAGDS had five main elements: promotion of selected crops, development of improved access to technology for sustainable natural resource management, improved access to agricultural financial services, improved infrastructure and enhanced human resources, and institutional capacity. Agricultural research has tended to focus on crops of international importance, where there is access to already improved varieties, rather than on major staples. For example, many more improved varieties of maize and rice have been released than sorghum and millet. This research bias is reflected in farmers' choices. While the major crops in the UWR are traditionally sorghum, groundnut and millet, maize and groundnuts are overtaking sorghum and millet. Minor crops are typically excluded from consideration especially if they are not important to the market. The FASDEP is a response to the requirements of AAGDS, a strategic framework for present and future programmes.⁴

7. **Ghana Poverty Reduction Strategy (GPRS).** The GPRS (2003) was revised in 2005 to focus on the identification of vulnerable groups and possible risk-reduction strategies. It recognises that rural farmers and fishermen are particularly at risk and specifically mentions Northern Ghana as a locus of perennial food deficits⁵. Women are identified as particularly discriminated in this context and instruments to promote gender equality are emphasised. The document also notes the importance of environmental factors in increasing vulnerability. However, it does not put forward concrete measures to reduce risk in agriculture.

8. **Trade policy.** A new trade policy for Ghana has been published, which seeks to balance local producer and consumer interests within both the national and wider international trading context (Ministry of Trade and Industry, 2004). The new policy document addresses the poor co-ordination between agriculture and trade policies. A recent example is the 20% tax on poultry imports introduced in 2004 and removed in May 2005. There is evidence that pressure from urban consumers can compel Government to underwrite imports that are against the interests of local producers in the north. If, on one side, import protection

³ The first draft is dated 2003, but a revision of the policy framework dated April 2005 has been circulated.

⁴ The objectives of MoFA encompass food security, production of raw materials for industry and export, input supply and distribution, processing and marketing, and formulation and implementation of policies and programmes for the sector (FASDEP, 2002). Detailed programme plans and policies will be developed under FASDEP to deal with specific issues.

⁵ Pastoralists and livestock producers are largely ignored.

measures should not be applied indiscriminately, on the other, there is a concern about inconsistencies and changes in actual trade dispositions that may undermine or distort medium-term plans of assistance to and development of specific sub-sectors of the rural economy.

9. **Rural finance.** The regulatory framework for financial institutions creates a continuum of financial services providers with capacity to operate in the rural areas. Principally to enhance the access of the rural community to appropriate financial services, the Bank of Ghana introduced a rural banking system in 1976 and to date there are 120 rural and community banks. To strengthen rural and micro-finance, the regulatory framework allows the operations of the financial NGOs providing credit outside the supervision but within the concern of the Bank of Ghana⁶. Under the Financial Sector Restructuring Programme initiated in 1989, a number of controls were removed. Among them are the administratively determined interest rate and sectoral allocation of loans. Further aspects of the programme have been aimed at strengthening and liberalizing the financial system.⁷

10. **IFAD's strategy and past projects.** Since 1980, IFAD has financed 12 projects in Ghana for a total loan envelope of USD 137 million, which makes Ghana the largest recipient of IFAD loans in the Western and Central Africa Region. The portfolio shows a mix of area-based multi-sectoral projects (such as LACOSREP II) and mono-sectoral projects with a more wide-spread intervention. The latest country strategy (COSOP document) was prepared in 1998 after a country programme evaluation (1996) and is currently under revision.⁸

B. Approach and Methodology

11. **Methods.** The evaluation follows the IFAD Methodological Framework for Project Evaluation (MFE), which includes three main evaluation criteria and a series of key questions, with a rating system.⁹ The three criteria are: (a) rural poverty impact; (b) performance of the project, including an assessment of the relevance of project objectives, efficiency and effectiveness; and (c) performance of key partners. The methods adopted in this evaluation comprise: (i) desk review of documents; (ii) a preliminary qualitative field survey of WUAs; (iii) a preliminary quantitative field survey of 154 households (131 beneficiaries and 23 non-beneficiaries) and comparing a before and after situation (using recall method); and (iv) an *ad hoc* quantitative survey of non-beneficiaries (133 respondents) observations and interviews by mission members.¹⁰ Both qualitative and quantitative techniques have been adopted and the main findings presented in this report are a result of triangulation between different methods and sources.

⁶ Steel and Andah (2003).

⁷ An Apex Bank has been set up under the Rural Financial Services Project, funded by IFAD, to provide financial and non-financial services to rural and community banks with a view to strengthening their operations and making them more effective intermediaries.

⁸ The strategy recommended emphasis on the NR, UER and UWR and identified several opportunities where IFAD would have comparative advantages: (i) importing appropriate technology for the rural poor from other countries; (ii) exploit market opportunities for domestic foodcrop sales, especially fresh and dried vegetables; (iii) facilitate intermediation processes in rural finance; and (iv) encourage sustainable use of natural resources.

⁹ The rating applied in the OE methodology are: highly successful=6 , successful= 5, moderately successful= 4, moderately unsuccessful=3 , unsuccessful=2, and highly unsuccessful=1. Ratings help consolidate individual project findings into the Annual Report on Results and Impact of IFAD's Operations.

¹⁰ The preliminary qualitative and quantitative surveys were fielded before the evaluation mission in order to establish background data on the project impact to be reviewed by the evaluation team. The *ad hoc* quantitative survey was conducted simultaneously with the main mission, under the guidance of the team leader. Its main objective was to get an insight on general poverty trends in a sample of communities in the UER which had not received assistance by any project or initiative in the past ten years.

II. MAIN DESIGN FEATURES

A. Project Rationale and Strategy

12. **The rationale for UWADEP** as summarised at Appraisal was: (i) strong existing demand for dam rehabilitation in rural communities; (ii) the potential for WUAs to be sustained and assure food security in the region; and (iii) building on existing credit experience to establish effective mechanisms for rural financial institutions. UWADEP was intended to improve food security and increase the income of smallholders. Its components include:

- capacity building to strengthen project delivery and management skills of key implementing agencies;
- water resources development (rehabilitation of dams, formation and support to WUAs, catchment area protection, and demonstration/promotion of manually-operated tube wells);
- agricultural development, including farmer training and demonstrations, support to technology generation and research/studies, marketing and processing, and livestock development;
- promotion of income-generating activities through the supply of rural financial services; and
- rural infrastructure comprising rural road rehabilitation and the construction of hand-dug wells for drinking water and latrines.

B. Project Area and Target Group

13. **Project area.** The UWR is situated in the north-west corner of Ghana, with an estimated total population of 580 000, of which about 90% is rural. The average population density is 29.8 persons/km², about one-fourth of the UER. The UWR was created in 1994 from the former Upper Region, the capital of which was in Bolgatanga, and it has therefore had to build government institutions and infrastructure virtually from scratch. It is divided into five districts as shown in Table 1 below.

Table 1. Districts of UWR and human population

UWR population	All	Rural	% Rural	Land area (Km ²)	Density (Persons /km ²)
Wa	224 066	157 422	70.3	5 899.0	38.0
Nadowli	82 716	82 716	100.0	2 742.5	30.2
Sissala	85 442	76 584	89.6	7 115.0	12.0
Jirapa-Lambussie	96 834	83 529	86.3	1 667.6	58.1
Lawra	87 525	75 484	86.2	1 951.2	44.9
Total	576 583	475 735	82.5	19 375.3	29.8

Source: GSS (2002)

14. **UWR** is one of the poorest regions of Ghana, with an annual per capita GDP of USD 170 and on most social indicators, the most neglected region of the country. Infant mortality, seasonal hunger, cash incomes, school attendance, transport networks are weaker in UWR than other regions.¹¹ Despite this, UWR has benefited from very few targeted development projects, and until recent years, not many NGOs were operating here. UWR has abundant land both for crops and livestock and much lower population density, but access to markets and off-farm opportunities is constrained in both UER and UWR by poorly maintained feeder roads and lack of transportation services. According to the Ghana Living Standards Survey, the percentage of the population living in poverty in UWR is 84%¹².

15. **Project data.** UWADEP was approved by the IFAD Executive Board in September 1995, became effective in March 1996 and closed in December 2004. Total project cost is USD 11.3 million, out of which

¹¹ For example, the average stunting prevalence has been estimated at 34% against a national average of 25%, while infant mortality rates have been estimated at 115 per 1 000 against 68 per 1 000 at the country level.

¹² Income-based estimates, Ghana Poverty Reduction Strategy, 2003. Usual caveats on income-based estimates for rural areas apply also to this case.

IFAD provided a loan for USD 10.0 m. As of 25 August 2004, the disbursement rate reached 94.64 % of the total loan amount. IFAD is the only international financier of the project which was supervised by the United Nations Office for Project Services (UNOPS) for most of its implementation.



Ploughs, harrows and other tools for animal traction at the centre at Wa. Experience shows that sensitisation and training sessions are not a priority because farmers are well aware of the importance of animal traction tools and can easily learn how to use them. The difficulty in accessing affordable implements and repair facilities is a much greater constraint. IFAD photo by R. M. Blench.

16. **Targeting.** The target group is poor farmers, which represent up to 80% of the population of UWR, some 20 000 households according to the 1995 appraisal. It was considered most effective to operate at the community level because of perceived community solidarity, while adopting ‘self-targeting’ measures focusing particularly on women and other vulnerable groups.

C. Goals, Objectives and Components

17. **The objectives** of UWADEP were to: (i) boost food production and incomes; (ii) strengthen community organisations; (iii) improve the economic status of women; (iv) develop dry season gardening; and (v) improve access to markets through feeder roads. The underlying strategy was community mobilisation, building on existing social capital. Taking account of farmers’ demands was to be an underlying principle throughout the life of the project. A feature of the UWADEP that deserves particular comment is its strong similarity to LACOSREP I, down to minor details in some cases. UWR is, however, very different in climate, soils, demography, economy and infrastructure and it can be questioned whether such a strong analogy should have been drawn in project design.

18. **Components** of UWADEP at appraisal were as follows: (i) agriculture (33% of total base costs); (ii) water resources (17%); (iii) rural roads (16%); (iv) credit (22%); (v) community and women’s development (6%); and (vi) Project Support Unit (7%).¹³ The Agricultural Development component has four main sub-components:

- **Seed production.** Support to private seed production to facilitate farmers’ access to improved seeds. The aim of support to seed production was to increase the availability of certified seed of major cereal and legume crops.¹⁴
- **Extension activities.** Support to the extension service focused on increasing the capacity of staff and facilitating their work in rural communities. Larger scale on-farm demonstrations of efficient fertiliser use were planned for participating groups of farmers. AT was to be promoted through training and provision of medium-term loans for purchasing implements.

¹³ Sources: UWADEP Staff Appraisal Report, p. 34.

¹⁴ A wide range of farmers were targeted to become seed growers, specifically representatives of established farmers’ groups already involved in MoFA demonstrations and outreach who would be able to supply seed at a local level.

- **On-farm adaptive research.** The instigation of more demand-led, adaptive research was sought, through the decentralisation of research officers and encouragement of farmers to have greater involvement in the design, execution and evaluation of trials.
- **Livestock production.** The aim of this component was to increase production of small ruminants and poultry through cross-breeding and to improve animal management and health care. The programme was supported by training of community livestock workers (CLWs) who could practice basic animal care at village level and link with the veterinary service.

19. **Water resources development and rural roads.** It consisted of (i) rehabilitating dams in selected rural communities; (ii) providing and improving irrigation infrastructure and land development of agricultural areas and promoting sustainable arrangements for the operation and maintenance of basic infrastructure and services; (iii) rehabilitating dugouts to assure water for livestock; (iv) constructing hand-dug wells to provide safer sources for drinking water; and (v) establishing pilot Catchment Area Protection zones to stabilize the environment. Health and other agencies were to provide nutrition education, assure nutritional surveillance and monitor health impact. Detailed recommendations, including general designs, were provided for the main infrastructure.

20. **Credit.** The component provides for short-term credit for inventory loans, working capital loans for women, production loans for inputs and medium-term credit for AT equipment as well as providing for institutional support to the participating banks and training of the participating banks and beneficiaries.

21. **Implementation partners and arrangements.** Overall responsibility of the project was with MoFA, with the Chief Director responsible for policy direction and the provision of counterpart funds at regional level. A Project Support Unit (PSU) was established within the Regional Office of Agriculture to assure project programming and prepare work programmes and budgets. The PSU was to monitor project activities using a management information system harmonised with that used by the Ministry of Health. Community mobilisation would be the responsibility of an officer seconded to the PSU, who would establish strong linkages with the Community Development Department and Women In Agricultural Development, to assure the emphasis on gender.

22. **Participating financial institutions.** Three banks participated in UWADEP: the Agricultural Development Bank of Ghana, Sonzelle Rural Bank and Nandom Rural Bank (Table 2). Participating banks receive funding from the Bank of Ghana (BoG) through the PSU to cover their disbursements to the beneficiaries. They bear the credit risk and ensure loan repayments that are credited to the Revolving Credit Fund (RCF), except Agricultural Development Bank (ADB), which BoG debits their clearing account directly.

Table 2. District coverage by the banks

Participating Bank	Principal Location	Branches in the Region	Districts covered
Agric Development Bank	Wa	3	Wa, Lawra, Sissala
Sonzelle Rural Bank	Jirapa	2	Jirapa, Nadowli
Nandom Rural Bank	Nandom	2	Lawra, Sissala

Source: project documentation

D. Major Changes in Policy, Environmental and Institutional Context during Implementation

Macro-economic context

23. **Value of the cedi.** Since UWADEP was appraised in mid-1995, the Ghanaian cedi has fallen sharply in value, most notably in 1995-2000, when the cedi lost half its value against the dollar (Appendix 1, Figure 1). Over the life of UWADEP, the cedi has fallen in value from ¢1450 in December 1995 to ¢9100 to the USD (628%) in June 2005 when the mission was in the field.

24. **Effects of oil prices.** A series of decisions in early 2001 by the incoming Kufuor government stabilised the cedi and brought a significant drop in inflation and interest rates. At that point, the price of oil

had fallen to below USD 20 per barrel. In 2003, gold and cocoa prices were high, but the oil price was once again drifting upwards around USD 30 per barrel. In January 2003, the Government increased the price of petrol and diesel by almost 100%, accelerating inflation and pushing up interest rates. The Government applied for assistance under the Enhanced Heavily Indebted Poor Country (HIPC) initiative in March 2001, whereby external debt is cancelled to enable countries to use savings to fund poverty eradication programmes, and reached Decision Point in February 2002. An increase of oil prices in 2005 to over USD 60 a barrel may well cancel some of these benefits.

Institutional context

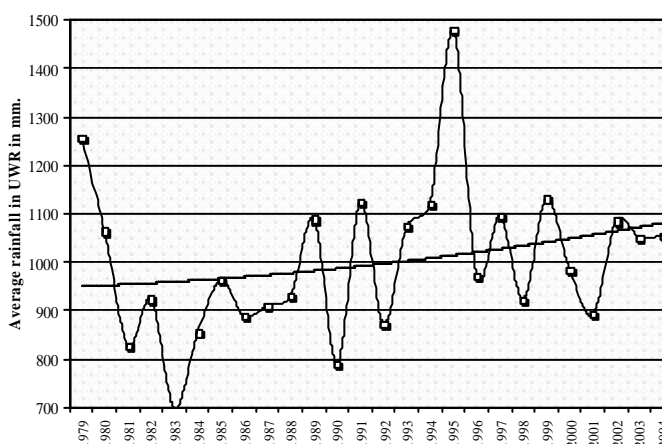
25. **Vision 2020.** In 1992, changes in Ghana from a military regime to constitutional rule brought social transformations. One of them was a long-term programme to address issues of social and economic development. The National Coordinated Program for Social and Economic Development, or 'Ghana Vision 2020', was the result, and this was intended to be the authoritative government document to guide development across all the major sectors. The stages outlined in Ghana Vision 2020 are divided into two main periods: in the medium term (1996–2000), the development objective is to consolidate the gains achieved under the ERP and strengthen the foundations for accelerated growth; in the long term (1996–2020), the aim is to improve the social and economic status of all individuals and to eliminate extremes of deprivation by encouraging the creativity, enterprise, and productivity of all citizens.

26. **Decentralisation.** Since 1988, Ghana has also engaged in a decentralized local-government system to ensure that local communities are better provided with social services. New local-government and planning laws enacted after 1989 have emphasized the administrative district as the focal point of planning. Responsibility for development planning is vested in district assemblies operating through their executive committees and a District Planning Coordinating Unit. District assemblies are now responsible for preparing and submitting a development plan and budget to central government.

Climatic context

27. **Rainfall.** The climatic regime of UWR is semi-arid with annual rainfall some 700-1200 mm with a mean for three stations over 25 years of 989 mm. The rain falls in a seven-month season from April to October. It is widely accepted throughout the region, by administrators as much as farmers, that the overall quantity of rain falling is declining and that the distribution is more unfavourable than before. Analysis of rainfall data from three stations (Wa, Tumu and Babile) since 1979 does not support this hypothesis (Figure 1). Although the chart emphasises inter-annual (and not intra-annual) variability, the trend is slightly increasing.

Figure 1. Total annual rainfall in UWR, 1979-2004

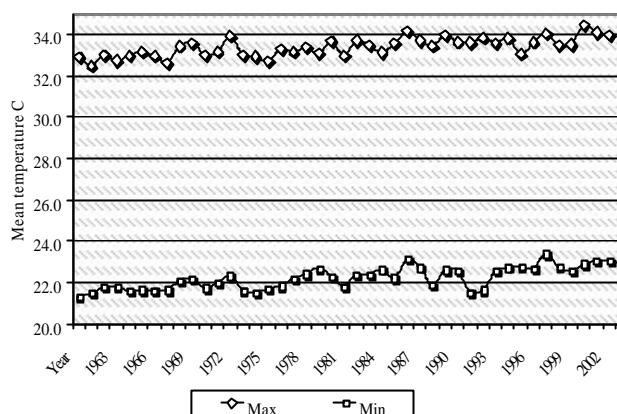


28. Why should the claim about the declining total rainfall be so widely believed? It is likely, in the absence of precise measurements, that farmers judge rainfall by indirect indicators such as vegetation and crop yields. Vegetation is becoming sparser, although not to the same extent observed in UER. Species adapted to more arid regions are gradually pushing down into this area while at the same time crop yields are

falling. Such indirect indicators probably do make it appear that the aggregate rainfall is less than before; but there is no compelling empirical evidence that this is the case (although intra annual patterns may have a role).

29. **Temperature**. Another hypothesis regularly advanced to account for declining crop yields is a rise in temperature. If temperature were indeed rising, evapotranspiration would cause less of the rain to be available for plant growth. To test the hypothesis that temperatures have increased over this period, maxima and minima were plotted over the period 1961-2004. These are shown in Figure 2. Temperature is considerably less variable than rainfall, but the data does indicate an approximate rise of 1°C over nearly half a century, considerably less than Western Europe. The hypothesis that climate change is affecting agricultural production in UWR is not strongly supported by empirical evidence.

Figure 2. Temperature maxima and minima in UWR, 1961-2004



Design changes during implementation

30. **Mid-term review (MTR)**. The MTR, conducted by consultants hired by the PSU, recommended that the PSU be physically integrated with MoFA, a recommendation which was not followed-up. It also reiterated the importance of developing strong relationships with NGOs and making use of their expertise. No major changes were made regarding infrastructure rehabilitation at the time of the MTR, although a small section in the MTR mentions that interventions were largely not carried out without giving any specific details. The only dam that seems to have been working at that time was Busa¹⁵. In the field of agricultural extension, supervision reports prior to 2000 recommended a clearer targeting of research effort and this was supported by the MTR, which also suggested clustering of activities for effective monitoring.



Improved Sahelian sheep (50%) and second generation improved lamb (50%) in UWR. The introduction of 50% Sahelian improved stock would benefit a larger number of farmers because the 100% improved stocks have lower survival rates under the traditional husbandry system. IFAD Photo by E. Kiff.

