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UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY

AGENCY FOR INTERNATIONAL DEVELOPMENT

WASHINGTON, D.C. 20523

PROJECT PAPER AMENDMENT

NEPAL

INTEGRATED CEREALS PROJECT

367-0114

JUNE 1981

UNCLASSIFIED

AGENCY FOR INTERNATIONAL DEVELOPMENT		1. TRANSACTION CODE		PP
PROJECT PAPER FACESHEET		C		2. DOCUMENT CODE
3. COUNTRY/ENTITY Nepal		4. DOCUMENT REVISION NUMBER		3
5. PROJECT NUMBER (7 digits) 367-0114		6. BUREAU/OFFICE		7. PROJECT TITLE (Maximum 40 characters)
		A. SYMBOL Asia		B. CODE 02
8. ESTIMATED FY OF PROJECT COMPLETION FY 84		9. ESTIMATED DATE OF OBLIGATION		
		A. INITIAL FY 79		B. QUARTER 1
		C. FINAL FY 83		(Enter 1, 2, 3, or 4)

10. ESTIMATED COSTS (\$000 OR EQUIVALENT \$) - 12,415

A. FUNDING SOURCE	FIRST FY 82			LIFE OF PROJECT		
	B. FX	C. L/C	D. TOTAL	E. FX	F. L/C	G. TOTAL
AID APPROPRIATED TOTAL	1,200	0	1,200	7,970	0	7,970
(GRANT)	(1,200)	(0)	(1,200)	(7,970)	(0)	(7,970)
(LOAN)	(0)	(0)	(0)	(0)	(0)	(0)
OTHER U.S.						
1. PL - 480	0	128	128	0	2,133	2,133
2. Peace Corps	23	10	33	128	55	183
HOST COUNTRY	-	333	333	100	3,379	3,479
OTHER DONOR(S)	0	0	0	0	0	0
TOTALS	1,223	471	1,694	8,198	5,567	13,765

11. PROPOSED BUDGET APPROPRIATED FUNDS (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY 82		H. 2ND FY 83		K. 3RD FY 84	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) FN	120	023	-	1,200	-	1,780	-	-	-
(2)									
(3)									
(4)									
TOTALS				1,200		1,780	-	-	-

A. APPROPRIATION	N. 4TH FY		Q. 5TH FY		LIFE OF PROJECT		12. IN-DEPTH EVAL. SCHEDULED
	O. GRANT	P. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN	
(1) FN					7,970		MM YY 01 9 82
(2)							
(3)							
(4)							
TOTALS						7,970	

13. DATA CHANGE INDICATOR. WERE CHANGES MADE IN THE PID FACESHEET DATA, BLOCKS 12, 13, 14, OR 15 OR IN PRP FACESHEET DATA, BLOCK 12? IF YES, ATTACH CHANGED PID FACESHEET.

1 NO
2 YES

14. ORIGINATING OFFICE CLEARANCE		15. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS. DATE OF DISTRIBUTION	
SIGNATURE	<i>Dennis J. Brennan</i>		
TITLE	Dennis J. Brennan, Director AID Mission/Nepal	DATE SIGNED	
		MM DD YY 04 03 81	MM DD YY 04 15 81

UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

PROJECT AUTHORIZATION AMENDMENT

COUNTRY: Nepal

PROJECT: Integrated Cereals
NUMBER : 367-0114

1. The Integrated Cereals Project for Nepal was authorized on June 15, 1976. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, that authorization is hereby amended as follows:
 - a. The total planned obligations for the project are authorized in an amount not to exceed Seven Million Nine Hundred Seventy Thousand United States Dollars (\$7,970,000) in grant funds, with the amount of additional funding (\$2,980,000) provided hereby available for obligation over a three year period from date of authorization, subject to the availability of funds in accordance with the A.I.D. OYB allotment process, to help in financing foreign exchange and local currency costs for the project.
2. The Project Assistance Completion Date (PACD) is extended by three years from the current date of September 30, 1981, to September 30, 1984.
3. The authorization referred to above remains in full force and effect except as hereby amended.

Clearances

ASIA/PD, G. R. van Raalte
ASIA/DP, Robert Halligan
A-ASIA/TR, David Lundberg
ECR ASIA/PNS, Arthur Handly
GC/ASIA, Herbert Morris

<u>Date</u>	<u>Initial</u>
<u>6/19</u>	<u>[Signature]</u>
<u>6/19</u>	<u>RH</u>
<u>6/19</u>	<u>[Signature]</u>
<u>6/19</u>	<u>H. J. Thomas</u>
<u>6/19</u>	<u>H.M.</u>

[Signature]
Acting Assistant Administrator
Bureau for Asia

June 19, 1981
Date

INTEGRATED CEREALS PROJECT
PROJECT AMENDMENT

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PART I - SUMMARY AND RECOMMENDATION

A. Recommendation

Approval of additional project funding in the amount of \$2,980,000 for purposes of extending the Integrated Cereals Project and the GON-IADS host country contract for three years, i.e. from September 30, 1981, the current PACD, through September 30, 1984. The funding will be incremental with \$1,200,000 obligated in FY 82 and \$1,780,000 in FY 83.

B. Summary Description of Project

1. Project Goals and Purpose

The Integrated Cereals Project (ICP) (367-0114) was designed as a five-year grant funded project "to assist in strengthening the Government of Nepal's (GON) capacity (1) to generate improved production technology for the major foodgrain crops and related cropping systems, and (2) to transfer that technology to Nepali farmers in such a way that it is readily adopted." It directly addresses AID's sector goal for long-term improvement of agricultural productivity in Nepal, particularly in the hills. Further, the project's purposes and the sector goal they address are high on the list of GON development priorities as expressed in the Sixth Five Year Plan covering the period 1980-1985.

The project focus on agronomic research has been to continue support to Nepal's agricultural research stations and to begin relating the technological information from these stations directly to the needs of small farmers. This has been accomplished by (1) increasing the numbers of demonstration trials done directly on farmers' fields, (2) focusing research on farming systems rather than on single crops and (3) increasing socio-economic analysis of agronomic research results. The project addresses technology transfer in a similar manner. Research and extension functions are closely linked with emphasis on feedback from farmers' fields to research institutions. Improved farming systems are recognized as the key to successful technological transfer. The project emphasis is on the development of a system which can take technology from research stations through to adoption by farmers.

2. Project Inputs/Outputs

The project includes technical assistance, participant training, and commodities (equipment and materials), through a host country contract with International Agricultural Development Service (IADS). It also provides capital assistance for construction of buildings and facilities through a separate PL 480 local currency Project Agreement between the GON and AID. The project amendment will fund continuation of technical assistance at a reduced level for three additional years. No additional financing is required for construction, although construction activities will be continued until project completion.

In conjunction with the technical assistance component, the project has funded participant training for 147 Nepali technicians in completed and on-going programs in other countries. Fifteen participants began training programs late and will not be able to complete them by the current PACD. The project amendment will allow these participants to complete their courses and will fund short-term training to complement continuing research/extension work.

Project inputs in terms of technical assistance and capital assistance have generally been timely and effective. Major delays were limited to construction activities and procurement and installation of equipment in the early stages of the project, and these have long been resolved. The project contractor, IADS, deserves credit for prompt supply of project inputs. Despite some staffing problems, GON support to the project has also been good.

Table III (Section II) summarizes the status of project outputs compared to targets given in the original PP. Although 11 of the 17 project output targets have been achieved or exceeded, continued project inputs are necessary to meet project objectives.

Project outputs have most directly addressed the first component of the project purpose: generating improved production technology. While the project has made significant progress on development of a system to transfer technology to Nepal farmers, more needs to be done before this project purpose

is achieved. Under the 1976 Project Paper \$4,990,000 ^{1/} of grant funds were budgeted for technical assistance and related costs, and \$2,133,000 ^{1/} in PL 480 local currency for construction, commodities, and local costs. Additionally, the GON contribution was valued at \$2,479,000 (25.6 percent of total costs) and the Peace Corps contributed PCV assistance valued at \$81,000. ^{1/} Total LOP costs for all parties were \$9,683,000. ^{1/}

The project amendment will provide an additional \$2,980,000 for technical assistance and related costs and for participant training. Additional PCV inputs valued at \$102,000 are planned as well as an additional GON in-kind contribution of salaries, buildings, and equipment valued at \$1,000,000. The revised GON contribution of \$3,479,000 is 25.3 percent of total project costs. Thus, the amended project grant total is \$7,970,000 and the amended total project cost is \$13,765,000.

C. Rationale for Project Amendment

This recommendation for extension relates fundamentally to the need and opportunity for further work to develop and test a system for technology transfer to farmers. It also, however, reflects the need to complete the construction and participant training components.

