

PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-447

1. PROJECT TITLE Farm Hand Tools	2. PROJECT NUMBER 696-0103	3. MISSION/AID/W OFFICE AAO/Rwanda
	4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) <u>696-80-1</u> <input type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION	

5. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING A. Total \$ <u>240,000</u> B. U.S. \$ <u>240,000</u>	7. PERIOD COVERED BY EVALUATION From (month/yr.) <u>March 1978</u> To (month/yr.) <u>December 1979</u>	
A. First PRO-AG or Equivalent FY <u>78</u>	B. Final Obligation Expected FY <u>78</u>	C. Final Input Delivery FY <u>82</u>		Date of Evaluation Review <u>12/4/79</u>	

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
- Decide, following first few weeks of first blacksmith class need for modification in technical assistance inputs.	Stallsmith, Kwihangana	2/15/80
- Determine with Forge Director useful purposes for special support activities funds and initiate actions to build "entrepreneurial" components into training course.	Stallsmith, Balihuta	3/15/80
- Begin to establish a small blacksmith library.	Stallsmith Balihuta	2/15/80
- Invite Rwandan research associates working with the Renewable Energy Project to visit the Forge at Nyabisindu.	Stallsmith Balihuta	4/15/80
- Establish a bookkeeping system by which the AAO and Government of Rwanda officials can maintain jointly reconcilable accounts under each project line item. Accounts should be balanced/reconciled at least once every three months.	Balihuta Tomasi	
- Request authorization, as necessary, and based on revised cost projections, to shift funds between line items.	Stallsmith Kwihangana	5/15/80
- Include in GOR Forge Budget for CY 1981 funds for salaries of all drivers.	Stallsmith Kwihangana Balihuta	5/15/80
		Annual Budget Submission

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS			10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT		
<input type="checkbox"/> Project Paper	<input checked="" type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify)	A. <input type="checkbox"/> Continue Project Without Change		
<input checked="" type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T		B. <input type="checkbox"/> Change Project Design and/or		
<input checked="" type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify)	<input checked="" type="checkbox"/> Change Implementation Plan		
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P		C. <input type="checkbox"/> Discontinue Project		

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)	12. Mission/AID/W Office Director Approval
Terry Barker, Program Officer, AAO/Rwanda W. Brocke Stallsmith, Project Officer, AAO/Rwanda Eugene R. Chiavaroli, AID Affairs Officer	Signature Typed Name Eugene R. Chiavaroli Date

13. Summary. The Farm Hand Tools Project (696-0103) was approved by the Director, AFR/DR in September 1977. Following fulfillment of Congressional Notification Requirements in February 1978, the Project Agreement was signed on March 21, 1978. Although there has been about nine months' slippage in overall project implementation, project direction remains consistent with original project descriptions and the project goal remains attainable. Major construction was completed in September 1979, recruitment of applicants for the first blacksmith course was undertaken in November, selections were made in December and the first class began on January 29, 1980.

This evaluation proposes a number of minor adjustments to project budget line items, suggests a reassessment of the requirements and scheduling of technical assistance and asks for a review of the possible uses of the "special support activities" fund. It also encourages project managers to emphasize for trainees the opportunities for new businesses and increased and more diversified manufacture in Rwandan forges. Finally, the evaluation supports efforts to find direct linkages between the FHT project and other new appropriate technology projects being undertaken by USAID in Rwanda.

There was some slippage in the arrival of inputs for the project, particularly the technical assistance, and considerable time was lost because of delays in design, RFP and contracting exercises. A shortage of engineering services was the cause of the delays, and there was apparently no alternative to patience and persistence.

The project is now well underway, classes have begun, and outputs described in the project paper should be realized. The quality of the project can be improved dramatically, however, by a little imagination and increased AAO attention. Increased staff in the AAO should permit this, and the outlook for a potentially important and lasting U.S. contribution to Rwandan development is good.

14. Evaluation Methodology. This evaluation has been undertaken to fix project progress, to establish a revised project implementation schedule, to document changes in project design/implementation which have occurred in the course of the 20 months since the project agreement was signed, and to propose programming steps to be undertaken to improve probability of project success.

The evaluation has been carried out by the AID/Rwanda Program Officer based on his early experience as project manager and his continuing involvement in project implementation.

The evaluation report has been reviewed and inputs provided by the current project manager, Mr. Brooke Stallsmith, and by the AID Affairs Officer, Mr. Eugene R. Chiavaroli. Significant portions of the evaluation have been discussed with the Director of the Nyabisindu Forge, Mr. Appolinaire Balihuta, and the Director of Artisan Affairs of the Government of Rwanda's Ministry of Commerce, Mr. Louis Kwihangana.