¹⁵ Mid-Term Review Report, May 2000, p. 21.

III. SUMMARY OF IMPLEMENTATION RESULTS¹⁶

A. Promotion of Income-Generating Activities

31. **Rural credit for income-generating activities.** The project reached 5805 beneficiaries in 379 groups for a total of circa € 5.6 billion, equivalent to USD 640 000 (about 60% of target). Even though women constituted 56% of this number, they received only 47% of total loan amount. The largest portion (64%) of the disbursements went to farming which is dominated by the males. Loans for income-generating activities such as trading and food processing, occupations traditionally reserved for women, followed with only 24%. Some women in trading used their loans to stock inventory of grains and pulses for sale during the hunger period when prices are high, but this strategy was not captured under Inventory Credit. The Approval Report has it that the participating banks' clearing accounts at the BoG would be debited on due dates when the disbursements to the participating banks from the RCF became due. Since rural banks have ceased clearing accounts at the BoG, this arrangement could not be implemented as planned.¹⁷

B. Dams, Irrigation, Water and Roads

32. **Dams and irrigation.** After the end of extensions, the project finally closed leaving irrigation infrastructure incomplete on several sites. The draft Project Completion Report (PCR) (December 2004) claims 41.5 ha under dry season cropping and 154 ha available for irrigation against an Appraisal Report (AR) target of 220 ha (70%). The Ghana Irrigation Development Authority (GIDA) Technical Review on completion (June 2005) mentions the same figure of 154 ha, but cautions that certain areas are not under the command from the canals, which means that hand watering or pumping has to be used. Field visits by the mission to the various dam sites reveal that farmers still largely depend on hand dug wells, as was the case before rehabilitations took place. No details of the actual command area were provided.¹⁸ The evaluation team could find only 23 ha additional irrigable area resulting from the project (figures obtained from physical observations and cross-checked with WUA secretaries / chairmen in each case). Prescribed sanctions were not applied to defaulting contractors in several instances by PSU, waiting for them to come back and continue work, disregarding the time schedule. Works were terminated finally and contracts re-packaged and awarded. Generally, no laboratory investigations for quality assessments of the work were conducted (GIDA, June 2005). This is a major problem, as many structures suffer from poor quality, and thus uncertain sustainability. Through MoFA, additional funds were provided from Food and Agriculture Budget Support (FABS) to cover the outstanding works.

33. **WUA training.** The Project AR mentions involvement and training of WUAs, as well as specifically targeted interventions for women. Training of WUAs was largely on the same lines as LACOSREP interventions in the Upper East Region, including group dynamics, conflict issues, leadership issues, bylaws and constitution and financial mobilization.

34. **Hand-dug wells and rural roads.** In the AR, 40 hand-dug wells were planned at the dam sites to provide safe drinking water to participating communities. About 35 of these were sunk, 12 in 2004, by an NGO (PRONET, Wa). The NGO was not commissioned to carry out training of communities in health and sanitation issues on the UWADEP sites, which is a routine practice for its own projects. The target for feeder road infrastructure in the AR was 140 km and this has generally been exceeded.

C. Agricultural Extension

35. **Seed production.** Prior to UWADEP, the Seed Growers Association (SGA) in the region had only 12 growers producing seed, mostly maize, under contract to seed supply firms. Concern that supply and regulation of the quality of the product was vested in the same organisation led to the establishment of the

¹⁶ More details can be found in Appendix 1.

¹⁷ However rural banks could be debited through the account of the ARB Apex Bank where they have their clearing accounts. This has not been done, so rural banks are paying by cheque as and when beneficiaries repay their loans.

¹⁸ The same GIDA report states that, as of 2002, only eight dams were completed and operational, with eight WUAs established and that 'no contract was ever delivered within the stipulated construction periods'.

Ghana Seed Inspection Division for Upper West in 1992. The vision included recruitment of up to 388 additional seed growers, representatives from existing farmers' groups, to produce certified seed locally for dissemination to group members. Implementation proceeded as planned for the first two years, although the number of seed growers recruited was less than envisaged. In practice it has proved more difficult than envisaged to recruit and maintain new seed growers because of the complexity of the new skills required, delays in sales leading to cash flow problems and additional costs involved in production in more remote areas. Considerable progress was made prior to decentralisation, with the number of growers increasing from 12 to 60 by 1999. Numbers have since reduced, with 30 successfully producing seed in 2004. There was also poor understanding among new members about losses that occur during the cleaning and grading processes, meaning that not all seed produced is suitable for sale. Seed producers are selling a significant amount (35% over the seven years) of seed locally, for which they do not benefit from price premiums. Seed quality was poor in the first year with a high rejection rate of 37%. Local sales are highest among producers in the more remote districts, with individuals reporting sale of up to two-thirds of their production. The large Wa-based seed growers estimate that they sell about 10% of seed locally.

36. **Extension activities.** Four activities have been undertaken under this sub-component: support to extension services, recruitment and training of extension volunteers, on-farm demonstrations and support and promotion of AT. The project supported extension services of MoFA through provision of motorbikes to 110 Agricultural Extension Agents (AEAs) and DADOs. This exceeded the original budget for 75 motorbikes, in response to the additional posting of extension staff following decentralisation.

37. **On-farm demonstrations.** A demonstration of application of single super phosphate (SSP) to groundnut was promoted throughout the project life. The project worked with a total of 3 600 farmers in 300 groups, 75% of the target of 4 800 farmers in 400 groups.¹⁹ Demonstrations were conducted within all districts.

Table 3. Distribution of on-farm demonstrations by district

District	Number of groups	Number of farmers	Area planted (ha)
Wa	50	600	60
Nadowli	35	420	42
Lawra	33	396	38
Jirapa	43	516	52
Sissala	49	576	59
Total	210	2 508	251

Source: UWADEP, 2004

38. **Support and promotion of animal traction.** Consultation with farmers resulted in identification of credit support, improved animal housing and maintenance of equipment as priority areas for support.²⁰ The implementation progress of the animal traction component has been very modest at field level, with only 130 carts, 65 ploughs and 65 ridgers made available to 260 individuals, training conducted and refurbishment of one blacksmith's workshop at Tarsaw. Refurbishment of the second workshop was halted before completion.

39. **On-farm adaptive research.** The on-farm adaptive research component had two major activities; infrastructural support to establishment of a research station in the UWR and implementation of research in support of improved crop production systems for the region. A permanent base was established for SARI at

¹⁹ Sources: MTR (2003, p.17) and AR (Working paper 2, p.23).

²⁰ The strategic approach taken by the project included: (i) establishment of a resourced AT Training Centre to provide refresher courses on all aspects of the technology to farmers (located at Busa); (ii) encourage the formation of community and village-based AT farmers' associations and establish linkage with financial institutions; (iii) identify strategic village-based carpenters and provide them with training on standard specifications for yokes and planks with credit support. This was meant to check the environmental degradation through indiscriminate felling of trees by farmers to provide their own yokes and planks; (iv) identify strategic local blacksmiths, assess their training needs and provide training at the IFAD-supported Rural Enterprise Service Centre and Tamale Implement Factory; and (v) arrange credit facilities for blacksmiths to re-construct their workshops and equip them with tools and materials.

Dokpong Agricultural Station at Wa, with the construction of an office block with laboratory facilities, accommodation for ten staff and a large conference hall. The conference facilities have been used by external organisations, including the NGO Technoserve, for training of farmers within the project.

40. **Implementation of research.** Initially SARI conducted a wide range of trials attempting to cover the issues identified during the initial project planning workshop held in 1995. Supervision reports prior to 2000 recommended a clearer targeting of research effort and this was supported by the MTR, which also suggested clustering of activities for effective monitoring. Research subsequently focussed on two main areas; improvement of soil fertility, and identification of improved varieties of the major legume and cereal crops. On-farm trials of groundnut in rotation with maize, with additional 30 kg of nitrogen per ha, showed significantly higher yields (25-53%) than the continuous cropping of maize. Groups visited were convinced of the benefits of rotation and were still adopting the improved land cultivation and line sowing techniques introduced. Few, however, are able to continue the additional fertiliser application. Improved methods of manure management/composting would have been more appropriate. Introduction of improved varieties of cowpea, soybean, sorghum, maize and rice have generated much enthusiasm, although access to certified seed remains a problem for small-scale farmers.

41. **Livestock production.** Three activities have been undertaken under this sub-component: upgrading of local sheep and goats through the introduction of improved Sahelian rams and bucks; upgrading of poultry and guinea-fowl stock; and training and support to CLWs.

42. **Upgrading of local sheep and goats.** During 1998 and 1999, 242 rams and 90 bucks were distributed to farmers in the five districts. High levels of mortality led to concerns over the approach and the programme was suspended for two years. It was restarted in 2002, with a refocus on beneficiaries with sufficient resources to be able to afford improved housing, feed and recommended health measures. Some 219 (50%) offspring of the improved rams and 123 offspring of improved bucks have been recovered for redistribution. Few pure Sahelian rams or bucks were seen (one buck) during field visits and it would appear that the breed is not suited to the free-grazing, mixed-herd system practised in northern Ghana. Despite the high mortality, a considerable number appear to have crossed successfully and both groups and individuals have clearly upgraded herds, with a majority being some 25-50% improved. The improved stock reaches a larger size than the local breeds, thus bringing farmers a higher income more quickly.

43. **Upgrading poultry and guinea-fowl.** Facilities for brooding the commercial cockerels and guinea keets together with residential accommodation for technical personnel were provided as part of the rehabilitation of the Bussa Livestock Centre. The upgrading of local poultry using improved cockerels proved very popular with farmers. The production package is technically feasible for even resource poor farmers (Idrissu, 2004). A total of 4000 birds were supplied by the project up to 1999. In 1999 it was decided that supply was interfering with the business of commercial suppliers of cockerels and was discontinued. Focus shifted to upgrading guinea-fowl stock. Between 1998 and 2004 some 13 640 keets were imported from Belgium. The average survival rate for the first two batches was 84% (M&E unit, 2002). Keets were sold from the 1998 batch with 24% subsidy, but from later batches at full cost recovery. Beneficiaries report that the imported guinea fowls were robust and about twice the size of local birds. They fetch ₵35 000 as compared to about ₵20,000 for local birds (2004 figures).

44. **Training and support to CLWs.** The CLW scheme recruited, trained and provided 150 volunteers with basic livestock kits to help improve livestock health and nutrition within project groups and in time, within their whole community. Groups report significant reductions in mortality rates with the instigation of recommended management and health care. Continued effectiveness of CLWs depends on regular training and monitoring of their activities.

IV. PERFORMANCE OF THE PROJECT

A. Relevance of Objectives

45. **Were the components relevant?** The overall objective of UWADEP was to empower rural populations living in poverty to access improved technology services and credit. There is no doubt that the overall and specific objectives are relevant to these rural communities which depend almost entirely on

agriculture. UWR is the second poorest region of Ghana and evidence for improvements to overall living standards is scarce. The components of UWADEP are designed to add value to rural production enterprises. Despite its commitment to donor strategies on poverty reduction, the government of Ghana has yet to make available additional funding for the development of these regions, which makes IFAD's approach all the more relevant.

46. **Inappropriate allocation of resources.** The activities within the sub-components were well designed in terms of targeting key constraints and issues within the sector. However, allocation of resources within sub-components between infrastructure development (SARI research station, AT centre and Livestock holding centre), training, demonstrations and practical interventions has led to limited impact. The focus on training within the AT component seems misplaced in the context of working with groups of farmers who already own bullocks and donkeys. Groups visited were more interested in access to and repair of AT implements, activities that received less emphasis within the project. The generally high emphasis placed within all sub-components on awareness raising and introduction of successful pilots in the field also seemed at odds with farmer's priorities, which suggest that awareness was already high and they lacked practical interventions.

47. **Were the components in harmony with Ghana's policies?** Ghana has signed up to various international undertakings to reduce poverty and UWADEP has this as its direct focus. The 2005 Ghana Poverty Reduction Strategy (GPRS) emphasises vulnerable groups and specifically mentions Northern Ghana as a locus of perennial food deficits. The goals for agriculture outlined in AAGDS and FASDEP are also squarely in line with the components of UWADEP. The Government recognizes rural micro-credit as a tool for reducing rural poverty and the eligible activities for credit are the major economic activities in the rural areas of UW. These are rain fed and irrigation farming, food processing and marketing. Besides targeting women, the component supports the policy of the Government, which targets women with micro-finance activities to enhance the livelihood of the household.

48. **Relevant to IFAD's mandate and strategic framework?** IFAD's mandate is to reach the 'poorest of the poor' and to combat hunger and rural poverty in developing countries.²¹ UWADEP was undoubtedly relevant to IFAD's mandate. In terms of social equity, the strategy of rehabilitating dams rather than constructing new ones discriminates against poorer communities with dams at all. The suggested rating for relevance is 4, on a scale of 1-low to 6-high.²²

B. Effectiveness

Rural Finance

49. **Low interest rates to end-clients.** Participating banks were allowed to charge very low interest rates (17.2 in nominal terms and 3.7% in real terms) to their clients. Beneficiaries and government officials have been complaining of the "high" interest rate being charged on the loans. For the end-clients this may be seen as attempts to negotiate for reduction. In the case of the officials, their concern was based on social or political considerations.

50. **Transaction costs are high on both sides.** The final borrowers must travel long distances at times without means of transportation to collect loan disbursements and make payments into saving accounts. They complain of even having to go to some participating banks more than once to pay in cash, which constitutes a disincentive for loan repayment. On the supply side, the participating banks have to assign special staff who has to travel out to monitor loans or collect repayments. To enhance the operations of the participating banks, the project carried out training workshops to sensitize the project/credit officers on the

²¹ These varied programmes, which introduce new strategies and expand existing techniques, are aimed at such groups as small farmers, landless rural residents, nomadic pastoralists, small-scale fishermen, and poor rural women. The IFAD strategic framework (<http://www.ifad.org/sf/>) notes that this implies: developing and strengthening the organizations of the poor to confront the issues they define as critical; increasing access to knowledge so that poor people can grasp opportunities and overcome obstacles; expanding the influence that the poor exert over public policy and institutions; and enhancing their bargaining power in the marketplace.

²² The rating applied in the OE methodology are: highly successful=6, successful= 5, moderately successful= 4, moderately unsuccessful=3, unsuccessful=2, and highly unsuccessful=1.

operations of microfinance. This support, to a large extent, assisted the ADB particularly to expand its scale of outreach.

51. **Collateral.** No physical collateral is taken for the loans because the target groups do not have any assets to pledge. Typically, members of group loans are jointly liable. Unless the loan to the group is fully repaid, the group is refused a repeat loan. Beneficiaries are required to pay 2% of loans disbursed into a Risk Fund kept at the participating banks that is supposed to be an insurance premium for the loans. This is inconsistent with the concept of solidarity group lending in microfinance. Disbursement from the fund for any purpose can only be done with the prior approval of BoG. To date no disbursements have been made out of the accumulated funds the participating banks are holding. This is because no specific guidelines on its use are available. BoG has directed that the proceeds of the Fund be invested in Government Treasury Bills.

52. ADB had the largest outreach of 2 823 persons followed by Sonzelle RB (1976) while Nandom RB's outreach (1 006) was the lowest. Using the average loan size as the proxy for the depth of outreach, Sonzelle RB with the average loan size of ₦500 000 (USD 56) was the most effective among the three participating banks in reaching poorer beneficiaries. This was followed by the Nandom RB with the average loan size of ₦1 million (USD 111). ADB loans were the largest (₦5.3 million) (USD 589). This implies that the commercial bank reaches the upper level of the poverty scale only. A study carried out under the Rural Financial Services Project funded by IFAD indicated that the rural banks reached lower down the poverty profile than any other microfinance institution

Agricultural Extension

53. **Support to seed production** by private growers to facilitate farmers' access to improved seeds, although of crucial importance to increase production in the Region, had only limited success. Relatively good progress in the first two years was interrupted by the decentralisation of MoFA activities in 1999, which moved responsibility and budget for the activity from the regional to the district level. AEAs with only limited training in what is a highly complex area, were put in charge of field follow-up. In addition to decentralisation, new growers experienced problems in selling their seed and consequently, late payment for their produce. The resultant slow-down in both recruitment of seed growers and quantity of seed produced led the Supervision Mission (UNOPS) to recommend delay in provision of additional resources for the SGA. While understandable in terms of meeting targets, this was ill-advised in terms of enabling further recruitment of producers and decentralisation of production. A key constraint for seed producers is marketing and realising sufficient capital in time for next year's production. Availability of some form of inventory credit would help this situation.

54. **Extension activities.** Support to mobility and training of AEAs and extension volunteers has been instrumental in bringing extension messages into farming communities. The effectiveness of the content of demonstrations, promoting the use of the chemical fertiliser SSP, is more questionable as the fertiliser is not readily available in many places and most farmers report returning to manure application once SSP is no longer provided.

55. **Animal traction** interventions were quite limited, despite the establishment of research, training and hostelry facilities. Farmers valued training in animal health and nutrition aspects, but their access to affordable implements and repair facilities were a much greater constraint to animal traction implementation than lack of training. One group reportedly included women and received training, but no implements were made available during the project. Assisted purchase of a limited 260 implements over the seven-year project period left participants feeling frustrated about all the implements they had not been able to purchase, rather than satisfied with the one they were allowed.

56. **Limited areas of investigation in adaptive research.** The development of a regional research centre for SARI, with office, laboratory, conference room and housing facilities was effective in attracting staff to come and work in the UWR. Construction and furnishing of this station took the major share of resources under this component and the volume of adaptive research conducted was limited in relation to the investment in infrastructure. More than one system could have been tested over a five-year operational period. Introduction of improved crop varieties has been universally popular with farmers and SARI has worked closely with MoFA and NGOs supporting of demonstrations in the field. Rainfed agriculture trials

were also not geared towards the major issue of soil and water conservation, where much could be achieved given the natural conditions of the area and the level of indigenous expertise available. SARI conducted many trials, but it is hard to assess their relevance to the situation on the ground. There was no research in the area of irrigation, apart from agronomic rice trials and crucial issues for farmers, such as water scheduling and water delivery were not addressed. The development of hand-watered gardens along major rivers (far exceeding in area the irrigable area created by the dams) has been ignored. The vision of implementation of farmer-led adaptive research is still, however, some distance away.

57. **Livestock production.** Improvement of both small ruminant and poultry/guinea fowl breeds has proven popular with a wide range of farmers and contributed significantly to improved income. The model promoted for small ruminant husbandry, however, makes it only attainable by the better-off (Idrissu, 2004). The outgrowers scheme, introduced to make 50/25% improved stock available to the less well off, effectively prioritised the better-off, over smaller farmers in receipt of benefits. Women are the last to benefit. An alternative approach would have been to import 50% improved stock directly.

Irrigation

58. **Ineffective supervision.** Without the fortunate access to FABS funding, many more dams would be incomplete and deteriorating. Maintenance problems and technical inefficiencies of many dams also suggest that basic supervision was often lacking. In addition to this, many WUAs are at their initial stage of development and uncertain about many issues they are set up to run. Some WUAs collect regular maintenance charges, while the others wait until problems with infrastructure occur before taking ad hoc contributions.²³

59. **Disputes over work share.** There are disputes between GIDA and WUAs about share of work for each party. These are centred around on-farm problems such as land levelling and plot sharing as well as level of repairs and maintenance expected from WUA members. Particularly important is the issue of fencing for the irrigable areas. The AR leaves fencing and all on-farm management issues in the hands of farmers. Some WUAs have gone ahead and obtained loan from banks to be able to fence irrigable area, which they are now finding difficult to service. The other dam rehabilitations, especially these where FABS is financing irrigation infrastructure are being fenced as a part of the package for completion of works. Suggested rating for effectiveness: 2.