Through its work on the research stations for rice, maize and wheat, and its extensive application on farmers' fields at five representative locations (approximately 1200 trials through 1979), the project has developed cropping systems technology appropriate to specific agro-climatic conditions and to the needs and constraints of Nepal's farmers. The technologies generated have proven feasible and fit into and enhance the overall productivity of existing cropping systems. They are affordable by farmers and require only inputs currently available in Nepal.

Prior to ICP, agricultural research and technology generation focused on the Terai. ICP has produced for the first time proven recommendations for increasing agricultural production on hill farms.

^{1/} Revised from original PP estimates of AID Grant - \$5,000,000; PL - 480 - \$1,802,000; GON - \$2,479,000; Peace Corps - \$39,000; and total project \$9,320,000.

Through its production mini-kit program, the project has done much to spread the use of improved varieties and recommended cultivation practices and has provided useful feedback from cooperating farmers to the commodity research scientists. In four years approximately 51,000 mini-kits have been distributed. In addition to routine feedback and evaluation of the program's impact, ICP is currently initiating a comprehensive evaluation of the mini-kit program which may lead to further refinements. Even at this stage, however, it is fair to say that the project has contributed to a significant breakthrough for Nepal's agricultural development. A technological basis now exists for increasing yields on small farms in the middle hills.

Capitalizing on this breakthrough, this extension will provide not only the opportunity to extend the results generally through GON research and extension activities, but particularly will emphasize application of this technology in the AID-assisted Rural Area Development/Rapati (RAD) and Resource Conservation and Utilization (RCU) Projects.

Both of these projects will draw extensively on the ICP for improved agricultural production technology and for the development of research-extension linkages to serve the project areas.

Continuation of the ICP will provide AID the opportunity to continue project association with the GON Ministry of Food and Agriculture (MFA) and to promote MFA cooperation in the RAD and RCU Projects, which are coordinated by other GON Ministries. Development of a viable cropping systems-based, hill agricultural research-extension system, which extension of this project represents, is important to realization of goals for these projects.

D. Issues

1. Amendment vs. New Project

The proposed assistance to GON agricultural research/extension is an extension of ICP activities.

The proposal is an extension of ICP because (1) a major objective is to complete training, construction, and procurement begun under ICP; (2) the project continuation is directed to the research and extension activities which are stated purposes of ICP; and (3) the emphasis on research/extension system development which the amendment addresses is the longer-term product of the basic purpose of the initial project.

Project activity during the extension period will carry forward research work, complete construction and training components, and complete development and testing of extension campaign methodology. Emphasis will be on completing the extension element of the research-extension system and on further institutionalizing the system.

2. Length of Project

The amended project life will be nine years three months from the date of the project agreement in June, 1975 with an eight-year technical assistance component. The Mission views this time frame as reasonable for the institutional development undertaken by the project.^{2/} The project has already contributed substantially to hill agricultural research.

The proposed extension period will be adequate to complete project activities. The contractor is in place and all project activities are currently progressing well. By the end of the extension period technology transfer will be well tested through pilot programs. A system for technology extension will be established with a cropping systems orientation. Actual application of the systems for expanded area coverage will center on production campaigns developed within specific projects; e.g., from RAD and RCU.

3. Contract Amendment

The original MFA-IADS contract was signed on September 10, 1976 for an estimated cost of \$2,524,000. The contract obligated \$1,031,000 for funding through approximately December 31, 1977. It stated:

"It is anticipated that achievement of the objectives of this Contract will require provision of the Services for a period of at least five years from the

^{2/} AID Project Impact Evaluation No. 4: "Central America: Small Farmer Cropping Systems" concludes that authorizations of at least six to eight years are necessary for farming systems research projects.

effective date of this Contract, and that this Contract will be further amended to commit and obligate additional funds through the balance of such five year period, and to extend the period during which IADS will furnish services, subject in all cases to the continued need for services, satisfactory performance by the parties hereunder, the availability of additional funds, and mutually agreeable budgets and scope of services."

The contract was amended September 28, 1979 to provide a total funding of \$4,469,000 for the period up to September 30, 1981.

On approval of this PP amendment, the IADS contract will be extended by three years (i.e., until September 30, 1984) and increased by approximately \$3,302,000, the estimated amount needed to fund the contract extension. A contract amendment will provide \$322,000 of pipeline funding from the original PP and continue contract activity until FY 82 funds are obligated.

It is important to note that this is an amendment and not a new contract. The scope of work is substantially the same under the amendment and the original contract. The principal changes to the contract are an extension and an increase in funding, with an increased emphasis on production based on the earlier and continuing research work. Therefore, this amendment is not deemed to be a non-competitive procurement of technical assistance.

After the amended project authorization is approved, the Director of the AID Mission/Nepal will approve an amendment to the MFA-IADS contract extending it for three years in keeping with the terms of this PP amendment and the amended Project Agreement between AID and the GON.

4. GON Food Grain Pricing Policy

Present GON pricing policies relegate producer incentives to second place behind maintenance of low and stable consumer prices. These policies, including support prices to producers and subsidized prices for inputs, are not expected to change during the next few years. Although the GON recently increased the support price for coarse paddy by 27 percent, the price cannot be enforced throughout the country. The effect of the long Nepal-India border coupled with the relative dominance of the Indian economy makes it difficult for the GON to implement its pricing policies effectively in any macro scope.

The whole question of price as a constraint, however, is less immediate in the case of the hills. Due to the general absence of a monetized economy in much of the hill area, hill farm productivity should not be constrained by the relatively low GON support prices for staple food grains. The cropping systems program should increase the productivity of the subsistence - level hill farms, which at the present provide only 60 percent of the annual nutritional requirements of the hill population.

While recent socio-economic surveys at four cropping systems sites indicate that marketing of additional production from a wheat pilot production program was not constrained by price, the surveys were too limited in scope to generalize. Essentially, it is the Mission's assessment that most incremental foodgrain production, particularly in the first years and for most hill areas, will be consumed on subsistence - level farms where it is produced or be exchanged for goods or services within the local community.

In general, the effect of GON support prices on subsistence hill farms will probably remain negligible until this large segment of the agricultural sector moves into a commercial, market economy. In the long-run, however, to increase hill production beyond the subsistence level, the GON needs to address pricing and marketing issues. These questions have already been raised by the World Bank and IMF and are of concern to other donors. They will be on the AID/Nepal agenda as the discussion with the government evolves.

5. Role of Women in Agricultural Production

Results from the Status of Women Project's aggregate analysis on agriculture decision-making behavior have shown that women make 42.1 percent of the agricultural decisions on their own and decide jointly with male household members in another 12.6 percent of the cases. The data has also revealed that tradition plays a significant part in agricultural decision-making, serving as the basis for 20.1 percent of the decisions recorded.

On the basis of these two factors, AID/Nepal strongly advises that the project work closely with villagers, both male and female, in its efforts to introduce new technology. ICP recognizes that women are actively involved in agriculture but, so far, the project's efforts to reach women have been largely unsuccessful, since all of the extension work is conducted by males.

Peace Corps volunteers currently assigned to ICP cropping systems sites are sensitive to the role of women. Two female volunteers, spouses of volunteers assigned to ICP, are working with women in vegetable and horticultural programs at cropping systems sites.

AID/Nepal has discussed with Peace Corps the importance of assigning to ICP volunteers sensitive to the issue of women's participation in technology transfer. Peace Corps shares this concern and has indicated willingness to assign female volunteers to ICP, if such qualified volunteers can be identified. During the extension period, ICP will attempt to introduce female extension workers at the project sites. AID/Nepal will suggest that this be offered to the GON as a pilot project in one of the production programs. There appears to be local interest in the establishment of such a pilot project. If such an initiative is undertaken, it will follow the recommendations of the Status of Women Project, and close attention will be directed to the use of culturally appropriate females, that is, women from the respective ethnic and language groups and women who are old enough to secure respect.

ICP will be asked to provide written documentation on the involvement of local women and men at the cropping system sites. This will be closely monitored by AID/Nepal's appropriate office. If deemed necessary, short term consultancies will be provided for an anthropologist/rural sociologist to suggest culturally appropriate solutions to any difficulties that may arise which would inhibit the participation of female and male villagers in the project. The project extension will provide funding for any such consultancies.

PART II - BACKGROUND AND PROJECT STATUS

A. Background

Nepal's 14.2 million inhabitants have one of the lowest per capital incomes in the world (\$120). The country lacks natural resources, developed infrastructure and a dynamic commercial sector. Population is increasing at a rate of 2.6 percent per year; per capita GDP at 2.5 percent; and agricultural production at 1.1 percent.

