

UNITED STATES GOVERNMENT

Memorandum

626 02 03 - (2) ✓
PD-AAB - 739-B1

TO : See Distribution

DATE: October 2, 1975

FROM : AFR/DP, Robert G. Huemann

PP
Sept 4, 1975

SUBJECT: AFR Executive Committee Meeting on Draft PF for "Entente Food Production" Loan/Grant Project

The AFR Executive Committee for Project Review (ECPR) will meet at 11:00 a.m. Tuesday, October 7, 1975, in Room 6944 New State to consider a draft Project Paper for "Entente Food Production."

This loan/grant project is proposed as a vehicle to finance local and foreign exchange costs of small farmer food production projects in the Entente States (Ivory Coast, Upper Volta, Niger, Dahomey, Togo). Cost is estimated as follows:

\$10,000,000	Loan - Capital Development (FY 76)
5,000,000	Grant - Capital Development (FY 76-78)
1,680,000	Grant - Technical Assistance (FY 76-77)
<u>\$16,680,000</u>	

The purpose of this meeting is to establish an AID/W position on some of the issues which will be raised in REDSO/Entente Fund discussions of the PP prior to authorization of the project and formal negotiation. In addition to the issues raised in the attached Issues Paper, the ECPR should discuss the magnitude of the project since the amounts proposed in the draft PP exceed those in the CP and PRP by substantial amounts, per following summary:

	<u>CP</u> May 1975	<u>PRP</u> 1/31/75	<u>PP</u> 9/4/75
CD Loan	\$3,000,000('76)	\$10,000,000('77)	\$10,000,000('76)
TA Grant	790,000	1,100,000	1,680,000
CD Grant	5,000,000	5,000,000	5,000,000

Attached for your review prior to the meeting are the following documents:

- (A) Issues Paper
- (B) Summary and Recommendations
- (C) Draft Project Paper



ISSUES PAPER - ENTENTE FOOD PRODUCTION PROJECT

1. Does the Entente Fund continue to be an appropriate instrumentality for channeling AID funds to West Africa in light of expatriate staff unwillingness to develop African staff? Specifically in relation to this project, is the Entente Fund an appropriate instrumentality for channeling AID funds for small farmer food production activities in light of

- a) Absence of prior experience in field;
- b) Extreme diversity of ecological conditions within five Entente states, which might suggest different regional grouping;
- c) Possibility of dissipation of effort in light of need to develop governmental capacity to promote small farmer projects (i.e., Does it make more sense to develop Fund's capacity to help the Entente State governments or to help the governments directly);
- d) Apparent disinclination of Fund to put pressure on member state governments to do anything the governments might otherwise be disinclined to do.

The above considerations make it difficult to design a project which is relatively certain to be successful. With respect to a), the project paper provides for a project management team which will possess the experience necessary for the successful implementation of the project. With respect to c), the project paper makes the implicit judgment that it is more worthwhile to develop governmental capacity to promote small farmer projects since the Entente Fund's staff is over-taxed and is not likely to expand sufficiently to assure a permanent capacity to promote small farmer projects. With respect to d), direct AID involvement with the host governments and the project management team is expected to relieve the need for the Entente Fund to negotiate on substantive points with its member governments.

2. Extent and Nature of AID review of subproject.

What will be the role of AID CDO's and representatives in subproject design and negotiation? How will the consistency of subprojects with other AID projects be assured? How should the mechanism of AID subproject approval be organized, to minimize potential delays while assuring adequate AID review of relevant issues? (See Project Paper Draft, p 59)

3. Terms of Subloans.

In light of past AID experience with Entente Fund sub-lending where considerable sums of money accrue to the Entente Fund through sub-lending terms less concessionary than those which are paid by the Entente Fund to AID, it behooves the project designer to determine how these funds will be used by the Entente Fund. In general, reflows to the Entente Fund accrue during the fifth to tenth years of the life of the project. It is difficult to foresee how this money will be used. Furthermore, in light

of the Entente Fund's use of its own resources, which tend to finance highly political government-backed projects, a question may be raised with respect to the Entente Fund's willingness to spend these monies effectively. Therefore a substantial technical assistance grant is proposed for the present project, alleviating the need to generate funds for technical assistance through subloans. Furthermore, the design team feels that a strong justification can be made for passing on the entire subsidy inherent in the AID loan to the governments which bear the responsibility and risk for the success of the project, and which must pay back the loan to the Entente Fund.

4. Research and training as eligible subproject categories.

During the early stages of project design, a general opinion prevailed against funding research or training activities. During the design team's visit to the Entente region, however, it became apparent that research represented a major bottleneck in the identification of viable small farmer production packages. Four of the five Entente countries submitted project proposals which combined research with a production-oriented project. The project design team felt that the project could be instrumental in promoting fruitful exchanges and inter-relationships between local agricultural research institutions and project designers and implementors in each Entente country. Furthermore, the Ivory Coast was in need of funding for the training of Ivoirians so that a national research capacity could be developed. If the GOIC is willing to resort to project funds (on a loan basis), the design team felt that the development of national research capacity represented a sufficiently high priority to justify the use of project funds. The long-term impact of national research is likely to be much greater than the impact of a small food production project. The stipulation holds in the case of both research and training, that the criteria of small farmer food production be respected; in other words, all research and training funded by the project must relate directly to small farmer food production.

5. Terms for agricultural credit component of subprojects.

The principle of no subsidies financed from AID funds has been preserved in the design of this project. The extension of this principle to agricultural credit means that the interest rate charged for this credit must be at least 6% to 6.5%. Even this interest rate is partially subsidized in accordance with Central Bank regulations. Should AID's position in this project stress the expense and risk of small farmer credit, and encourage interest rate to rise? Or should AID allow each credit institution determine its own interest rate at the risk of subsidized interest rates (e.g. 3%)? Alternately, AID could set a minimum interest rate, and allow the project management team along with AID country representatives to negotiate interest rates on a case by case basis.

6. Entente Fund Counterpart Contribution

a. Should AID ask the Entente Fund to bear a portion of the local costs of the project management team, local training costs, or Code 935 procurement for contractor services?
(See page 53)

b. Should a host country contribution for subprojects be required under this project? Should a target host country contribution be recommended, but not strictly enforced?
(See page 53)

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10/2/75

I. SUMMARY AND RECOMMENDATIONS

A. Borrower and Implementing Agency

The Borrower and Implementing Agency is the Mutual Aid and Guaranty Fund of the Council of the Entente, henceforth designated as the Entente Fund. The Entente Fund is a political association established in 1959 by the governments of the Ivory Coast, Upper Volta, Niger and Dahomey, and joined by the government of Togo in 1966. The Council created the Secretariat in 1966 as a financial institution responsible for carrying out the mandate of the Council in the field of economic development.

The Entente member governments will be the recipients of subloans and/or grants for the purpose of increasing the quantity and efficiency of food produced by small farmers. The implementing agencies of the member governments will be their respective Ministries of Agriculture or Rural Development in collaboration with extension services, agricultural credit institutions, marketing boards, and agricultural and sociological research institutions.

B. Amount of Assistance

Capital Development Funds	\$15,000,000
of which	
Loan	<u>10,000,000</u>
Grant	5,000,000
Technical Assistance Grant	<u>\$ 1,680,000</u>

The project will finance local and foreign exchange costs of small farmer food production projects in the Entente states. A minimum of 10% of capital funds will finance imports from U.S. Code 941 countries, and a maximum of 10% of capital funds may be used for U.S. Code 935 procurement to support transportation for marketing or input delivery requirements of subprojects and contractor services essential to subproject success.

A Technical Assistance Grant in the amount of \$1,680,000 is proposed to provide for a project management team, contractor services, local agricultural and sociological research in support of subproject design and implementation, and long-term training essential for the development of the long-term capacity of the Entente countries to plan and implement rural development projects.

C. Terms of Loan

The Entente Fund will receive the loan for 40 years with a grace period of 10 years. Interest will be at a rate of 2% during the grace period, and 3% during the remaining 30 years. The Entente member governments will receive the same terms from the Entente Fund for subloans. This provision allows the Entente Fund to pass

on the entire subsidy inherent in the AID loan. Since the Entente Fund is not expected to incur any recurring or long-term costs in the implementation of the project, it appears to be reasonable to pass on the subsidy to the member states, which bear the responsibility of assuring the financial and economic viability of the subprojects, and of repaying the loan to the Entente Fund.

Repayment of the loan by the Entente Fund will be in U.S. dollars, while repayment by the member states to the Entente Fund will be in CFA francs. The Borrower's repayment of the loan will be jointly and severally guaranteed by each of the five member states of the Borrower.

D. Summary Description of Project

The goal of the project is to reverse the trend of declining per capita food production in the Entente nations through increases in the production of basic staple food crops. Eligible food crops include both cereals and fruits or vegetables which are commonly produced by small farmers and consumed by the poor majority. This goal will impact positively on the national economies of the Entente nations by expanding domestic food production; reducing food import bills, which have increasingly eaten away at foreign exchange reserves; improving the nutritional intake of the majority of farmers and some urban dwellers; and increasing the incomes of the rural poor.

The purpose of the project is to increase the level, efficiency, and reliability of food production by small farmers in the Entente nations. This purpose will be achieved in select areas for select crops as identified by subprojects in each Entente state. An additional purpose of the project stems from a recognition that these subprojects cannot aspire to solve all the food production problems in the Entente states. Therefore a second purpose of the project is to develop the capability of Entente member states to plan programs and to identify, design, implement and evaluate projects aimed at improving the productivity of small farmers in growing food crops.

The institutional structure essential to the implementation of this project is largely in place. However, the institutions which deliver services to small farmers, such as extension, credit or marketing services, have had limited experience in the food production sector, partly because credit has not generally been available for this sector, and partly because food production has traditionally held a position of low priority in these countries. The loan and its complementary technical assistance grant will expand both the technical and the long-term capacity of these institutions to serve the small farmer's food production needs, and will encourage complementary institutions in agricultural or sociological research to develop skills relevant to small farmer food production problems.

E. Views of A.I.D. and U.S. Missions

The project is recommended by REDSO/WA, the Regional Development Office in Niamey, A.I.D. representatives in Upper Volta, Togo and Dahomey, and the U.S. Embassies in the five Entente countries.

F. Certification of Mission Director

The Mission Director, having taken into consideration the requirements for additional resources to promote the development of the domestic food production sector in the Entente nations, certifies that the Entente Fund and its member nations have the technical, institutional, and human resource capacity to utilize effectively this capital assistance project. See Annex D.

G. Statutory Criteria

The loan meets all relevant requirements, See Annex G.

H. Issues

See Issues Paper

I. Recommendation

Pursuant to the analysis contained in this project paper, the Project Committee recommends that a loan be authorized in the amount of \$10,000,000 to the Entente Fund for the small farmer food production sector in Entente member states. It is also recommended that a capital grant in the amount of \$5,000,000 and a technical assistance grant in the amount of \$1,680,000 for two years be authorized in support of the loan. The need for these funds to reverse the trend of declining per capita food production has been demonstrated in Section II.A.3 of the Project Paper. The capacity of the Entente Fund and its member nations to implement the loan is evidenced in Section IV. The Project Committee is satisfied that the utilization of the loan will contribute to the reversal of the declining food production trend in the Entente countries.

PROJECT DESIGN TEAM:

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ENTENTE FOOD PRODUCTION

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- I. Agricultural Research in Entente Region
- II. Sociological Research in Entente Region
- III. Complementary AID and other Donor Projects
- IV. State of Agricultural Technology

Annexes:

- A. Application for Assistance
- B. Logical Framework Matrix
- C. Project Performance Tracking Network
- D. USAID Director's 611(e) Certification
- E. Project Description used in Project Agreement
- F. Draft Loan Authorization
- G. Statutory Checklist

II. Project Background

A. Agricultural Evolution of Entente States

1. Agricultural Policy

Prior to the colonial period, the peoples of what is now the Entente States lived largely on subsistence agriculture. The colonial policy of developing export crops, coupled with benign neglect of traditional food crops, introduced economic duality in the coastal areas between modern plantation agriculture and traditional farming. Further north in the interior, cash as well as food crops were grown by peasant farmers but the cash crop agriculture was small scale, had little effect on food production, and left little incentive to produce for a gradually-growing urban market. Throughout the colonial period, the area remained largely self-sufficient in food grains with the possible exception of rice and wheat, which were imported for domestic consumption.

Food self-sufficiency shifted to food deficit after independence, owing principally to increased urbanization, as well as to increased consumption of bread in rural areas as well as urban areas. Urban population has risen with migration and the lowering of urban death rates. The rural population has not increased food production to meet urban demand, largely due to a thin food crop marketing system and a price policy which discouraged the cultivation of food crops for markets in favor of export cash crops. Furthermore, as the urban population developed new tastes for wheat and rice, little was done domestically to meet the new demand. The reasons for this response in food crops are complex. Investment in cash

crops was encouraged by governments facing needs for foreign exchange and taxes for growing budgets. Through the device of monopoly cash crops marketing arrangements, which provide security for input purchases financed by advances on crops, farmers were induced to invest in cash rather than food crops and governments were encouraged to continue to neglect food crop development.

Furthermore agricultural price policies were reinforced by monetary ties with France under the terms of which the CFA Franc was overvalued, thus encouraging food imports and increasing pressure for cash crop exports. Reaction to the latter pressure often took the form of campaigns to promote a single cash crop such as peanuts or cotton. Over a number of years, the food production situation deteriorated to the point where serious rethinking of food production policies and methods has recently been initiated.