C. Efficiency

60. In this section the notion of efficiency is explored, for irrigation, through the comparison of construction costs between the two phases of LACOSREP and with cost ranges of other organizations (cost-effectiveness analysis).²⁴ In the case of the rural finance component, productivity and efficiency (as per CGAP definitions), are compared with regional benchmarks as reported by the Microfinance Bulletin.²⁵ For agricultural extension, only a 'qualitative' discussion is possible, due to a dearth of reliable data.

61. **Rural finance.** Productivity in terms of the number of borrowers being handled by a loan officer is similar for Sonzelle RB (221) and the ADB (226, Table 4)). These levels are below the 350 benchmark reported by the Microbanking Bulletin (Issue 10) for microfinance institutions in Sub-Saharan Africa which is about the figure for Nandom RB. Because the average size of ADB loans are larger than others, the value

²³ GIDA (2005), states further general problems with WUA participation in project activities: (a) [WUAs are] poorly sensitized and therefore didn't really grasp the concept of farmer participation and involvement in design, implementation and management of these schemes after completion; (b) They were given the erroneous impression that having been pre-identified qualified them for selection and eventual rehabilitation of their water facilities; (c) Not fully committed to the project objectives to ensure the sustained use of facilities after rehabilitation, more especially when Letters of Undertaking between GIDA/PSU and the WUA were never signed.

²⁴ Other definitions of irrigation efficiency, such as, for example, conveyance efficiency ratios, cannot be applied due to the absence of the relevant data.

²⁵ Comparisons, as in all case, should be taken cautiously but the findings are of interest for the present evaluation. Methodology and caveats are explained in the webpage of the MIX (2005): http://www.mixmbb.org/en/mbb_issues/10/mbb_10.html

of the portfolio being handled by an ADB loan officer is larger (¢601 million) than those of Nandom RB (380 million) and Sonzelle RB (¢112 million).

62. **Inadequate data.** Data were not made available to enable efficiencies of the ADB and the Nandom RB to be assessed. ADB claimed that since the project stopped releasing funds to it from the RCF in 2003, it had stopped tracking the income and expenditure separately for the IFAD portfolio. On the other hand, Nandom RB failed to respond despite follow-up contacts. The cost to outstanding loans ratio for Sonzelle bank (0.16) compares favourably with the average for Sub-Saharan African microfinance institutions considered by the Microbanking Bulletin (0.42).²⁶ The average loan size as a percentage of the GDP per capita further suggests that ADB may have served “less poor” (or even non-poor) clients, compared to Sonzelle and Nandom RB.

Table 4. Productivity and efficiency of banks

Bank	Commercial Bank	Rural Banks	
	ADB	Sonzelle	Nandom
Productivity			
Borrowers (number)/loan officer	226	221	363
Value of loans/loan officer ¢' m	601	112	380
Value of loans/loan officer (USD)	66 044.0	12 307.7	41 758.2
Efficiency			
Cost/outstanding loans (ratio) ^a	n/a	0.16	n/a
Cost/Borrower ¢'000 ^b	n/a	0.8	n/a
Loan Size and Poverty Depth			
Average Loan Size ¢'m	5.3	0.5	1.04
Average Loan Size (USD)	582.4	54.9	114.3
Average loan size as % of GDP p.c.	192%	18%	38%

Source: Mission findings

a. Average administrative cost (thus excluding financial costs) of providing one loan unit, e.g. a ratio of 0.16 means that it costs 16 cedi to provide a loan of 100 cedi. b. Average administrative cost of serving a client.

Irrigation

63. **Comparative costs.** The cost of rehabilitations is quite low, and is generally in line with calculations carried out for LACOSREP I and II interventions. On both projects, the low cost of interventions reflects the considerable depreciation of the cedi since 1995. Information from FAO 1998, indicates a cost range between USD 400 – 5 000/ha for rehabilitations of small-scale irrigation infrastructure in Ghana. These figures can be compared with detailed analysis of irrigation costs carried out for countries in East and South Africa (Tanzania, Malawi, Zimbabwe and Zambia), where estimated cost of on-farm surface irrigation was about USD 1 600 (Kandiah 1997).

Table 5. Construction costs for UWADEP interventions operational since 2001

District	Project name	Year of original construction	Field estimates of irrigable area actually added through rehabilitation	Cost D 1994/ha
Wa	Busa	1956	2	1111.18
Nadowli	Babile	1988	2	853.60
Jirapa	Karne	1989	3.3	869.73
Tumu	Wallembele	1989	6	487.61
Nadowli	Sankana	1969	7.5	257.73
Total			20.8	
Average			4.16	715.97

Source: GIDA Technical Report and IFAD evaluation mission field visits, June 2005

²⁶ Even lower ratios were computed for banks under LACOSREP II.

64. The scope of interventions under UWADEP was relatively small, with increase of irrigable area slightly above four ha per project, even though planned irrigation area was much larger in almost every case. There is therefore an obvious disparity between the planned works and ability of both consultant and contractors to implement the planned infrastructure. From Appendix 1 - Table 12, interventions carried out partly by UWADEP (generally headworks) and continued by FABS appear more expensive, though their cost is not prohibitive.²⁷

65. **Agricultural extension.** The wide range of activities all undertaken by different groups meant that transaction time for each activity was high. Where groups got to hear of what others were doing, it also led to a degree of frustration, as they also wanted to try out new varieties, have access to traction implements, or credit. While cost-effectiveness considerations led to a hold on expenditure on seed production facilities, including a mobile processor and transport van, it was the lack of these facilities that led farmers in remoter districts, for cost-effectiveness reasons, to reduce the area of seed grown. Lack of a mobile processor led farmers to sell significant amounts of their seed locally, rather than as properly-graded certified seed. The suggested rating of 4 for efficiency takes into account the low delivery cost of certain activities. A caveat should be made about the limited achievements, both in terms of delays and quality of works, on the ground.

V. RURAL POVERTY IMPACT

A. Impact on Physical and Financial Assets

66. **Methods.** To assess the impact of the project effectively, it should ideally be measured both against a baseline survey of potential beneficiaries prior to the start of the project and against non-beneficiaries once the project is complete. OE conducted preliminary quantitative and qualitative surveys in April-May 2005 analysing retrospective perceptions of change by beneficiaries, and non-beneficiaries. That exercise comprised a quantitative survey of 154 households (131 beneficiaries and 23 non-beneficiaries, using double differences and recall method).²⁸ A larger-scale survey of non-beneficiaries, preferably in settlements where no NGOs were operating, was conducted between in the four districts of UWR: 133 households were surveyed and asked a variety of questions about changes in their life and production system since 1995, i.e. broadly when UWADEP became fully operational. While the handling of quasi-experimental data would in principal require more complex and lengthy econometric techniques, this report relies primarily on simple descriptive and inferential statistics and triangulation between qualitative and quantitative techniques.

Impact on Physical Assets

67. **Household assets.** In terms of physical assets in the household, it is possible to compare beneficiaries and non-beneficiaries through the above two surveys. We start first with the non-beneficiary survey, which shows that about two thirds of respondents would report an increased trend in the ownership of household assets, such as bicycles, tin roof, carts and radios since 1995, the year when UWADEP started (Table 7). The impact survey compared a sub-sample of projects with non-project households. The findings from this survey suggest that project households reported increased ownership for a larger range of assets than was the case for non-project households (Table 8). There is thus a possible contradiction between results shown in Table 7 and 8. The small number of control observations, reducing the power of the statistical test, might be partly accounted for it. Perhaps the most surprising data is the significance of positive changes in assets for the project observations, in spite of limited project achievements. By triangulating between the non-beneficiary survey and more qualitative evidence collected during field visits, the following conclusions may be suggested: (i) in this case, some changes in wealth status of households can be ascribed to the remittances

²⁷ Some dams had to be re-constructed several times due to faulty and inadequate studies. This is especially true for Tanina and Sorabelle, two of the most expensive interventions, at 3 070 and 2013 USD 1994/ha respectively, and their final cost at completion will obviously be higher still.

²⁸ This beneficiary and non-beneficiary survey sample was stratified across three categories of project activities: water management, agricultural extension and rural credit. Only completed and functional dam sites were selected for the water management components as the focus was on impact. The number of households in the project and control sub-samples was determined taking into account some hypotheses on variance, and the desired level of significance and power of the statistical tests as well as the actual availability of such households in the project sites.

received from migrating household members; (ii) for households covered by water management interventions, in the presence of uncompleted or malfunctioning dams, farmers may have benefited from seepage recharging the water table; and (iii) some direct benefits have accrued to farmers through livestock and rural finance interventions (further explained below).

Table 6. Assets for non-beneficiaries in UWR: changes since 1995

Item	No.	%
Bicycles	88	66.2
Tin roofs	81	60.9
Carts	88	66.2
Radios	88	66.2

Source: OE non-beneficiary quantitative survey (2005), n = 133

Table 7. Assets of IFAD beneficiaries before and after the interventions in UWR

Asset	Beneficiaries						Non beneficiaries					
	N	Mean before	SD before	Mean after	SD after	Test - statistic	N	Mean before	SD before	Mean after	SD after	Test - statistic
Beds	131	2.06	1.03	2.54	1.09	5.60**	23	2.22	1.28	2.48	1.33	0.68 ns
Armchairs	131	2.34	1.39	2.98	1.28	5.43**	23	2.13	1.42	2.38	1.40	1.22 ns
Bicycle	131	2.04	0.99	2.63	1.12	6.08**	23	2.26	1.29	2.33	1.24	1.18 ns
Table	130	1.88	1.00	2.41	1.09	6.05**	23	2.04	1.11	2.43	1.21	1.81 ns
Lantern	128	2.41	1.00	2.91	0.98	5.33**	23	2.22	1.00	2.67	1.02	2.07 *
Radio/Tape	129	1.92	0.92	2.50	1.02	5.62**	23	1.70	0.63	2.10	0.89	2.06 *
Television	126	1.24	0.53	1.48	0.72	4.31**	23	1.04	0.21	1.10	0.30	1.00 ns
Hoe	130	3.23	1.03	3.47	0.94	2.66**	23	2.96	1.19	2.86	1.20	0.14 ns
Axe	125	1.80	0.97	2.09	1.11	4.39**	23	1.83	1.03	2.00	1.18	1.34 ns
Cutlass	129	2.79	1.05	3.03	1.05	2.75**	23	2.65	1.11	2.38	1.12	1.34 ns
Sickle	126	1.61	0.98	1.85	1.16	3.51**	23	1.43	0.79	1.62	1.02	1.09 ns
Sewing Machine	129	1.44	0.71	1.67	0.89	4.29**	23	1.52	0.85	1.52	0.75	0.45 ns
Canoe/Boat	124	1.06	0.34	1.12	0.41	1.81 ns	23	1.00	0.00	1.14	0.65	1.00 ns
Fishing Net	124	1.19	0.68	1.29	0.86	1.64 ns	23	1.00	0.00	1.00	0.00	1.00 ns
Bullock Plough	123	1.59	1.01	1.85	1.17	3.29**	23	1.30	0.76	1.33	0.80	0.00 ns
Oxen	123	1.30	0.82	1.40	0.92	1.29 ns	23	1.04	0.21	1.14	0.48	1.00 ns

* Significant at a = 0.05; ** Significant at a = 0.01; ns non-significant

Source: OE Preliminary quantitative survey of beneficiaries and non-beneficiaries (2005)

68. **Community/farmer level.** Introduction of improved small ruminant and fowl breeds has led to an increase in income and in some areas (where effective health care has also been implemented) an increase in livestock numbers, hence capital (living bank). This has positively benefited both participating farmers and their communities, due to the largely free-grazing practices of husbandry. Very few farmers have benefited from new animal traction implements (260). One blacksmith's workshop has been refurbished and is functional mending hand tools, repairing shares and tines. A few farmers have experienced increased income through entry into certified seed production, though gains are unsure because of marketing constraints. The SGA have access to a seed processor, vehicle and warehouse, but are insecure in their tenure over these assets. A considerable number of farmers have adopted use of improved varieties and seed, but access constraints to further supply of seeds means that their continued use is not assured.

Financial Assets

69. **Savings mobilization.** The Project introduced compulsory savings by the group as one of the requirements for accessing credit. The group is to have saved at least 10% of its credit needs at its assigned bank. Loan repayments are paid into the savings account to which the bank debits the instalments due. The group is therefore encouraged to maintain positive savings balance at all times. Some groups pay other collections such as dues into the accounts. The current balances of the savings accounts of the groups are

shown on Table 8. The average balance per group is only ₺500 000 which is very low partly because it was the beginning of farming season, when inputs are procured. Also some of the groups have become defunct leaving minimal balances in their accounts. The suggested rating of 3 for impact on physical and financial assets reflects the fact that benefits were often achieved outside the project or in spite of the limited delivery (quality and quantity) of goods and services.

Table 8. Saving mobilization (as at March 2005)

Participating Bank	No. of Groups	Savings Balances ₺-million
ADB	651	364.7
Sonzelle RB	189	59.2
Nandom RB	68	43.7
Total		467.6

Source: Project Reports

B. Impact on Human Assets

70. Although this section deals ultimately with impact on project users, a review of modalities for training of trainers is justified as instrumental to understand the final outcomes.

71. **Bank staff.** The Credit Officers for the districts were never appointed. Their appointment would have assisted in increasing the outreach to women and compilation of regular data on the credit component. Initially the PSU with some now inactive NGOs were engaged in the preparation of beneficiaries. Some training was carried out as a sideline to the agricultural extension services by MOFA. The result is that most of the beneficiaries are inadequately trained in credit management. Latterly, a local NGO, Rural Action Aid Project, based in Han in the Nadowli District, on their own prepared 28 groups and linked them to the Sonzelle RB successfully.

72. **MoFA staff.** An analysis of extension staffs' training needs was conducted in 1999 and in 2000 a comprehensive programme was drawn up to address the skill gaps (MoFA M&E, 2000). Emphasis was placed on practical training, and refresher courses were also built into the programme. Topics for training included animal traction, community and women's participation, seed production and improvement. Women In Agricultural Development (WIAD), extension support, adaptive research crops, animal health and small ruminant and poultry improvement programme. The large number of training classes, staff involved and resources available made courses quite compact. For example, just three days were spent to cover on-farm research, improved vegetable cultivation, and integrated pest management and post harvest processing and preservation. With regard to on-farm research, this has translated into understanding formal trial design, measuring growth parameters and yield and analysing results. There is no introduction to participative techniques of problem identification and trial design. So instead of stimulating dialogue and collegiate working with farmers, AEAs were instructed to implement pre-packaged trial designs universally across districts and different farmer groups.

73. **Extension volunteers and community livestock workers.** The ability and dedication of extension volunteers (EVs) varies considerably. It is a demanding role as outlined in project documents (extension component, undated) and difficult to see what actual training took place from documentation. It would appear that the project rather relied on volunteers' existing abilities and knowledge for implementation. In marked contrast, the community livestock workers underwent a thorough and well-documented training that covered key areas in a clear and informed way. During field visits, CLWs were knowledgeable and were clearly respected by their local community.

74. **Limited improvement in farmers' knowledge.** Topics covered under the training programme for WUAs under UWADep were: simple farm surveying, soil-water-crop-atmosphere relationship, irrigation water requirements/scheduling, group formation and dynamics and farm records keeping and accounting. Some of training sessions were carried out in Wa (regional capital), while the others were implemented at the district level. Persons participating in the training were agricultural extension officers and WUA executive members (usually two per site). Training was carried out by GIDA staff (GIDA Technical Report, 2005). The training of farmers was seen as key to the successful management of the WUAs in irrigation water delivery and operation and maintenance of the dam sites. The question to be considered is whether the

topics mentioned above, such as soil-water-crop-atmosphere relationships, are the most suitable and relevant for farmers' situation. In cases where many farmers still use hand-dug wells on irrigation sites, the relevance of training in the use of irrigation facilities also becomes questionable. The AR also mentioned that farmers were to grow two crops per year and they were to be supervised by relevant staff on these activities for three consecutive years. Evidence of two-crops-per-year cropping in the dry season alone was found at Wellembele dam, practiced by a very active WUA. However, farmers at this site are in need of further and less theoretical training in irrigation scheduling and water management in order to meet the original targets. It is also recommended that training be conducted twice yearly to meet problems of rainy and dry seasons on the irrigation sites. Training should be centred mostly on practical on-farm activities. The venues should be dam sites instead of regional/district capitals. The preliminary quantitative survey found no evidence of changes in agricultural practices before and after project interventions (Table 9).

Table 9. Changes in agricultural practices

Practice	Before IFAD			After IFAD		
		FREQUENCY	PERCENT	FREQUENCY	PERCENT	test- statistics
Manure	YES	96	68	98	71	ns
	NO	46	32	40	29	
Compost	YES	37	24	34	25	ns
	NO	106	76	104	75	
Household waste	YES	47	34	49	36	ns
	NO	92	66	89	64	
Chemical fertilizer	YES	94	67	87	62	ns
	NO	47	33	53	38	
Purchased seeds	YES	62	44	52	38	ns
	NO	78	56	85	62	
Crop rotation	YES	90	64	87	63	ns
	NO	51	36	51	37	

ns – non-significant

Source: OE Preliminary quantitative survey of beneficiaries and non-beneficiaries (2005)

75. **Limited attention to human health hazards.** Although human health risks are mentioned in general under the Water Resource Development component, unlike LACOSREP II, they were not specifically included as a sub-component. No links were made by the PSU with public and community health services, who indeed were unaware of the existence of UWADEP. This was responsibility of GIDA, who assumed that the routine operations of MoH would cover some of the project areas. Some communities reported health awareness visits; as far as the mission could determine, these were NGOs without links to UWADEP. Surveys conducted by UWADEP claim that while the incidence of water-borne diseases is increasing throughout the region, for the project areas the corresponding figures are decreasing, which may be due to the greater awareness created. MoH officials and communities visited had no knowledge of these results. Rating for human assets: 2.

C. Social Capital and Empowerment

76. **Credit.** Even though most groups were pre-existent, the introduction of credit, especially among women, has certainly increased social capital. They have been able to establish credit history with the banks. Women's financial empowerment has earned them greater respect from their husbands who now consult them more often on issues relating to the household. Being in a credit group has enabled group members to have some knowledge of the saving and loans operations of the banks.

77. **Social protection.** One intervention that has received much attention is the integration of underprivileged groups (blind, disabled and single mothers) within the WUA at Karni. This very commendable effort derives from the combination of a pre-UWADEP NGO and initiatives within the community itself. The quote from one mother at Karni site, *'At night I used to think plenty, but now I can stretch my legs'* illustrates better than any official document the impact such an intervention can make on people's lives. This type of social protection was not considered in the AR, but should be expanded in any further phase of investment.



**An example of “social protection” from Karni site (UWR).
Irrigated land was distributed to special categories of disadvantaged
persons such as the blind and physically impaired
It is an example of targeting the poorest in a development project.
IFAD photo by M. Keating.**

78. **Migration.** The single most important issue for beneficiaries is the impact on migration and thus on the cohesion of households. Migration among non-beneficiaries is at very high levels and UWADEP has reduced the need for younger people to look for work elsewhere. But rapid demographic growth in UWR, limited in its geographic outreach and slow implementation mean that the impact of UWADEP is insignificant in terms of overall changes. Rating for impact on social capital: 5.

D. Impact on Food Security

79. **Limited overall impact on food security.** In the absence of a baseline anthropometric survey, we rely on qualitative field observations. The contribution to food security is a reflection first and foremost of the numbers of dams functioning; other components were less tightly focused on responding to the ‘hungry season’. The dams delivering water via their canals are relatively few, and thus their direct contribution to food security correspondingly limited. Farmers observed that apart from selling products from the irrigated agriculture, women use them in preparing family meals, which is certainly important in the region with high malnutrition levels. Promotion of the inclusion of legumes within rotational systems has beneficial effects both on immediate availability of nutritious food for consumption and in helping maintain long-term soil productivity. Uptake has been significant around adaptive research sites and increasing through farmer field days, radio programmes and farmer exchanges. Increase in income from individual livestock and livestock holdings can have significant impact on food security, both directly and as a safety net in times of need. Livestock are, for many farmers, their main banking system. Introduction of new improved varieties and certified seed has enabled increased production per acre, helping farmers produce more for both consumption and sale. For the credit groups in the peri-urban areas, the impact of the project was minimal. This is because most of the beneficiaries are engaged in off-farm economic activities which bring in a regular stream of income throughout the year to support their food security needs. Rural beneficiaries on the other hand acknowledge that their access to credit under the project has enhanced their food security. Some store grains and pulses for the purpose, others use part of the grains and pulses stored for sale while some others use their profit or part of the loan to buy food for the household to smooth consumption.²⁹ Rating for impact on food security: 3.