Agriculture provides the main livelihood for almost 95 percent of the population. For the middle hill and mountain areas where 65 percent of the population lives, farming is a particularly precarious livelihood. In the hills, farming annually provides a family with the minimum subsistence caloric requirements for only 225 days and, as a result, 10 to 50 percent of male family members migrate annually to seek seasonal or long-term employment in other areas.

Nepal's agricultural sector has not demonstrated dynamic growth and what growth there has been was largely the result of expansion into more marginal production areas. Formerly rice was the major export, but export volume has shrunk and in 1980 Nepal was a net importer of rice.

The GON recognizes the critical situation that exists with an increasing population and no economic alternatives. In hill areas marginal land has already been brought under cultivation. Migration to cities or to the lowland Terai will continue but offers limited potential for improving the lives of hill farmers.

If hill agricultural productivity is not increased in the immediate future, Nepal faces not only a continuing constraint on economic growth generally, but actual destitution of a large sector of the population. Increased output of basic food crops is essential.

Previous agricultural projects have targeted the relatively productive Terai. Research produced recommendations for that region and for specific crops, but little previous work was done on the complex hill farming systems.

The ICP, however, has produced a breakthrough in methodology for increasing production on small hill farms. For the first time agronomic research has been directed at hill areas and has demonstrated potential for significant increases in crop yields for this region. A basis now exists for mounting effective regional extension programs.

In late 1979 a team composed of representatives of AID, GON, IADS, IRRI, and CIMMYT conducted an in-depth evaluation of the ICP. In reviewing project progress toward goals the team concluded that:

"In summary, the review team found the status of the program and the progress toward project goals to be good. The generation of new technology, its evaluation through the newly established cropping systems sites, and the potential extension of adapted, reliable new technology into appropriate channels for prompt farm use is becoming systematized to a degree that is very satisfactory for a project in the third year of operation. There are still growing pains and constraints but none that are unusual or that would be difficult to resolve. The base is being well established for a system that will be increasingly beneficial to agricultural production in Nepal in the next two years of duration of the project and that hopefully will provide for an expanded program to serve farmers throughout Nepal more effectively in succeeding years." 3/

Regarding future directions for the project the evaluation stated:

"The review team feels that the ICP is conceptually sound, well designed to meet Nepal's unusually complex and varied farming conditions, and should be seriously considered as a continuing base for agricultural technology generation and use. The current project will conclude its five year term in 1981. In order to ensure maximum effective continuity of a program for improving farming systems and productivity in Nepal through a sound, technology-based system it would be desirable for attention to be given promptly, jointly by HMG and USAID, to actions to be taken to ensure effective continuity of activities along the lines of the ICP." 3/

3/ "The Integrated Cereals Project/Nepal, Report of mid-term Evaluation", October-November, 1979.

The Integrated Cereals Project has not completely achieved its goals. Cropping systems research results still must be made available to farmers and systems for technology transfer must be refined to be suitable to conditions in Nepal. These are essential steps to obtain the benefit of production increases demonstrated by the ICP.

B. Project Accomplishments

The project has done significant work in helping the GON's agricultural research organization generate new cropping systems technologies which fit into the farming systems of Nepal and are appropriate to their ecological and social needs and constraints. Through its efforts in the commodity research programs and in organizing pioneering cropping systems work at five representative sites ^{4/} the project has achieved a major breakthrough in developing packages of technology capable of significantly increasing food grain production under typical farm conditions, and in demonstrating the agronomic and economic potential to farmers utilizing innovations. Through relatively simple, inexpensive practices using available inputs and paying close heed to credit, labor and power constraints, the project has established a basis for improving small farm production in the hills of Nepal.

Project activity is concentrated at sites listed in Table I. In initial years major focus was on work at the commodity research centers. Current major emphasis is on work at cropping systems sites. These sites were chosen to represent different agro-climatic zones within the country and provide technology directly applicable to 30 of the 75 districts in Nepal. Future verification trials may indicate the need for new cropping systems sites, but, since these sites are simply a focus for on-farm trials, no construction is necessary and expansion in number of sites depends solely on the need for trials in a particular zone and the availability of technical supervisory personnel.

^{4/} A sixth site is being established at Ratna Nagar for work to begin in 1981.

TABLE I: MAJOR PROJECT ACTIVITY SITES

<u>A. Commodity Research Centers</u>	<u>Location</u>	<u>Development Region</u>
Khumaltar - Cropping Systems Co-ordination	Kathmandu	(Central)
Parwanipur - Rice Improvement Research Center	Terai	(Central)
Rampur - Maize Improvement Research Center	Inner Terai	(Central)
Bhairawa - Wheat Improvement Research Center	Terai	(Western)
 <u>F. Cropping Systems Sites</u>		
Khandbari	Middle Hills	(Eastern)
Lele	Middle Hills	(Central)
Parsa	Terai	(Central)
Pumdi Bhumdi	Middle Hills	(Western)
Chauri Jhari*	Middle Hills	(Far Western)
Ratna Nagar	Inner Terai	(Central)
 <u>C. Pocket Production Programs</u>		
- Beginning at each Cropping Systems Site.		
- Will expand into areas with similar agro-climatic conditions (including RAD/RCU areas) following verification trials.		

* Rapati Zone.

Greatly increased production resulting from improvements to cropping systems and from greater cropping intensity has been achieved on farmers' fields and under farmers' management. This offers Nepal for the first time a solid basis for mounting the kind of regional production campaigns necessary to address its food problems and to use agricultural production as a force for broader economic development.

The project's technological breakthrough involves little new technology. Rather, it is based on careful initial characterization of an area's cropping patterns, climate, land resources, and socio-economic structures. Known improved cultural practices are then introduced into the system. These include recommendations on: seeding rates of wheat and maize, line sowing, improved varieties of principal and minor crops,^{5/} and fertilizer usage at rates achievable by farmers.

Technological recommendations vary considerably depending on agro-climatic zone and current cropping systems. The following are technological innovations to be introduced to farmers under the production program planned for Chaur Jhari:

- (A) In the lowland cropping pattern rice followed by wheat (150 HA), the local varieties of rice will be replaced by the improved varieties sabitri and janaki and the local varieties of wheat by the improved variety RR-21. In the cropping pattern double cropped rice (limited acreage), the local varieties of rice will be replaced by the varieties laxmi and durga.
- (B) In the upland cropping pattern rice intercropped with maize followed by wheat (360 HA), the local varieties of rice will be replaced by the improved varieties IET 1444 and CH 45 and the local varieties of wheat by the improved variety RR-21.
- (C) The cultivated area of the cropping patterns rice intercropped with maize followed by lentil or chickpea (28 HA) will be increased. In these cropping patterns, improved varieties of lentils, type P36 or P43 (simrik and sisir) will replace the local varieties.
- (D) Traditional methods of sowing wheat will be replaced by improved methods which decrease per hectare seed requirements and increase yield.
- (E) Use of N:P:K fertilizers will be increased to the following rates: rice 60:30:0/HA; wheat 80:30:0/HA; chickpea and lentil 20:20:0/HA.

The ICP recognizes the fact that the acceptance rate of new technology will not be one hundred percent and that recommendations will be always be implemented well by farmers. Trials to date, however, indicate that farmers are willing to plant the new varieties, use chemical fertilizer, and use new methods to sow wheat.

Technology transfer is accomplished by field demonstrations, distributions of mini-kits, farmer visits by extension personnel (including farmer field assistance), and technical backstopping to assist in plant protection. Programs are coordinated with the Agricultural Development Bank to attempt to expedite credit disbursements and with Agricultural Inputs Corporation to attempt to ensure timely availability of inputs.

The significance of the project's technological breakthrough is clear from the data in Table II which summarizes information gathered from trials involving common cropping patterns at five cropping systems sites. The average production increase, for the twelve cropping patterns tested at the five sites, was 86 percent over that using farmers' current practices. Measuring only those variable costs directly related to the marginal production increases the net benefit-cost ratio for all cropping patterns averaged 4.7.

5/ A separate AID-funded project "Seed Production and Input Storage" (367-0118) is establishing a system for multiplying improved seed and distributing it to farmers. Activities under this project are closely coordinated with those of ICP, RAD and RCUP.

TABLE II: POTENTIALS FOR INCREASE IN PRODUCTION AND IN NET RETURNS IN NEPAL AS SHOWN IN CROPPING SYSTEMS TRIALS.