The post-independence policy of keeping food prices low in urban areas stemmed from the political power of the urban elite and has resulted in subsidies for imported grain such as rice and wheat, as well as for low producer prices for domestically produced grain. Price policy generally effected a subsidization of the urban consumer by the farmer. An example of this is the price of bread in Niamey, Niger, which has not changed over the past decade. Price policy discouraged the production of rice in Ivory Coast until last year, when the producer price of

rice was increased over 100% to 75 FCFA per kilo. The consumer price also increased from 60 FCFA to 125 FCFA per kilo, inducing a decline in the demand for rice of nearly 50%, but production rose so

sharply that SODERIZ, the semi-autonomous rice marketing company, appears to have a surplus on hand, and imports of rice have ceased. Probably the price increase was excessive, surpassing the equilibrium price of rice, but the truly dramatic response indicates that price policies do effect domestic/production. A similar response obtained in Niger last year when producer prices for millet and sorghum were increased. Thus the policy of subsidizing urban food prices is beginning to shift in favor of higher producer prices, largely as a result of the drought. The drought accentuated the trend of deficit domestic food production and growing food import bills, especially as world inflation struck cereal prices and other food prices.

Another aspect of agricultural policy which has had deleterious effects on food production is the colonial and post-colonial approach to increasing agricultural production by concentrating efforts entirely on semi-autonomous development societies which focus on a single cash crop. These societies include CFDT for cotton, IRHO for groundnuts, and SODEFALM for palm oil, and IFCC for cocoa and coffee in Ivory Coast. This approach to rural development coincides with the predominant interest of governments in pre- and post-independence West Africa to rely on the rural sector cash crop exports as a key source of government revenue and foreign exchange; however, this approach leaves no

room to focus on food production, even though food crops may be highly complementary to cash crops as regards rotation, etc.

In recent years, the desirability of mixed farming with various crop rotations and the use of animal traction has come to be recognized as a sounder approach to farm systems than the traditional slash/burn technique followed by long periods of fallow. Donors and governments are pursuing this alternative approach to agricultural development through integrated rural development projects. Some of these projects are being initiated by traditionally cash crops oriented companies such as CIYD (cotton) in Ivory Coast, while others operate through regional rural development organizations such as ORDs in Upper Volta, CARDER in Dahomey and SORADs in Togo. (See Sections III.D.2.a and IV.C.2) The full elaboration of the evolution of thinking in agricultural development from single crop to crop rotation, mixed farming and integrated rural development was implicitly encouraged by the great drought of 1968 to 1973, and by world-wide inflation as regards food prices.

2. The Effect of the Drought on Agricultural Policies

The long and severe Sahelian drought of 1968-73 cut across the historical and political evolution of agricultural development described above and highlighted many problems inherent in the system. The drought reduced levels of agricultural production but more importantly it caused a shift in acreage from cash crops to food crops as farmers struggled to maintain subsistence levels of production. Despite official controls, food grain prices rose. In consequence, cereals for the first time commonly had the potential to become cash crops. Furthermore, terms of trade shifted in favor of farmers and against herders as the demand for cereals increased and herders could scarcely keep cows and other livestock alive and fed. Thus forced sale of livestock effected a transfer of wealth to farmers. The decline in per capita food production attributable in the past to the urbanization trend was accentuated by absolute reduction in production. Local shortages and world price of food led to inflation in the cities as well as starvation in the countryside of the Sahel States.

The governments of the Sahelian states were consequently forced to confront the weakness of the food crop production and marketing sector. Further complicating the effect on the evolution of rural sector strategy, the drought generated an enormous flow of relief, rehabilitation and development funds into the Sahelian states. Large numbers of expatriate donor organizations moved in generating

various kinds of projects and activities in rural areas. This inflow taxed the weak administrative capabilities of the Sahelian States and resulted in numerous activities, often characterized by an absence of coherent rural strategy and the fundamental building blocks of such a strategy: suitable technical package and manpower to manage and service operations.

3. Food Crop Production Trends

Table A shows production trends for major cereal crops in the Entente countries and in Mali. The table indicate that for all of these countries, production peaked between 1966 and 1968, and has been declining since then. In the case of Dahomey, food production has declined in absolute terms since independence. Increases in production have been most dramatic in Ivory Coast, which has doubled ^(from a very low base) the production of rice and maize, its major food crops since independence. However, absolute levels of production have little meaning if one does not take into account imported sources of food and the number of persons who depend on a given level of production.

Imports of the major cereal crops between 1961 and 1974 are cited in Table B. The most striking feature of the evidence is that food imports are overwhelmingly rice and wheat for both land-locked and coastal countries. Only Niger, during the long drought years, deviates from this pattern by importing large quantities of grain. Another striking feature is ^{the} enormous growth of food imports since independence.

Per capita food production and food import trends are calculated in Table C. ^{1/} The figures appear to lack internal

1/ Statistics of this nature are extremely unreliable: not only do developing countries have limited manpower to collect statistics, but only a small component of domestic production passes through the market place; therefore most figures are based on hypotheses.

TABLE B
Imports 000 MT

		1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Dahomey	Wheat	4.7	5.2	4.7	3.8	6.2	9.5	8.3	7.8	13.9	11.0	16.5	28.3	9.2	
	Rice	2.7	4.8	4.3	5.3	6.9	6.8	7.0	4.0	7.6	4.3	7.5	3.0	2.0	
	Other						0.7m		0.1	1.1		0.1	0.1	0.1maize	
	Total	7.4	10.0	9.0	9.1	13.1	21.8	15.8	11.9	22.6	14.7	24.1	31.4	11.2	0 nes
Ivory Coast	Wheat	48.6	44.4	55.9	89.1	64.0	113.2	61.8	64.3	47.8	100.9	32.2	76.4	141.8	
	Rice	33.9	43.2	25.6	58.1	77.9	83.2	24.1	47.2	55.6	78.8	97.2	88.0	145.0	
	Other									6.9m	4.6	1.6	2.4	2.4maize	
	Total	82.5	87.6	81.5	147.2	141.9	196.4	85.9	111.5	110.3	184.3	131.2	171.8	292.2	3.0nes
Niger	Wheat	2.7	4.3	2.0	2.0	2.0	5.0	4.9	3.9	4.9	6.9	4.8	5.6	5.6	
	Rice	0.9	0.9	3.5	1.0	3.8	1.0	1.3	0.4	0.1	0.1	0.1	0.1	0.1	
	Other				1.0	-	2.5	4.6		5.0	5.0	5.0	6.0	12.0maize	
	Total	3.7	5.2	5.5	4.0	5.8	8.5	10.8	8.3	10.0	12.0	9.9	11.6	50.0nes	67.6
Togo	Wheat	2.2	5.1	6.4	6.4	7.2	10.2	7.2	8.1	10.7	15.1	14.0	14.3	12.5	
	Rice	3.1	3.1	3.0	3.1	2.4	3.7	2.7	1.3	2.6	3.1	1.0	5.2	5.0	
	Other										0.6m	0.4	1.4	2.0maize	
	Total	5.3	11.7	9.4	9.5	9.6	13.9	9.9	9.4	13.3	18.8	17.2	21.1	19.7	0.2
Upper Volta	Wheat	5.0	7.7	7.1	9.6	11.5	15.5	16.7	18.1	19.9	28.8	27.8	22.7	25.4	
	Rice	2.3	3.6	2.2	4.8	3.2	4.1	7.5	1.3	1.5	2.6	1.3	1.6	1.0	
	Other	0.8m	0.8	1.8	0.4	0.3	1.7	3.2	0.2	0.2	0.4	14.0	5.0	23.0maize	
	Total	8.1	22.4	11.9	15.3	15.0	22.1	29.9	19.6	21.6	31.9	62.9	35.3	71.4	22.0nes
Mali	Wheat	4.3	6.3	9.8	3.8	20.4	12.3	9.8	10.1	6.5	16.7	16.6	16.7	20.8	
	Rice	0.2	0.0	-	-	0.0	-	0.2	0.0	-	3.0	10.8	15.0	15.0	
	Other											4.9	4.9	25.0maize	
	Total	4.0	2.0	0.5	0.2	1.5	3.6	3.1	0.4	5.0	0.0	26.9	21.0	55.0nes	
Senegal	Wheat	74.8	57.6	67.3	63.4	61.4	77.0	65.6	63.8	96.8	113.2	113.4	96.9	148.2	
	Rice	109.8	118.1	100.5	184.5	179.2	159.3	153.4	185.2	145.9	119.2	187	169	200	
	Other	9.2m	12.3	20.4	11.1	16.6	10.0	12.5	13.1	41.3	5.0	32.8	10.0	27.0maize	
	Total	4.2n	13.9	23.4	21.0	22.5	7.8	4.9	3.3	48.2	1.9	31.2	10.6	50.0nes	
									265.7	332.3	239.4	365.1	287.8	425.2	

* 1961-63 = 100.

** Presumably mostly sorghum

TABLE A

Domestic Production 000t

		1961-65 avg	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Dahomey	Rice	1	1	1	1	1	1	2	2	2	5	6	10	5	5	7
	Maize	219	220	223	205	228	218	204	247	222	200	224	175	207	200	
	Sorghum	59	61	53	63	57	59	49	62	59	63	43	48	50	30	70
	Millet	7	7	6	7	6	6	6	6	7	6	5	7	6	7	
	Total	287	291	284	279	295	286	262	318	292	276	285	238	269	246	
Ivory Coast	Rice	220	156	229	219	248	250	276	345	365	303	316	385	360	400	
	Maize	79	49	85	84	88	90	98	111	103	130	92	112	108	108	
	Sorghum	10	8	11	10	10	11	11	12	12	14	13	16	15	16	12
	Millet	34	27	36	34	37	34	36	37	35	33	30	29	30	30	35
	Total	350	244	366	356	391	392	428	512	523	488	453	543	515	552	
Niger	Rice	11	10	11	10	12	12	20	33	39	39	37	27	15	12	
	Maize	3	2	2	2	4	3	2	3	2	2	2	2	1	1	
	Sorghum	306	275	320	352	315	266	277	342	300	289	337	300	250	200	250
	Millet	524	500	500	500	560	560	560	580	580	590	610	550	500	400	550
	Total	844	788	835	865	892	841	860	958	922	920	986	880	766	613	
Togo	Rice	19	9	18	23	28	16	18	28	17	15	18	24	15	10	
	Maize	75	70	84	66	77	78	102	93	120	125	100	80	76	60	
	Sorghum	99	50	74	119	116	136	178	124	191	160	130	100	110	100	130
	Millet															
	Total	200	131	186	220	228	237	303	247	331	302	250	208	194	172	
Upper Volta	Rice	34	30	45	25	34	34	34	44	40	34	34	36	30	32	
	Maize	100	75	78	109	127	110	124	124	137	60	55	66	60	58	
	Sorghum	514	411	508	460	660	530	540	604	530	547	563	493	515	481	530
	Millet	300	195	261	316	378	350	350	300	368	382	378	277	278	253	260
	Total	956	726	895	918	1209	1036	1058	1081	1084	1032	1032	881	887	831	
Mali	Rice	170	185	190	160	158	158	129	172	94	119	138	170	130	100	
	Maize	80	58	72	70	109	93	76	66	107	126	80	80	60	60	
	Sorghum	782	820	940	770	661	720	765	857	757	913	600	900	600	600	750
	Millet															
	Total	1037	1067	1206	1004	932	975	974	1099	963	1162	822	1154	794	764	4
Senegal	Rice	100	83	77	106	110	122	125	138	58	163	91	108	50	70	
	Maize	32	28	27	27	37	41	42	87	25	49	39	39	30	35	
	Sorghum	483	410	428	482	536	557	428	661	454	639	405	583	430	386	500
	Millet															
	Total	614	522	532	615	683	720	595	885	537	851	534	734	510	491	

consistency: in 1961 for example Niger produced nearly four times as much food grain as Ivory Coast and consumed over two and a half times as much grain. In general the coastal countries appear to consume less grain than the Sahelian countries, largely because yams, plantains and other non-grain foods form an important part part of subsistence diets. But why Niger produces more grain than Upper Volta is not evident, unless production in Upper Volta is effected by labor migrations.

Food production per capita appears to have increased since independence in all countries except Dahomey and Niger. However, imports of grain have been increasing regularly in all countries.

Explanations underlying these trends are numerous and inter-related. First, increased urbanization has resulted in fewer subsistence producers. Secondly, domestic production prices for food have been too low to induce production of food grains as cash crop. The policy of subsidizing urban consumer prices has prevented market forces from pushing up the producer price of food grains. Thirdly, even where price incentives have begun to appear, the marketing infrastructure is too weak to support the transfer of sufficient increases in domestic production to satisfy urban markets. The recent creation of government marketing boards for food grains is creating problems in most Entente countries. In Upper Volta and Niger, the marketing boards have insufficient funds and storage facilities to

buy the produce of the small farmer at the guaranteed price. Therefore, left to free market forces, the thin market in food grains can cause prices to drop drastically after the harvest season, and little price incentive remains for the small farmer unless he possesses storage facilities. Even then, his venture is highly speculative, as he does not know what ^{price} he will receive. Finally, consumer tastes tend to change with urbanization. Rice and wheat tend to be consumed by urban dwellers, all the more so when prices of these imported foods are subsidized. A serious question with respect to these imports is the extent to which these consumer preferences will "erode" when prices are allowed to rise. Recent experience in Ivory Coast shows that the demand for rice fell by nearly 50% when rice prices were allowed to rise. Therefore, there may be considerable room for the substitution of domestic food grains for imported rice and wheat. Furthermore, rice production is feasible in each of the Entente states, and wheat production is a potentially important crop in Niger during the dry season, in rotation with rice.