15. External Factors. Assumptions made at project design stage remain valid. One factor which was taken for granted at the time of project design was the continued presence of the experienced and capable Director of the Nyabisindu Forge. Although he has remained at his assignment, a serious leg fracture suffered in a car accident last year has continued to affect his ability to vigorously pursue project implementation. Although he is able to direct forge and

and project activities, frequent absences and an impending necessity for a longer absence to have the fracture treated in Europe, may affect the quality if not the schedule of training to be provided at the forge. In view of the budgetary necessity to reduce the amount of technical assistance time provided the project, concern about the Forge Director's presence is heightened.

A continuing world-wide energy crisis has affected Rwanda as most other developing countries, but, because of its landlocked position, with more serious long-term implications. Since an economy tied to outside sources of supply and outside markets would stall under the effects of high cost transport over extended supply lines, Rwanda has become more aware of the need for self-sufficiency. As a source of alternative manufacture supply, the Forge at Nyabisindu, and thus, the Farm Hand Tools Project, have become more potentially important to Rwanda's Development Program.

16. Inputs. The most important input problems have involved timing. This factor is discussed below as it relates to each project component. Budget line item constraints are discussed in the last part of this section.

Construction: The project implementation plan projected completion of the construction component of the project within 26 weeks of authorization. The AID Affairs Office was unable to secure construction design services from Government of Rwanda Engineering Offices, however, until September 1978 and RFP's for construction were not issued by the Government until February 1979. Bids were reviewed and a contract issued in March 1979, and construction was completed in September 1979, about two years after project authorization -- one year and a half after the PROAG signing.

Technical Assistance: The project technician, who should have arrived just prior to completion of classroom and dormitory construction and commencement of the first training session, arrived, as scheduled in the PP, in October 1978. Procedures for implementation of the construction component had only just begun. Project managers recruited him prior to the end of the project construction phase in the hope that he might speed the construction while also laying the groundwork for the first course. Over a period of about 6 months, the technician did, in fact, speed construction marginally, but in view of the seemingly interminable 3 and 4-day periods in which one or another U.S. or Rwandan bureaucratic processes impeded progress toward actual construction (and as implementation of the first training course continued to be postponed), the expense of a specialized technician began to seem too great. Since the technician's salary and maintenance projected in the project paper was inadequate to provide the total of 15 person-months of technical assistance called for in the project paper and PROAG, and since timing of the first training course was, in April 1979, still subject to innumerable potential delays, the project manager decided that the project could not support the continuing high cost of technical assistance during a phase in which no participant training would take place. Following approximately 27 weeks of "preparation" work, the project technician returned to the U.S. without having observed a single session of the first training course. Although the technician was able to fulfill much of the preliminary work which must, in any case, precede the first course (completion of training manual, student selection examination and criteria, instructor training, administrative arrangements, etc.), more allowance

should have been made for delays in construction, and technical assistance inputs more appropriately timed.

Commodities: Several delays have occurred in delivery of commodities for the project. The most significant problems occurred 1) when a REDSO response to a cable request for issuance of a PIO/C was lost in transmission -- and requested information was not supplied until 2 1/2 months later when follow-up cables indicated the missed communication; and 2) when the U.S. purchasing agent, the African-American Purchasing Center, failed to provide timely notice to the AID Affairs Office of the need to extend a PIO/C delivery date and increase funding. A delay of 4 months was the result. Experience now indicates that commodities should have been ordered immediately following signing of the project agreement. Although the AAO decided to await the arrival of the project technician before placing the major commodities order (in order to confirm the usefulness and acceptability of tool lists provided in the project paper), few changes were, in fact, made in the lists. Little advantage (and significant cost increase due to inflation) was attributable to the delay.

GOR Housing: Although GOR officials were confident at the time of the technician's arrival that designated housing would be available within one month's time, misunderstandings between the Ministry of Economy and Commerce and the Ministry of Agriculture and an agriculture technician who occupied the forge housing, caused a four-month delay in the Government's provision of this input. Luckily, limited-term accommodations were available in Kigali and most of the contractor's work during the first weeks of his presence in Rwanda was in the capital city. The lack of housing at the forge site did, nevertheless, deprive the forge instructors and Director of valuable interaction with the technician.

The following calendar demonstrates the timing of implementation as compared to the originally proposed schedule, and projects implementation timing through the end of project.