Site	Cropping Patterns	Increase compared with farmers practices			
		Production	Cash Costs (Rs/ha)	Net Revenue (Rs/ha)	Net Benefit Cost Ratio
<u>Lele</u>					
Upland	maize-soybean-mustard	185	802	5,962	7.4
Lowland	rice-wheat	107	889	5,387	6.0
<u>Pumdi Bhumdi</u>					
Lowland	rice-wheat-maize	38	878	2,447	2.8
Lowland	rice-wheat	67	938	2,007	2.1
<u>Chaur Jhari (Rapati Zone)</u>					
Upland	rice-maize-wheat	56	1,303	4,309	3.3
Upland	rice-maize-wheat-maize	133	1,302	10,987	8.4
<u>Khandbari</u>					
Upland	maize-soybean	71	634	2,866	4.5
Lowland	rice	70	553	3,721	6.8
<u>Parsa</u>					
Lowland	rice-rice-wheat	95	1,784	3,129	1.8
Lowland	rice-wheat	78	1,132	3,228	2.9
Lowland	rice-potato	76	1,190	9,921	8.3
Lowland	rice-lentil	54	832	2,028	2.4

This table provides a summary of some data on increases in production and revenue obtained from the patterns used in the different sites. Results indicate the technological and economical feasibility of the principal patterns. Benefit cost ratios vary from 1.8 to 8.4 with most of them above three. Data is unavailable for the new site at Ratna Nagar.

Source: The Integrated Cereals Project, Review Papers, HMG, Ministry of Food and Agriculture, Department of Agriculture, October 23 - November 2, 1979, Kathmandu Nepal. p. 47 (modified).

These results were obtained on farmers' fields with farmer management under supervision of GON agricultural personnel. Inputs needed to achieve these production increases are generally available to farmers and management innovations are within their capabilities.

However, production increases of this level will not be generally achieved in the larger pilot production programs. Local shortages of fertilizer and improved seeds are common and farmers will need experience with new management techniques. Existing studies indicate that lack of formal credit is not a major constraint but in some cases lack of credit could restrict technology adoption.

Even taking these limitations into account, however, pilot production campaigns should achieve production increases averaging on the order of 20 percent. This will be possible in many instances with no cash purchase of additional inputs and with less than optimal management of new inputs.

Another success achieved by the project has been to lay the foundations for a national cropping systems research program. This program is improving coordination between the commodity specific research programs and other agricultural institutions, e.g., with Extension, Agricultural Inputs Corporation, etc. A mono-crop view is being gradually replaced by recognition that the productivity of cropping systems on Nepal's small farms depends not on single crops but on a variety of crops grown in closely integrated sequences.

Nepal's cropping systems research is based on a sequence of four steps in a research-extension pattern. These are: 1) research center, crop-specific research; 2) cropping systems site or farmer field trials where technologies are tested under actual farm conditions (e.g., the six ICP cropping systems sites); 3) verification trials to prove technologies in new areas with conditions similar to those of the cropping systems sites; and 4) pocket ^{6/} production programs where technologies are disseminated to farmers in target areas.

^{6/} Due to topographic and climatic variation in hill areas, production programs can not cover broad, homogeneous areas. The GON has, therefore, adopted the terminology "pocket" production campaign for programs focussing on specific hill areas.

This research process is based on and guided by information obtained from experience in the various stages. Economic and social research is an integral part of the process.

The ICP has developed technologies to the stage of cropping systems site work and is beginning pocket production campaigns. A mini-kit program has tested technology transfer methods for use in production campaigns.

The ICP extension period will allow completion of pocket production program trials at the six cropping systems sites, including one in the Rapati Zone, and verification trials in several districts in the RAD/RCUP areas.

Project activities are implemented directly by GON research and extension personnel. Research personnel are responsible for research center work and cropping systems site trials. Extension personnel implement production campaigns and verification trials in new areas. IADS and GON cropping systems program personnel assist with planning and initial management of project activities.

Personnel of the Extension and Training Division (ETD) of the MFA provide training and demonstrations of new technology to farmers, conduct surveys, and collect information for research personnel. The ETD is now also assuming the major role for planning and managing production campaigns.

The project-sponsored production mini-kit program is proving successful in expanding the use of improved varieties and, through its feedback mechanism, is providing information to scientists working in the commodity improvement programs. During the initial four years of the project, approximately 51,000 mini-kits were distributed for maize, wheat, and rice. Results indicate a positive impact on farmer technology use. IADS is currently planning an in-depth evaluation of the program to be completed in mid-1981. This will provide information to measure further the impact of the mini-kit program and to introduce refinements in the three years ahead.

The mini-kit program and on-farm demonstration trials will become the basis of future pocket production campaigns. These techniques will be further refined and complemented by other communications techniques, e.g., farmer meetings, recommendations through the Agricultural Inputs Corporation (AIC), and written materials.

Pocket production campaign activities during the PP extension period will complement an IERD-funded Training-and-Visitation (T and V) extension project. This project will be located in the Terai and will utilize extension techniques suited to the better infrastructure and homogeneous agro-climatic conditions of this area.

In view of the distances between villages in the middle hills and the time for travel imposed by topographical conditions, the intensive coverage of a T and V program would not be feasible for these areas. The ICP is accordingly working with the extension service to adapt approaches more relevant to the hills. These will probably include, for example, reliance on large numbers of small pilot plots on farmers' fields, use of detailed instructions for mini-kit introduction, recording of information return from mini-kits, instruction of extension personnel, etc., supplemented by periodic extension visits to the extent possible.

IADS, the technical assistance contractor, has fielded a competent, well-managed team of seven resident specialists and has complemented their work with a variety of short-term consultants. The contractor has furnished technicians on a timely basis with few delays. IADS headquarters staff have maintained good communication with the GON's project leadership and have strongly supported the IADS team's efforts. Team relations with counterparts and other MFA officials and with the AID Mission have been good. Reports have been forthcoming as scheduled, problems have been openly discussed and acceptable solutions have been found promptly.

The contractor has done a good job in organizing and implementing the participant training element of the project, though initial delays in identifying, processing and placing candidates in academic programs in the U.S. and the Philippines caused the training program to be approximately one year behind schedule. These initial delays, and some subsequent slippage in scheduling of participant training, are attributable in large part to difficulties faced by the MFA in identifying candidates with appropriate credentials and prospects for advanced study. These difficulties have long since been resolved and identification and scheduling of participants has functioned smoothly during later stages of project implementation.

The equipment and procurement program is further behind schedule, but progress has also been made. Code 941 suppliers (mainly India) have been slow in filling orders, shipments have taken overly long to reach destinations, and many items have been damaged in transit. These problems notwithstanding, it is expected that over 80 percent of planned procurement will be complete by September 30, 1981.

Eighty-five percent of the building program should be complete by September 30, 1981. Two major planned items, a cropping systems building at the Central Experiment Station in Kathmandu and a regional training center at the National Wheat Improvement Station in Bhairawa, have been deferred because construction has not yet started and cannot be finished before the current PACD. Design work is partially done, and construction will be completed within the extension period.

Land leveling, well drilling and the building of channels for irrigation purposes will be less than half finished on September 30, 1981 and will also require the extension for completion.

In addition, although much of the actual building construction undertaken will be complete by the present PACD, some finishing work will remain to be done and less than half of the procured machinery and equipment will be installed and ready for full use.

Original PP output targets and current status are summarized in Table III. Quantitative targets have not yet been achieved for construction and participant training. Even though targets for most outputs have been realized, the most important requirement is for further support to institutionalize the farming systems approach to research and extension. This is where the real project benefits lie and where main and significant progress has been achieved to-date.

TABLE II: SUMMARY OF PROJECT OUTPUT STATUS

<u>OUTPUTS</u>	<u>PP OUTPUT TARGETS</u>	<u>CURRENT STATUS</u>	<u>REVISED TARGETS FOR AMENDED PP</u>
1. A system to combine research and extension functions at the regional level is designed and operational.	1. By end of year one of project.	1. Completed, but requires further development of extension function.	1. System further developed and tested. Pilot production programs begun and area coverage expanded to include RAD and RCU.
2. First diagnostic team studies and reports on farming systems pressure points and research priorities.	2. First studies by end of year one and continuing.	2. Achieved and continuing.	2. Continuation with emphasis on RAD and RCU areas.
3. Catalogue of hill farming systems models including complete description.	3. Approximately six models done by end of year two.	3. 14 models in five areas.	3. Complete characterization of a sixth area and initial work done in RAD/RCU areas.
4. Regional directorate training programs for crop production specialists.	4. 28 participants in rice, wheat, maize and multiple cropping.	4. 35 participants in rice, wheat, maize, and cropping systems.	4. No change.
5. DOA and Regional Directorate in-country training programs for crop specific JT/JTAs.	5. 160 JT/JTAs trained in maize, wheat, rice, and multiple cropping.	5. 152 participants trained in commodity outreach and extension.	5. No change.
6. In-service retraining for all JTs and JTAs (about four weeks duration).	6. 800 participants through FY 81	6. 677 participants in 23 programs.	6. 400 additional JT/JTAs trained in extension work and pilot production program methods.
7. On-farm trials of newly adapted varieties and technologies conducted and successful innovations demonstrated.	7. 52,800 demonstration plots	7. 1190 On-farm research trials (through CY 79) 51,000 mini-kit <u>1/</u> demonstrations.	7. 2600 additional on-farm trials 40,000 additional mini kit demonstrations. Program expansion into RAD/RCU areas.