Clearly, the declining per capita food production trend has serious implications for the development of the Entente nations. As world inflation continues, the food deficit will represent an increasingly large drain on scarce foreign exchange resources. With proper pricing policies and development projects, the Entente countries are capable of achieving self-sufficiency in most food crops, wheat in the coastal countries being the major exception. Therefore, the purpose of this project is to reverse the trend of food deficits in the Entente Region.

TABLE C
Per Capita Food Production and Imports in Entente States
(kilo grams per person)

	Pop. Growth Rate	1961	1965	1970	1974
Dahomey	2.2%				
All Grains <u>1/</u>		135	124	114	
Maize		102	95	92	
Grain Imports <u>2/</u>		3.4	5.7	7.4	
Ivory Coast	2.8%				
All Grains		74	106	108	
Rice		74	67	75	
Maize		15	24	22	
Grain Imports		25	38	44	
Togo	2.9%				
All Grains		85	139	125	
Maize		45	45	50	
Sorghum/Millet		32	80	65	
Grain Imports		3.4	5.6	9.4	
Niger	3.0%				
All Grains		264	255	259	
Sorghum		92	81	76	
Millet		108	170	161	
Grain Imports		1.2	1.8	3.2	
Upper Volta	2.1%				
All Grains		161	215	191	
Sorghum		91	110	70	
Grain Imports		1.8	3.1	5.7	

Source: The data were derived from FAO production and import statistics and U.N. population statistics.

1/ All grains includes rice, maize, sorghum, and millet

2/ Grain imports are virtually limited to wheat and rice.

Index of Per Capita Food Production
(1961-65 = 100)

	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>
Dahomey	106	95	97	98	97	96
Ivory Coast	93	100	112	123	122	123
Togo	116	100	103	104	98	97
Niger	82	93	87	86	66	64
Upper Volta	97	101	82	78	72	71

B. Small Farmer Development Strategy

1. The Small Farmer and Food Production

In considering an approach to increased food production, the sector goal identified in the DAP, one finds an impressive array of reasons which virtually dictate the strategy pursued by this loan project, in addition to AID's Congressional Mandate.

First, the vast majority of food producers in the Entente States live in rural areas and engage in small plot farming:

	Rural Population in 1974	
	Number	% Total Pop.
Dahomey	2.6 m.	89%
Ivory Coast	3.7 m.	77%
Togo	1.9 m.	87%
Niger	4.1 m.	95%
Upper Volta	5.2 m.	89%

Hence, any approach to food production increase - other than plantation type agriculture or a focus on the relatively few medium size holdings - must in some sense be a "small farmer" strategy. This pattern exists because of the common traditional land tenure system under which tribal land is distributed to farmers in accordance with need, ability to farm or both.

Secondly, when food shortages occur, it is usually the rural population which suffers because of the poor distribution system. Most food imports normally remain in urban areas; and domestic food surpluses in one region cannot be transferred normally to a deficit

region. Therefore, consideration of equity and need criteria again point to a small farmer strategy.

Third, recent evidence suggests that small farmer production methods tend to utilize the most efficient blend of factors of production, given relative costs. In a capital-poor country, clearly the most labor-intensive production tends to be the most economically efficient. There is little doubt but that small farmer production is the most labor-intensive.

Furthermore recent theory and fieldwork suggest that farmers are the rational utilizers of inputs in their world, as they see it. (See Theodore Schultz and Charlick's recent Study for AID in Niger.) Therefore a technology or a set of techniques which can be demonstrated to give results, without incurring too much risk in the fragile ecological conditions of the northern-most Entente states, would be adopted rapidly by small farmers, and would have large spread effects if properly supported by extension services.

Finally, food production has been relatively neglected as a development priority in West Africa. This neglect affects not only the rural population, but the entire economic development of the Entente countries, which depend heavily on the agricultural sector for foreign exchange as well as domestic employment. Food production is a necessity for all farmers in rural areas: because farmers do not have reliable access to markets, they must produce much of what they eat. Inefficient food production absorbs large relative

amounts of labor. Since labor is also a key constraint in cash crop production, it follows that increasing the efficiency of food production could both increase the amount of food produced and release labor so that more cash crops could be produced. Several evaluations of rural development projects have shown that inefficient food production is a major constraint on cash crop production and increased small farmer incomes (See Uma Lele's forthcoming book based on her African Rural Development Study).

2. Constraints to Small Farmer Production

Owing to both climatic and technical reasons, the kinds of activities feasible for small farmer food production activities are rigidly constrained.

What it is possible to produce as a technical matter is constrained by low fertility and the paucity of technical packages suitable for small farmers. "Technical packages" in this sense includes improved seed varieties, soil and water management practices and inputs at prices which permit profitability at acceptable risk levels.

What will be produced (assuming rational farmer behavior) is constrained by limited access to inputs at reasonable prices, access to markets and by the effects of price policy which generally encourage cash crop production on all land not committed to food for family consumption.

Policies and programs^{which} can be undertaken to improve the food production situation is constrained by a number of factors. The generally low population density tends to reduce the economic feasibility^{of} a number of potentially important interventions such as access roads, farmer organization based input delivery systems and marketing arrangements and so forth. The competence of government agencies to develop and implement operations is generally questionable and already overtaxed in some countries. Finally there are cultural constraints to adopting innovations in many potential small farmer project settings.

In summary, the situation cannot be characterized as one in which a few critical constraints can be identified which can be relieved by judicious investment and organization to permit a developmental surge. To the contrary, it appears that every element of the agricultural-rural sector situation presents serious obstacles to even modest development efforts. These problems include:

1. Low population densities are common which makes pro rate costs of infrastructure and services inherently high.
2. Soil fertility is low and rainfall is often low and erratic especially in the northern areas.
3. Historically investments in food crop production have been very low. Therefore farmers have generally benefitted from little exposure to modern methods. Many have no experience even with animal traction.
4. Traditional production methods are deeply embedded in the social fabric of the farming community implying that changes in production methods require significant changes in many aspects of the life of the people; however, evidence shows that adoption of profitable technology with acceptable risk can be rapid.
5. Agricultural technology has not been developed with small farmer conditions in mind. Hence, a store of knowledge suitable for rapid adaptation by the traditional farmer is not available, although some innovations could be introduced.
6. The understanding of the farmer's life and problems is limited, making it difficult for the modern sector to extend effective help to the farmer.

7. Government policy making and operational machinery necessary to promote small farmer development are both weak and already heavily engaged in various development activities.

8. Infrastructure is generally poor.

9. The system of urban places in rural areas within which facilities to support rural development must be located is marginal and often non-existent as a practical matter.

10. While conditions of deep underdevelopment are widespread, the specific characteristics of that underdevelopment and the ecological and cultural conditions within the region are highly diverse. Thus, a myriad of individual problems must be identified, understood and addressed, often in isolation.

On the other hand, there are a number of resources available which can be called into the food production process with decisive effect given a well-defined development effort. Examples of these readily available resources include:

1. Water resources which can be exploited more effectively by means of:

a) Wet soil management techniques such as improved bas-fonds, decrus and cuvette practices.

b) Soil moisture conservation practices such as use of intermediate technology, implements for scarifying, contouring and plowing.

2. Mineral and organic resources such as phosphate deposits and animal manure, which are locally available, could be applied.

3. Off-peak labor on second and multiple crops.
4. Knowledge and techniques of the best farmers which has not been gathered, understood and disseminated.
5. Use of technology of other countries in the region and worldwide research networks.

Added to the foregoing factors, there is an extraordinary climate, ecological and cultural diversity in the rural areas of the Entente States. Thus general solutions and broadly applicable programs are unlikely to emerge. It is apparent that a number of agricultural systems must be evolved in order that small farm agriculture becomes more efficient generally.

In this connection, it should be noted that an "agrocultural system" has a number of dimensions all of which must function together in some kind of dynamic equilibrium. Among these dimensions are:

1. Soil fertility maintenance systems
2. Water management systems
3. Food crop technology
4. Land tenure systems
5. Food crop production input delivery systems
6. Marketing systems
7. Rural financial systems
8. Rural organizations
9. National policy framework
10. Cultural setting of the operation.

Changing an "agrocultural" system cannot typically be effected by an intervention along one or two dimensions because other dimensions may not necessarily adjust. For example, a significant improvement in yields caused by a new seed variety may not improve the performance of the agrocultural system into which it is introduced: The surplus yield may not be marketable, the inputs may expose the farmer to excessive risk, the cultural norms of the area may dictate a reduction of acreage, or a distribution of the higher income flow thus discouraging extra efforts required of the farmer.

Thus it follows that for an intervention to be beneficial to small farmer beneficiaries of development programs, it is extremely important that operations in the field directly impacting upon small farmers be designed and managed in a way that all the factors or dimensions be at least taken into account if not directly addressed or controlled. For example, an irrigation project for small farmers cannot assume the effective functioning of the extension service in providing proper seeds since this function is essential to the viability of the project. This does not mean, however, that all small farmer development activities must be "Integrated Rural Development" programs.

To the contrary, building the technological, institutional or infrastructure base for rural development may well be so important to future activity that relatively larger investments should be made in such areas than in small farmer field operations as such. In this sense, developing agricultural technology or government

rural sector capabilities may be the "leading edge" of a longer term program of small farmer development.

Such is the case in this project. The full elaboration in the Entente States of food production and rural development strategies which will use all the available resources efficiently and thus maximize the productivity of the rural sector must be the work of decades. However, there appear to be certain prerequisites to broad scale small farmer food crop production improvement. Important contributions can be made under this project to two "leading edge" areas:

1. Development of suitable agricultural technology for small farmer productivity improvement (including improved seed, soil and water management systems and agricultural technology manpower development) and

2. Development of the capability of governments to identify, design, implement and evaluate small farmer production projects (including development of rural development manpower, analytical and management systems and capabilities to use applied behavioral sciences in rural development operations.

3. The Strategy and Appropriate Policies

Small farmer programs pose systems development problems of great complexity. Improvements in the productivity and income of small farmers typically require changes in a number of elements of the environment within which the small farmer operates including improvements in agricultural technology, input delivery systems, marketing, agricultural credit, rural savings, rural infrastructure, rural industry, base level organizations, training, the administrative framework which supports the development process, and the policy framework which defines the "rules of the game" from land tenure structure to price policy. A decisive lesson of development activities in the rural sector to date has been the recognition that "single function" projects which attempt to improve conditions of one of the numerous elements bearing on the small farmers' situation are unlikely to be effective. The small farmer faces a complex set of constraints. Substantial improvement along one dimension may relieve one binding constraint only to run into another constraint. Hence thinking in the rural development field has moved toward activities which promote systems as a whole rather than improvements in one or a few functional elements such as agriculture credit or agricultural technology in isolation.

The foregoing characteristics suggest that in the Entente states area, as in much of Africa, it will be necessary to develop a number of approaches to rural development suitable for

"micro-conditions" which will vary from each other along a number of dimensions. In order to maintain the focus of project activity in the face of the diversity of possible subproject activities, this section of the PP will explore some implications of the general problem outlined above and suggest an analytical framework to define the nature and direction of small farmer food production activities under the project.

The discussion focuses first on the range of agricultural systems in the Entente states. It then turns to functional elements thought to be necessary to assure a self-sustaining process of improvement in small farmer food production and incomes. These elements are arrayed against an arbitrarily defined set of development phases to produce an illustrative matrix of activities. It is assumed that revisions will be made in this framework in final project design and implementation.

The feasibility of any agricultural system is fundamentally constrained by considerations of soil fertility, water availability, and the culture of the farmers involved. Typically, agricultural development focuses on improvements in plant varieties and cultivation practices and extension so that farmers can learn techniques necessary to improve productivity. In many areas of interest to this project, the soil, water, and cultural characteristic of farming communities may pose constraints which especially reflect difficult problems. Even in the traditional sector, farming techniques in the

area range from those suitable to near desert land to those practiced in semi-arid and tropical ecological conditions. It is important in defining small farmer strategies for the Entente states areas to understand the breadth and complexity of this range of techniques.

An article by George Benneh of the University of Ghana^{at} Legon entitled "Systems of Agriculture in Tropical Africa"^{1/} provides a useful typology upon which subsequent analysis may be based. Benneh points out that the distinction between shifting cultivation and the plantation system oversimplifies the nature of agriculture in tropical Africa and masks the implications of changes which are taking place as a result of cultivation of cash crops, agricultural innovations and policy. He presents a classification scheme which emphasizes the dynamic characteristics of the agricultural system "as a product of a continued appraisal by the farmer/decision maker of the biological and economic resources at his disposal and and the decisions taken in light of this on 'means and practices aimed at the achievement of agricultural production and at maintaining soil fertility.'"

Each individual farm enterprise following the agricultural systems described in the Benneh typology is characterized by certain conditions in each of the various elements of farm operation and their relation to the outside world. Elements in this sense refers

^{1/} Source:

to technology, farmer organization, input delivery systems, marketing and storage, savings and credit, extension, the system by which the government manages the rural sector, and general government policy. The degree to which the potential of any agricultural system is achieved depends upon the state of development of these individual elements. It doubtless will often be the case that the most attractive development strategy to follow will be that of developing the potential of even relatively primitive agricultural systems. In other cases it will be deemed desirable to attempt to move small farmers from one agricultural system to another.