COMPARISON OF PROJECTED AND ACTUAL IMPLEMENTATION

FARM HAND TOOLS PROJECT (696-0103)

Calendar Year		January		July	
1978	Projected	1	2	3	4 5
	Actual	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	
1979	Projected		6	7	8
	Actual	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	
1980	Projected			9 10	
	Actual	5	10 11	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	
1981	Projected	11 12			13 14
	Actual	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	
1982	Projected	15			
	Actual	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	
			12		13 14 15*

- Key:
1. Project Agreement signed
 2. Construction Contract Signed
 3. Technician arrives
 4. Construction completed
 5. First participant training class begins
 6. Technician departs
 7. Participant training ends
 8. Second class begins
 9. Second class ends
 10. Technician arrives
 11. Technician departs
 12. Third class begins
 13. Third class ends
 14. Technician returns
 15. Evaluation complete/technician departs

* Under current implementation projections, the final outside technical assistance input would be provided in CY 1980.

Budget Concerns: Higher-than-expected costs of technical assistance, vehicles, insurance (not foreseen at all), fuel and maintenance, have resulted in pressures within certain line items of the project budget. Although the overall budget remains adequate, shifts among line items are indicated.

The project budget provided for 15 person-months of technical assistance at a projected monthly cost of \$1,875. In reality, the technical assistance contract is costing more than \$4,900 per month. Although it is clear that the \$7,000 which remains under this line item is insufficient to provide for even the minimum additional assistance required under this component, it is proposed that once training actually begins, technical assistance needs be re-evaluated with a view toward reducing advisory inputs to the minimum possible in keeping with training delivery needs.

Participant support costs, which were originally projected at \$2.77 per day, are now expected to be as high as \$4.00 per day in 1980 and will undoubtedly be higher yet in 1981 and 1982. Although a shift from other items is not immediately necessary, this will inevitably be required.

\$18,000 set aside for purchase of 2 project vehicles and spares has proven to be almost enough to purchase the vehicles (combined cost was \$18,911), but inadequate to pay for spares. A maintenance and repair budget of \$4,045 may cover costs of spares for a short while, but since maintenance (including fuel) and repair costs, even on new vehicles, amounted to almost \$2,000 during the first year of the project, supplements to one of these line items will be required within the next year or two.

Depending upon the interest and aggressiveness with which project management pursues the "support activities" component of the project, funds available under a line item entitled "support activities" will probably be adequate to cover cost overruns in the items described above. Also, depending upon cost and availability of junk metal and charcoal, there may be a significant amount of extra funding available under the line item for "raw materials". It is proposed that adjustments described above be reviewed following the first few months of the first training course, and that authorization be requested, as necessary, to shift line item totals.

An improved accounting system should be implemented to permit both the AAO and Rwandan officials to maintain jointly reconcileable ledger accounts under each project line item. The system should be balanced/reconciled at least once every three months.

17. Outputs. According to the original project schedule, the first 20 blacksmiths would have graduated from the nine-month course in mid-January 1980; the last 20 would graduate in January 1982. The first graduation is now expected to take place in mid to late September 1980, nine months late. Current scheduling would indicate that the nine-month delay will be carried through until the end of the project, with the last class completing the course in September 1982. Reasons for the delay are evident from discussion of inputs above. It was not possible to initiate classes until classroom/dormitory facilities were ready -- and the processes leading to construction of those facilities took nine months longer than predicted in the project paper.

18. Purpose. "To train blacksmiths who can manufacture and repair common rural implements and utensils."

The project provides funding for training of 20 blacksmiths during each of three nine-month training courses to be carried out over a period of 3 years. Although the timing of those courses may be delayed somewhat, the three classes will be held -- and, barring dropouts, up to 75 smiths may graduate. The purpose will be achieved.

The focus of the Farm Hand Tools Project, as presented in the Project Paper, was related principally to agriculture, and, although it was intended to appeal to an AID audience receptive to agriculture-oriented development projects, it is misleading. Project management should seek to broaden the scope of program activities to include other important contributions which the project can make in the rural areas -- even outside the agriculture sector. A major aspect of the training course, for instance, should be a component encouraging participants to search out imaginative and profitable new ways of using their new skills. A useful action in this regard might be purchase of books describing non-patented inventions or inventions for which patents are no longer in effect, and which might be useful in Rwanda. Each participant should be made aware of loan opportunities from the Banques Populaires. The Project Special Support Activities Budget, although designed to help the forge acquire designs for study and refabrication, has been viewed up until now, principally as a source of funding for shortages in other project budget line items. It might be used imaginatively to demonstrate the large variety of business opportunities available to the enterprising trained blacksmith.