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1/ Mini-kits have been the preferred method for getting large numbers of demonstration plots on farmers fields. The kits provide seed, management recommendations, and fertilizer.

<u>OUTPUTS</u>	<u>PP OUTPUT TARGETS</u>	<u>CURRENT STATUS</u>	<u>REVISED TARGETS FOR AMENDED PP</u>
8. Collection and testing program for existing varieties of "minor crops."	8. By end of FY 77, programs had begun for oilseeds (mustard, niger, sesame, groundnut, castor bean and sunflower) and pulses (pigeon pea, chickpea, mung, blackgram, soybean, and cowpea).	8. Potential new varieties for release have been identified for chickpea (5), soybean (2), lentil (3), barley (2), and mustard (1).	8. Continuation and extension of testing program to RAD/RCU areas.
9. Economic and technical analyses and evaluations of on-farm trials.	9. During FY 78.	9. Achieved and continuing.	9. Continuation with emphasis on RAD/RCU areas.
10. Development of technology packages for irrigated and dryland conditions to complement new varieties.	10. Initial trials conducted at farm level by year two of project in Terai and year three in hills.	10. Eight technology packages identified.	10. Technological packages modified based on further research. Specific technological packages identified for RAD/RCU and modified based on verification trial results.
11. Small quantities of seed of newly developed, selected and tested varieties of rice, maize, and wheat (as well as minor food crops) that outperform traditional varieties in hills as well as Terai and for small farmers as well as large farmers.	11. Acceptable varieties of maize seed (some with high lysine characteristic); rice (including high altitude varieties); wheat (including rust resistant characteristics) and other crops developed. The number of varieties for all crops will depend upon analysis of agro-climatic, soil and economic factors as well as on an element of luck and cannot be quantified in advance.	11. New varieties released: maize - 3 (none high lysine) rice - 4 (none for high altitude but four high altitude varieties in advanced stages of testing) wheat - 2 (one rust resistant) lentil - 3 chickpea - 2 soybean - 2	11. Identification of additional new varieties appropriate to hill areas.

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<u>OUTPUTS</u>	<u>PP OUTPUT TARGETS</u>	<u>CURRENT STATUS</u>	<u>REVISED TARGETS FOR AMENDED PP</u>
12. Interim system designed for development of quality seed and production, processing, and distribution of newly released seed varieties.	12. System designed in FY 77 - prior to construction #13 below.	12. System design completed. Seed Production and Input Storage Project (367-0118) provides funding.	12. No change.
13. Temporary, experimental seed production and processing plant set up in Far Western Development Region with permanent storage nearby.	13. Capacity of plant: 2,500 MT/YR. - to be completed in FY 78.	13. Deleted from project ^{2/}	13. No change.
14. Trained personnel	14. M.Sc. 24 participants Ph.D. 4 participants short-term 55 participants long-term 7 participants	14. M.Sc. 8 completed 16 on-going 4 starting this year Ph.D. 2 on-going 1 starting this year Short-term 121 participants	14. Completion of degree programs initiated (28 MS and 3 Ph.D.) Additional Short-term non-academic - 30 participants
15. Upgraded Crop Improvement Stations.	15. New facilities (e.g., laboratories, office space, foundation seed facility, and staff quarters) at Rampur, Bhairawa and Parwanipur.	15. New facilities construction: Completed 9 In progress 6 Pending 4	15. Completion of facilities at research stations; cropping system building at Khumaltar; training center building; and irrigation works at research stations.

^{2/} The Nepalganj Seed Processing Plant serving the Far Western Development Region has been constructed under a German AID Project.

<u>OUTPUTS</u>	<u>PP OUTPUT TARGETS</u>	<u>CURRENT STATUS</u>	<u>REVISED TARGETS FOR AMENDED PE</u>
16. Upgraded outreach stations in hills.	16. Storage facilities at six outreach stations.	16. Four completed.	16. Completion of two additional storage facilities.
17. Research on environmental, economic and social aspects of projects.	17. Completed in year three.	17. Studies completed include: Key Informant Survey six sites Cropping Systems Survey five sites Livestock Survey -	17. Continuation of socio-economic research, emphasizing monitoring of farmers' acceptance of new technology.
18. Pilot production programs field tested.	18. -	18. Production program extension methodology tested initially at four sites in winter 1980-81.	18. Pilot pocket production programs based on cropping systems research conducted and evaluated at six field sites, including one in the Rapati Zone.
19. System for translating production information into useful extension materials.	19. -	19. -	19. Verification trials completed in at least four RAD/RCU districts and pocket production programs planned. Technical information from cropping systems research published in Nepali (reports from 6 sites).

PART III - PROJECT DESCRIPTION

During the extension period the project will emphasize technology transfer. Special attention will be given to working with farmers directly to accelerate this transfer. Central to the extension period will be the following five sets of project activity:

1. Cropping systems work will continue verification trials for new varieties and cultivation practices at the six field application sites. The project will also begin to apply cropping systems work in other areas. This will include survey and analysis of current cropping systems; identification of social, economic, climatic, and ecological characteristics of the areas; and initiation of verification trials.

The ICP will develop close linkages with RAD and RCU, as both projects will utilize ICP as a source of improved agricultural technology and improved extension approaches. ICP influence on RAD will be immediate since one of the five original cropping systems sites is located in the Rapati Zone.

The MFA through ICP will begin survey work and verification trials in various RAD/RCU districts. The RAD and RCU Projects will fund training for JT/JTAs in cropping systems work methodology. Verification trials and related mini-kit demonstrations will begin to impact on production in these zones by 1983.

2. Pilot pocket production campaigns will, where appropriate, disseminate proven technologies more widely in areas adjacent to the six cropping systems sites. Pilot production programs were organized in the summer of 1980 at one of the five field sites, and similar programs for winter crops are currently functioning with promising indications at four hill sites and the Terai site.

The pilot campaigns will test techniques for technology dissemination and methodology for organization of pocket production programs. Experience gained in these pilot efforts will be used to plan expansion into wider areas with similar agro-climatic conditions and in RAD/RCU districts following preliminary survey and verification trial work.

The pilot campaigns will also serve to demonstrate and quantify pay-offs possible from cropping systems work.

3. Findings and results of work done at the six cropping systems sites and at the commodity research stations will be translated into production information for extension workers and farmers. This will help to fill the need for technical information and agricultural recommendations at the district level.

The project will develop a data collection and analysis system for interpreting and translating data into useful extension information. The goal is a structure which can be sustained and built upon by the GON research-extension organization.

4. Production mini-kit programs for rice, maize and wheat will be continued and expanded to include new varieties and wider geographical areas of coverage. A study of the impact of production mini-kits is currently underway. This will be a continuing output of the program and as the project goes forward will provide information to improve effectiveness and give further guidance to research priorities. Depending on recommendations from the evaluation, mini-kit programs will be started for important minor crops, such as millet, barley, soybeans and oil seeds, which are commonly grown in rice, maize and wheat based cropping patterns, and for which improved varieties are now becoming available.
5. Socio-economic research will investigate the effectiveness of technology transfer mechanisms and the socio-economic viability of individual technologies. It will be directly linked to meeting the needs of production campaigns, the mini-kit program, and the extension service.

By the end of the project extension period, the ICP will have achieved substantial applied results in technology development, testing and verification, and will have reflected these in the work of the extension service. The system used for research and extension will be based on a cropping systems approach. Technologies developed will be made available to farmers through the pilot production campaigns of this project and through links with RAD, RCU, and other donor projects.^{7/}

^{7/} The IBRD and United Kingdom are currently developing projects which rely on ICP generated technologies.

The cropping systems approach to research and extension will be institutionalized within the MFA. The Cropping Systems Section of the MFA will be established in adequate office facilities. Pilot pocket production campaigns will have demonstrated the potential of cropping systems research. This additional time and demonstration is necessary to introduce and confirm the place of this new approach within the MFA.

The five areas of special emphasis will require a partial realignment of project resources. The technical assistance contractor's team of resident specialists will be reduced in number from seven to four.

The Rice Breeder, the Maize and Wheat Agronomists and the Production Trainer positions will be phased out. Crop specific research work is fairly advanced and will be effectively continued by returning participants. Project training activities are also advanced enough to be completed without a full-time Training Advisor.