For purposes of simplifying the discussion, the conditions or elements which provide the framework within which various agricultural systems will be grouped into three "phases".

Phase I: Traditional agriculture: traditional technology; traditional social organization of production units; limited dependence on outside economy for timely inputs; on-farm storage; limited marketing interchange beyond village; minimal infrastructure; no credit; savings invested in livestock or other non-financial forms; minimal contact with government agencies; minimal influence of policy on farmer behavior.

Phase II: Transition toward modern cash crop cultivation: innovation in agricultural systems and seed varieties; initial stages of non-traditional farmer organization development (e.g. "pre-coops"); some roads and basic infrastructure; rising dependence on outside economy for credit, fertilizer, implements, seeds; group storage and marketing

of some surplus; initiation of financial savings: extension).

Phase III: Modern small farm agriculture, usually based on cash crop: wide use of technology packages developed for small farmers and locally tested; broadly based farmer organizations providing important services and feedback link to government agencies; well developed infrastructure including roads, market facilities, irrigation, etc.; substantial dependence on timely flow of inputs from outside economy; locally controlled savings and credit facilities responsive to farmer needs; effective input delivery systems; effective marketing of substantial surpluses; effective government management of rural sector; government policy supportive of cash crop production and/or rural development.

This suggests that potential small farmer food production development activities under the project might be arrayed in the form of a matrix attached as Table D.

Table D
Typical Project Activities

	<u>Phase I</u>	<u>Phase II</u>	<u>Phase III</u>
Technology	Develop cropping, soil and water management systems; improved seed varieties; field verification trials development of intermediate technology approaches for implements power	Wide scale testing of tech packages	Broad scale rural development programs based on proved tech packages; interaction of f farmers and research station activity
Organization	Develop local units (village extended family, coop farmer organization) village committee	Tiered organization servicing base level units credit input, marketing function	national scale farmer organization
Input Delivery System	Seed multiplication; delivery systems for inputs	Seed multiplication units in various areas; fertilizer and pesticides through farmer organizations	Broad availability of all inputs on timely basis
Extension	Training; develop courses for farmers; test	Operations; develop feedback from farmers to research	Broad operations, policy input
Marketing	Subsistence use, local marketing channels; on farm storage	Expand marketing to prevent impact of discontinuous markets; local storage in market towns; district center facilities	Regional or national marketing arrangements price stabilization schemes
Credit & Savings	Short term production credit	Intermediate credit; farmer organization take over credit function	Broad rural financial development
Govt. Mgmt. System	Small scale project development & evaluation	Planning, design, implementation integration; sector assessments	Region & nationwide programs of high sophistication; sector analysis & complex policy intervention
Govt. Policy	Minimum intervention; avoid counter productive policy	Price policies supportive of rural development	Complex price stabilization

Because of the nature of the environment within which the project will operate and the constraints on funds and other resources, small farmer food production projects must involve identifying and developing improvements in a number of discrete situations.

These improvements may involve one or more of the following:

1. Improve the productivity of an existing agricultural system without changing the nature of the system fundamentally (e.g., by providing improved seeds to shifting cultivators); or

2. Changing the nature of an agricultural system (generally from fallow to permanent agriculture); or

3. Increasing the complexity of agricultural systems by adding new cultural practices to existing systems (e.g., by adding tree crops or animal husbandry to an existing compound farming system.

4. "Single function" interventions directed at assuring availability of a particular input or support element in a given area, when no other imbalances are created.

Subprojects which contemplate development within an existing system of development will be based on analysis of developmental elements.

Subprojects analysis will demonstrate how each element will be addressed in the given case.

Analysis of a subproject which constitutes an effort to move a farming system and its support elements from one phase to another will demonstrate that all supporting elements are being addressed as appropriate in the given case.

Additions of agricultural systems without phase changes will demonstrate the viability of the additional system within the phase. For example, if animal husbandry is added to a bush fallow system, the capacity of the support elements within the phase to accept and support the new system must be demonstrated.

Analysis of simple function subprojects must demonstrate that the proposed intervention is viable and useful in the context of the agricultural system and development phase of the stated users and beneficiaries of the subproject. For example, analysis of a subproject to develop phosphate deposits for fertilizer must show not only the viability of the mining activity as such but also that effective demand for the product exists within the small farmer target group; that transport and distribution to the target group is feasible within a price structure which assures small farmer access to the product; that the use of the product is acceptable to the small farmer; that the use of the product does not increase small farmer risks in such a way as to limit its market and so forth.

II.C. History and Development of Proposal

1. Background of Project Proposal

On November 9, 1974 AID/W advised REDSO/WA and RDO/Niamey by cable (State 24752) of several new project ideas which had been discussed with Paul Kaya, Executive Secretary of the Entente Fund, during his visit to AID/W. Among these potential projects were two separate proposals relating to food production and agricultural credit respectively.

As the Project Design Team began the process of preparing Project Review Papers on these projects, several important observations were made which argued strongly for a configuration of the two projects, and a heavy technical assistance emphasis:

1. The sub-projects submitted by the individual countries reflected their relatively weak capacities to design projects in the complex agricultural sector. A major reason for this may be the extreme pressure placed on the countries by the Entente Fund to submit the proposals by January 1975. Furthermore, the Entente Fund requested a catalogue of needs relating to food production. Thus the countries considered these proposals to be very preliminary, and recognized the necessity to rework them to fit AID's available funding as well as subproject criteria. Finally, a number of subprojects presented are under consideration for funding by AID on a bilateral basis (Development of

Onchocerciasis-free Areas in Upper Volta, Niger
Cereal production), or by the World Bank (Seed Multi-
plication in Ivory Coast, Millet and Sorghum Production
in Dahomey).

2. The technological packages proposed by some projects were not sufficiently proven to be applicable at the early stages of the project. Since most agronomic research which has been done in the Entente countries is based on maximum fertilizer and other input conditions, applied testing at farm level conditions becomes essential to determine available packages are economically viable at the if the/ small farm level.
3. The existence of an actual agricultural credit gap for small farmers should be confirmed through a study of agricultural credit institutions, past performance, national credit policies, etc. Furthermore, the mere provision of credit to institutions does not assure that the small, economically disenfranchised farmer will be reached. To make small farmer-oriented credit effective, it must be linked to a broader package which includes appropriate technological packages, effective extension, and marketing mechanisms.

These observations led to the two-fold conclusion that

1) the Entente Fund can play a substantial role in the food production priorities of the region, including the promotion of research to develop small farmer-oriented technological packages, and the expansion of government capabilities to identify, design, implement and evaluate rural development projects; and 2) a substantial design effort must be applied to the subprojects before they can be considered for funding. The PRP called for separate FY 76 and FY 77 loan grant operations. However, the design team, which was sent to the field in June/July 1975, was instructed to determine if a single operation for FY 76 financing could be developed. With adequate provision of technical assistance, the design team felt that the capacity to design effective rural development projects could be included as a purpose of the project; that close cooperation between the project manager at the Entente Fund and project planners in the recipient countries would enhance planning capacity and facilitate effective implementation of the project; and that some of the needs addressed by subprojects were sufficiently urgent to justify rapid action in the provision of technical assistance so that subprojects could be funded by March, 1976, in time for the growing season.

2. Subproject Proposals

The subprojects initially submitted to the Entente Fund had been prepared under great time pressure and with no guidelines as to the available amount of funding. A brief analysis of these

subprojects is set out in the following paragraphs.

Upper Volta submitted a project for increasing the production of millet, sorghum and corn. This increase in production would occur through improved cultivation practices on three hectare sedentarized plots, which would be increased to five hectare plots by the second year. Two-thirds of this area would be cultivated by sorghum, millet and maize, with cotton, groundnuts and cowpeas grown on the remaining area. Crop rotation and the introduction of animal traction would contribute towards the maintenance of the fertility of the soil. The total number of farm systems to be installed were 6,000 in the Volta River Valley and 21,200 in the ORDs, benefitting a total population of 272,000 or ten persons per farm. The funding requested for the program included \$5.6 million to finance fertilizers and \$6.3 million to finance the purchase of farm implements. This request represents funding requirements for five years, with no provision for reflow calculations if the financing were to focus on agricultural credit. No provision was made for administrative costs or the training of extension agents.

While in principal the team agreed with both the purpose and the strategy of the proposal, it felt that the proposal was overly optimistic with respect to both coverage and expected output. Furthermore, the team made clear that AID would not finance subsidies. Therefore team discussions in Upper Volta centered on the provision of agricultural credit on reasonable terms to encourage

the buying of farm implements on a small farmer basis through the Banque National de Developpement, which provides agricultural credit. The team also expressed interest in promoting the exploitation of Upper Volta's phosphate resources, which through a low-cost system of exploitation could provide cheap fertilizer for the badly depleted soils of small farmers in Upper Volta.

Niger submitted requests for two distinct subprojects. The farm mechanization project consisted of subsidies amounting to \$10 million over a five-year period coupled with another \$5 million to support production costs of the equipment and extension services. The team indicated that AID endorsed the concept of promoting the use of farm implements and animal traction, but that AID would provide credit on appropriate terms rather than subsidies. Furthermore, the cost of manufacturing the proposed Nigerien equipment was nearly double the cost of similar equipment in Upper Volta. Thus the team proposed that one or more small artisan-oriented workshops based on the Upper Volta ILO model be considered. This approach would require a lower initial investment (around \$80,000 per workshop, including working capital), and could produce cheaper equipment which small farmers could afford without subsidy if medium term credit were provided. The Nigeriens appeared to be interested in exploring this approach.

The second component of Niger's proposal consisted of a \$3 million project to develop small pump irrigation units in

inlets along the Niger River which flood during the rainy season. These small irrigated perimeters of 20-40 hectares would be cultivated by small farmers. The cost would include land leveling, diking, and 10 horsepower pumps to assure the supply of water. The team concurred in the low-cost technology approach and the small farmer-oriented production promoted by the project. The team also proposed that a Field Trial Officer be provided to test rice varieties in these and other conditions (bas-fonds and cuvettes) characteristic of traditional rice farmers in Niger. This expert would work in close cooperation with WARDA, the West African Rice Development Association.

Ivory Coast requested three subprojects in support of maize production. The first project was to finance a seed multiplication center for hybrid and composite maize, including 300 hectares for hybrid and 100 ^{hectares} ~~ha.~~ for composite maize. About one-third of the \$3.3 million project was to finance construction costs while the remainder was to finance operating expenses over a four year period. The team did not fully concur with the project on the following grounds:

- 1) The World Bank is already committed to financing a seed multiplication center for maize; thus the only possible AID input would be to provide irrigation equipment which was overlooked in the World Bank project.
- 2) Hybrid maize is very expensive to multiply, since plants must be crossed every year. Thus a large area is required for seed

multiplication. Synthetic or composite maize, on the other hand, is cheaper because it requires a small area for multiplication and provides comparable yields in normal small farmer conditions.

3) Hybrid maizes require annual purchasing of new seeds, since yields diminish rapidly in second and third generations. Thus synthetic seeds, whose yields remain high, appear to be preferable since small farmers are not accustomed to buying seeds annually even if an adequate delivery system existed.

The second component of the Ivory Coast request was \$8 million for two 10,000 ton maize storage silos, five hangars for collection depots at Bondoukou, Bouake, Daloa, Bouagle and Korhogo. The storage silo facilities must be capable of cleaning, drying, aerating, and fumigating grain; removing dust; maintaining quality and loading out the grain. This is estimated to cost 65,000 FCFA (\$325) per ton plus 5,000 FCFA (\$25) per ton for storage, or 64¢/bushel compared to 10-15¢ in the U.S. The team pointed out that these costs were excessive, and that the risk of spoilage or infestation in large silos is high. The team indicated that AID would favor small grain storage units with driers similar to those in Dahomey. These units cost about \$30 per 2-ton storage unit and about \$100 per drying unit which can be shared by up to ten farmers, or about 3-4¢/bushel if ten farmers share a drying unit.

The third component consisted of training nine research workers, (M.S. or Ph.D. level), 15 agronomic engineers and 13 technicians. Training in the U.S. is calculated at \$20,000 per year,

although more recent estimates by Ivoirian officials fall into the \$9,000 range.

Further discussions with officials revealed that their training needs had been revised since the submission of the Entente Fund proposal to include approximately 18 masters degrees, approximately 4 at Cornell in maize breeding; 6 at Illinois in soy beans, 4 at Florida in animal sciences, and 4 at McGill in agricultural economics. Given the importance of developing appropriate technological packages at the small farm level, the team agreed that training would constitute an appropriate use of loan funds for the Ivory Coast. The subject matter of AID funded training will clearly be relevant to domestic food production needs. The countries of training have yet to be determined, but will likely be limited to Code 941 countries.

Togo's proposal consisted of a nation-wide program to expand maize, sorghum and millet production. The administrator/organizer of the \$24 million project would be the Ministry of Rural Economy; research would be provided by the Institut Polyvalent de Recherche de l'Economie Rurale; the five SORADs (Societe Regionale d'Amenagements et de Developpement, similar to ORDs in Upper Volta) would provide extension services; the CNCA (Caisse Nationale de Credit Agricole) would provide credit and financing; and storage and marketing would be the responsibility of Togo grain. The actual funding for the project would be \$14 million to subsidize fertilizer at 15 FCFA per kilo; \$5 million for selected seeds; \$4.3 million for extension (\$8,500 per agent per year); \$10,000 for seed protection and \$750,000 for three foreign experts for five years. Clearly the proposal was beyond the scope of the present project. Team discussions

with local officials indicated that Togo has no facilities for seed multiplication: this should certainly be one area for AID financing in Togo.