E. Environmental Impact

80. **Soil and water conservation.** Ghana Environmental Assessment Regulations LI 1652 (1999), make it mandatory for all drainage and irrigation projects to have environmental permits/plans. Environment is given very exiguous comment in the AR (p. 48) and reference is only made to the positive impact on soil fertility. There is no reference to the environmental impact of the dams, although this can be substantial. Since 1999 all dams and dugouts require permits issued by the Environmental Protection Agency (EPA) and for surveys

²⁹ During the non-beneficiary survey, perceived increase in malnutrition has been reported albeit with a much lower frequency than in UER (Appendix Table 14).

and permits to be retrospectively conducted for dams constructed prior to this period. The project did not contact the EPA for environmental permits to be issued for UWADEP dams, despite letters from the EPA asking for information. As such surveys *were* conducted and permits issued for the sister-project, LACOSREP II, this is a fairly major lapse that could have been remedied. The absence of any information makes it difficult to assess the environmental impact of dams, especially as some of them are yet to become fully functional. Catchment protection seems to have been either absent or very haphazard.

81. **Fisheries.** The fisheries component was found on most of the project sites, with dams stocked with fingerlings from the Fisheries Department. However, timing of interventions, number of visits, and level of training for beneficiaries varies from site to site and does not seem to follow any discernible pattern. The present plans of Fisheries Department show intentions to develop these reservoirs into viable fishing sites. Rating for impact on environment: 2.

F. Impact on Institutions and Policies

82. **Limited impact.** This is hard to gauge with the project still to finish, but is generally slight. Village institutions such as WUAs are clearly valuable and sustainable, but there is no evidence of a major shift in government mentality. Government officers still have strong views about the superiority of their approach (emphasising the need of workshops and lengthy field sessions and “participatory” appraisal exercises to sensitise communities to the importance of a given component) and, more worryingly, characteristically explain away problems with the justification that they were following the AR. Interactive approaches, where ideas and concepts from the village make their way to project design, were little in evidence.

83. **Impact on NGOs.** The few NGOs used by the project were essentially employed to deliver services, rather than to develop a partnership. NGOs consistently complained that they were not consulted and their suggestions not adopted. Moreover, by some sort of administrative legerdemain, the NGOs were employing many AEAs, ‘in their spare time’, to carry out the tasks they were paid for. This is highly undesirable and should have been picked up by the supervision missions. Interviews in villages not set up by the PSU frequently encountered suggestions that UWADEP should behave more like NGOs such as the Adventist Development and Relief Agency (ADRA), which has really had an important grassroots impact. Since NGOs are now building medium-size, modern dams with efficient water transport in UWR, a cost-benefit analysis of handing this task to PSU/GIDA might well produce a negative conclusion. Rating for impact on institutions and policies: 1.

G. Gender

84. **Gender officer.** UWADEP has never had an officer specifically assigned to gender at regional or district level, despite women’s development being a named component of the project. This task was assigned to WIAD (Women in Agricultural Development) and more generally to National Commission for Women and Development. Evidence of their input has been slight at best. As a consequence, progress in this area has been extremely limited compared with LACOSREP.

85. **WUAs/other groups.** Over 1 200 women were involved in WUA activities (Appendix 1 - Table 4) although the percentage of women’s participation in the WUAs is about 29%, well below appraisal targets (40%). In most cases the membership of women in the WUA committees reflects an average membership of at least two women out of seven representatives, mostly occupying positions as treasurers and women organizers (GIDA, 2005). At first glance these figures are very encouraging, but they do not capture many aspects of women’s real situations on the ground. An example is the Han irrigation project where irrigation is yet to start using canals constructed in the first half of 2005. Young and able-bodied farmers are able to benefit from seepage water and excavate hand-dug wells within irrigable area, where they grow dry season crops. Elderly persons, both male and female, cannot carry out this hard work, and therefore do not benefit from the project until the irrigation infrastructure is functional. At Karni and Busa the percentage of land held by women farmers is over 50%. At Busa, where women’s involvement is higher, some male farmers were of the view that irrigated plots are the way to provide for their female household members under the polygamous family system. After giving them irrigated plots, they do not provide for any other requirements of women but expect them and their children to support themselves through irrigation. Men tend to dominate the membership of WUAs and at meetings, women either do not attend or sit quietly at the back.

86. **Limited emphasis on animal traction.** There is a marked lack of women within agricultural component activities. While a few are members of small ruminant groups, one AT group contains women, one or two are included within adaptive research groups and there are a few female seed growers. Their exclusion from the AT groups is particularly discriminatory because of their need for draught animals and transport. Donkey carts and ploughs are favoured by women and have been provided in some project areas by ActionAid (Sissala). Inclusion of women within the adaptive research component has been fraught with difficulty for them, as maize is not traditionally a woman's crop. They have to seek their husband's assistance to plant maize, and planting is often late, due to prior responsibilities with regard to their husbands' land. While they have great interest in the performance of groundnut, cowpea and Bambara nut, their other major crops, vegetables, have received little attention.

87. **Credit for women** A specific objective of the credit component was to target 100% women for non-farm activities. In reality, women were 56% of loan beneficiaries but received only 47% of the loan amount. Sixty-four percent of the loans went into farming where female plots traditionally are smaller and require fewer inputs and therefore need smaller amounts for inputs. The exclusive female sub-component of non-farm income-generating activities received just 29% of the loans. Disbursement for the medium-term loan was low. Although this makes it appear that there was not enough demand for medium-term loans, that was not the case. In Sissala District, the mission came across women looking for medium-term loans to purchase donkey carts after having undergone training: they had not been linked to a bank for credit. Rating for gender: 2.



A hand-dug well in UWR. Since dam infrastructure has not yet been completed in many sites, farmers have excavated wells and exploited the water table recharged by seepage from the dam site. IFAD photo by G. Kranjac-Berisavljevic.

H. Sustainability

88. **Credit.** Operational and financial sustainability were calculated for the Sonzelle RB only (operational self-sufficiency 109%; financial self-sufficiency 57%) as the necessary data were not made available by the other two participating banks.³⁰ However, the number of groups has been reduced and no new groups have been taken on due to inadequate funding. The Sonzelle RB is fully operationally self-sufficient and has passed the half-way mark in becoming financially self-sufficient. The high loan recovery of 98% has been underpinning this success. Another factor possibly is the bank's continued partnership with an NGO which monitors the beneficiaries after loan disbursements.

³⁰ In this section we refer to operational self-sufficiency and financial self-sufficiency ratios, adopted by CGAP as indicators of sustainability. Operational self-sufficiency is the (percentage) ratio between financial revenues and financial and operating costs (including loan loss provision). Financial self-sufficiency accounts for the presence of subsidized credit lines and the effect of inflation on equity. For this reason it is normally lower than operational self-sufficiency. A ratio higher than 100% indicates that the MFI would be able to continue operations even if subsidies were discontinued.

89. **NGOs compete.** The non-bank institutions that are engaged on the supply side of microfinance services are operating in an extensively liberalized environment. This enables them to determine their own interest rates based on their loss structure, expected project margin and perhaps social responsibilities. On the other hand, the interest rate the participating banks were charging to their clients has of late been below the market rates. The presence of competing models without any intervention and coordination creates mutual predatory behaviours between projects funded by different donors and may also have the effect of freezing investment as individuals seek better deals.

90. **Agriculture.** The adaptive research component, which focussed on improving soil productivity under shortening fallow systems, has had a significant effect within the participating communities and those adjacent. While the on-farm trials were small and very prescribed, training and open days have led to a change in attitude and introduction of rotational practices in participants and other community members' fields. Introduction of a sustainable rotational system not dependent on fallow is a completely new concept in many areas, where there are only bush, no compound farms. Lack of formal co-ordination between project components has meant that this practice is still largely confined to research areas and was not promoted by extension activities. Support to the development of research facilities and MoFA district offices and training facilities has increased the capacity of these collaborating institutions. There is commitment to maintaining staff presence, although operational activities are dependent on accessing additional resources.

91. The sustainability of the SGA is not assured because of the failure to link the group effectively with inventory credit and missing links in the seed chain between small farmer's demand and supply. Similarly the failure to successfully link farmer research and demonstration groups with reliable credit, means that the use of fertiliser is not being continued by the majority of farmers. Inclusion of improved collection, storage and management of manure and compost within demonstrations would have helped the sustainability of these components. The project and now MoFA has yet to implement a system of rotation, replacement, or exchange of stock among small ruminant producers to address the issue of inbreeding.

92. **Dams and other infrastructure.** The main sustainability issues are: completion of irrigation infrastructure through FABS, which, given the pace of project implementation during UWADEP, must be of concern to communities and quality of works (which is manifestly poor). Other components, such as wells and feeder roads appear to have been completed on schedule and have so far not encountered major maintenance problems. Too few WUAs have been in operation long enough to judge their sustainability, but in many cases these social groupings are robust because they existed in a different form prior to UWADEP, managing the hand-irrigated land below the dams, sometimes for decades. As in the case of the IFAD sister project in the UER, WUAs are able to mobilise only small sums of money for operation and maintenance costs, often not enough to pay for more than a couple of bags of cement. Rating for sustainability: 2.

I. Innovation, Scaling-up and Replicability

93. **Scaling-up and replicability.** Few "innovations" of UWADEP can presently be considered an unalloyed success and therefore the desirability of replicating them in their present format is questionable. Clearly more dams would be desirable; one option is to use the NGO sector to deliver more modern dams. Similarly, there is clearly demand for wells and feeder roads but this does not necessarily require an IFAD project to deliver them. The introduction of improved breeds and seeds has proven partially successful, but could have achieved a wider diffusion if they had been more responsive to farmers' requests. Improved breeds of small ruminants and fowl have been successful in increasing incomes for a range of farmers and would seem suitable for replication. Better animal health care is an important component, both to maintain the improved breeds introduced and to prevent epizootics, but the present very low vaccination rates (no figures available to the evaluation exceeds 8% of existing goats and sheep) suggest that adequate precaution is not at present being taken. Moreover, the present implementation does not ensure that benefits spread rapidly to the resource poor and women. If there is one message that emerged clearly from the field visits, it is that training, research and sensitisation has been over-emphasised to the detriment of assisting farmers with practical requests. Rating for innovation and replicability: 2.

J. Overall Impact Assessment

94. **Overall impact.** The overall impact of UWADEP must be considered modest. The number of dams functional by the closure of the project was small and the irrigated area limited. Many of the dams have engineering and technical problems which bespeaks a lack of supervision. As a consequence it is hard to evaluate the increase in social capital, the strength of WUAs, etc. because they have had a limited chance to operate. Much of the irrigated area claimed by UWADEP turned out to be well-based gardens that were in operation prior to the project and are of greatest use to the younger and stronger members of the community. Appraisal targets for women's involvement were almost never met. The majority of resources were expended on capital goods and central infrastructure with very little visible return, and the agricultural components were very unresponsive to the needs of actual farmers. In the case of AT, for example, expenditure on training and buildings far exceeded sums spent on getting implements into the community, despite the strongly-voiced requests of those communities. Partnership, especially with NGOs, was very weak and it is hard to avoid the impression that this was motivated by a desire to keep funds and resources within MOFA. Credit was taken up and clearly valued by its recipients, but cumbersome procedures meant that its impact was far less than its potential; moreover, most of the banks appear to be simply withdrawing rather than continuing with their clients. A fundamental problem was the copying of many features of LACOSREP I without due consideration for the different ecological, economic and social and demographic characteristics of UWR, for which IFAD must take some responsibility. However, many problems also arose from weak supervision and MTR process. It would not be desirable to replicate or extend UWADEP in its present form. Further interventions in the area, in principle justified by the severity of poverty, require major changes in the project design.



Left: This closed conveyance system at Buoti (UWR) is part of a dam constructed by Plan-Ghana; and **right:** yams growing at Gudayiri. They represent examples of innovations brought about by a local NGO and farmers, respectively, outside UWADEP assistance. Closed (i.e., piped) conveyance system reduces water losses, while indigenous techniques to cultivate yams are an ingenious means to preserve soil moisture. In the future, IFAD interventions should seek to be more responsive to such innovations. IFAD photo by R. M. Blench.

VI. PERFORMANCE OF PARTNERS

A. Performance of IFAD

95. **Design issues.** Two issues are critical in assessing the performance of IFAD; the acceptance of an appraisal document with features that were clearly inappropriate for UWR and an inadequate response to design and implementation problems which surfaced during the course of UWADEP. For all the participatory rhetoric, the design of UWADEP was top-down and failed to address the concerns of a high proportion of its target group. Design decisions in irrigation infrastructure should generally be flexible and appropriate to the actual environment, but those in the AR were too rigid, giving very little room for changes to suit individual sites. Inadequate attention given to drainage problems in this region at design stage also comes from the erroneous assumption that similar conditions prevail in Upper East and Upper West. Complete reliance on the GDA to screen and supervise private contractors for the irrigation component created very serious delays in the execution and did not ensure high quality of works. Failure to make

appropriate changes at MTR stage left the project struggling with inappropriate designs, and also without the opportunity to consider construction of some new dams, to reduce already mentioned inequity of infrastructure distribution within the region. Other flaws in the original design of the project should be underlined: (i) the rural finance component which did little to enhance the sustainability of the concerned operations of participating banks and (ii) the limited degree of integration between components.

96. **Limitations in project implementation support.** Similar to the LACOSREP II and even more disruptive in its consequences was the difficulty for UNOPS and IFAD to assess the extent of and act upon the under-performance of the water management component. Partly due to IFAD's remote location and the limitations in the supervision arrangements with UNOPS, a clear gap has existed in IFAD's capacity to react on slow implementation on one side and provide support to the government on the other. The proposed rating of 2 mainly refers to institutional weaknesses which have emerged at the design and implementation phase.

B. Performance of the Cooperating Institution

97. **United Nations Office for Project Services (UNOPS).** Although during most of the life of UWADEP, IFAD gave the mandate for its supervision to UNOPS, it was initially the responsibility of UNDDSMS. UWADEP has had a long life and crossed the transition period when UNOPS shifted regional headquarters from Abidjan to Dakar.³¹ As a consequence, there has been a series of different desk officers dealing with the project, some inadequately briefed by their predecessors. UWADEP staff claimed they experienced unstable application of rules governing approval of payment, which delayed some of their claims for months at a time, making financial management more difficult. UNOPS supervision seems to have been less accurate than in LACOSREP II, in that many of the problems and inflated claims were not picked up. For example, the 2004 report acknowledges that many infrastructure works need to be completed but accepts the 154ha figure of irrigable area as well as 60 instead of 30 seed-growers. At the same time, the very limited achievements under the animal traction subcomponent and the weak financial viability of the credit component were not adequately emphasised. The main problem is with the supervision arrangements between IFAD and UNOPS and the considerable workload of UNOPS staff. These constrain the actual time and financial resources available to UNOPS to hire sector specialists as well as to verify and cross-check the project monitoring data. Only extensive field visits would have allowed better verification of data. However, this may well be considered beyond the present arrangements between IFAD and UNOPS. The suggested rating of 3 reflects, to a great deal, the constraints of such supervision arrangements.

C. Government and Its Agencies

98. **Project Support Unit (PSU)/MoFA.** A characteristic feature of the PSU was its use of available MoFA staff, even when sector specialists were not present. Thus the PSU had no staff qualified to supervise infrastructural work, or to monitor and encourage gender sensitivity. Changes in project management to introduce dynamic individuals happened late. No specialised staff member engaged with credit. The failure to engage with NGOs and the use of AEAs to perform their task 'after hours' is doubtful practice at best and hardly develops the grassroots and innovative approaches expected by IFAD. Project documentation was often inaccurate.

99. **Monitoring and evaluation.** The M&E unit within the PSU is relatively efficient at collecting and synthesising data and produced a series of tables showing the apparent achievements and impact of the project. The same cannot be said of the quality of the data. This is very much in contrast with LACOSREP II, where data provided by the PSU was broadly accurate. Data quality is an essential tool in understanding projects and assisting in their redesign and evaluation, so this problem should be regarded as serious.

100. **Ghana Irrigation Development Authority (GIDA).** The decision to use GIDA as the sole consultant for the irrigation infrastructure on the project was a very questionable one, causing many problems in the quality of project execution, as well as delays in implementation. The poor performance of contractors, a

³¹ Background information on the supervision of LACOSREP II has been provided by Ms. Mariam Sissoko (Country Portfolio Manager at UNOPS) through email correspondence, which is gratefully acknowledged.

common complaint with the project, can be at least partially attributed to the inadequate supervision by GIDA.

101. **The mid-term review (MTR)**, commissioned by the Government of Ghana, was conducted in 2000. It seems to have drawn on a very limited range of expertise and it is particularly noticeable that many of the problems highlighted in this evaluation were not observed. The MTR is an important process, especially as new insights should have redirected UWADEP in many ways and more careful attention to the choice of consultants is recommended. Rating: 2.

D. Research Partners

102. **Savannah Agricultural Research Institute (SARI)**. The main research partner for UWADEP was SARI. SARI has established a new research station at Dokpong and officers were stationed at Tumu, Babile and Jirapa. Construction and furnishing of this station took the major share of resources under this component and the volume of adaptive research conducted was very limited in relation to the investment in infrastructure. On-farm adaptive research has responded to farmers' concern with *striga* control, although just one rotational combination was tried. The variation present in cropping systems practised by men and women and between districts means that a number of rotational systems are required in order to successfully maintain soil productivity. Over a five-year operational period, more than one system could have been tested. Improved crop varieties have been universally popular with farmers and SARI has worked closely with MoFA and NGOs in support of demonstrations in the field. Rainfed agriculture trials were not geared towards the major issue of soil and water conservation, where much could be achieved given the natural conditions of the area and the level of indigenous expertise available. The vision of implementation of farmer-led adaptive research is still some distance away. SARI conducted many trials, but it is hard to assess their relevance to the situation on the ground. SARI has produced good documentation on results of research and demonstrations, but these have not been translated into clear messages for extension. Indeed it is difficult to see the practical advice envisaged to be forthcoming from some of the research. There was no research in the area of irrigation, apart from agronomic rice trials, and crucial issues for farmers, such as water scheduling, were not addressed. The development of hand-watered gardens along major rivers has been ignored. Rating: 3.

E. Performance of Non-Government and Community-Based Organizations

103. **Contractors**. Timeliness and quality of work by the contractors was one of the major project problems throughout project life. In part this was because there was strong pressure to use local contractors, whose capacity and expertise left much to be desired. The failure of much of this work led to the hasty employment of a Chinese contractor based in Accra, who is operating with machinery and minimal community involvement. This has not necessarily led to higher quality work, because of the lax supervision and design inadequacies of GIDA, but at least the dams are being built. The suggested rating of 1 refers to the original contractors.