The Agricultural Research Specialist/Team Leader, Cropping Systems Agronomist and Agricultural Economist positions will be retained and an Extension Specialist added. The Team Leader will coordinate research and extension activities/linkages and other project inputs. The Cropping Systems Agronomist will advise on cropping systems work at the six regional sites and on verification trials in new areas. The Extension Specialist will assume responsibility for project training activities and will concentrate on planning and evaluation of pocket production campaigns and the mini-kit program. The Agricultural Economist will coordinate research on economic and social feasibility of technology innovations and on factors affecting adoption of new technology.

The project will provide 15 person-months of expatriate and local consultant services in experiment station development, irrigation, extension information systems, maize pathology, rice and wheat agronomy, and rural sociology/anthropology. These consultants will complement the expertise of long-term advisors and GON technicians as needed.

The project amendment will, therefore, modify the initial project design by providing the following additional inputs:

Technical Assistance - Long Term	12 person-yr
- Short Term	15 person-mon
Participant Training - Non-Academic	30 persons
Equipment and Materials	\$151,000

The project extension is necessary to complete construction and participant training activities. At present, 20 MS and three Ph.D. candidates funded by the project have not completed training. Most will require extension beyond the current project completion date to finish. Non-academic, short-term training and participation in regional study tours and workshops for MFA research personnel will continue to receive funding, although at a reduced level.

Under the construction program, work which will not be completed by the current PACD includes a cropping systems building at Khumaltar, a training center, two storage facilities at hill stations, and a program of land levelling and irrigation works. Sufficient PL 480 funds remain to complete this construction program within the project extension period.

Project extension will, therefore, allow completion of on-going project activities, further development of cropping systems research; and application of new technology on farmers' fields. Table III summarizes outputs for the amended project compared to the original PP.

The extension period will require \$2,980,000 in new funding to support the continuation of the technical assistance contract with IADS. The proposed budget for the extension period is given in Table IV.

TABLE IV: PROPOSED PROJECT AMENDMENT BUDGET (\$'000)

<u>Item</u>	<u>Revised Budget Original Project</u>	<u>PP Amendment</u>	<u>TOTAL</u>
Technical Assistance	3,178	1,742	4,920
Materials and Equipment ^{1/}	712	151	863
Participant Training ^{1/}	1,100	495	1,595
Inflation (12% yearly) ^{2/}	-	291	291
Contingency (10%) ^{2/}	-	301	301
TOTAL:-	<u>4,990</u>	<u>2,980</u>	<u>7,970</u>

^{1/} Including contractor's overhead charge.

^{2/} Percentage based on amendment plus \$322,000

The PL-480 local currency contribution for construction will remain as budgeted under the original PP. The GON contribution for the extension period will consist of counterpart personnel working on the project, a budgeted contribution to agricultural research and extension, and in-kind contribution of equipment and facilities. This is estimated at \$1,000,000 equivalent for a new GON project total of \$3,479,000 (or 25.3 of total project costs).

A Peace Corps contribution estimated at \$39,000 was included in the original PP. The actual Peace Corps contribution has exceeded this and will be approximately \$81,000 by September 30, 1981 (for 135 volunteer-months). During the extension period the Peace Corps contribution will be approximately \$102,000 (140 volunteer-months) for a life-of-project total of \$183,000.

Peace Corps/Nepal has reviewed the PP amendment with the AID Mission and has given the Mission a memorandum stating the intention to provide at least 12 person-years of volunteer service during the three year project extension. Peace Corps/Nepal personnel consider the ICP a priority project within the agricultural sector.

The revised project budget is given in Table V.

TABLE V: SUMMARY COST ESTIMATES AND FINANCIAL PLAN (\$'000)

Budget Item	AID (Grant) 1/			Host Country 2/			PL 480 3/			Peace Corps 4/			TOTAL		
	Original Project	Amendment	Total	Original Project	Amendment	Total	Original Project	Amendment	Total	Original Project	Amendment	Total	Original Project	Amendment	Total
1. Contract Services	3,178	1,742	4,920	925	500 ^{5/}	1,425	444	-	444	-	-	-	4,547	2,242	6,789
2. Commodities & Equipment	712 ^{7/}	151 ^{7/}	863 ^{7/}	275	190	465	288	-	288	-	-	-	1,275	341	1,616
3. Participant Training	1,100 ^{7/}	495 ^{7/}	1,595 ^{7/}	100	30	130	-	-	-	-	-	-	1,200	525	1,725
4. Construction	-	-	-	295	50	345	1,079 ^{6/}	-	1,079 ^{6/}	-	-	-	1,374	50	1,424
5. Mini-kits	-	-	-	820	150	970	296	-	296	-	-	-	1,116	150	1,266
6. Regional Production Specialist	-	-	-	64	80	144	-	-	-	81	102	183	145	182	327
7. Inflation	-	291	291	-	-	-	-	-	-	-	-	-	-	291	291
8. Contingency 8/	-	301	301	-	-	-	26	-	26	-	-	-	26	301	327
TOTAL:-	4,990	2,980	7,970	2,479	1,000	3,479	2,133	-	2,133	81	102	183	9,683	4,082	13,765

1/ Foreign Exchange.

2/ Local Currency, except for an estimated \$100,000 in the original PP.

3/ Local Currency. Dollar equivalency calculated at the original PP authorized rate of Rs. 12.45 NC to US\$1.00.

4/ Approximately 30 percent local currency and 70 percent foreign exchange.

5/ GON salaries.

6/ Includes Rs. 1,000,000 IC equivalent,, converted 'o Rs. NC at IC 1,45 to NC 1.0, and then to US\$ equivalent at NC Rs. 12.45 to US\$1.00.

7/ Including contractor's overhead.

8/ Including evaluation costs.

The project amendment grant funding will provide for extension of the IADS contract through September 30, 1984: The budget for this extension period is given in Table VI. This contract amendment will total \$3,302,000 including \$2,980,000 in funds from this amendment plus \$322,000 in un-committed funds remaining under the original project agreement.

TABLE VI: IADS CONTRACT BUDGET FOR ICP
EXTENSION PERIOD (\$'000)

<u>Item</u>	<u>FY 82</u>	<u>FY 83</u>	<u>FY 84</u>	<u>TOTAL</u>
I. Technical Assistance Personnel ^{1/}				
A. Resident Specialists ^{2/}	365	365	365	1,095
B. Consultants	56	32	32	120
II. Participant Training				
A. Academic (no new selections)	200	100	-	300
B. Non-degree training	50	50	50	150
III. Equipment and Materials	85	40	-	125
IV. IADS Headquarters staff	30	30	30	90
V. In-country Team Support ^{3/}	120	120	120	360
Sub-Total:-	906	737	597	2,240
VI. IADS Overhead (21%)	190	155	125	470
Sub-Total:-	1,096	892	722	2,710
Inflation (12% yearly):-	-	107	184	291
Sub-Total:-	1,096	999	906	3,001
Contingency (10%):-	110	100	91	301
TOTAL:-	1,206	1,099	997	3,302

^{1/} Includes salary, housing, travel and benefits.

^{2/} TA cost per person year, as reflected by current IADS expenditure, is estimated at \$83,333. For this budget estimate, this figure is increased by 10% to \$91,300 per person year.

^{3/} Includes local support personnel, office materials, and office expenses, estimated at \$10,000/mo.

Following approval of the PP amendment, the GON and IADS will negotiate a contract amendment increasing contract funding by \$322,000 and extending the contract into FY 82. The initial funding increment for this amendment will be needed in the first quarter of FY 82. A second funding increment is needed no later than the first quarter of FY 83.

Table VII shows funding by fiscal year and Table VIII gives funding by output category.

TABLE VII: ESTIMATED PROJECT GRANT AND PL-480 ANNUAL OBLIGATION, EXPENDITURE & PIPELINES
(\$'000)

PROJECT GRANT:

Budget Item	FY 81 & PRIOR			FY 82			FY 83			FY 84		
	Obli.	Exp.	P. Li.	Obli.	Exp.	P. Li.	Obli.	Exp.	P. Li.	Obli.	Exp.	P. Li.
1. T.A.	3,178	2,906	272	665	690	247	1,077	662	662	-	662	-
2. Commodities & Equip.	712	712	0	125	103	22	26	48	-	-	-	-
3. Participant Training	1,100	1,050	50	300	303	47	195	182	60	-	60	-
4. Inflation	-	-	-	-	-	-	291	107	184	-	184	-
5. Contingency*	-	-	-	110	110	-	191	100	91	-	91	-
TOTAL:-	4,990	4,668	322	1,200	1,206	316	1,780	1,099	997	-	997	-

PROJECT PL-480 LOCAL CURRENCY

Budget Item	FY 81 & PRIOR			FY 82			FY 83			FY 84		
	Obli.	Exp.	P. Li.	Obli.	Exp.	P. Li.	Obli.	Exp.	P. Li.	Obli.	Exp.	P. Li.
1. Technical Assistance	444	444	-	-	-	-	-	-	-	-	-	-
2. Commodities & Equip.	288	288	-	-	-	-	-	-	-	-	-	-
3. Construction	1,079	840	239	-	100	139	-	100	39	-	39	-
4. Mini-kits	296	240	56	-	28	28	-	28	-	-	-	-
5. Miscellaneous	26	26	-	-	-	-	-	-	-	-	-	-
TOTAL:-	2,133	1,838	295	-	128	167	-	128	39	-	39	-

* Including evaluation costs.