Dahomey's proposal consisted of a program to expand maize, sorghum and millet production in areas which are presently covered by cash crop extension programs in cotton and peanut growing areas. The \$15.3 million program would finance seeds, insecticides, dryer/storage operations, extension and marketing. The proposal was intended to cover major food production needs in Dahomey, for both domestic

consumption and export. However, the team learned that the IBRD is in the process of negotiating an integrated rural development project which covers food production ^{needs} in about 80% of the country. Therefore the team recommended a project in the Atacora region in northwest Dahomey, which is outside the IBRD project area and was cited in the CWR DAP as one of the poorest regions in Dahomey which should be considered for AID assistance. Team discussions with the Minister of Rural Development also indicated that rice development in the bas-fonds of Northern Dahomey including the Atacora region have become a major priority for the Dahomean government.

3. Evolution of Project Concept

On the basis of the above analysis, the Design Team felt that the process of subproject development had not advanced from the level described in the PRP (page 3 Para 1). Thus the objective of telescoping the PRP concept of a two stage operation into one FY 76 financing on the basis of identified and adequately developed subproject appeared to be effectively thwarted at the outset. The team therefore proceeded to discuss these proposals with each government, laying out basic criteria for subprojects (see Section III.E.1.) and indicating the amount of funds which would initially be made available: \$2,500,000 ^{per country} in grant funds to Upper Volta and Niger; and about \$3,300,000 ^{per country} in loan funds to Ivory Coast, Togo and Dahomey. The Niger government requested that they be given a chance to submit new subprojects

since they now understood how the funds would be utilized. Ivory Coast had also reconsidered its priorities, and proposed to submit a more definitive set of subprojects.

Since the proposals of Upper Volta, Togo and Dahomey governments were also rather general in scope and far in excess of available funds, they too requested an opportunity to submit a definitive set of subprojects. The officials who met with the team welcomed this opportunity, since the initial projects had been prepared under great time pressure, and in some cases government priorities had changed. One government/ ^{official} was actually embarrassed that the projects had been transmitted to AID in such a preliminary state of preparedness. By the end of the team visit, the Entente Fund had officially contacted its member states to proceed with the submission of subprojects consonant with the availability of funds, and with AID's Congressional mandate of focusing on small farmer production.

Since the project planning capacity of the Entente states appears to be limited, the team proposed that the actual development and design of the project await the arrival of the project management team which will have access to technical assistance funds to provide the necessary expertise for all phases of project design. The team felt that the experience of developing rural development projects with the Entente Fund and other experts would enhance the overall planning capacity of the Entente member states.

The main conclusions drawn by the Project Design Team are that the needs of the Entente nations in the domain of food production are numerous, and that the Entente Fund through this project can play a significant role in encouraging national and regional responses to these needs. The first of these needs appears to be agricultural research capability, especially as it permits the evolution of small farmer-oriented technology. Four of the five Entente governments requested a heavy emphasis on agricultural research, followed by seed multiplication and application to small farm conditions. Furthermore, the Ivory Coast and Niger considered the training of their nationals in agronomic research a prime priority if their countries were to be capable of determining their own research priorities. Given the obvious need for viable technology packages which are applicable to traditional farming conditions, and the nearly complete lack of research in this area by IRAT and other French research stations (See Section IV.B.1. and Appendix I), this focus appears to comprise an essential emphasis for any food production loan.

The second need which emerged from subproject requests is the development of a national capability to identify, design, implement and evaluate rural development projects. Thus training needs for the identification and design stage, the implementation stage, and the evaluation/feedback capability should be included in the project. The project should also attempt to draw on and develop the

resources of local sociological research institutions both for evaluation needs and to encourage feedback and coordination among sociologists and rural development promoters.

In addition to a strong focus on agronomic research capability, the project concept focuses on specific subprojects which draw on and develop the above capabilities. These subprojects provide in one sense the basis of the project, but in another sense they represent the culmination and synthesis of the research capability and project design/implementation capability efforts of the project. In other words, the subprojects serve as testing and training grounds for the research and implementation capacities of the Entente states. This continual interaction between research orientation and project implementation provides the final training ground in the real world for project participants.

In subsequent discussions, the team tested the commitment of the governments and the Entente Fund to the proposed project and explored possible interest in redefinition of subprojects to respond to technology and rural sector management objectives. The responses demonstrated a creative interest in pursuing the line of inquiry invited by the design team, and in redefining the preliminary subproject proposals into reasonable responses to complex problems. After further consultation with the Entente Fund in Abidjan, the project design described herein was defined.

III. Description of Project

A. Goal and Purpose

The goal of the project is to reverse the trend of declining per capita food production and increasing food imports in the Entente member nations through increases in the production of basic staple food crops including both cereals, and fruits and vegetables which are commonly produced by small farmers and consumed by the poor majority. Thus sub-projects funded under the project will promote food production by small farmers, primarily for domestic consumption. By promoting the goal of increasing the per capita production of basic foodstuffs, the project will enable Entente countries to reverse the trend of growing import food bills which have increasingly eaten away at foreign exchange earning (see Section IV.D.1). At the same time, the project should improve the nutritional intake as well as the income level of the rural poor.

The strategy of the project is to promote self-sufficiency in select food crops (e.g., those chosen as priority crops by Entente member states) by achieving higher equilibrium levels of production, marketing, and prices, all of which are highly inter-related. At the present time a major deterrent to increased food production is low and uncertain producer prices. Where prices have risen in recent years (rice in Ivory Coast, sorghum and millet in Upper Volta and Niger), production has increased during years of adequate rainfall, but marketing boards have been unable to buy all the grain produced owing to limited storage capacity and lack of funds. This is often the result of excessively high guaranteed producer prices, far beyond the equilibrium level, causing higher levels of production than can be handled

by marketing boards. Alternately, given the thinness of markets for most cereal crops, slight over-production can cause excessive price decreases, resulting in a deterioration in farmer income, and lower production in subsequent years. Therefore, prices must be close to an equilibrium level if markets are to remain stable. Furthermore, production must be not only stable, but also reliable: it is the vicissitudes in agricultural production, which depends on weather, insects, disease, storage, and overall good fortune, that plague price policy-makers. Thus the strategy of the project is to promote stability of production, prices and markets by attempting to mitigate the effects of vicissitudes in the delicate art of food production.

The purpose of the project is therefore to increase the level, efficiency, and reliability of food production by small farmers in the Entente nations. This purpose is consonant with the project strategy of achieving stable levels of production. Each of the Entente states is technically capable of supplying itself (and perhaps other countries) with basic cereals including rice, and in some cases, even wheat (e.g., Niger). However, in the first instance the problem is not so much an increase in production as maintaining the capacity of marketing boards to purchase all available produce. Excessive production could harm rather than help the small farmer who is the pawn of cereal traders and marketing boards and bears a disproportionate burden of decreases in price resulting from excessive supply. By increasing the level, efficiency, and reliability of food production by small farmers, the farmers themselves can devote less energy to subsistence production, and can determine for themselves whether to produce export

crops or food crops as cash crops. Thus the income level of farmers will increase rather than be subjected to the fluctuations of thin markets in food crops. Stability of prices and markets will then permit further expansion of production commensurate with the rational evolution of markets over time.

An additional purpose of the project stems from a recognition that the present project cannot aspire to solve all the food production problems in the Entente states. Therefore a second purpose of the project is to develop the capability of Entente member states to plan programs and to identify, design, implement and evaluate projects aimed at improving the productivity of small farmers in growing food crops.

This project complements a series of bilateral projects in the Entente member states with similar or related objectives. The project, however, utilizes the vehicle of the Entente Fund for planning, coordination and implementation functions. The relationships between this project, other Entente Fund projects, AID bilateral projects and other donor projects necessarily vary from country to country. Therefore AID representatives in the Entente countries will collaborate with the Entente Fund and the project manager in the design, negotiation and implementation of subprojects.

B. Project Outputs

1. Subprojects

The major project output will be the identification, design, implementation and evaluation of one or more viable, small farmer oriented food production projects in each Entente country. These projects will range

from integrated rural development projects which emphasize food production in well-defined regions, to provision of credit for farm implements, support for farm implement manufacture or domestic fertilizer production, seed multiplication, dissemination of reliable higher-yielding varieties, training of extension agents, and support in research to adapt technological packages to local conditions and in training to assure a permanent capacity in this vital area. Most projects will include several of the above components; however, the PP team, in consultation with the Entente Fund and Entente member governments, has determined that single function projects such as the availability of low-cost phosphate fertilizer, seed multiplication or the manufacture of farm implements complemented by credit and follow-up should be admissible as subprojects if they address a vital link in improving small farmer food production without resulting in other imbalances, and are viable without other supporting interventions.

Criteria for the eligibility and design of subprojects are discussed in Section III.D. below.

An illustrative list of subprojects is forthcoming.

2. Agricultural Credit

Since agricultural credit is foreseen as a component of most subprojects, and since agricultural credit programs with proper follow-up or supervision of credit are eligible as subprojects, a second output of the project will be improved access to credit on reasonable terms to small farmers, with proper follow-up of such credit, on a select basis. Although agricultural credit was foreseen as a major component of the project at

early stages of project design, the design team felt that small farmer credit required substantial follow-up and technical assistance, if it was to be successful. It appears to be preferable to begin with small, carefully administered, credit programs, in order to insure that small farmers do not become disillusioned from bad experiences with credit.

3. National Capacity to Promote Rural Development

An essential element in the long term capability of Entente states to pursue effectively goals in the rural sector is the capacity to identify, design, implement and evaluate rural development projects. Without this capacity, national priorities cannot be translated into effective actions which produce the desired results.

The present project provides an excellent training grounds for the objective of developing national planning and implementation capability. First, the project management team and its contracting expertise will work closely with government planning officials in designing subprojects. Similar collaboration will be maintained through all phases of implementation, evaluation, reassessments of design, etc. Such collaboration will also be extended to all training for extension agents and credit agents. Periodic assessments of progress made under each subproject will include all affected parties: farmers, agents, administrators, and planners.

Special measures will be taken in addition to the above to provide training and technical assistance in the following key areas crucial to successful subprojects.

a) Agronomic Research

A major prerequisite for any rural development project

is a technology package which is technically feasible and economically viable at traditional farming conditions. At the present time very few such packages or components thereof have been adequately tested. Agronomists in the region, both national and expatriate, are just beginning to realize the implications of the lack of systematic research in this area. Indeed, French research in the area is almost entirely geared towards maximizing output under maximum fertilizer conditions rather than optimizing output given relative costs of inputs and prices for the final product. Furthermore, most French research is carried out under irrigated rather than rainfed conditions, since most agronomists leave for vacation during the traditional growing season. (See Section IV.A.3.)

National priorities in the Entente countries are focusing increasingly on their research capability, without which they cannot determine and implement their own research and production priorities. Given the obvious need for viable technology packages which are applicable to traditional farming conditions, the project design team places a high priority on the development of a national research capability. This problem will be addressed by the project in the following ways:

- 1) The project will provide field trial officers in countries as necessary for the success of subprojects. These field trial officers will be responsive to government priorities and knowledgeable about national rural development efforts which are relevant to the subprojects in the entire region. They will work closely with other agronomists and appropriate international institutions (See Table __). Complementarity among areas of expertise will be considered in choosing field trial officers: Niger, for

example, has requested a rice expert for improving traditional farming practices in bas-fonds, cuvettes and flooded river banks. Upper Volta and Dahomey have both expressed interest in this approach to rice cultivation. Conceivably, one rice expert may well be able to contribute to programs in these three countries. Similarly a maize specialist requested by Ivory Coast could benefit all coastal countries and perhaps Upper Volta. Each field trial officer will have one or two national counterparts who will carry on these activities on a permanent basis. In Upper Volta it is anticipated that the officer will collaborate closely with the ICRISAT sorghum and millet expert located near Bobo-Dioulasso.

2) The project will provide ten scholarships (two per country) to train agronomists in the United States or other Code 941 countries such as Tunisia, at the Master of Science level. Local officials concurred with the design team that training in the United States was more practically oriented and therefore more useful in application to food production problems than training in France. The beneficiaries of these scholarships will be determined by the project management team, AID country representatives and host country representatives.

3) Each subproject will address the question of appropriate technology at the farmer level. This will include more than agronomic research and technology. The assessment will include a) practicability of animal traction, its effects on yield and soil fertility, and its overall profitability to the farmer; b) effect of single function subprojects such as agricultural credit, farm implements, or phosphate fertilizer application; and c) technical feasibility of grain at the small farmer

level. (See Section IV.A.3.)

b) Sociological Research

One scholarship per Entente country will be offered through the technical assistance grant to train a sociologist or rural development specialist. The project will also draw on and develop the resources of local sociological research institutes both for evaluation needs and to encourage feedback and coordination among sociologists and rural development officials. \$200,000 has been set aside to fund sociological research activities in rural development problems related to traditional food production. Sociologists at the local level are expected to contribute substantially to project design efforts, evaluation of implementation procedures, and to conduct base line studies, small farmer budgets, and regular evaluations of the progress attained by subprojects in both measurable and qualitative terms.