Banks

104. **Bank of Ghana (BoG)**. The BoG's role is to set up and manage the disbursements and the RCF. In this respect, BoG has been performing reliably. Releases from the BoG are done on the advice of the PSU who of late has failed to carry out this function. Funds released by the BoG to date are shown in Table 11. It is required that the clearing accounts of the participating banks would be debited on due dates but as at March 2005 all the PFI had balances overdue since December 2004. The issue of BoG not making appropriate arrangements for debiting the rural banks has been pointed out earlier. Reports submitted by the BoG after the quarterly monitoring visits are not sufficiently detailed. The loan portfolios are not analysed. Irregular reconciliation of accounts is leading to confusion.³²

³² For instance, at the time of the Mission, the data provided by the PSU indicated that a total of about €3.2 billion has been released to the participating banks as at December 2003. The participating banks however, have disbursed a total of about €4.6 to beneficiaries under the project. The shortfall of about €1.3 has been financed from the participating banks' own resources. On the contrary, at BoG, documents the mission sighted indicated that the participating banks were holding on to project funds after due dates. Another case is ADB Head Office in Accra

105. **The interest rate on loans** is based on a Reference Rate of Interest (RRI) which is determined by a Committee made up of the Bank of Ghana, participating banks and PSU. The BoG is mandated to ensure that the RRI is positive in real terms.³³ The current RRI charged by BoG to participating banks of 6%, much lower than the one year Treasury Bill interest rate equivalent of 18% at which the Government borrows from the public or the 18.5% BoG Prime Rate at which it lends to the banks. With an inflation rate of 13% (2004), the real interest rate becomes negative, making the RCF not sustainable and going against the project concept. The participating banks have a spread of ten percentage units for on-lending to their clients, which brings the retail interest rate at which beneficiaries borrow to 16%. This is in addition to 2% insurance premium on the gross loan, which does not form part of the participating banks' income. The interest payments are computed on straight line (flat) basis and payable monthly. The effective interest rate therefore comes to 17.2% which is still below the Prime Rates of the banks.

106. **Participating banks.** Only one of the two commercial banks, ADB, and the two rural banks, Sonzelle and Nandom RBs signed the sub-loan agreements to participate in the credit scheme. Because there was no bank operating in the Sissala district, ADB reopened its closed office in Tumu, the district capital, to extend services to cover the district. A new rural bank, Sissala RB was commissioned only in December 2004 and it has yet to complete the mandatory six months probation of newly commissioned rural banks from granting loans. The project did not train the officers of the PFI in microfinance management. The study tours of IFAD projects foreseen in the AR were not organised. All these have contributed to poor recordkeeping and reporting. ADB has sent all its pre-2004 records to its central archives and has not been tracking the operational income and expenditure of the portfolio separately since 2003. Total cumulative loans disbursed by the participating banks from 1998 to 2004 was €5.6 billion (Table 10). ADB disbursed the largest amount of €3.69 billion (66%) but only 40% of this amount went to women. Sonzelle RB disbursed 17% of the amount and Nandom RB 16%. The share of the loans that went to women in was 67% and 55%, respectively. Rating: 3.

Table 10. Cumulative disbursements by participating banks as at December 2004

Bank	Beneficiaries			Amount Disbursed			Female Share %
	Male	Female	Total	Male	Female	Total	
ADB	4 516	3 833	8 349	2 210.0	1 478.7	3 689.0	40.1
Sonzelle RB	818	2 231	3 049	311	641.1	953.0	67.3
Nandom RB	675	1 480	2 155	404.8	510.7	916.0	55.7
Total	6 009	7 544	13 553	2 925.8	2 630.5	5 558	47.3

Source: Evaluation calculation from project data

107. **NGOs.** The AR states (p. 22): "...project management would collaborate with locally-based NGOs and community-spirited individuals and groups wherever possible. Priority would be given to NGOs already established in the communities or with the capacity to expand their coverage." According to UWADEP management, they were unable to find NGOs with which to collaborate, and those existing in the region lacked capacity. Indeed, they were requested to hire the AEAs on a contract basis to do the same jobs when they have time.

108. There is a difference of views about the level and nature of collaboration with Wa-based NGOs. ADRA, Technoserve and Suntaa-Nuntaa appear to have a strong field programme and indeed have been working in many of the villages where UWADEP also has operations. UWADEP considers that much of their field programmes are carried out by MoFA staff. Rural Action Aid Project RAAP, an indigenous NGO based in the Jirapa District, is successfully collaborating with Sonzelle RB, yet its offer to be used by the project for group formation and training was turned down. Indeed, one community, Daffiama, rated ADRA sanitation and agricultural innovations significantly higher than those brought by UWADEP. Even more

sending a cheque to ADB, Wa for repayment without BoG being aware even though ADB Head Office is in the same building with BoG Treasury Department which is in charge of the project.

³³ The Committee arrives at the RRI through discussions and internal negotiations between the participating banks and the rest. The rates the participating banks charge for on-lending is similarly determined and is therefore not the rate that the participating banks normally charge their clients.

remarkably, one NGO, Plan Ghana, is building more up-to-date dams with water entirely piped, to conserve both water and landscape, in four sites in Sissala district, entirely outside the MOFA/UWADEP system. PRONET was the NGO concerned with excavation of hand-dug wells and in 2004 it was involved in the construction of 12 hand-dug wells on UWADEP sites. Its performance was generally satisfactory, and could be considered for future interventions.³⁴ Only two NGOs have been involved within the agricultural component, the SGA and Technoserve.³⁵ Rating: 5 [N.B. NGOs used by UWADEP have carried out their tasks professionally and in a timely manner. But the failure of the PSU to form the projected partnerships is not to be commended.]

VII. OVERALL ASSESSMENT AND CONCLUSIONS

109. **Unreliable data.** The evaluation found substantial gaps between the self-assessment of the PSU and the findings of the mission. Extensive field visits have helped establish the precise status of some interventions (for example Appendix 1 - Table 1) but numerical and impact data not checked by the mission should be treated with considerable caution. Partner organisations such as the participating banks similarly kept poor and contradictory records. The project had both major design faults and inconsistent supervision, making its overall success rating very low.

110. **Infrastructure.** Many of the dams rehabilitated under UWADEP are still not functioning, and some of those that are functioning appear to have major engineering problems. A high proportion of those were completed post-UWADEP with non-IFAD funds and much of the claimed irrigable area has been long cultivated via shallow wells that depend on seepage rather than water transport, dating from the era prior to the project. This points to long-term management problems in the PSU and also to weak supervision by GIDA and ultimately by UNOPS and IFAD. By contrast, the smaller-scale infrastructure components such as wells and feeder roads seem to have gone relatively smoothly.

111. **Rural finance.** The participating banks are heavily dependent on subsidy for sustainability and the poor portfolio qualities undermine the attainment of self-sufficiency. The project did very little to develop the human resource capacity of the participating banks. The capacity of the PSU to facilitate the operations of the participating banks was lacking. Moreover, no effort was made to link UWADEP's other components with credit group formation. The participating banks therefore found themselves lending to the poor at unattractive and prohibitive conditions. The project objectives have been variously achieved but there is still a strong unsatisfied demand for credit. One consequence is that farmers may increasingly seek credit from NGOs with more effective supervision and lower interest rates.

112. **The agricultural extension component** was highly diverse and has spent a very high proportion of funds on infrastructure for implementing agencies rather than field-level activities. Nonetheless, farmers considered some of its activities valuable, especially animal traction and improved livestock. But had the project designers and staff listened more acutely to farmers' clearly expressed wishes and taken more time to analyse the ecology, economy and farming systems of UWR, these resources could have made a great deal more difference.

³⁴ It is unclear why the interventions of PRONET were carried out so late in the project cycle, when they have been operating in UWR since 1994. Moreover, PRONET is part of the NGO network under Water Aid (an international NGO) and is in a position to share information with Rural Aid, which was excavating hand dug-wells and latrines in UER for LACOSREP II. This knowledge base would have surely been useful in UWADEP hand-dug well interventions.

³⁵ The SGA has been active in terms of production of certified seed and in welcoming new members, however difficulties in marketing of the certified seed and the high costs of processing for more remote and small members has led to a decline in membership since 1999. Technoserve was involved in the delivery of inventory credit within the project in 1999 and more recently in 2004 in improved sorghum production (funded by MoFA as project funds were all concentrated in structure completion).

Table 11. UWADEP Ratings

Project Performance		Impact on Rural Poverty		Performance of Partners	
Relevance	4	Physical & Financial Assets	3	IFAD	2
Effectiveness	2	Human Assets	2	UNOPS	3
Efficiency	4	Social Capital	5	Government	2
		Food Security	3	Research partners	3
		Environment	2	Contractors	1
		Institutions & Policies	1	Banks	3
		Overarching Factors		NGOs	5
		Gender	2		
		Sustainability	2		
		Innovation & Replicability	2		

Source: Ratings by the evaluation team (2005)

VIII. INSIGHTS AND RECOMMENDATIONS

A. Future Interventions?

113. **Further investment?** If IFAD is to consider further investment in UWR, then the evaluation of UWADEP undoubtedly suggests major rethinking of structural elements in project design. A key problem is that projects with so many components, but no clear integrative strategy, are open to activities being carried out with no linkages, with the consequence that management costs are high. The significance of delivering infrastructure in a timely manner cannot be overemphasised. No amount of training and sensitisation will compensate for this fundamental lacuna. Project design should consider sequencing much more carefully. Despite efforts to introduce greater clarity into contracting arrangements, the reality has been almost the reverse. A clear separation of roles and a diversity of consultants is mandatory.

114. **Considerations of equity.** UWADEP and comparable projects such as LACOSREP also raise broader concerns. Basing a development strategy on the rehabilitation of existing infrastructure risks perpetuating inequity. High priority should be given to investing in new sites. In UWR, where hunger remains widespread and may be increasing, bypassed communities need to be more clearly targeted. Stereotyped ideas about agricultural systems lead to the bypassing of many individuals and communities, and particularly discriminates against women. Similarly, credit is only of benefit to poor people when delivered in a timely manner. In an economy with high inflation, capital in banks is wasted if not put to use. Targetting of underprivileged groups such as the physically impaired was not in the UWADEP design, but some socially excluded have benefited anyway; this should now be considered an essential element in any further phase.

115. **What type of project?** In Ghana, in some sectors such as health and education, donors have started to fund multi-donor budget support initiatives. Although the pressure is not yet strong in the agriculture and water sector, the question is whether area development intervention deserve further funding. UWADEP illustrates that there is a very significant need on the ground for quite conventional projects that deliver services and inputs to impoverished farmers. It is yet to be demonstrated empirically that other formats can deliver the same benefits. Should IFAD decide to fund future investments, clearly a priority would be to improve the project concept and design. Another priority for IFAD and the Government would be to identify strategic partners. With its own resources only, IFAD's coverage will be inevitably limited.

B. The Project Concept and Design

116. **Better adaptation of components.** UWADEP developed from the models of URADEP and LACOSREP, rather than being designed to address the specific situation of the Upper West. This has been problematic, because its interventions are not necessarily those most valued by communities. For example, in a zone where mean annual rainfall is over 1 100 mm, dams are one of a wider range of options. Key areas of agricultural production, such as yams and tree-crops were not considered, although these provide cash income and also help communities bridge the food gap experienced by cereal growers, as well as reducing migration. Cash crops with poor storage such as tomatoes are a limited option when transportation is so

problematic. In addition, the components were poorly integrated at the design level and continued to be largely managed separately, with consequently high transaction costs.

117. Dams are one strategy in a basket of options for improving household incomes. Other options have been discussed in the report and are further presented later in this section.

118. **‘Workshop culture’ revisited.** The rhetoric of development, which demands a stream of awareness sessions, workshops, sensitisation for farmers *inter alia*, seems very misplaced in the light of the situation on the ground. Although there is regional variation, farmers are strongly tuned to the market system, are well aware of the likely benefits of social and technical innovation and regard their main problem as access and supply. For example, there is no evidence that it is necessary to train farmers in animal traction, nor to introduce to them its benefits. Farmers’ problems related to limited access to welding and repair facilities. Similarly, high intermediary costs make basic equipment relatively high-priced, and thus adoption is slow. Both of these could be easily and effectively addressed by a project with a quite different outlook, one that grew out of farmers’ concerns rather than top-down theory.

119. **Document, discuss and disseminate innovative good practices.** In principle, NGOs are not necessarily better than their official counterparts, but major NGOs in UWR are rapidly developing capacity to cover many of the same areas as government-based extension, and indeed are now competing head-to-head with international donors. Any future project design that does not recognise these realities would be highly problematic. There is a strong need for IFAD and MoFA to learn from innovative “good practices” emerging from other organisations, particularly NGOs in UER and UWR. Liaising between IFAD’s interventions and NGOs (and the international organisations funding them) should be part and parcel of future interventions. These innovative good practices should be documented and discussed not only at the regional level but also in national fora, perhaps taking the opportunity of the donor’s coordination group in the agricultural sector.

C. Implementation Support and M&E

120. **Project records and documentation to be improved for all components.** UWADEP appears at first sight to have a comprehensive record of its impact. However, many of the figures recorded turned out to be inaccurate. Clearly an accurate record of activities is essential to all types of review and assessment and is essential if IFAD is to assess the overall efficiency of its projects.³⁶

121. **Pro-active supervision and review.** The MTR was delivered late, but even so, it is evident that most of its recommendations were not taken into consideration by the PSU. The PSU needs to be more pro-active and so do IFAD and the Cooperating Institution in enforcing compliance. Similarly, the fragmentation of UNOPS supervision did not make for a smooth feedback between report and action. However, many of the suggestions in the supervision reports were similarly passed over in silence. Many of the problems highlighted in this evaluation should have been brought to the surface much earlier in the project.

D. Agriculture

122. **Seed production.** Provision of inventory credit to seed producers within small groups at district level would assist greatly in stabilising seed production capacity. Marketing is a key constraint for all growers and the varied nature of the market makes it hard to predict prices. Linking smaller, more homogeneous groups of seed producers to banks has a greater likelihood of success in terms of avoiding default. Centralisation of seed processing in Wa is a key constraint mentioned by more remote growers.³⁷

³⁶ In addition, record-keeping in UWADEP collaborating institutions, notably the banks, has been extremely weak, and considerable time has been spent tracking down information and conducting field checks leading to revisions of M&E data.

³⁷ The project had provision to purchase a mobile seed processing unit, but a failure to meet targets in terms of numbers of seed growers recruited led to a hold placed on expenditure by the UNOPS supervision missions. This was ill-advised with regards to both the mobile processor and 3-ton truck, as these are crucial components to facilitate decentralised production.

123. **On-farm adaptive research.** Despite the rhetoric of participation and ‘demand-led’, on-farm research as practised by the project is surprisingly similar to the testing of a package of improved technologies under farmer conditions. The almost universal use of organic manure by farmers, limited practice of composting and difficulty in affording and accessing fertilisers was not reflected in trial designs. More attention needs to be paid to women’s crops (such as vegetables) and cropping systems, where there is little use of chemical fertilisers. Farmers have been experiencing the financial consequences of flooding the market and are diversifying into unfamiliar crops such as garlic and oil palm, without encouragement or interest from the project. Such diversification (which is possible in the higher rainfall zone) should be an essential component of future investment. Creating gardens adjacent to rivers using small pumps or lifting water by hand is widely practised in the region. As it is already familiar to the farmers in the area, adaptation would not pose any major problems and would cost considerably less.

124. **Animal traction.** Farmer’s requirements with regard to animal traction tools (for example ridge weeder and robust furrow weeder) should be included in selection of tools made available. Tools and carts for donkeys are being requested by farmers and should be supplied alongside those suited to oxen.

125. **On-farm demonstrations and matching demand with supply.** Focus on a single on-farm demonstration of application of SSP to groundnut led to limited impact because of the unavailability of the fertilizer and farmers’ inability to afford fertiliser inputs following withdrawal of the project. Appropriate areas for demonstrations include improved manure storage and composting techniques, soil and water conservation, and control of *striga* through the use of compost and rotations. Farmers’ ability and interest to experiment and evolve appropriate local technologies should be fostered and supported. There was no linkage between farmers demand for improved seed and supply by the SGAs. While AEAs advise and promote use of improved varieties and certified seed, they do nothing practically to link farmer demand with supply. During field visits, farmers invariably asked about seed availability, suggesting that knowledge and awareness is not lacking, but access and availability is.

126. **Livestock.** Introduction of 50% Sahelian improved stock would enable a greater number of farmers to take advantage of the intervention more quickly. As the 100% improved stock do not survive for long under the traditional husbandry system, the approach would be more popular with the majority of farmers.

127. **Tuber crops: an additional area for inclusion.** Despite their importance in the local economy, their expanding production and their capacity to bridge the ‘hungry season’ and the existence of the IFAD RTIP project, tuber crops have been virtually ignored. Yam and frafra potatoes have a good local market and in the case of yam, very good external markets. Agroforestry systems may be particularly suited to the region and help introduce permanent cropping alongside annual cropping to improve both production and income levels. Indigenous agroforestry systems based on the cultivation of yams and vegetables below certain trees, such as locust (*Parkia biglobosa*), neem (*Azadirachata indica*) and acacia (*Acacia albida*) are a local response to soil fertility constraints and are worth investigating for wider application.

E. Rural Finance

128. **Supporting financial institutions.** As in several projects built around the ‘traditional’ view, rural financial institutions in UWADEP have been seen as a mere conduit to provide an input (credit) to farmers. Institutional strengthening of financial institutions has not been seen as a priority.³⁸ Future interventions should take stock of good practices and selectively assist promising financial institutions (such as Sonzelle RB). There is a recent tendency for donors to support programmes dedicated exclusively to rural finance.³⁹ If this approach is retained, then the issue of coordination and dovetailing with agricultural interventions should be considered very carefully.

³⁸ In spite of this, Sonzelle RB has been able to enforce good credit discipline and attain operational (although not financial) self-sufficiency.

³⁹ IFAD is currently financing a rural finance programme in Ghana. However, the mission does not have sufficient knowledge and an assessment of the same is beyond the scope of the present evaluation. Any conclusion on that approach should be made only after a thorough assessment or evaluation.

129. **Predatory competition in a poorly regulated environment.** There are a wide range of credit facilities available when District Assembly Fund, international NGO and local NGO activities are considered. Specifically, a large number of organisations are involved in inventory credit and credit for agricultural inputs and all offer credit at different rates.⁴⁰ This spectrum of rates may well have the effect of encouraging indecision among farmers intending to invest for the future. Without some region-wide co-ordination, market-led microfinance cannot succeed, as it will be out-competed by politically and socially motivated interventions.⁴¹

F. Water and Infrastructure

130. **Construction of small-scale dams** is relatively cheap⁴² and improves life for poor people living under adverse conditions as well as incorporating an element of social protection. New dams and rehabilitations should be part of an integrated strategy that takes account of social equity issues. Dams also provide an alternative to high seasonal migration which should thus be factored into decisions about what and where to construct. Nonetheless, they represent one strategy in a basket of options for improving household incomes.

- **Quality control and phased contracting of consultancy services.** A quite different approach should be considered in future. Opening the consulting to a wide range of professional companies should be non-negotiable. Services should be segregated into the phases according to the project implementation schedule and contracts signed separately, subject to satisfactory performance.⁴³
- **Validation of design and participatory monitoring by stakeholders.** A validation forum should be organised after completing the designs and before the construction commences at the project site. This should be followed with regular meetings to review the work progress. Validation fora should involve MoFA, district assemblies, consultants, contractors and WUAs. Payment schemes for work supervision to the consultant should include performance incentives, instead of lumpsum that are not related to work progress.
- Recognise that irrigation infrastructure needs maintenance, some of which is beyond the capacity of WUAs. This should be reflected by realistic budgeting.

⁴⁰ This variation is probably well known to most farmers who will hold out for low rates such as 10% under ADRA AT component, and 10-14% offered by District Assemblies at times, rather than the 32% in 1999 under the UWADep AT component, or 35% on inventory credit.

⁴¹ Sustainability depends very much on the participating banks' profitability which is based on financial income, operational costs and loan loss provision. Issues raised in this report include the following: (i) market interest rates must be enforced to cover the product cost; (ii) BoG is to ensure that the market is not distorted for social reasons; (iii) participating banks should interview defaulting groups with the view to rescheduling the loan repayments for un-wilful defaulters; (iv) the 2% for Risk Fund premium does not serve the purpose in any effective way. It therefore has to be dropped to reduce costs to the beneficiaries; (v) training the participating banks and credit supervisor in microfinance institutions performance monitoring using CGAP standards will improve appropriate record keeping by the participating banks.