Appropriate Technology: There are, as the project paper points out, possibilities for benefit from local fabrication of technically adapted tools and equipment used by Rwandans on the collines. The project design team focussed on this aspect of the activity when the project paper was drafted, thus the project name. Along with such simple things as the improved cutting edge on a hoe and 9 degree angle adjustments to pliers, however, there is potential for design, manufacture and distribution of such things as more fuel efficient charcoal or wood stove parts for solar water heaters or heat absorptive units, water distillation equipment or fish dryers. The beneficiaries in this case will be, as originally proposed, the rural peasants who would profit from reduced energy costs, improved health care, increased incomes from fish farming, etc. Other spin-offs, however, will include increased impact of blacksmiths (local enterprise) on Rwandan economic independence, increased internal markets and increased rural employment off the crowded land.

19. Goal: To improve technical and vocational skills appropriate to Rwanda's rural development needs. The project paper describes the measure of achievement of the project goal as existence of a functioning blacksmith training institution. This goal statement remains valid, and there is every indication that the forge school will soon be functioning again. A recent request indicates the Government's desire to continue the training program beyond the end of the current project completion date.

As awareness of "appropriate technology" as a development tool continues to grow, the appropriateness of the Farm Hand Tools Project to Rwanda's development needs becomes more and more apparent. The basic nature of the project

gives it a core position in almost every development strategy, and it is significant that there is potential for linkages of this project with many current and future AID projects in Rwanda. If the project does succeed in building "a functioning institution", progress toward the goal is assured.

20. Beneficiaries. Ultimate beneficiaries will be the blacksmiths graduated from the forge school and the employees whom they will engage in their blacksmith shops. There is a large potential for new, small-scale industry to develop from the the shops of project-trained smiths, and important as these new shops may be to the people in the communes whose hand tools need repair, the potential for real, widespread employment generation -- from small shops which might "mass produce" anything from gates to decorative patio furniture to scales to bed frames to kitchen knives to window frames or bus benches and windmills -- is even more important, and should be a central focus of this project. The numbers of potential beneficiaries of the FHT project are limited only by the imagination, dedication and executive skills of the project personnel and their students. To date, much of the thinking about the project has been limited to narrower possibilities.

21. Unplanned Effects. There have not yet been any graduates from AID-supported training at the Forge, and preparatory aspects of the project have had no unplanned effects.

Although there is a tendency, due obviously to a growing market, toward manufacture of spears, knives and swords for sale to tourists, rather than exclusive manufacture of more practical implements, the fact that forge management has found a new market should be looked upon as a positive step toward diversification and increased employment. Any tendency of future graduates to depend too heavily upon the tourist industry alone should be discouraged, however, and an effort should be made to introduce more imaginative and useful products. The result should be increased independence, surer markets, more meaningful employment generation, industrial diversity and economic growth.

22. Lessons Learned.

A. Plan equipment orders carefully and place orders early. This serves to limit potential project delays and reduce the impact of inflation.

B. Do not plan projects for which an AID-salaried technician is not available (for significant portions of every day) to interface with host country technicians -- if not to serve as technical advisor, then to function as an executive officer for AID internal operating procedures (purchasing, reporting, evaluation, investigation, disbursement, interpretation of project intent and AID regulations).

C. If possible, contract for technicians early and make provisions for procurement of advice by cable or correspondence, but do not call in a high-priced technician to carry out project management functions of a generalist.

D. Where construction is involved, plan for and prepare for every step in the host country RFP/Bid/Contract-letting process, for both design and construction well, before the construction phase is reached. This would include even such minor details as texts of RFP's and acceptance letters.

Make eminently clear in Project Agreements that provision of vehicles either does or does not include costs of driver, fuel and maintenance, and that host country provision of housing either does or does not include costs of maintenance, utilities and furniture.

23. Special Comments or Remarks. In an early draft of Audit Report No.3-696-79-13 issued on July 26, 1979, the AID Area Auditor General's Office stated that the FHT project did not fall within the priority areas of emphasis in AID's 1979 Rwanda Country Development Strategy Statement, and, in the final report, the auditors stated that the AID Affairs Office should not agree to an extension of the activity should one be sought by the Government of Rwanda.

As noted in other sections of this evaluation above, there is a place for support of this kind of project in almost any kind of development strategy, and if the current strategy for Rwanda would exclude activity so clearly linked to rural employment generation and the basic rural economy (and its development) as this project is, then the strategy should be changed. Determination concerning extension of the project should be made based upon the effectiveness with which the project will have been implemented, the achievement or non-achievement of project goals, and upon the continued interest and support of the host government. The project is of such an elemental nature not only to development and dissemination of appropriate technical alternatives for Rwandan farms but for the rural industrial diversity which may eventually provide a large part of the solution to the problems of overpopulation and limited land availability which AID wishes to address in Rwanda, that given successful implementation of this project, subsequent follow-on projects should be encouraged and supported.