C. Project Inputs

1. Capital Assistance

AID project inputs include capital assistance on both a loan and a grant basis. Capital assistance totals \$15 million: \$10 million in loan funds will be provided primarily to the coastal Entente states, Dahomey, Togo and Ivory Coast, although the Sahelian Entente states will be eligible for use of loan funds for various revenue producing components of subprojects, to the extent that they are inclined to do so. \$5 million in grant funds will be provided to the Sahelian Entente states, Niger and Upper Volta, and to Dahomey. Initially, these funds will be allotted equally among the Entente countries (approximately \$3.3 million in loan

funds for each coastal state and about \$2 million in grant funds for each Sahelian state, with the remainder for Dahomey. If within a year after the first disbursement of the project, a country appears to be unable to utilize its portion of capital funds, other countries will be given opportunities to submit subprojects on an equitable basis. (See Section IV.B.2.) No country may utilize more than 30% of total project funds, or \$4,500,000.

The Entente Fund will aim at acquiring counterpart contributions of about 20% of subproject costs. This requirement is intended to assure host country commitment to the subproject, as well as the capacity of the host country to assume all project costs by the end of the third year. Counterpart funding will support local costs such as land-leveling, construction, land grants for seed multiplication and research, and local personnel.

2. Technical Assistance Grant

A technical assistance grant of \$1,680,000 will support the project. The components of the grant will be as follows:

- | | |
|--|-----------|
| 1. Project Management Team
Three full-time professionals for two years each at \$70,000 p.a., including skills of an agricultural economist, rural development specialist or sociologist, and a cereal production specialist. | \$420,000 |
| 2. Ten 2-year scholarships for agronomists in food production (two scholarships per country). | \$200,000 |
| 3. Five 2-year scholarships for sociologist/rural development training (one scholarship per country). | \$100,000 |
| 4. Consultant contracts to assist in project design and implementation. | \$200,000 |
| 5. Funds for evaluation and sociological research in food production problems (for use by national sociological research groups, or at their request). | \$200,000 |

6. Seminars and training of country participants in agricultural planning, credit and extension.	\$200,000
7. Field Trial Officers or toher agronomic/adaptation experts in Togo/Dahomey, Upper Volta/Niger, Ivory Coast on a short-term or full-time basis. (Two or three for two years at \$60,000 p.a.).	\$360,000
TOTAL	<u>\$1,680,000</u>

The project management team will be complemented by the Entente Cereal Project team residing in Niamey and the Entente African Enterprise team residing in Abidjan. The former team consists of a training officer, an engineer and a grain storage expert, while the latter includes a financial expert who can assist with the credit component of subprojects, since he is familiar with local development banks, and has a Ph.D. in agricultural economics.

D. Eligibility Criteria for Subprojects

1. Eligible Beneficiaries

Eligible beneficiaries or sub-borrowers include the governments of the Entente member states; their semi-autonomous mixed corporation; their states corporations; their public institutions given a legal entity and financial autonomy; and their professional societies, cooperative associations or semi-private enterprises which are legally established and presented by Entente governments.

2. Eligible Subprojects

Subprojects should promote a self-sustaining process of development (as distinguished from a resource transfer) by means of operations such as:

- a. Development of manpower for agricultural research and

agricultural sector management;

b. Development and use of agricultural technology and adaptive research relevant to small farmers and small farm units;

c. Development of income producing skills of rural men and women;

d. Development of organizations and institutions to mobilize rural energies and rural savings for development purposes;

e. Development of infrastructure and facilities which assist small farmers in producing and marketing their crops.

3. Criteria for Subprojects

The following criteria will be applied to subprojects to determine their eligibility for funding under this project:

a) The subproject must address food production needs oriented primarily towards small farmer and other domestic consumption. This criteria will assure that domestic consumers are the primary beneficiaries of subproject.

b) The subproject must focus on small farmers as the primary vehicle for expanding food production. This criteria will assure that project planners respect equity and income distribution considerations.

c) Subprojects may include or concentrate primarily on the following:

1) Integrated rural development projects with primary emphasis on a food crop, but without ignoring cash crops for purposes of increasing income, economic use of fertilizer, repayment of animals and farm implements and crop rotation. This approach is in recognition of the fact that food production, like cash crop production, does not exist in a vacuum, but should be treated as an integral component of a mixed

farm as pure farm system.

2) The addition of a food crop component to an existing project which focuses primarily on cash crops. This approach allows the project to benefit from existing extension, input and marketing infrastructure.

3) Discrete single-function subprojects which address critical bottlenecks in small farmer food production without creating imbalances in the overall production/marketing system. Agricultural credit, particularly medium term credit at reasonable terms, may constitute one such bottleneck if extension follow-up can be assured. Other possibilities include the exploitation and delivery of phosphate deposits in Upper Volta or Niger, thereby providing cheap, crushed fertilizer at about 15 FCFA per kilogram; the manufacture and repair on an artisanal level of simple farm implements such as plows, hoes, seeders and carts; seed multiplication or seed protection; adaptive research; and experimentation with new farm techniques which have not been fully tested.

4) Subprojects should possess the following characteristics:

(1) No subsidies for agricultural inputs will be financed by project funds, except under special circumstances, such as the demonstration of the use of local phosphate fertilizers, etc. However, AID recognizes that price distortions are rampant in the Entente countries at numerous levels which affect the small farmer. Thus the low producer prices received by small farmers tend to render economically unviable at the small farm level the purchase of inputs of fertilizers, seeds and pesticides without subsidies. Therefore AID does not object to subsidies financed from the profits of marketing boards which pay low producer prices, or from

phosphate revenues if a country such as Congo decides to embark on this course. This principle of no subsidies financed by project funds applies to all project funds, including grants to the Sahelian Entente States. It also applies to agricultural credit which may not be offered from project funds at less than 8% p.a., and will be encouraged to be higher.

(2) The subproject should be self-sustaining (with possible local government support) at the end of three years.

(3) Technology promoted by the subproject should be low cost and labor intensive, thereby assuring an acceptable benefit/cost ratio at the project level.

(4) The economic rate of return of investments made on the small farm level must be demonstrated as profitable, assuring the economic viability of the subproject at the small farm level.

(5) A potential for spread effects or for the replicability of the subproject should be demonstrated, so that the subproject may ultimately benefit a large number of small farmers.

(6) The subproject should address the potential productivity of all social groups or persons presently involved in food production, particularly women, who play an important role in traditional food production, but whose productivity is very low because they have been largely ignored in rural development projects.

5) Counterpart contributions of about 20% of subproject costs should be the target for each government. This will ensure a government commitment to the subproject. It will also ensure that the project will be self-sufficient and/or supported by the government at the end of three

years. Local costs such as personnel (which AID will fund only on a phase-out basis), land for seed multiplication, land-leveling and construction will comprise the major components of counterpart funding.

4. Source/Origin Procurement

a) Procurement of Commodities

At least 10% of the loan and grant capital funds made available under this project will finance procurement from Code 941 countries in the U.S. Geographic Code Book. This general guideline will be issued to each participating country, and will be applied to both goods and services financed under the project. For the purposes of this provision, all procurement from Entente countries will be considered local procurement.

Code 935 procurement will be limited to transportation requirements and contractor services relating to activities essential to the success of approved subprojects. Code 935 procurement may not exceed 10% of capital funds or \$1,500,000.

b) Shelf Item Procurement

The following definition will be applied to imported shelf items financable under the project: items which are normally imported and kept in stock, in the form in which imported, for sale to meet a general demand in the country for the item, are eligible for AID local currency financing, so long as:

(1) they do not contain components from other than the free world countries;

(2) no single shelf item procurement transaction involves more than the local currency equivalent of \$3,000; and

(3) the total purchase value of all such transactions shall not exceed 10% of project funds or \$1,500,000 in local currency equivalent.

c) Procurement of Technical Services

The necessity of contracting technical services from Code 935 countries in the course of project preparation and implementation is likely to occur simply because French-speaking American technicians are of limited availability. A maximum 5% of technical assistance grant funds may therefore be used to support Code 935 contractor services which are essential to the success of subprojects, if the Entente Fund cannot support the cost.

5. Counterpart Contribution

a) Entente Fund (tentative)

The Entente Fund will be requested to bear a portion of the local costs of the project management team, local training costs, and the major portion of the Code 935 procurement essential for the provision of technical services.

b) Recipient Countries

Counterpart contribution by Entente countries will be approximately 20% of subproject costs. This participation will ensure that the government is committed to the project. It will also provide governments with available resources (e.g. Niger and Upper Volta) with sound, development - oriented investment opportunities.

The counterpart contribution will help to ensure that the project will be self-sufficient and/or supported by the government at the end of three years.

Counterpart funding will be used to finance local costs such as local personnel, land-leveling, road repair, land for seed multiplication

farms and research, and construction.

E. The Borrower and Implementing Agencies

1. The Borrower and Administering Agency

The Borrower and Administering Agency is the Mutual Aid and Guaranty Fund of the Council of the Entente (the Entente Fund), a political association established in 1959 by the governments of the Ivory Coast, Niger, Upper Volta and Dahomey and joined by the Government of Togo in 1966. In recent years the Entente Fund has become an economic development institution which has served as a major vehicle for channeling AID assistance to the five Entente countries. The principle objectives of the Fund are to 1) provide a Guaranty Fund to encourage investments in the member states; 2) foster increased trade, commerce and investment between the Entente countries and their neighbors; 3) promote economic integration in the region; and 4) develop specific projects and obtain assistance from donors.

The 1966 convention creating the economic and development arm of the Entente Fund provides for a Secretariat headed by an Administrative Secretary. At the present time the Administrative Secretary, the only African on the staff, is assisted by a staff of four donor-financed advisors, three French and one American. These advisors perform the essential administrative tasks of the Fund including financial management and budgetary control. They also advise the Fund on agricultural matters and other economic development matters in the Entente nations.

The small staff of the Fund is currently responsible for the

operation of the following FAC, FED, CIDA and AID-financed programs, several of which are jointly funded: a regional training center for road maintenance in Togo; a livestock center, the Entente Livestock Community (ELC) in Ouagadougou; a Regional Cereals Office in Niamey; and a Program of Assistance for African Enterprises in Abidjan. These centers, which have operated with varying degrees of success, are intended to serve as sources of technical expertise in their respective technical areas. To provide management for these specific development projects, the Fund recruits special personnel on a contract basis. These personnel are not considered staff members of the Fund, because they deal exclusively with the project for which they are recruited. Policy and budgetary matter for these projects are handled at the level of the Administrative Secretariat, occasionally with limited inputs from contract personnel.

Despite its initial successes with a small staff, it is now apparent that an expanded staff capability is essential if the Fund is to act as the successful conduit for the larger level of grant and loan funds that is now contemplated, particularly when those activities will be in the more complicated agriculture sector. In recent design efforts, the Fund has had limited inputs because its staff is preoccupied with on-going projects. The problem is particularly acute in the area of agriculture, where one expert handles all technical and policy aspects of livestock, cereal stabilization and food production in each of the Entente states. All of these areas are immensely complex from a development point of view, especially when one considers that five different national situations are involved.

2. Implementing Agencies

The chief responsibility for implementing subprojects at the national level will be the Ministry of Agriculture or the Ministry of Rural Development in each country. These ministries will coordinate the administration of the various components of subprojects among the following national agricultural institutions:

a) Agricultural Credit:

- Upper Volta - Banque Nationale de Developpement (BND)
- Niger - Caisse National de Credit Agricole (CNCA)
- Ivory Coast - Banque Nationale de Developpement Agricole (BNDA)
- Togo - Caisse Nationale de Credit Agricole (CNCA)
- Dahomey - Banque de Developpement de Dahomey (BDD)

b) Extension Services:

- Upper Volta - Organismes Regionaux de Developpement (ORD) established since 1965 to plan and implement development programs in their respective regions
- Niger - Unione Nigerienne de Credit et de Cooperative (UNCC) established in 1962 and reorganized in 1967 to promote cooperatives and train extension agents
- Ivory Coast - Societe de Developpement Autonome set up by the government for the development of one or more specific crops. SATMACI, established in 1958, carries out development programs for coffee and cocoa; SODEPALM, established in 1963, handles palm oil production; CIDT handles cotton and textiles; SODERIZ has handled rice production since 1970; and the AUB which is responsible for developing the Bandama River Valley. A similar service will be established for maize, or an existing service will extend its responsibilities to include maize.
- Togo - Societe Regionales d'Amenagement et de Developpement established in 1967 for each of the five administrative regions and made responsible for development programs, extension services, provision of inputs and implements, and to act as intermediaries between the credit institutions and farmers.

Dahomey - Centre d'Action Regionale pour le Developpement Rural (CARDER) recently created organizations to consolidate rural development planning and implementation.

c) Marketing Institutions:

Upper Volta - Office Nationale de Cereals (OFNACER) created in January 1971 as a price stabilizing agency for cereal crops

Niger - Office des Produits Vivrier du Niger (OPVN) established in 1970 to reduce cereal price fluctuation, to maintain buffer stocks and to promote cereal production

Ivory Coast - Marketing is handled through the autonomous development societies, although a maize marketing board will probably be established if AID enters into a maize production project

Togo - Togograin, recently established in 1973/74, is a public agency which is supposed to regulate the supply and prices of all food crops

Dahomey - No marketing agency exists for food crops, which are marketed at the farm level through traditional channels at prices which hardly stimulate farmers to increase production. The government is encouraging the development of cooperatives which might perform marketing functions, but little progress has been achieved thus far.