⁴² Calculations based on dams constructed under LACOSREP show that optimal size for machinery-based dams in ca. 6 ha, which will cost some USD 3 000/ha in 1994 dollars. The optimal size of labour-based dams is around 20 ha, and the cost ca. USD4 500/ha (Kranjac, 2005).

⁴³ Proposals should be sought from other qualified consultants to compete for the assignment in the downstream phase even where consultant has performed satisfactorily. Procurement of services should be in line with the Public Procurement Act No. 663 (2003).

APPENDICES

ADDITIONAL DATA TABLES

Appendix 1 - Table 1. Dam sites and irrigable area, proposed and actual at close of project and by June 2005

Dam Site	District	Initial award for rehab	Year of completion	Planned irrigable area (ha)	Previous ha (non-UWADEP) irrigated area	Additional ha irrigated by close of project June 2004	Additional irrigated by June 2005 (ha)	Other information relating to use
Han	Jirapa/Lambrusi	1999	2005	10	3.6	0	6.4	Irrigation canals completed in April 2005. To be used for first time in October 2005
Jirapa	Jirapa/Lambrusi	Oct 2003	Apr 2004	5				
Pina	Jirapa/Lambrusi	Jan 2004	Apr 2004	10				
Tizza	Jirapa/Lambrusi	Oct 2003	Apr 2004	10				
Chaare	Jirapa/Lambrusi	Jan 2004	Apr 2004	4				
Karni	Jirapa/Lambrusi	1997	1998	10	6.7	3.3?		6.7 ha only cultivated 2001/2 and 2002/3. Water not well distributed, some wasted. Main canal deteriorating, needs repairs/relocation.
Babile	Lawra	1998	1999	2		2		In operation by 2001/2 2.2 ha cultivated
Daffiama	Nadowli	Oct 2002	not completed	13		0		Main canal not yet operational. All irrigation presently provided by hand-dug wells. Problems with main canal which is damaged and leaking.
Jang	Nadowli	1997	1998	Dug out				
Samambo	Nadowli	1999	1999	2		?		Couldn't cultivate during 2001/02/03 due to problem with main valve.
Sankana	Nadowli	1998	1999	20		7.5		2001/2 Poor flow water due to problems with the main canal. 122 cultivating in 2002/3 on 7.5 hectares
Banor	Sissala	Oct 2002	Apr 2004	Dug out				
Bullu	Sissala	1999	1999	10		?Actually irrigated		2001/2 13.3 ha No water by March. One crop achieved. 2002/3 only 3.5 ha cultivated, problem with positioning of main valve.
Kong	Sissala	Oct 2002	not completed	9		0		Dam was rehabilitated partially by a Chinese firm that left without completing rip-rap, laterals, and damaging the main. Design gives problems with the flow in the main canal, and does not provide any measure to stop water flowing freely at the end of each lateral.

Dam Site	District	Initial award for rehab	Year of completion	Planned irrigable area (ha)	Previous ha (non-UWADEP) irrigated area	Additional ha. irrigated by close of project June 2004	Additional irrigated by June 2005 (ha)	Other information relating to use
Sorbelle	Sissala	Oct 2003	not completed	5		0		This dam is in danger of water overtopping the embankment after the first seasonal rains. This already happened in 2004. Pipe system is partially completed. Design of tanks for minimising water use seems very inappropriate giving fact that it is a water logged area with severe seepage under the dam wall aggravated during rehabilitation by borrowing material directly downstream the dam wall.
Wellembele	Sissala	1998	1999	10		6		Cultivate two crops every dry season in addition to main rainfed season. Farmers urgently require training in irrigation scheduling 2001/2 8 ha cultivated when some laterals not yet connected to main canal. Connected by 2002/3 10.3 ha cultivated. Actually irrigated from canals only 6 ha
Baleofilli	Wa	2002	Apr 2004	10	5	0		To be cultivated for the first time using irrigation canals in October 2005. Many cracks in the main and laterals currently repaired by farmers
Busa	Wa	1997	1998	10	8	2		270 farmers cultivating on 12 ha, 2002/3
Ducie	Wa	Oct 2002	Apr 2004	3				
Kundungu	Wa	1997	1998	Dug out				
Pingbenben	Wa	Oct 2002	Dec 2004	6		0		To be cultivated for the first time using irrigation canals in October 2005. Many cracks in the main and laterals currently repaired by farmers
Tanina	Wa	Jan 2004	not completed	3		0		Pipe system is partially completed. Dam breached after rehabilitation and has been repaired.
Total				154		23.3 on sites visited		

Source: site visits during mission by Gordana Kranjac and Roger Blench

Appendix 1 - Table 2. Planned and implemented irrigation UWADEP irrigation infrastructure

District	Planned rehabilitation Interventions by UWADEP	Planned irrigable area (ha)	Actually implemented rehabilitation projects	Potential irrigable area on implemented irrigation projects
Wa	6	70	5	32
Sissala	5	43	4	36
Jirapa/Lambussie	4	38	5	39
Nadowli	3	38	3	35
Lawra	2	31	2	12
Total	20	220	19	154

Source: GIDA Technical Review, June 2005

Appendix 1 -Table 3. Features of completed UWADEP dam rehabilitations

District	Project name	Year of original construction	Project fully functional after rehabilitation	Field estimates of irrigable area actually added through rehabilitation
Wa	Busa	1956	2001	2
Nadowli	Babile	1988	2001	2
Jirapa/Lambussie	Karne	1989	2001	3.3
Sissala	Wallembele	1989	2001	6
Nadowli	Sankana	1969	2001	7.5
Total				20.8
Average				4.16

Source: GIDA technical report, IFAD evaluation mission field visits, June 2005

Appendix 1 -Table 4. Community and women participation in UWADEP interventions – May 2004

No	Community	District	Executive Committee membership			WUA membership		
			Male	Female	Total	Male	Female	Total
1	Busa	Wa	21	9	30	200	240	440
2	Duccie		11	5	16	315	120	435
3	Pingbengben		4	3	7	45	54	99
4	Baleofilli		6	3	9	71	32	103
5	Tanina*		9	5	14	297	84	381
6	Kundugu		5	4	9	44	4	48
Sub-total Wa District WUAs			56	29	85	972	534	1 506
7	Sankana	Nadowli	15	4	19	33	10	43
8	Saamanbo		7	2	9	81	29	110
9	Daffiama		14	1	15	47	19	66
10	Jang**		16	0	16	235	3	238
Sub-total Nadowli District WUAs			52	7	59	396	61	457
11	Karni	Jirapa/ Lambussie	9	3	12	81	14	95
12	Han		13	2	15	133	58	191
13	Tizza		17	11	28	245	187	432
14	Jirapa		9	3	12	89	33	122
15	Pina		11	2	13	321	72	393
16	Chaare*		10	0	10	341	74	415
Sub-total Jirapa/Lambussie WUAs			69	21	90	1 210	438	1 648
17	Babile		8	1	9	63	15	78
Sub-total Lara District			8	1	9	63	15	78

No	Community	District	Executive Committee membership			WUA membership		
			Male	Female	Total	Male	Female	Total
18	Wallembelle	Sissala	9	1	10	76	51	127
19	Bullu		6	2	8	120	80	200
20	Kong		9	5	14	97	41	138
21	Sorbelle		7	5	12	83	27	110
22	Banor**		5	2	7	149	21	170
Sub-total Sissala District WAUs			12	7	19	232	48	280
Grand total			221	73	294	3 166	1 268	4 434
(%)			75.2	24.8	100.0	71.4	28.6	300.0
* = dugouts upgraded to dams ** = dugouts								

Source: GIDA Technical Report, June 2005

Appendix 1 - Table 5. Loan disbursement by bank by activity (€)

Activity	ADB	Sonzelle	Nandom	Total	%
Rain fed Crop Farming	2 400 233 000	912 700 000	321 590 000	35 445 230 000	64
IGA (Processing)	913 250 000	40 000 000	683 988 000	1 637 238 000	29
Inventory	250 276 075	-	-	250 276 075	5
Animal Traction	124 905 000	-	-	124 905 000	2
Total	3 688 664 075	952 700 000	100 578 000	37 457 639 075	

Appendix 1 -Table 6. Cumulative Releases from RCF to and disbursements by participating banks (€)

YEAR	ADB	Sonzelle	Nandom	TOTAL
1997	180 566 000	-	-	180 566 000
1998	461 835 750	43 400 000	40 800 000	546 035 750
1999	236 500 000	30 000 000	22 450 000	288 950 000
2000	218 595 000	92 000 000	31 000 000	341 595 000
2001	500 000 000	138 500 000	94 382 000	732 882 000
2002	515 000 000	301 800 000	172 550 000	989 350 000
2003	-	106 000 000	110 000 000	216 000 000
Total Provisioning	2 112 496 750	711 700 000	471 182 000	3 295 378 750
Disbursements to Clients	3 115 496 750	916 700 000	552 182 000	4 584 378 750
Outstanding due to Participating banks 2004	1 003 000 000	205 000 000	81 000 000	1 289 000 000

Appendix 1 - Table 7. Feeder roads, planned and actual

Category	Planned	Actual	% target
Road rehabilitation	20	64.8	
Spot improvement	80	173.6	
Road graveling	40	58.2	
Routine maintenance	0	290.0	

Source: Impact Assessment of Feeder Roads, June 2003¹

¹ The Department of Feeder Roads supplied the team with figures at variance with these.

Appendix 1 - Table 8. Number of seed growers within SGA

Year	Maize	Cowpea	Sorghum	Soya bean	Groundnut	Total
1998	5	15	6	14	10	50
1999	11	8	8	24	21	60
2000	10	5	9	20	4	48
2001	6	10	9	20	4	49
2002	12	5	4	15	—	36
2003	10	3	5	12	—	30
2004	10	5	5	10	—	30

GSID records, Mr Omah, 2005.

Appendix Table 9. Percentage seed rejection rate

Year	% Rejection rate
1998	37.4
1999	11.8
2000	8.2
2001	13.5
2002	17
2003	19
2004	19

Supplied by GSID, June 2005

Appendix 1 - Table 10. Improved Sahelian Ram distribution and recovery of 50% offspring

District	1998			1999			2002		
	Distributed	Recovery		Distributed	Recovery		Distributed	Recovery	
Wa	39	25	64	36	25	69	35	20	57
Nadowli	18	10	56	20	12	60	27	16	59
Jirapa/ Lambussie	28	12	43	20	12	60	25	14	56
Lawra	13	9	69	19	11	58	27	14	52
Sissala	29	15	52	20	14	70	25	10	40
Total	127	61	56	115	74	64	139	74	53

Source: p.c. Dr Hansen, Regional Veterinarian, June 2005

Appendix 1 - Table 11. Improved Sahelian buck distribution and recovery of 50% offspring

District	1998			1999			2002		
	Distributed	Recovery	%	Distributed	Recovery	%	Distributed	Recovery	%
Wa	23	16	70	12	9	75	29	16	55
Nadowli	4	1	25	8	5	63	25	10	40
Jirapa/ Lambussie	14	9	64	8	5	63	25	12	48
Lawra	4	3	75	9	7	78	25	12	48
Sissala	0	0		8	4	50	25	14	56
Total	45	29	64	45	30	67	129	64	50

Source: p.c. Dr Hansen, Regional Veterinarian, June 2005.

Appendix 1 - Table 12 A. Cost of UWADEP/FABS interventions

District	Project	Year of original construction	Projected irrigable area after completion (ha)	Status	
Jirapa	Jirapa	1978	5	not visited	
Wa	Tanina	not available	3	work in progress	
Jirapa	Chaare	not available	4	not visited	
Jirapa	Tizza	1968	10	not visited	
Jirapa	Han	1985	10	completed 2005	
Jirapa	Pina	1983	10	not visited	
Tumu	Sorabelle	1982	5	work in progress	
Total			47		
Average			6.71		

Source: GIDA Technical Report, IFAD evaluation mission field visits June 2005

Appendix 1 - Table 12 B. Cost of interventions in cedis

District	Project	Funds from IFAD	FABS funds	Total	Cost /ha \$ 1994 to date
Jirapa	Jirapa	322 474 999	378 345 600	700 820 599	1 662.93
Wa	Tanina	288 072 900	488 282 800	776 355 700	3 070.26
Jirapa	Chaare	275 529 575	375 361 500	650 891 075	1 930.57
Jirapa	Tizza	636 622 201	549 606 900	1 186 229 101	1 407.36
Jirapa	Han	186 819 183	227 180 000	413 999 183	491.17
Jirapa	Pina	529 694 813	561 152 600	1 090 847 413	1 294.19
Tumu	Sorabelle	490 020 550	358 453 400	848 473 950	2 013.28
Total		2 729 234 221	2 938 382 800	5 667 617 021	
Average		389 890 603	419 768 971	809 659 574	1 430.67

Source: UWADEP PSU, June 2005

Appendix 1 - Table 13. Financial Status of three WUAs in UWR in April 2005

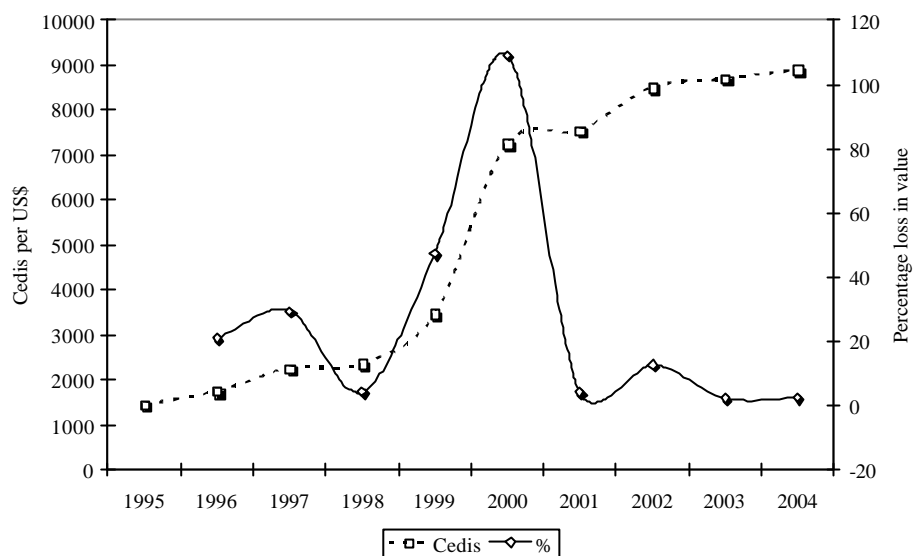
District	Name of WUA	Bank	Bank Balance (¢)	Bank Balance Per Capita (¢)	Bank Balance (USD)*	Bank Balance Per Capita (USD)
Nadowli	Sankana	Sonzele Rural Bank	1 300 000.00	30 233.00	143	3.32
Jirapa - Lambussie	Karni	Sonzele Rural Bank	332 000.00	1 333.00	36	0.15
Lawra						
Wa	Tanina	ADB, Wa	645 544.00	1 694.00	71	0.19
Total			2 277 544.00		250	
Average			759 181.00		83	
Grand Total			14 366 279.39		1579	
Average			1 596 253.00		175	
Babile WUA in Lawra could not locate the bank passbook; neither could it give its financial status.						

Source: Aboagye (2005) Exchange Rate – USD 1 = ¢ 9,100

Appendix 1 - Table 14. Perceived changes in life since 1995 in UWR

Life-changes	Frequency	
	No.	%
More education for children	52	39.1
Better health-care	45	33.8
More material possessions	42	31.6
Lower crop yields/poor soil fertility	27	20.3
Lack of cash to pay for needs	19	14.3
Better crop production	19	14.3
More hunger	18	13.5
Unable to pay for medicine/no health care	16	12.0
More cash-crops	16	12.0
Improved sanitation	9	6.8
Widespread livestock disease	6	4.5
Less community spirit	5	3.8
Greater community spirit	5	3.8
Reduced hunger	4	3.0
High migration levels	3	2.3
Women have greater access to trading	1	0.8
Reduced access to water	1	0.8
Poor trading conditions	1	0.8
More domestic animals	1	0.8
Total number of persons interviewed =133		

Appendix 1 - Figure 1. Dollar-cedi exchange rates since 1995



Source: <http://www.oanda.com/convert/fxhistory>

Terms of Reference of the Mission and Its Composition
Approach Paper - Interim Evaluation
Republic of
Ghana
Upper East Region Land Conservation and Smallholder Rehabilitation Project, Phase II; and
Upper West Agricultural Development Project

I. Rationale and Objectives of the Evaluations

1. Given the interest of both the Government of Ghana and IFAD's Western and Central Africa Division (PA) to proceed with further investments in the regions, in accordance to the IFAD Evaluation Policy, in 2005 the Office of Evaluation (OE) of IFAD will conduct *Interim Evaluations*¹ of (i) the Upper East Region Land Conservation and Smallholder Rehabilitation Project - phase II (LACOSREP II); and (ii) the Upper West Agricultural Development Project (UWADEP). The ultimate goal of the exercise is to provide an accountability and learning tool for the main stakeholders. More specifically, the evaluations will:

- Assess: (i) the relevance of project objectives to the rural poor, the country and IFAD strategies²; (ii) the extent to which these objectives were achieved and the efficiency of the intervention; (iii) the intended and non-intended impact of the project on rural poverty and the prospects for sustainability; and (iv) the performance of partners involved in the project design and implementation.
- Contribute to take stock of the achievements to enhance the effectiveness of future interventions by providing a constructive set of insights and recommendations in consultation with the partners (including IFAD, the government agencies and the cooperating institution).

2. The exercise will seek to strike a balance between, the need of accountability and of strengthening the 'learning loop' by placing emphasis on building trust with the evaluation partners. The two interim evaluations will be initiated in the first quarter of 2005 and undertaken within the overall framework of the Evaluation Policy. The evaluations will be concluded by November 2005.

II. Country and Projects Background

3. Located in West-Africa, bordering with Cote d'Ivoire (West), Burkina Faso (North), Togo (East) and the Atlantic Ocean (South), Ghana has an estimated population of 20.5 million, of which 63% rural. The total fertility rate (TFR) is estimated at 4.1 (5.8 is the average for West Africa), with an average annual population growth of 2.0% and a life expectancy at birth of 55 years (50 is the average for West Africa). The structure of the economy is characterised by a large (in relative terms) services sector (42% of the total GDP, compared to 34% for agriculture and 24% for industry). It has an annual GDP per capita of US\$ 304 and GDP growth has averaged 1.8% in the last ten years (i.e. below population growth)³. Agriculture continues to be the mainstay of the economy, employing about 60% of the labour force. Cocoa is the major export crop, followed by timber and non-traditional products such as horticulture, fish/sea foods and pineapple. The agricultural sector is vulnerable to shocks caused by fluctuations in world commodity prices and to plant diseases. Ghana is classified as 131th out of 175 countries, according to the UNDP Human Development Index (2003). The percentage of households below US\$ 1 per day has been estimated at 44.8%, and the

¹ According to the Evaluation Policy of IFAD, an Interim Evaluation is a mandatory exercise undertaken at the end of a given programme phase, before the approval of the next phase. The IFAD Evaluation Policy is available at <http://www.ifad.org/evaluation/policy/index.htm>

² Key documents in this sense include the Ghana PRSP, IFAD Country Strategic Opportunities Paper (COSOP) of 1996, the IFAD Regional Strategy for West and Southern Africa.

³ Figures and information have been drawn from the UNDP Human Development Report 2003, the World Bank World Development Indicators 2004, and the EIU Ghana Country Profile for 2004.

percentage of poor households according to a national poverty line at nearly 40% (WB, 2002). There is a moderate prevalence of stunting (25%) among children 0 to 5 years.