TABLE VIII: SUMMARY OF ESTIMATED GRANT COST BY OUTPUT

	<u>Revised Budget Original Project</u>	<u>PP Amendment</u>	<u>TOTAL</u>
1. Experiment Station Research	2,290	482	2,772
2. Cropping Systems Site Research	1,100	964	2,064
3. Verification Trials	250	482	732
4. Extension Campaigns	250	482	732
5. Participant Training	1,100	570	1,670
	<hr/>	<hr/>	<hr/>
TOTAL:-	4,990	2,980	7,970

PART IV - SUMMARY ANALYSIS

A. Analysis

The technical, environmental, social, and economic analyses for the original PP approved on June 15, 1976 remain valid. Project accomplishments to-date confirm feasibility as determined in the original PP.

The ICP project has identified agronomic innovations and demonstrated their feasibility and potential for increasing small farm production. Since technology development is a dynamic process, future innovations can also be expected. Extension techniques have also given good initial results, but will require further testing.

The amended project will have a positive impact on the environment. Cropping systems research addresses conservation as a major factor in the farming environment. Increasing production on hill farms should partially reduce the pressure to expand into marginal areas. Project linkages with the Resource Conservation and Utilization and the Rural Area Development/Rapati Projects will be important aspects of this project extension and should contribute significantly to the success of these major AID projects.

Target beneficiaries are small farmers and, since research is based on their cropping systems, resulting recommendations should be at least as beneficial to them as to larger farmers.

Resulting changes in the economic status of small farmers will be gradual. Extension techniques rely largely on farmer testing and spread of new technologies. Research on social impact and social factors influencing technology adaptation is an integral part of the project's extension focus.

The PP found the project economically feasible based on a potential for increase in farmer income of 54.9 percent from use of improved technology. The ICP has demonstrated a potential for productivity increases of 86 percent based on results at cropping systems sites.

B. Administrative Feasibility

The major problems of project administration to date have been associated with the local currency construction and procurement elements. Delays caused by material shortages (steel, bricks, cement, etc.) have hindered

accomplishment of planned building schedules, but substantial progress has been made. Approximately 85 percent of the planned construction program will be complete before September 30, 1981. Major construction elements deferred until the project extension is authorized or which have begun but will not be completed by the current PACD are: a training facility at the National Wheat Improvement Station, a Cropping Systems building at the Central Experiment Station at Khumaltar, two additional storage buildings, and certain irrigation works, including wells, channels and some land leveling at the Rice and Maize Improvement Stations and at the Central Experiment Station. These elements will be completed within the extension period with funds budgeted under the original PP.

Delays in the building schedule have also hampered procurement. The purchase of some equipment was necessarily deferred until intended housing was completed and ready for equipment installation. To the extent possible, large items of equipment such as seed cleaners have been procured and are ready for installation.

Project advisors will monitor and advise on activities at four research stations, six cropping systems research sites, and at dispersed verification trial sites in the Rapati and RCU areas.

This scope of work is readily feasible. The TA team, building upon the research work already underway, will have the opportunity to extend these results increasingly to farmers' fields; the MFA now has a Nepali staff well-trained in cropping systems work; and the IADS contract team is in-country and is thoroughly familiar with the technical, institutional, and organizational aspects of the project.

Implementation of the PP extension will require only negotiation and agreement, and AID Mission approval, of the GON-IADS contract. No issues are expected on either count.

Prior delays in some aspects of project implementation will be compensated for by extension of the project. The AID Mission views the project extension administratively feasible for all project components.

PART V - PROJECT IMPLEMENTATION PLAN

A. AID and GON Roles and Responsibilities

The amendment will require no change in AID and GON project implementation arrangements.

B. Contracting and Procurement

Upon approval of the PP amendment the MFA will initiate negotiations with IADS to amend the project-funded host country contract and extend it for three years. Participant training and commodity procurement will be included in the amendment, continuing relationships established under the current contract.

The AID Mission will inform the GON of standard AID contract regulations and policies which apply to the amendment.

C. Evaluation Plan

The last project evaluation was submitted to AID/W in May, 1980. The decision to request extension of the project is based, in part, on the findings of this evaluation.

The original project paper anticipated annual evaluations along with mid-term and end-of-project special evaluations. The mid-term special evaluation was completed in 1979. Annual evaluations will continue, with the next scheduled for September 1981 following contract amendment.

The AID Mission and GON, with outside participation, will conduct the next special evaluation in September, 1982, with non-AID direct hire costs to be funded from the project extension contingency. During that evaluation emphasis will be given to the following:

1. Reviewing the cropping systems work, particularly with respect to assessing the linkages established between ICP and the RAD and RCU projects.
2. Assessing the pilot pocket production campaigns, especially the use of techniques to disseminate new technology and the methods of organizing such campaigns.
3. Assessing how well production information for extension workers and farmers has been derived and packaged from findings produced at the research stations.
4. Assessing the results of the expanded use of production mini-kits for the three major crops as well as for minor crops.

5. Identifying factors, if any, that have prevented the production campaigns from increasing crop production. Identification of such factors may have significance for future GON policy and program decisions. Lack of credit, low commodity prices, or inefficient marketing channels are possible obstacles to increasing productivity despite existence of proven technologies and dissemination systems.

At the end of the project in September, 1984, the AID Mission and GON, with outside participation, will conduct a final evaluation covering the total project life. Emphasis will be on identifying results that may be relevant to future AID Nepal involvement in this sector. Special emphasis will be given to identifying problems encountered in testing technology on farmers' fields and in convincing farmers to experiment with new cropping patterns/new varieties. The evaluation will also attempt to identify critical factors for broader dissemination of project-generated technology in future GON projects.

A post-project evaluation, to address longer term production and income results, will be scheduled at the end of project evaluation.

D. Conditions Precedent and Covenants

No new conditions precedent or covenants will be attached to the project amendment.

E. Schedule of Major Events

<u>Date</u>	<u>Activity</u>
3/81	Project Amendment submitted to AID/W.
4/81	Project Amendment authorized by AID/W.
8/81	Project Agreement signed by AID and GON.
9/81	HCC Amendment signed by GON and IADS.
9/81	AID Mission Evaluation
10/81	Verification trials begun in RAD and RCU zones.
	Pilot pocket production campaigns begun in areas of five cropping systems sites.
	Construction of training center and cropping systems building initiated.

<u>Date</u>	<u>Activity</u>
9/82	Project Special Evaluation.
9/83	AID Mission Evaluation
10/83	Pocket production campaigns begun in RAD and RCU areas.
12/83	Construction activities completed. Procurement completed.
3/84	Participant training completed.
9/84	Project final evaluation.
9/30/84	PACD.

CHECKLIST OF STATUTORY CRITERIA

COUNTRY CHECKLIST

A. GENERAL CRITERIA FOR COUNTRY ELIGIBILITY

- | | |
|--|---|
| 1. <u>FAA Sec. 116</u> . Can it be demonstrated that contemplated assistance will directly benefit the needy? If not, has the Department of State determined that this government has engaged in a consistent pattern of gross violations of internationally recognized human rights? | 1. The Department of State has not determined that the Government of Nepal has engaged in consistent patterns of gross violations of internationally recognized human rights. |
| 2. <u>FAA Sec. 481</u> . Has it been determined that the government of recipient country has failed to take adequate steps to prevent narcotics drugs and other controlled substances (as defined by the Comprehensive Drug Abuse Prevention and Control Act of 1970) produced or processed, in whole or in part, in such country, or transported through such country, from being sold illegally within the jurisdiction of such country to U.S. Government personnel or their dependents, or from entering the United States unlawfully? | 2. No. |
| 3. <u>FAA Sec. 620(b)</u> . If assistance is to a government, has the Secretary of State determined that it is not controlled by the international Communist movement? | 3. Yes. |
| 4. <u>FAA Sec. 620(c)</u> . If assistance is to government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) debt is not denied or contested by such government? | 4. No such indebtedness is known to exist. |
| 5. <u>FAA Sec. 620(e)(1)</u> . If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities? | 5. No. |