In recognition of the crucial role which marketing plays in any attempt to increase food production, this project will make a concerted effort to assure a reliable marketing system within the context of each sub-project. This system may involve special relations with the relevant national marketing institution; the organization of marketing cooperatives; the provision of grain storage facilities to enable farmers to control their own marketing arrangements; or assistance to private traders (possibly through the Entente Enterprise project) or to semi-autonomous agencies, such as AGRIPAC in the Ivory Coast, who will enter into contractual agreements

with small farmers to purchase a given amount of grain at a guaranteed price. Since a limited portion of project funds will be eligible for Code 935 procurement for transportation, the project can extend considerable assistance in this assuring the vital marketing link in each subproject.

d) Agricultural Research

Each Entente country has its own agricultural research institutions. IRAT (Institut de Recherche Agronomique Tropicale), sponsored by the French and directed from Paris, is represented in each Entente country, and performs basic research, which appears to be oriented towards maximizing yields rather than optimizing production. Little of IRAT's work spreads beyond its research stations in the Entente countries, since adaptation to local conditions is not IRAT's responsibility. Whatever adaptation or extension occurs is carried out through the extension services described above. Other research services are mainly cash crop oriented, although major international research institutes are represented in some countries; ICRISAT has placed a sorghum/millet breeder at an IRAT station near Bobo-Dioulasso in Upper Volta, and contacts are maintained between IRAT and IITA, WARDA, ICRISAT, IRRI and CIMMYT.

e) Sociological Research

The following institutes will provide sociological expertise to conduct evaluations of subprojects, and other studies which promote the design of subprojects and of rural development in general:

Upper Volta - Centre Voltaique de Recherche Scientifique (CVRS) and Societe Africaine d'Etudes pour le Developpement (SAED)

Niger - Insitut de Recherche Sociologique et Humaine

Ivory Coast - Centre Ivoirien de Recherche Economique et Sociale (CIRES) and SONADES, charged with research in rural extension

Togo - Institut Polyvalent de Recherche de l'Economie Rurale

Dahomey - to be determined

F. Subproject Approval Process

1. Subproject Submission

The development of subprojects will require close collaboration between the project management team, and host country officials. Local AID representatives in each country will provide both institutional support and policy guidance throughout this process, so that the project management team can benefit from AID familiarity with local conditions. AID involvement at this stage will further insure that subprojects are consistent with other AID projects in the Entente countries and with AID's strategy as set forth in the CWR DAP. AID country representatives will also assist the project management team with necessary subproject-related negotiations with the relevant host country ministry to assure that local institutions and policies are appropriate to assure the success of the subprojects, and that host country contributions are reasonable. This AID role will alleviate the burden on the Entente Fund to negotiate issues which politically the Fund may find difficult.

When the host country, the project management team and AID country representatives are satisfied that the subproject is technically sound, economically feasible and consonant with the objectives of the project, the subproject will be submitted to the Entente Fund in accordance with the Subproject Analysis Framework outlined in Section IV.B.2.

2. AID Approval of Subprojects

AID will approve all subprojects at the level of the Country Development Officer in Upper Volta and Niger, and country representative in Togo, and Dahomey, and REDSO in Ivory Coast. AID approval will consist

of 1) a determination that the project criteria as set forth in Section III.F.2 are respected; and 2) a determination that the project is consistent with other AID projects and does not replicate or conflict with other donor activities in that country. Since AID country representatives will have been involved in the development of the subproject, no technical determination will be necessary and AID approval at this stage will be routine. AID approval should be submitted to the Entente Fund in writing no later than two weeks after the Entente Fund receives the project.

IV. Project Analysis

A. Technical Soundness Analysis

1. Technical Design of Project

The project has been designed to take into account the complexities of planning food production subprojects in the rural sector, and the limited capacities of Entente governments to perform this task. The technical assistance component of the project provides for a competent project management team which will work closely with local officials in each country at every stage of subproject design and implementation. Local AID officials will also assist in the design of subprojects to assure that subprojects are consistent with AID priorities and with other donor activities in each country. (See Section III.G.2.)

The flexibility of the use of project funds within the context of small farmer food production projects contributes to the technical design of the project in several ways. First, the Entente governments bear the burden of assessing their priorities in the food production sector, in order to identify areas where subprojects would have a significant impact. Second, the technical feasibility of the identified subproject will be worked out in coordination among the project management team, host country officials, local AID representatives, and local farmers, extension agents, marketing boards, etc. This process will assure that funds are allocated thoughtfully and efficiently. Third, periodic evaluations will assure that subproject funds are utilized flexibly and efficiently in light of changing conditions or reassessment of needs.

The technical organization of the project centers on the respective

Ministries of Agriculture, Rural Development or Rural Economy in each Entente state. These ministries will coordinate the design and implementation of subprojects among their own personnel including extension agents, and other relevant organizations including marketing boards, agricultural research organizations, local sociological research groups, and input delivery services. The project management team will collaborate closely with the implementing Ministries in all phases of subproject design, implementation and evaluation.

The technical design of each subproject will be thoroughly assessed in the Subproject Analysis Framework outlined below.

2. Subproject Analysis

The subproject analysis framework will comprehend the analyses outlined below. This outline represents the basic format in which subprojects should be submitted to the Entente Fund for approval. The portions of the analysis which should be complete prior to approval for funding are indicated in Table E. For items not complete at that time, the analysis should describe the measures which will be taken to complete the analysis, and the expected scope or content of the analysis.

a. Description of subproject. 1) Crops and regions which will be affected by the subproject; 2) Implementing agencies.

b. Beneficiaries of subproject. The number and description of small farmers in project areas should be discussed. The role of women in traditional food production, and how the subproject will address this role should be included.

c. Analysis of farming system. Current land tenure systems, and

current techniques of cultivation, crop rotation. use of fertilizer, and labor inputs (who, when, how much).

d. Role of women. Subproject analysis will include assessment of the role of women in food production and as community members in the subproject area. The analysis should include the projected effects of the subproject upon the roles and interests of these women including effects on income, influence on disposition of family income, time engaged in agricultural production pursuits and other tasks, role in marketing of food crops, and effects of changed agricultural methods on women's roles. Efforts should be made to assess preferences of women in these matters if feasible, and to develop the subproject in such a way that women's productivity in food production is enhanced.

e. Representative farm plan and budget. The subproject design should identify the level at which an economically viable enterprise can be developed. This may be at the family farm level, extended family level, village level or area farmer organization level.

At the viable level of organization, which at this stage of development may well be the family farm level, pro forma budgets should be prepared and periodically revised in light of operating experience.

The farmer level enterprise plan should examine cropping alternatives, animal traction, markets, costs and returns (e.g. a cost-benefit analysis at the farm level). Land use patterns should be examined and acceptable revisions proposed and/or evolved during the course of subproject implementation, if necessary to assure efficient and long term viability of the

enterprise.

A labor budget reflecting family and wage labor requirements should be prepared along with an assessment of possible labor constraints on selected cropping patterns.

f. Risk analysis. For new technologies being offered to subproject participants, a risk analysis should be conducted and updated from time to time. This analysis will assess probabilities of financial loss associated with the new technology on various assumptions of farming conditions including weather, timely delivery of inputs (if applicable), etc.

The analysis will then assess the willingness of farmers to run these risks exploring such considerations as farmer views of credibility, extension personnel, risk and work aversion behavior and related factors.

g. Cost/benefit analysis. A cost/benefit analysis will be prepared at the subproject level using methods mutually agreed upon by AID and the Entente Fund. Note: Price Gittinger of IRRD offers a possible approach.)

h. Spread-replicability analysis. Subproject analysis will include an assessment of probable spread and replicability effects and constraints thereto.

"Spread" in this sense means the influence of the activity upon contiguous areas around the subproject perimeter. "Replicability" means the adaptation of the subproject in other areas. In this connection, assessment of replicability effects to other countries in the region should be emphasized.

i. Farmer organization and participation. Assessment of existing

and proposed organization structure, and mechanism whereby project maximizes small farmer participation in decisions affecting his interests.

j. Organization and training of extension service for subproject.

k. Analysis of credit requirements of Subproject and capacity of credit institution to meet these requirements.

l. Analysis of input delivery system to assure proper inputs at reasonable prices and in sufficient quantities.

m. Market analysis. How will surplus production be marketed? What are government price support levels? What is capability of government to buy at this price level? What alternatives exist to compensate for limited government capability to assure marketing, and what are the social and economic implications of these alternatives?

n. Technical feasibility analysis. Effect of subproject on soil fertility, conservation, land-use capability, and extent to which subproject relies on risky climatic conditions or rainfall.

o. Government support of subproject. This assessment will be two-fold: it will describe the nature and level of host country counterpart funding, and it will assess the commitment of the government to the subproject at the policy support level and the practical implementation level.

p. Baseline survey and periodic evaluation. Provisions for conducting a baseline survey and subsequent evaluations should be outlined. Sociological research groups, in collaboration with implementing agencies, will be the principal parties in carrying out these studies, with the assistance of the project management team and outside consultants as necessary.

q. Health effects of irrigation on lowland rice cultivation projects. Possible diseases should be addressed with provisions for remedies, such as anti-malarial medication or boots for schistosomiasis, etc.

Table E

Analyses Requisite to Subproject Implementation

	Entente Fund (and AID) Commitment to fund sub- project	Pre-Project Implementa- tion	Periodic Evalu- ation	Annual EF/AID Review
a. Description of Subproject	X			
b. Beneficiaries of Subproject	X		X	
c. Analysis of Farming System	X			
d. Role of Women	X		X	
e. Representative Farm Plan		X	X	
f. Risk Analysis		X	X	
g. Cost/Benefit Analysis	X			
h. Spread/Replicability Analysis	X			
i. Farmer Organization and Participation	X		X X	
j. Extension Service	X		X	
k. Credit Requirements	X		X	
l. Input Delivery System	X		X	
m. Marketing	X		X	
n. Technical Feasibility	X			
o. Government Support	X		X	X
p. Baseline Survey & Evaluation		X	X	X
q. Health Effects	X		X	

3. Appropriateness of Technology

One of the major obstacles in designing rural development projects in West Africa is the limited research which has been done in the adaptation of improved technology to small farm conditions. This is due in part

to the complexity of the nature of this type of research, given the myriad different "micro-conditions" that exist in the diverse agro-cultural systems represented in West Africa. It is also due to the slightly different orientation of past agronomic research in French West Africa, where IRAT stations located in each country have conducted research which attempts to maximize production under maximum fertilizer conditions rather than optimize production given local costs and conditions.

While the relative lack of small farmer-oriented research poses a major obstacle to the implementation of this project, the project design team is convinced that the declining state of food production in the region is in part the result of neglect of the food production sector, and resultant low investments in that sector. Higher producer prices, better marketing and storage mechanisms, increased access to inputs, and simple labor intensive technology can contribute at the present state of technological research, to significant increases in production, especially when new inputs are considered as part of a total farm system. This systems approach to small farm conditions is a relatively new emphasis in the region, and will be stressed during the course of project implementation. (See Subproject Analysis Framework above.)

Another important consideration in the development of small farm technology is the socio-cultural preferences of the participating farmers. Simple agronomic research does not always take this factor into account. Therefore agronomic research in relation to specific project activities (e.g. specific crops in specific regions, in the context of overall

cropping systems in that region) must be encouraged.

This project is designed to impact directly on agronomic research which is relevant to specific subproject activities. Members of the design team have discussed the problem of small farm technology with officials of several research organizations represented in the region. IRAT officials both in the field and at Paris headquarters have been contacted: while generally interested in the project's approach, IRAT officials in Paris indicated that their own research program has already been defined for the coming year, and that IRAT cooperation with project development would probably be limited to informal contacts. These contacts will be encouraged as much as possible with the purpose of encouraging IRAT interest in this area. Furthermore IRAT has considerable experience with animal traction and farming system research at Bambey, Senegal, which will be relevant to subproject activities.

IITA officials indicated that IITA is very interested in participating in project development, and in providing on-going consultation with the agronomic and technological components of individual subprojects. This is a major objective of IITA's new director, Bill Gamble, who previously worked for Ford Foundation. IITA currently has a staff of over 150, including over 90 researchers in all aspects of tropical agriculture. About 32 researchers work specifically on farming systems; 11 on cereal improvement; 9 on root and tuber improvement; and 24 on grain legume improvement. These experts would be available on a short to medium term contracting basis for subproject development. Given their already

considerable knowledge of African farming systems, their contribution to the project will be invaluable.

ICRISAT is also beginning to place researchers in West Africa. A sorghum and millet expert in Upper Volta is currently in the process of testing 2,000 varieties of sorghum, and 1,500 varieties of millet under rainfed conditions. This expert has indicated a strong interest in collaborating with field trial officers funded by this project to adapt the more responsive varieties to small farm conditions in different regions in Upper Volta.

While design team members were not able to contact officials from WARDA (rice research) in Liberia and the Samaru research station for semi-arid agriculture in Nigeria, it is hoped that the project management team can elicit their interest and cooperation in the project.

Thus one of the outputs of the project will be the identification of viable small farmer minimum input packages. It is hoped that the project will impact broadly on agronomic research in the region by 1) drawing attention to the need for research relevant to small farmer technology packages; 2) encouraging national research organizations in the Entente states to emphasize this type of research; 3) training two agronomic researchers in each country in relevant skills; and 4) playing a coordinator/catalyst role in organizing conferences and seminars in the region.

4. Environmental Assessment

The environmental impact of the proposed project is essentially twofold. First, the project will impact on farming systems through the

adoption of new technologies. The environmental impact at this level will be predominantly favorable: it will contribute to a reduction of erosion and of fallow periods by introducing methods of maintaining soil fertility through crop rotation, animal traction and the use of fertilizers. These improvements in farming techniques are expected to have a favorable impact on agricultural eco-systems as a whole.