4. **Background of the project areas.** The Upper East Region Land Conservation and Smallholder Rehabilitation Project phase II (LACOSREP II) is located in the Upper-East Region (UER), the smallest region of Ghana (slightly over 3 % of the total land area), with an estimated 1.2 million people (80% is employed in agriculture) and the highest population density in the country (115 persons/km²). The UWADEP project is situated in the Upper-West Region (UWR), north-west corner of Ghana, with an estimated total population of 600,000, of which about 90% is rural. UWR is one of the poorest regions of Ghana, with an annual per capita GDP of US\$ 170. UWR has abundant land both for crops and livestock and much lower population density; yet, rainfed crop production is hampered by an increasingly erratic rainfall pattern. Access to markets and off-farm opportunities is constrained in both UER and UWR by poorly maintained feeder roads and lack of transportation services. According to the Ghana Living Standards Survey, the percentage of the population living in poverty is 84% and 88% in the Upper West and Upper East regions respectively⁴.

5. **Project data.** The Upper East Region Land Conservation and Smallholder Rehabilitation Project, Phase II (LACOSREP II) was approved by the IFAD Executive Board in April 1999, became effective in January 2000 and will close in September 2005.⁵ The total project cost is USD 13.9 million, out of which IFAD has provided a loan for USD 11.5 m. As of January 2005, 68 % of the total loan amount had been disbursed. The Upper West Agricultural Development Project (UWADEP) was approved by the IFAD Executive Board in September 1995, became effective in March 1996 and closed in December 2004. Total project cost is USD 11.3 million, out of which IFAD provided a loan for USD 10.0 m. As of 25 August 2004, the disbursement rate reached 94.64 % of the total loan amount. IFAD is the only international financier of the two projects. Both are supervised by the United Nations Office for Project Services (UNOPS).

6. **Project design and objectives.** The two regions differ significantly in terms of population density and pressure on natural resources. Yet there are considerable analogies in the design of the two projects. Both aim at improving food security and increasing the income of smallholders in the regions and have similar components, including: (a) capacity building to strengthen project delivery and management skills of key implementing agencies; (b) water resources development (rehabilitation of dams, formation and support to Water Users Associations, catchment area protection, and demonstration/promotion of manually-operated tube wells); (c) agricultural development, including a programme of farmer training and demonstrations, support technology generation and research/studies, marketing and processing, and livestock development; (d) promotion of income generating activities through the supply of rural financial services; and (e) rural infrastructure comprising rural road rehabilitation and the construction of hand-dug wells for potable water and latrines. According to the appraisal reports, the targeting process would start with the selection of communities (based on community demand, feasibility technical surveys and participatory wealth-ranking methods) and would be inclusive (i.e. no restriction to participation, based on income or assets) for all households within the selected communities.

III. Evaluation Approach and Methodology

7. The evaluations will follow the IFAD Methodological Framework for Project Evaluation (MFE), which includes three main evaluation criteria and a series of key questions. The three criteria are: (a) rural

⁴ Income-based estimates, Ghana Poverty Reduction Strategy, 2003. Usual caveats on income-based estimates for rural areas apply also to this case.

⁵ In 1996 the Office of Evaluation (OE) of IFAD carried out the Interim Evaluation of the first phase of LACOSREP. It expressed a number of recommendations, including: (a) the need to develop and strengthen the Water Users Association concept; (b) irrigation technologies to maximise the effective use of water and thereby maximise irrigation area; (c) IFAD to support existing institutions conducting research programmes; (d) lack of funding should not hinder the livestock component; (e) formal credit institutions should continue to play an active role in loan delivery to target groups; and (f) an overall M&E programme should be prepared for the second phase of the project.

poverty impact; (b) performance of the project, including an assessment of the relevance of project objectives, efficiency and effectiveness; and (c) performance of key partners, including IFAD, the Government of Ghana along with the relevant departments at the various administrative levels, and the concerned grassroots organisations involved in project operations. The evaluations will also pay emphasis to assessing the contribution of the projects to IFAD's policy dialogue efforts, partnership building, and promoting innovative approaches that can be replicated and up-scaled.⁶

8. The evaluation of the **impact on rural poverty** will encompass six domains of impact (when applicable to the projects): (i) household assets (physical and financial), (ii) human assets (education and health), (iii) social capital (people's organisations, social network and empowerment), (iv) food security, (v) environment and natural resources and (vi) institutions and policies. Over-arching factors to be considered across these domains are: sustainability, innovation/replicability and scaling up, and gender and women empowerment.⁷

9. The above will require some analysis at the macro, meso and micro (household) level. First, the evaluation will briefly review the agricultural development policies and the regulatory framework in the small-scale irrigation sub-sector and in the rural finance sector at the national level, the extent to which they were providing "compatible incentives" to enhance the performance of the programme, the consistency of the programme design to the existing policies and strategies in the rural sector and, conversely, the programme's contribution to the sub-sectoral policies (i.e. the changes that it induced at the national policy level and its coordination with programmes supported by other donors). The evaluation will also take into account the decentralisation framework in which the two projects have operated.⁸

10. Second, the evaluation will focus on the meso level. The latter comprises (i) community organisations, (ii) local (i.e. regional / district) government agencies and (iii) banks. At the community level supported or created by the programme (meso-level), such as the water users associations (WUAs) and seed growers associations. In particular, concerning WUAs, the issues to be considered will comprise: (i) the steps taken in supporting WUAs (e.g. uniform upgrading from informal to formal associations vs more flexible approaches); (ii) the effectiveness of their governance structure (motivation and legitimacy of management committees, their ability to diagnose and respond to needs and problems, conflict prevention and resolution); (iii) their outreach (breadth, poverty depth, women's participation), (iv) the services offered (and their relevance/acceptance to the members); (v) their financial sustainability (capacity to cover part of the recurrent and rehabilitation costs); and (vi) effectiveness in the management of natural renewable resources (e.g. soil conservation). Another aspect of the meso-level analysis pertains to the capacity building for regional and district-level project implementation agencies (e.g. improved ability to interact with poor communities in a truly participatory manner and provide services that are adapted to local conditions and constraints). Regarding banks, the evaluation will adopt standard CGAP tools to assess the quality of their credit portfolio, efficiency, profitability and suitability of financial products to clients' needs.

11. Third, the evaluation will study the changes in households' welfare that can be attributed to the programme.⁹ The evaluation team will respond to the questions included in the MFE, adapting them as required so as to meet the specific circumstances of the two projects (e.g. Box 1). Sustainability, innovation and replicability of interventions will be overarching issues to be considered.

⁶ Attention will be paid to a new approach for supporting communities, now being tested in the IFAD-funded Northern Region Poverty Reduction Programme (NORPREP) and that may be considered for replication in the Upper East and Upper West Regions.

⁷ A complete list of impact questions is provided in the MFE.

⁸ To the extent possible, reference will be made to the lessons learned from a recent IFAD thematic evaluation on decentralisation in Eastern Africa.

⁹ With very few exceptions, the contribution from an individual programme is only partially separable from other changes generated by other interventions in adjacent areas or from other transient or structural changes in the local socio-economic context. In spite of this inevitable and universal limitation, it is expected that some "weight" could be attributed to the implementation of SCP-II.

Box 1. Specific Evaluation Questions

- To what extent were the various project components (irrigation, extension, livestock development, rural finance and infrastructure development) integrated during implementation to maximize results, i.e. working in synergy rather than in isolation?
- To what extent has the project been pro-active/efficient in reaching very poor households? How was the process of identification of the target group (communities and households) carried out, and did affect the cohesion of village communities?
- What was the process of creation of water users' associations (participatory? inclusive of all household segments?) Were traditional water management associations taken into account?
- To what extent can the water management approach be considered efficient and sustainable? Are related maintenance costs bearable by the WUA, or by the regular budget of Government agencies?
- Were research and extension activities in line with farmers' needs? What methodologies have been used for extension services, and to what extent have these been adapted to the needs of rural households and developed in consultation with farmers?
- Did the project contribute to improved access to financial services? What financial services were offered to farmers (loans, savings, insurance) and to what extent did they match the clients' needs (e.g. seasonal cash flow)? Did lending methods ensure repayment discipline and were financial operations profitable (net of subsidies)?
- Were the projects successful in promoting food security? To what extent was the project effective in improving risk management strategies to ensure adequate food supply to households across seasons?
- Did the project contribute to improving opportunities for market access (physical access, information, storage of products)?
- To what extent was the project effective to ensure women's participation during design and implementation, and what degree of development was achieved for poor women?

12. The evaluation of the **programme performance** will involve the assessment of (i) the relevance of the programme's objectives (i.e. was it justified to apply a similar project design in two different agro-ecological contexts? Were the project objectives consistent with the needs of the rural poor, and did they adapt to changing priorities?); (ii) the effectiveness of the intervention (were the major objectives reached at the time of the evaluation?); (iii) the efficiency (to what extent did the programme achieve, or is expected to achieve, benefits that are commensurate to inputs, based on costs of alternative options and good practices?) to be measured in terms of cost of service provision per household, but also with some analysis of economic internal rates of return for a sample of schemes; and (iv) the sustainability of the programme (the foreseen capacity to provide services to the intended users after its official closure).

13. The latter issue would comprise the following inter-related notions: (i) the technological dimension (e.g. the cost per ha and the rate of obsolescence / depreciation of the small dam irrigation infrastructure); (ii) the capacity of management committees of WUAs to maintain high level of motivation and enforce rules among members; (iii) the setting up of mechanism to negotiate and settle disputes over the use of water with other (upstream and downstream) communities of users; (iv) the capacity of WUAs to continue raising adequate financial resources to cover maintenance / rehabilitation costs; (v) the adoption of medium / long-term soil conservation practices to maintain fertility, and control the risk of soil loss, siltation and salinisation; and (vi) the elaboration of an exit strategy to progressively reduce (although perhaps not eliminate) the reliance on public service for the provision of inputs and extension services and support to market access.

14. The evaluation of the **performance of partners** will analyse to what extent IFAD and the programme implementation agencies ensured a sound programme design, facilitated stakeholder participation, effectively supported implementation, and provided for participatory evaluation, learning partnerships and adoption of lessons. Attention will be given to the assessment of the supervision provided by UNOPS in terms of: (i) timeliness and frequency of supervision missions; (ii) mix of expertise and analytical skills; (iii) balance in the attention devoted to the monitoring of procedural requirements (e.g. procurement and audit), of physical outputs and the assessment of impact achievements; (iv) adequacy of geographic

coverage; and (v) effectiveness in formulating and following up recommendations. The overall quality of partnership will also be assessed.

15. In order to keep a balance in the analysis, it will be very important to take into account the objective difficulties and institutional constraints in which all partners (the Government of Ghana, IFAD and UNOPS) have been operating during project design and implementation.

16. **Sources.** The sources of the findings will be based on a “triangulation” of evidence from

- a. desk review of the available programme documents and socio-economic literature;
- b. review of secondary data;
- c. the collection of primary data (quantitative and qualitative);
- d. interviews with staff and key informants.

Primary data will be collected during the mission, through a mix of focus group discussions, case studies and a mini-survey (about 200 – 300 households). The detailed primary data collection methodology and tools will be defined at the time of the reconnaissance mission (see below).

IV. The Partnership Involved and the Evaluation Process

17. IFAD’s Evaluation Policy, while underscoring the need for independence, recognises the importance of adequately involving the main stakeholders throughout the evaluation process. This is fundamental in order to ensure full understanding by the evaluators of the context, the opportunities and constraints faced by the implementing organisations, fully engage the stakeholders in a fruitful collaboration and facilitate the discussion of the recommendation and their adoption. In order to do so, the evaluation will first identify the stakeholders to be involved in the evaluation process in order to form a “core learning partnership”, the main users of the evaluation.¹⁰

18. At this stage, it is proposed that the core learning partnership would include representatives of: (i) the Ministry of Food and Agriculture of Ghana (MoFA) at the central level, (ii) Regional Deputy Ministers, MoFA, (iii) project management (Project Directors), (iv) UNOPS, (v) IFAD Regional Division for West and Central Africa (PA) and (vi) IFAD Office of Evaluation.¹¹

19. A proposed time schedule of the evaluation process and interactions with partners is presented in the work plan below. A draft approach paper will be shared with the partners in March 2005. The lead evaluator from OE, accompanied by the OE Evaluation Information Officer, will undertake a reconnaissance mission to Ghana in April 2005 to familiarise themselves with key evaluation issues, brief the members of the core learning partnership about the evaluation and discuss with them the draft approach paper, refine the key evaluation questions and define the primary data collection methodology. At this time agreements will be made with the two project directors to prepare a short project self-assessment for discussion during the main mission.¹²

20. Taking into account the recommended time frame for the evaluation, OE’s commitments and the availability of consultants, it is suggested that one evaluation team would be conducting field visits to the two projects from the second half of May to the end of June 2005. Apart from practical needs, this

¹⁰ See the IFAD Evaluation Policy, p. 9, paragraph 33.

¹¹ Other agencies involved in project implementation such as other donors, the Irrigation Development Authority, the participating banks, the Department of Feeder Roads and the NGOs involved in road rehabilitation will form a broader partnership and kept adequately informed at all crucial evaluation steps

¹² This is a requirement of the Evaluation Policy. To avoid excessive workload, the projects will not be required to prepare long essays. The self-evaluations could consist of visual (e.g. PowerPoint or transparencies) presentations or hand-outs. The self-evaluation should encompass the same evaluation categories adopted by IFAD-OE and should mention the sources available to substantiate findings. A simplified self-evaluation format will be provided by OE.

arrangement will ensure that: (i) a consistent evaluation approach is adopted for the two projects and (ii) opportunities for learning from both projects are exploited. After initial briefing meetings in the capital, the mission will start its visits in the Upper-East Region, where LACOSREP II has been implemented. Although LACOSREP II has started after UWADEP, the former is a second project phase and there is presumably longer experience with the project approach in the Upper-East Region. To benefit from this experience, the mission will visit selected LACOSREP I sites in addition to those developed under LACOSREP II. This is important, keeping in mind the typical long gestation period (in the range of 8-12 years) of small-scale irrigation interventions, before benefits fully accrue to farmers. At the conclusion of these visits, the evaluation team will present and discuss a short debriefing note with the project management team and the representatives of the executing agencies.

21. The team will then proceed to the Upper-West Region and visit the UWADEP sites. At the conclusion of the visit a short debriefing note will be shared and discussed with the project management and the relevant agencies. Before the conclusion of the field mission a **synthesis wrap-up workshop** will be organised in a more 'central' location (Tamale in the Northern Region or Accra), with representatives of stakeholders from the two projects and from the central government (30 June 2005). The objectives of this workshop will be to (i) compare the first findings from the two projects, and (ii) discuss and cross-disseminate the first insights with the two groups of stakeholders. After the conclusion of the mission, it is planned for the team leader to conduct meetings for one-two days with key staff in charge of the Northern Region Poverty Reduction Programme (NORPREP) funded by IFAD in the Northern Region of Ghana, to gain insights on a new approach that IFAD may consider to extend to the Upper-East and Upper West Regions in the future.

22. **Mission composition.** The mission will include (i) one mission leader (international specialist), anthropologist, with extensive experience in rural development, natural resource management and project evaluation in Ghana; (ii) an irrigation infrastructure and water management specialist (international but based in Ghana), (iii) a farming system and agricultural extension specialist (international, with several years of experience in Ghana), (iv) a rural finance specialist (local), (v) a rural sociologist and (vi) a statistician (local) for primary data collection, to be assisted by a team of local enumerators (University students).¹³ The lead evaluator will join the mission during the initial field visits and attend the synthesis wrap-up workshop to provide guidance and ensure OE's full understanding of the evaluation's findings.

23. **Communication Strategy.** Following the requirements of the evaluation policy, the evaluation team will prepare two reports – one per project – and a set of technical annexes, which will be submitted to the partners for their comments in September 2005. At the end of the evaluation process, a joint LACOSREP and UWADEP **final evaluation workshop** will be organised in the country (Tamale or Accra) to elicit the partners' consensus on the main recommendations. This workshop will be the basis to prepare the 'Agreement at Completion Point', a document which illustrates the stakeholders' understanding of the evaluation, findings and recommendations, their proposal to implement them and their commitment to act upon them. This document will be published along with the evaluation report.

24. In order to facilitate the dissemination of lessons learned, in addition to the printing of the report and annexes¹⁴, the Office of Evaluation of IFAD will also produce an "evaluation profile": a two-page document summarising the key conclusions from the evaluation in a reader-friendly format, with the objective of providing a 'taste' of the evaluation and thereby encouraging a broader audience to read the report. The main report and the profile will also be available and freely downloadable from the IFAD internet website (www.ifad.org/evaluation/list_eval.asp).¹⁵

¹³ With the exception of the mission leaders, the other mission members will 'swap' between the two project areas.

¹⁴ Annexes will be available upon request.

¹⁵ The report will be posted on the internet IFAD website after the Agreement at Completion Point has been finalised.

25. The evaluation team may also consider other supplementary communication tools to be explored in consultation with partners, such as: (i) targeting specific segments of the readership by publishing customised evaluation-related material in periodical and electronic journals, and (ii) organising feed-back sessions in the field for the programme beneficiaries. However, these additional tools, if adopted, might require the collaboration and further funding from the interested partners.

26. **Work Plan.** The proposed timeframe for the evaluation process is as follows:

i. Communication to partners at the country level	Mid- February 2005
ii. Distribute draft Approach Paper	Mid- March 2005
iii. Reconnaissance mission	10-18 April 2005
iv. Briefing with consultants in Rome	3-4 May 2005
v. Finalise the Approach Paper and TOR	End of April 2005
vi. Evaluation mission	20 May – 30 June 2005
vii. Synthesis wrap-up workshop	30 June 2005
viii. Draft report shared with partners	End September 2005
ix. ACP Workshop	9 November 2005
x. Final report distributed	22 December 2005

Impact and Effectiveness Matrices

Introduction to Impact and Effectiveness Matrices

As required by IFAD's Methodological Framework for Evaluation (MFE), two matrices are presented, for impact and effectiveness respectively. In presenting these matrices, the evaluation team has a number of important reservations. First, UWADEP is a complex project, working across many communities in UWR. Consequently, it is unrealistic to generalise across the project in a number of impact areas. Second, in the absence of a monitoring system that gives credible results, the quantification of impact needs to be viewed sceptically.

In the column headed "how many (households and people)", distinction is made between the irrigation scheme water users farming within the command areas, and those farming in the adjoining uplands. For estimates of numbers see the main text.

In the "M/F" column, M signifies male dominated, F signifies female dominated, and M/F signifies that both benefit

The entries to the matrices include the following abbreviations: N/A – not applicable (either irrelevant to this project, or to this evaluation; blank – no data.

IMPACT MATRIX

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Assessment of Change (1)				Reach of Change (3)				Dynamic Processes ** (4)	Sus. Pot. *** (5)
		Presence and direction of change (+) (0) (-)	What has changed (Indicators)	Extent of Change		How many (households and people)	Who (1) (Poor/ poorest/ better off)	Who (2) M/F	Project contribution 4/3/2/1	4/3/2/1	4/3/2/1
				How much	(Rating)* 4/3/2/1						
I. Physical and financial assets	1.1 Did farm households physical assets change (i.e. farmland, water, livestock, trees, equipment, etc.)?	+	irrigation infrastructure; tools	n/a	+3	n/a		both	2	3	2
	1.2 Did other household assets change (houses, bicycles, radios, etc.)	+	tin roofs, bicycles, radios etc.	n/a	+2	n/a	poor all	predominantly men	2	2	3
	1.3 Did infrastructure and people access to markets change? (transport, roads, storage, communication facilities, etc.)	+	roads	140 km.	+1	n/a	all	all	2	2	3
	1.4 Did households' financial assets change? (savings etc)	n/a	cash income	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	1.5 Did rural people access to financial services change? (credit, saving, insurances, etc.)	+	access to credit	€5.6 billion	+2	379 groups (6184 people)	n/a	55% F	4	2	1

[illegible]

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Assessment of Change (1)				Reach of Change (3)				Dynamic Processes ** (4)	Sus. Pot. *** (5)
		Presence and direction of change (+) (0) (-)	What has changed (Indicators)	Extent of Change		How many (households and people)	Who (1) (Poor/ poorest/ better off)	Who (2) M/F	Project contribution 4/3/2/1	4/3/2/1	4/3/2/1
				How much	(Rating)* 4/3/2/1						
	4.2 Did household food security change?	+	dry-season crops, more land cultivated	n/a	+2	n/a	all	all	3	3	3
	4.3 Did farming technology and practices change?	+	dry-season crops, animal traction	n/a	+2	n/a	all	all	3	3	3
	4.4 Did the frequency of food shortage change?	n/a				n/a					
	4.5 Did agricultural production change (area, yield, production mix, etc.)?	+	dry-season crops	n/a	2	n/a	all	predominantly men	3	3	3
V. Env't & common resources	5.1 Did the natural resource base status change (land, water, forest, pasture, fish stocks...)?	+	dry-season cropping land, tree-planting	n/a	2	n/a	all	predominantly men	3	3	3
	5.2 Did exposure to environmental risks change?	0				n/a	all				
VI. Institutions, policies, and regulatory framework	6.1 Did rural financial institutions change?	+	credit groups, rural banks	n/a	1	n/a	all	predominantly men	4	1	1
	6.2 Did local public institutions and service provision change?	0									
	6.3 Did national/sectoral policies affecting the rural poor change?	0									
	6.4 Did the regulatory framework affecting the rural poor change?	0									

* Rating: 4= High; 3= Substantial; 2= Modest; 1= Negligible. The rating here is based on the rural poor (and their partners) perspective in relation to the situation in the base year. *** Rating: 4= Highly likely, 3= Likely; 2= Unlikely; 1= Highly Unlikely.** This refers to cases where even though impact achievement is modest or negligible, the project in question has set in motion dynamic positive processes that will eventually lead to substantial impact achievement. The identification of the existence of these processes is left to the evaluators judgment on a case by case basis.

PROJECT EFFECTIVENESS MATRIX

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Expectation of Impact (Project Stated Objectives)				Effectiveness Rating (Achievement Against Stated Objectives) 4/3/2/1			
		Reach Who?	Change What?	Change How Much?	Reach how Many?	Reach Who?	Change What?	Change How Much?	Reach how Many?
I. Physical and financial assets	1.1 Did farm households physical assets change (i.e. farmland, water, livestock, trees, equipment, etc.)?	Rural people	(a) and (b) crop yields, income, nutrition, (d) access to food – through intensification, diversification, commercialisation, (c) soil conservation			2	2	3	2
	1.2 Did other household assets change (houses, bicycles, radios other durables, etc.)	Rural people	Not specified			2	2	3	2
	1.3 Did infrastructure and people access to markets change? (transport, roads, storage, communication facilities, etc.)	Rural people	Access to markets			2	2	3	2
	1.4 Did households' financial assets change? (savings etc)	Rural people	Incomes from cash cropping			2	2	3	2
	1.5 Did rural people access to financial services change? (credit, saving, insurances, etc.)	Rural people	Access to credit			2	2	3	2
II. Human assets	2.1 Did people access to potable water change?	Rural people	Small amount of drinking water			3	2	2	2
	2.2 Did access to basic health and disease prevention services change?	No	n/a			3	2	2	2
	2.3 Did the incidence of HIV infection change?	n/a	n/a						
	2.4 Did maternal mortality change?	n/a	n/a						
	2.5 Did access to primary education change?	n/a	n/a						
	2.6 Did primary school enrolment for girls change?	n/a	n/a						
	2.7 Did women and children workload change?	Women farmers	Women can grow vegetables more easily.						
	2.8 Did adult literacy rate and/or access to information and knowledge change?	Farmers	Improved agricultural techniques			2	2	2	2
III. Social capital and people empowerment	3.1 Did rural people organisations and institutions change?	Irrigation farmers	Establishment of Water Users' Associations			4	4	4	4
	3.2 Did social cohesion and local self-help capacity of rural communities change?	Irrigation farmers	"Strengthening communities' abilities to mobilise social and economic resources..."			4	4	4	4
	3.3 Did gender equity and/or womens' conditions change?	Women farmers	Women's skills and incomes, family nutrition			2	2	2	2
	3.4 Did rural people feel empowered vis a vis local and national public authorities and development partners? (Do they play more effective role in decision making?)	Irrigation farmers	"Strengthening communities' abilities to mobilise social and economic resources..."						
	3.5 Did rural producers feel empowered vis a vis the market place? Are they in better control of inputs supply and marketing of their products?	Farmers	Commercialisation is increasing anyway						

MAIN DOMAINS OF IMPACT	Key Questions for Impact Assessment in Rural Communities Affected by the project (changes to which the project has contributed)	Expectation of Impact (Project Stated Objectives)				Effectiveness Rating (Achievement Against Stated Objectives) 4/3/2/1			
		Reach Who?	Change What?	Change How Much?	Reach how Many?	Reach Who?	Change What?	Change How Much?	Reach how Many?
IV. Food Security (Production, Income and Consumption)	4.1 Did children nutritional status change	Irrigation households	Greater consumption of vegetables						
	4.2 Did household food security change?	Irrigation households	Increased production, increased incomes			4	4	4	4
	4.2 Did farming technology and practices change?	(a) Irrigators (b) Women	(a) More efficient and more extensive irrigation (b) Vegetable production			3	3	3	3
	4.3 Did the frequency of food shortage change?	n/a							
	4.4 Did agricultural production change (area, yield, production mix, etc.)?	Rural people	Increased irrigation command area, yields, diversity of crops						
V. Env't and common resources	5.1 Did the natural resource base status change (land, water, forest, pasture, fish stocks...)?	Farmers in catchment	Soil and natural vegetation conserved						
	5.2 Did exposure to environmental risks change?	n/a				2	2	2	2
VI. Institutions, policies, and regulatory framework	6.1 Did rural financial institutions change?	Rural people	Credit groups formed			2	2	2	2
	6.2 Did local public institutions and service provision change?	No							
	6.3 Did national/sectoral policies affecting the rural poor change?	No							
	6.4 Did the regulatory framework affecting the rural poor change?	No							

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Itinerary

Itinerary for IFAD evaluation mission of UWADEP 22nd May to 30th June 2005

	Day	All	Kiff	Andah	Kranjac/Blench
May					
Su	22	Mission members arrive in Accra			
Mo	23	Mission internal meetings			
Tu	24	Mission meets MoFA liaison office in Accra; Ministry of Finance, Chairperson Agric. Donor coordinating group and WB			
We	25	Mission flies to Tamale and proceeds to Bolgatanga			
* * *					
June					
Sat	11	Depart to Wa			
Su	12	Internal meetings. Meeting with Regional Minister			
Mo	13	Presentation by UWADEP PSU			
Tu	14	Field visit to Jirapa/Lambusie district	Karni WUA, CLW, EV. Karni/Gyanvuur, small ruminant FTD SSP-GN demo, Karni Zaghe, Adaptive research	Christian Mothers Association Enye Womken;s group Sonzelle Rural Bank	Karni WUA Han WUA Kunkylene survey pre-test
We	15	Field visit to Nadowli District	Goziiri, small ruminant gp Nadowli SGA Jang Guasi, adaptive res. Tabiasi, small ruminants	Dabore wmen's credit group Warayire women's credit group Gydere Pogba women's group	Sankana WUA Daffiama WUA
Th	16		Seed Growers Association, Animal Traction Centre, SARI	Nandom Rural Bank	EPA, Wa Animal Traction Centre Ministry of Health PRONET
Fr	17	Field visit to Wa Municipal	Charia, Adaptive res. Mr Danyari, seed grower Mr Mac Adams, livestock	Mwinla-Banna women's group Agric Development Bank	Baleofilli WUA Busa WUA
Sat	18	Report writing			
Su	19	Report writing			Yam farmers group

	Day	All	Kiff	Andah	Kranjac/Blench
Mo	20	Field visit to Sissala District	Tarsaw, animal traction Blacksmith's workshop		Bullu WUA Sorbelle WUA
Tu	21	Field visit to Sissala District	Bullu, small ruminant gp Silbelle, rotation and varietal trials Sorbelle, rotation and varietal trials	Banu women;s group Nyamijang women's credit group Agric Ddevelopment Bank Sissala Rural Bank	Welembele WUA Bugugbele yam farmers Kong WUA
We	22	Field visit to Lawra District	Lawra, Mr A B Issanaku, small ruminants Zongo, Kuoli Suntaa gp	Fomwag women's credit group Babile Nayiri women's group RAAP{NGO} Han,Jiripa District	Babile WUA
Th	23	Report writing			
Fr	24	Report writing +send draft Aide Mémoire to OE	ADRA (LK + RMB), Technoserve		EPA Feeder Roads (GK) Pinggbengben WUA Tanina WUA
Sat	25	Aide Mémoire to UWADEP team			
Su	26	Meeting with UWADEP team, response to Aide Mémoire			
Mo	27	Wrap-up meeting with Regional Minister, departure to Tamale			
Tu	28	Meetings in Tamale			
We	29	Flight to Accra			
Th	30	Synthesis wrap up meeting in Accra MoFA liaison office in Accra; Ministry of Finance + representatives of other donors; end of mission			

**List of Participants – Final Evaluation Workshop
LACOSREP II and UWADEP, Accra (Ghana), 9 November 2005**

	Name	Designation and Organisation
1	Hon. Ernest Debrah	Minister, MoFA
2	Hon. Boniface Gambila	Reg. Minister- UER
3	Hon. Ambrose Dery	K. M. UWR
4	Kwaku Owusu Baah	Chief Director, MoFA
5	Roy Ayariga	RDA/PC-MOFA-LACOSREP II
6	Sammy A	GIDA (Director)
7	Fusheni Seidu	C. S. LACOSREP II
8	S. M. Abd-Allah	FC LACOSREP II
9	J. Y. Faalong	AgSSip-MOFA
10	K. N. Crankson	Agric.Rep./Rural Aid, Bolga
11	S. A. Benlu	C&GS- LACOSREP II
12	Gordana Kranjac	IFAD OE Mission
13	Florence Oku	Head IFAD Unit, MOFEP
14	A. B. Salifu	CSR-SARI
15	A. Ashley	Prin. Eng. DFR
16	Caroline Heider	OE-IFAD
17	James Konogini	DDA- Nadowli
18	L. B. Kanyor	Farmer- Nadowli
19	J..A. Addo	GCB
20	K. K. Amoako	MOFA-DCS
21	A. R. Z. Salifu	MOFA/IFAD/LACOSREP II
22	N. Amoakoh	MOFEP
23	Rev. M. A Dadebo	Dist. Dir. MOFA- Dagme East
24	David Andah	IFAD-OE Mission
25	Norman . Messer	IFAD
26	Luay Avedayhi	MOFA- Bawku
27	Mallam Seidu	Farmer
28	J. H. K. Ankah	Dep. Dir./APD
29	S. Degbor	DA- Jirapa
30	A. N. Akuuzule	VSD
31	Ram Bharuni	UWADEP
32	Seidu Adamu	UWADEP
33	J.B. Noab	SARI - WA
34	K. E. Baah	LACOSREP II (M&E)

	Name	Designation and Organisation
35	J. C. Duti	GTZ- Devt. Planner
36	F. Dery	LACOSREP II (DDA -Bongo
37	Y.A. Tabi	Bank of Ghana
38	Ben R. Cudjoe	Bank of Ghana
39	Konlang K. Samson	Japan Intl. Cooperation Agency
40	Joel Y. Song	AGRIC
41	J. C. Kumapley	Head /Agric. Credit/ADM
42	Juliana Dennis	Director, WIAD
43	Lothar Diehi	GTZ- MOFA
44	Koen Duchatean	European Commission Ghana
45	Theo Osei Owusu	SAO- DAES
46	J. E. Andanye	RIS-LACOSREP
47	Y. Yeboah	GIDA - Dir.
48	Kwabena Boateng	Dir. GIDA
49	S. Danso Asare	PM. LACOSREP
50	Bukari Saakin	CMC
51	B. Dzahpata	PPMED-MOFA
52	A.Zuchary	GIDA-WA
53	Kwasi Attah	REP
54	Isaac B. Baagyere	S.P.O. Bucobank, Sandema
55	Nana Korateng	CIDA PSU
56	Abu E. T. Saandu	Manager- Bills Bank
57	Akumsu Eric	Pros. Manager- Naara R/Bank
58	G. Kpor	DRES - MOFA
59	J. B. Yirerory	Chairman- Noudom Rural Bank
60	Akwasi Adjekum	NPC-RTIP
61	Iddi-Puyo	Apex Bank
62	S.G.A.N Lary	Mun. Coord. Director- Bawku
63	Anna Antwi	Action Aid, Food Security Coord.
64	Rathin Roy	IFAD, consultant
65	Mark Keating	IFAD - OE
66	Fabrizio Felloni	IFAD - OE
67	Mohamed Manssouri	IFAD - PA
68	E. D. Eledi	RDA/PC-MOFA-UWADEP
69	Patience Mensah	The World Bank

Persons met by the mission during field work

Title	Name	Designation	Organisation
Government and project staff			
Hon.	Ernest Debrah	Honorable Minister for Agriculture	MoFA
Mr	Kwaku Owusu Baah	Chief Director	MoFA
Mr	Joseph Y Faalong	Agricultural Programme Coordinator, AgSSIP	MoFA
Ms	Florence Oku	Principal Economic Officer responsible for IFAD, OPEC and BADIA projects	MoFinance
Upper West			
Hon.	Hon. Ambrose Dery	Honorable Minister for Upper West	GoG
Mr	George Hikah Benson	Deputy Regional Minister	GoG
Mr	Emmanuel Eledi	Regional Director for Agriculture	MoFA
	Seidu Amadu	Financial Controller	UWADEP
Mr	Ram Bhavnani	M&E Officer	UWADEP
Mr	Martin Galaa	RDO Extension	MoFA
Mr	J B Naab	Chief Scientific Officer	SARI, Busa, Wa
Mr	Eric Asamani	Animal traction officer	MoFA
Mr	H B Naboo	MCD, Wa	
Mr	A S Iddrisu	MDO, Wa	
Mr	Philemon Ankorle	DCD, Funsu	MoFA
Mr	S B Kanton	DCD, Wechan	MoFA
Mr	Saaka Bakari	Wa	
Mr	G W Tuu	AEA,	MoFA
Mr	James Konogini	District Director, Nadowli	MoFA
Mr	Clements Dombo	District co-ordinating Director, Nadowli	GoG
Mr	Daniel Kuninach	MDO, Zone A	
Mr	Charles Tobiyer	MISO, Wa	
Mr	David K Waawula	DDA, Funsu	
Mr	E A Mash-Hansen	DRDA/ RDO (vet)	MoFa
Mr	Philip K B Salia	DDA	MoFA
Mr	C Y Adda	MDA, Wa	MoFA
Mr	Jumah A Pentu	DDA, Sissala East	MoFA
Mr	Adamu Seidu Vasco	DDA, Sissala West	MoFA
Mr	G B Dudimah	DDO, Sissala East	MoFA
Mr	Emmanuel Adetor	DDO (vet), Sissala East	MoFA
Mr	L B Y Kutir	DDO, Sissala East	MoFA
Mr	Kwasi Wih	MIS Officer	MoFA
Outside project staff			
Mr	Ahmed	NORPREP Project manager	
Ms	Amama K Habib	Human Resource Development Specialist	NORPREP
Banks			
Mr	J A Addo	Project Co-ordinator	GCB
Mr	Robert Agab	Project officer	NAARA RB
Mr	Patrick Ayeh	Manager	ADB
Ms	Naa Lamly Lamptey	Credit officer	ADB
Mr	Michael Asigu	Credit officer	ADB
Mr	Solomon Darko	Project officer	ADB
Mr	Isaac Baaggyere	Project Officer	BUSCO bank
Mr	E Abu Sendo	Manager	BUSCO bank
Mr	Solomon Awini	Manager	BESSFA RB
Ms	Luhana Alagpulinsa	Acting manager	NAARA RB
Mr	Patrick Abolingya	Asst project Officer	NAARA RB
Mr	S Atagre	Accountant	BESSFA RB
Donors and other International organisations			
Mr	Pape Djibi Kone	Resident representative (acting) Regional Forestry Representative	FAO
Mr	Yebowa	Deputy Resident representative	FAO

Ms	Nana O. Koranteng	Advisor. Responsible for study on funding and impact of projects in Upper East and Upper West areas over last 20 years	CIDA
Non-government organisations			
Mr	Emmanuel Akiskame	Programme Manager	Presby Agric Station, Sandema
Mr	Raymond	Programme Manager	Trax-Africa
Mr	Sampson Bediako Fordjour	Field Project Officer, Agric and Natural Resource Management	ADRA, Adventist Development and Relief Agency Ghana, Wa.
Mr	John Yelyen	Business Advisor	Technoserve, Wa
Mr	Abass Eunyo		Technoserve, Wa.
Mr	Evans Sinkari	Project Coordinator	RAAP
Mr	Adams Yahaya	Reflect Coordinator	RAAP
Ms	Stella Ataguriga	Fin. & Admin. Officer	RAAP
Ms	Evelyn Tangtie	Income Generating Officer	RAAP
Mr	Thompson Abagna		Trade Aid Int.
Mr	Nicholas Apokerah		Trade Aid Int.
Ms	Margaret Isaka		CENSVDI
Mr	Siedu Akugra		CENSVDI

Supervision Missions

SUPERVISION MISSIONS OF UWADEP IFAD Loan No.388-GH UNOPS Project No. GHA/97/F01					
Report Number	Report Date	Supervision Period	Team Leader/s	Consultant	Address of Supervision
1/96	Nov. 1996	12-18 Nov.1996		Mr. A.W.R. Tench	220 East 42 nd Street,14 th Floor, NY
1/97*	3 rd April 1997	28 th Feb.-3 rd March 1997		Mr. A.W.R. Tench	220 East 42 nd Street,14 th Floor, NY
2/97	30 th July 1997	July 1997	Dr. Zaddach	A.W.R. Tench	220 East 42 nd Street,14 th Floor, NY
1/98	27 th March 1998	February 1998	Dr. Zaddach	Mr. A.W.R. Tench	220 East 42 nd Street,14 th Floor, NY
2/98*	November 1998	20-21 Nov. 1998	Perin Saint-Ange^{1/} Fidele Sarassoro	Mr. Peter Boekstegen	
1/99	July 1999	24 th May -4 th June 1999	Perin Saint-Ange/ Fidele Sarassoro/ Nadine Gbossa	Mr. Bofete Bondole	Africa 11 Division ,PB 1784, Abidjan Cote d'Ivoire
1/2000	August 2000	14 th -27 th June 2000	Mr.Mohammed Manssouri^{2/} Mr.Fidele Sarassoro/ Ms.Nadine Gbossa		Africa 11 Division ,PB 1784, Abidjan Cote d'Ivoire
1/2001	February 2002	29 th Nov.-11 th Dec.2001	Fidele Sarassoro^{3/} Ms.Nadine Gbossa⁴	Mr. Christian Karbo	Africa 11 Division ,PB 1784, Abidjan Cote d'Ivoire
1/2002	December 2002	16 th -28 th November 2002	Ms. Mariam Sissoko⁵	Mr. Edward Sangudi	Africa 11 Division ,PB 1784, Abidjan Cote d'Ivoire
1/2003	November 2003	24 th – 7 th November 2003	Ms. Mariam Sissoko	Mr. Edward Sangudi	Africa 11 Division ,PB 1784, Dakar (Senegal).
1/2004	October 2004	30 th August -10 th September 2004	Ms. Mariam Sissoko	Ms. Monique Trudel	Africa 11 Division ,PB 2911, Dakar, Senegal

¹ IFAD Country Portfolio Manager.

² IFAD Country Portfolio Manager.

³ Acting Chief, UNOPS Abidjan Regional Office.

⁴ UNOPS Services Analyst.

⁵ UNOPS Portfolio Manager.