A second environmental impact of the project might occur through irrigation projects or lowland rice cultivation. Soil erosion effects will be minimized through the introduction of low-cost diking techniques. However, the health implication of stagnant waters in the tropics or subtropics are numerous, and will be addressed in the course of subproject design.

B. Social Soundness Analysis

1. Beneficiaries of Project

a) Small Farmers

The primary beneficiaries of the project will be the small farmers and their families who will be reached through specific sub-projects. A profile of this small farmer can be given only in general terms, since subprojects areas have not been adequately defined to permit baseline studies.

The status occupied by small farmer families in the economies of the Entente states is indicated in the table below:

Summary of Basic Data

	<u>Dahomey</u>	<u>Ivory Coast</u>	<u>Togo</u>	<u>Niger</u>	<u>Upper Volta</u>
Population Supported by Agricultural Sector	52%	81%	85%	91%	89%
National (1972) Per Capita Income	\$103	\$424	\$170	\$120	\$70
Per Capita Income in Agricultural Sector <u>1/</u>	\$50	\$125	\$70	\$60	\$31
of which Monetized Income <u>1/</u>	\$24	\$80	\$24	\$19	\$12

Source: IBRD Reports

1/ Rough estimates for Dahomey, Ivory Coast, Togo.

It is clear from the table that the average farmer in these countries constitutes a member of the poor majority. In the coastal countries, the average incomes of the target population will be lower

than those suggested in the table, since subprojects are planned for the northern areas which are poor regions in comparison to the national average.

As in any economic systems, there are relatively more efficient and relatively less efficient producers, who correspond to relatively better off and relatively worse off groups. This project will not make/^aspecific attempt to reach the poorest of the poor. Instead the project will attempt to reach those who are most willing and capable to experiment with technological innovation and to assume the accompanying risk. Until the average level of farm incomes is significantly higher in this region, any attempt to focus on the poorest element of this poor majority appears to be a luxury which the Entente countries can scarcely afford given pressing food production needs.

b) Women

Traditionally women play a crucial role in food production in most parts of Africa. In fact, nearly all food production for subsistence purposes is done by women in many areas, while the men are occupied with cash crop production. What little excess food women produce provides an important source of income, since women are generally responsible for feeding and clothing their children.

The designers of rural development projects have long ignored the role of women in food production, as well as in other aspects of agricultural production. Extension services have been uniquely oriented towards the male half (or often less than half, given the realities of rural-urban migration) of the agricultural labor force. Not coincidentally, extension

services have also concentrated primarily on cash crops. Thus the productivity of men in agriculture has increased, while the productivity of women has stagnated. The implications of this trend for food production are enormous.

Credit services have also been denied to women cultivators, largely because it has not occurred to project designers that women might make efficient use of credit. In some areas, proof of title to the land might be a requirement for credit: if the title is in the name of the man, and he has migrated in search for work, clearly the woman will be denied credit. Alternately, a man may not be willing to assume responsibility for credit for several wives. Since men and their wives tend to be largely economically independent of each other, it would seem logical that investment opportunities should be offered to both economic entities.

The role of women in agriculture is complex, and constitutes one more element of the micro-conditions which must be analyzed in designing rural development projects. Women, as an integral part of traditional farm systems, may have effects on decisions which appear to have little relationship to women. Reluctance to invest in animal traction equipment in Upper Volta may be a logical choice for a male who views the trade-off as his wives' labor against his own leisure, since culturally women are not allowed to walk directly before or behind animals, and physically they may be considered too frail to handle animals or plowing equipment. Thus the role of women in agricultural production must be analyzed on an individual case study basis.

In a recent evaluation of rural development projects in Africa,

having access to a more reliable supply of food grains at reasonable prices.

2. Social/Cultural Feasibility

a) Interest of Africans

The project addresses one of the most rampant needs faced by Africans on both a micro- and a macro-level. Small farmers in Africa are essentially subsistence farmers, and food production constitutes the basis of their subsistence. Therefore the inherent interest of African farmers in this project is substantial. The interest of Africans at the policy-making and implementation level is also substantial, as demonstrated by the November meeting organized by the Entente Fund for key Ministry of Agriculture officials from each Entente state.

An essential element in the transformation of this interest into successful subprojects which satisfy both the small farmers and government officials is the design/collaboration process which maximizes

a group of sociologists noted the lack of project components addressed to women's needs in agricultural production. Women in some areas have requested assistance in increasing their productivity in food production. Given the hard work that women in Africa perform, from carrying water and firewood, to agricultural production in both food and cash crops, to feeding and clothing their children, including them in food production projects appears to be highly justifiable.

The marketing role of women is also an area of potential importance, and may prove to be useful in the design of some subprojects.

The Subproject Analysis Framework, presented below in Section IV.A.2, provides for an analysis of women's roles in each of the subprojects which will be funded under this project. Subprojects should include women as eligible participants in any activity of interest to them; in fact, women may well be the principal participants in some components of subprojects relating to food production techniques. However, cultural and customary barriers are likely to exist in most areas, if only because it has seldom occurred to project designers to address the agricultural production role of women. Therefore the design of programs addressing women must be the fruit of dialogue with both men and women in project areas.

c) Consumers

The ultimate consumer will be an indirect beneficiary of the project. To some extent, this beneficiary is likely to be the small farm family, since at very low levels of income, a significant portion of increases in food production tend to be consumed by the family. Urban dwellers will ultimately benefit from increases in food production by

the acceptability of subproject elements to the participating farmer.

b) Acceptability of Project to Participating Farmers

No rural development project can guarantee social/cultural feasibility: in every instance, the success of a rural development project depends on the degree to which farmers recognize benefits to themselves from participation in the project.

AID recently contracted a study of 36 rural development projects (Strategies for Small Farmer Development by Development Alternatives, Inc.) to determine how to improve the design and implementation of projects addressing small farmers. The primary findings of the study were that to maximize the chances for project success, 1) the small farmer should be involved on a meaningful level in the decision-making processes which affect him and 2) the small farmer should be persuaded to make a resource commitment to the adoption of new technologies. These two variables explained nearly 50% of the differences in project success scores among the 36 projects.

The social/cultural feasibility of the subprojects ultimately depends on the degree to which the subproject elements are acceptable to the small farmer. This in turn depends on the sensitivity and collaboration with which subprojects are designed and implemented. The Subproject Analysis Framework (Section IV.A.2) designates farmer participation as a key element in the design of subprojects, and one which will be examined in an annual evaluation. Farmer commitment of resources is also an inherent part of subproject development, since subsidies are not eligible project costs, and credit will be made available for the purchase of inputs.

Thus the technical procedures for designing subprojects emphasize the importance of small farmer participation and acceptability. It is hoped that the social/cultural feasibility of the project, which coincides with small farmer acceptability, will be assured by sensitivity to the appropriateness of technological innovations, the concern and collaboration of extension agents, adequate infrastructure for input delivery and marketing, and the applicability of sociological research findings in annual evaluations.

3. Spread and Replicability Effects

The design of individual subprojects will take into account possibilities for spread and replicability effects. Since basic food crops tend to be similar over large areas in the Entente countries, there is likely to be a high potential for spread and replicability effects. These effects will be evaluated on a project by project basis in the context of the Subproject Analysis Framework.

Social spread effects are expected to occur on both individual and collective levels. On an individual basis, spread effects will stem directly from increases in food production, hence in consumption and income, for small farm families. Social spread effects on a collective level will stem from 1) increases in national food production, which should decrease the level of food imports; 2) improvements in income distribution as rural sector incomes increase; and 3) improvements in the quality of life in the rural and urban sectors as incomes and consumption increase. The project may also impact on the rural-urban migration rate through the

expansion of income-earning opportunities in rural areas.

4. Development of National Capabilities

An important longterm benefit of the project is the national capacity of the Entente governments to identify, design, implement and evaluate rural development projects. This capacity will enable them to exert increased influence on development projects designed by other donors, and to improve the quality of domestically funded and designed rural development efforts. The project should contribute to the expansion of rural development planning skills at several levels, including project design and implementation, small farmer-oriented agricultural research, sociological research related to rural development, and overall evaluation of rural development projects at every level.

(V. Implementation Planning, A. Administrative Arrangements)

a) Subproject Submission and Approval

The development of subprojects will require close collaboration between the project management team, and host country officials. Local AID representatives in each country will provide both institutional support and policy guidance throughout this process, so that the project management team can benefit from AID familiarity with local conditions.

When the host country, the project management team and AID country representatives are satisfied that the subproject is technically sound, economically feasible and consonant with the objectives of the project, the subproject will be submitted to the Entente Fund in accordance with the Subproject Analysis Framework outlined in Section IV.A.2.

The Entente Fund will then review the subproject and make a determination with respect to the technical and economic feasibility of the subproject, and its consistency with the criteria for subprojects set forth in Section III.F.3. The project management team will participate in Entente Fund review of the project in order to offer technical opinions with respect to questions which might be raised.

AID will also approve all subprojects at the level of the Country Development Officer in Upper Volta and Niger, the country representative in Togo and Dahomey, and REDSO in Ivory Coast. AID approval will consist of 1) a determination that the subproject criteria as set forth in Section III.F.2 are respected; and 2) a determination that the subproject is consistent with other AID projects and does not replicate or conflict with other donor activities in that country. Since AID country representatives will have been involved in the development of

the subproject, no technical determination will be necessary and AID approval at this stage will be routine. AID responses should be submitted to the Entente Fund no later than two weeks after the Entente Fund receives the subproject.

If AID is not satisfied with any component of the subproject, a meeting will be held to discuss the problem and to determine a course of action to resolve the problem. Participants in this meeting will include host country representatives, a representative from the Entente Fund, the project management team, and AID officials from the host country and/or RDO/Niamey or REDSO/W.

LOGICAL FRAMEWORK
FOR
SUMMARIZING PROJECT DESIGN

Est. Project Completion Date March 1981

Date of this Summary July 1975

Project Title: ENTENTE FOOD PRODUCTION

DEVELOPMENT HYPOTHESES
 If Purpose, Then Goal
 If Purpose, Then Purpose
 If Outputs, Then Purpose
 If Outputs, Then Outputs
 If Inputs, Then Outputs
 MANIPULABLE INTERMEDIATES

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program Goal: The broader objective to which this project contributes: To reverse the trend of declining per capita food production and increasing food imports in the Entente member nations by achieving higher equilibrium levels of production, marketing and prices for select food crops.</p>	<p>Measures of Goal Achievement:</p> <ol style="list-style-type: none"> Higher per capita levels of food production. Stable prices for food crops. Reduced food import requirement per capita. 	<ol style="list-style-type: none"> National statistics. Baseline data. 	<p>Concerning long term value of program/project:</p> <p>Increased per capita food production is an economically sound target, i.e. Entente countries have comparative advantage in food crop production after all taxes, subsidies and foreign exchange costs are taken into account.</p>
<p>Project Purpose:</p> <ol style="list-style-type: none"> To increase the level, efficiency, and reliability of food production by small farmers over the medium to long term. To promote the national capacity of Entente member states to design and implement rural development projects. 	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <ol style="list-style-type: none"> Increases in food production Increases in yields of food crops Increases in net income of participating small farmers owing to efficient food production which increases consumption and marketing of food crops, and/or releases labor and other resources for other cash crop production. 	<ol style="list-style-type: none"> Baseline survey for each subproject. Semi-annual report by Entente Fund Project Management Team. 	<p>Affecting purpose-to-goal link:</p> <ol style="list-style-type: none"> Adequate price incentives exist to encourage small farmer use of improved technological packages.
<p>Outputs:</p> <ol style="list-style-type: none"> Viable small farmer-oriented food production projects. Improved access to and follow-up of credit for small farmers. Improved government capability to identify, design, implement and evaluate small farmer-oriented rural development projects, including development of research capacity to adapt technology and organization of projects to small farm conditions. 	<p>Magnitude of Outputs necessary and sufficient to achieve purpose.</p> <ol style="list-style-type: none"> Identification of viable small farmer minimum input packages or other key constraints to increased food production. Effective implementation of subprojects. Viable organization of national agricultural credit systems; training of agricultural credit agents and follow-up extension agents. 	<p>Semi-annual reports by Entente Fund Project Management Team.</p>	<p>Affecting output-to-purpose link:</p> <ol style="list-style-type: none"> National capacity to implement subprojects and credit system can be mobilized. Normal rainfall patterns prevail. Organization for provision of inputs will be adequate.
<p>Inputs: Activities and Types of Resources</p> <ol style="list-style-type: none"> Technical assistance grant including: two full time advisors to EF; consultant contracts to assist in evaluation & design of projects; farm level trials of proposed minimum packages to test feasibility; and participant training either in U.S. or Africa in credit, extension and applied agronomy. Financing of subproject activities. 	<p>Level of Effort/Expenditure for each activity.</p> <ol style="list-style-type: none"> Technical Assistance: \$1,680,000 Financing of Subprojects: \$10,000,000 loan for coastal countries \$ 5,000,000 grant for Sahelian countries 	<p>Disbursements of funds.</p>	<p>Affecting input-to-output link:</p> <ol style="list-style-type: none"> Identification of competent Project Management Team. Identification of appropriate technological responses to key constraints for small farmer food production. Capacity of Entente states, with cooperation of Project Management Team and national AID representative, to identify, design, implement and evaluate small farmer food production projects.