- A. 6. FAA Sec. 620(a), 620(f); FY 79 App. Act, Sec. 108, 114 and 606. Is recipient country a Communist country? Will assistance be provided to the Socialist Republic of Vietnam, Cambodia, Laos, Cuba, Uganda, Mozambique, or Angola? 6. No.
7. FAA Sec. 620(i). Is recipient country in any way involved in (a) subversion of, or military aggression against, the United States or any country receiving U.S. assistance, or (b) the planning of such subversion or aggression? 7. No.
8. FAA Sec. 620(j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction, by mob action, of U.S. property? 8. No.
9. FAA Sec. 620(l). If the country has failed to institute the investment guaranty program for the specific risks of expropriation, inconvertibility or confiscation, has the AID Administrator within the past year considered denying assistance to such government for this reason? 9. An investment guaranty program for the specific risks cited has not been instituted. The AID Administrator has not considered denying assistance to Nepal for this reason.
10. FAA Sec. 620(o); Fishermen's Protective Act of 1967, as amended, Sec. 5. If country has seized, or imposed any penalty or sanction against, any U.S. fishing activities in international waters: 10. Nepal has not seized or imposed penalties or sanctions against any U.S. fishing activities, Nepal has no navy.
- a. has any deduction required by the Fishermen's Protective Act been made? a. Not applicable.
- b. has complete denial of assistance been considered by AID Administrator? b. Not applicable.
11. FAA Sec. 620; FY 79 App. Act, Sec. 603. 11.a. No.
- (a) Is the government of the recipient country in default for more than 6 months on interest or principal of any AID loan to the country? (b) Is country in default exceeding one year on interest or principal on U.S. loan under program for which App. Act appropriates funds? b. No.

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- A. 12. FAA Sec. 620(s). If contemplated assistance is development loan or from Economic Support Fund, has the Administrator taken into account the percentage of the country's budget which is for military expenditures, the amount of foreign exchange spent on military equipment and the amount spent for the purchase of sophisticated weapons systems? (An affirmative answer may refer to the record of the annual "Taking Into Consideration" memo: "Yes, as reported in annual report on implementation of Sec. 620(s)." This report is prepared at time of approval by the Administrator of the Operational Year Budget and can be the basis for an affirmative answer during the fiscal year unless significant changes in circumstances occur.)
13. FAA Sec. 620(t). Has the country severed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreement been negotiated and entered into since such resumption?
14. FAA Sec. 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the AID Administrator in determining the current AID Operational Year Budget?
15. FAA Sec. 620A, FY 79 App. Act, Sec. 607. Has the country granted sanctuary from prosecution to any individual or group which has committed an act of international terrorism?
16. FAA Sec. 666. Does the country object, on basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. there to carry out economic development program under FAA?
17. FAA Sec. 669, 670. Has the country, after August 3, 1977, delivered or received nuclear enrichment or reprocessing equipment, materials, or technology, without specified arrangements or safeguards? Has it detonated a nuclear device after August 3, 1977, although not a "nuclear-weapon State" under the nonproliferation treaty?
12. Not applicable.
13. Diplomatic relations have not been severed.
14. Nepal is not in arrears in its obligations to the U.N.
15. No.
16. No.
17. No.

B. FUNDING CRITERIA FOR COUNTRY ELIGIBILITY

1. Development Assistance Country Criteria

a. FAA Sec. 102(b)(4). Have criteria been established and taken into account to assess commitment progress of country in effectively involving the poor in development, on such indexes as: (1) increase in agricultural productivity through small-farm labor intensive agriculture, (2) reduced infant mortality, (3) control of population growth, (4) equality of income distribution, (5) reduction of unemployment, and (6) increased literacy?

b. FAA Sec. 104(d)(1). If appropriate, is this development (including Sahel) activity designed to build motivation for smaller families through modification of economic and social conditions supportive of the desire for large families in programs such as education in and out of school, nutrition, disease control, maternal and child health services, agricultural production, rural development, and assistance to urban poor?

2. Economic Support Fund Country Criteria

a. FAA Sec. 502B. Has the country engaged in a consistent pattern of gross violations of internationally recognized human rights?

b. FAA Sec. 533(b). Will assistance under the Southern Africa program be provided to Mozambique, Angola, Tanzania, or Zambia? If so, has President determined (and reported to the Congress) that such assistance will further U.S. foreign policy interests?

c. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made?

d. FY 79 App. Act, Sec. 113. Will assistance be provided for the purpose of aiding directly the efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights?

1.a. The GON's commitment and progress on each of these matters are reviewed as appropriate in preparation and evaluation of projects and in the Mission CDSS. Criteria are established within the context of each project as objectively verifiable indicators.

1.b. This development activity is designed to build motivation for smaller families through programs of coordinated assistance which address problems in the areas of nutrition, agricultural production, rural development, and assistance to the rural poor.

2.a. Not applicable

b. Not applicable

c. Not applicable.

d. Not applicable.

e. FAA Sec. 620B. Will security supporting assistance be furnished to Argentina after September 30, 1978?

e. Not applicable

PROJECT CHECKLIST

A. GENERAL CRITERIA FOR PROJECT

1. FY 79 App. Act. Unnumbered; FAA Sec. 653 (b); Sec. 634A. (a) Describe how Committees on Appropriations of Senate and House have been or will be notified concerning the project; (b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that figure)?
 - 1.a. Congress will be notified using standard notification procedures.
 - b. No funds have been included in the country budget and congressional notification is included in Action Memorandum to the AA/ASIA as an annex.
2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$100,000, will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?
 - 2.a. Yes. See PP and amendment.
 - b. Yes, see PP amendment Part III Project Description.
3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

3. No further legislative action is required.
4. FAA Sec. 611(b); FY 79 App. Act Sec. 101. If for water or water-related land resource construction, has project met the standards and criteria as per the Principles and Standards for planning Water and Related Land Resources dated October 25, 1973?

4. Not applicable.
5. FAA Sec. 611(e), If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability effectively to maintain and utilize the project?

5. Yes, see Project Amendment Annex II.
6. FAA Sec. 209. Is project susceptible of execution as part of regional or multilateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs.

6. The project is not susceptible of execution as part of a regional or multi-lateral project.

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- A. 7. FAA Sec. 601(a). Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.
8. FAA Sec. 601(b). Information and conclusion on how project will encourage U.S. private trade, and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).
9. FAA Sec. 612(b); Sec. 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized to meet the cost of contractual and other services.
10. FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?
11. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?
12. FY 79 App. Act Sec. 608. If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar, or competing commodity?
7. Yes to (a), (b), (c), and (e) by increasing small farm productivity and involving farmers in the market economy.
8. A private U.S. organization may be involved in a host-country contract to implement the project.
9. The project Grant Agreement contains provisions which assure that the GON will contribute local currencies for local salary and government operating costs related to the project implementation. The project also provides for the utilization of Indian Rupees owned by the U.S. for costs associated with construction and procurement of equipment and materials.
10. U.S. owned excess Indian Rupees will be utilized by the Project for costs associated with construction and procurement of equipment and materials.
11. Yes.
12. Not applicable.

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

a. FAA Sec. 102(b); 111; 113; 281a. Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries?

b. FAA Sec. 103, 103A, 104, 105, 106, 107. Is assistance being made available:

(1) /103/ for agriculture, rural development or nutrition; if so, extent to which activity is specifically designed to increase productivity and income of rural poor; /103A/ if for agricultural research, is full account taken of needs of small farmers;

d. FAA Sec. 110(a). Will the recipient country provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or has the latter cost-sharing requirement been waived for a "relatively least-developed" country)?

e. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to the Congress been made, and efforts for other financing, or is the recipient country "relatively least developed"?

1. a. The project's major goal is to deal with these subjects by improving rural productivity and income levels in rural Nepal.

b. The project indirectly supports the development of local, rural institutions.

c. The project will help increase Nepal's capability to implement development programs.

d. The project will attempt to involve women in agricultural extension activities.

e. The project does not apply to this area of concern.

b.1.(103) Project is specifically designed to focus on research efforts and deliver technology related to small farmers.

d. Although Nepal is a "relatively least developed" country, Nepal will furnish 25 per cent of project costs.

e. o.

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f. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civil education and training in skills required for effective participation in governmental and political processes essential to self-government.

f. The project addresses a major priority of the GON as stated in its Five Year Plans which is increasing food production. The project is viewed as crucial to the GON's ability to do this. Project activities will be implemented by GON personnel who are also responsible for planning and management. Training of additional GON personnel is a key component of the project.

g. FAA Sec. 122(b). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase or productive capacities and self-sustaining economic growth?

g. Yes.

2. Development Assistance Project Criteria (Loans Only)

2. Not applicable.

a. FAA Sec. 122(b). Information and conclusion on capacity of the country to repay the loan, including reasonableness of repayment prospects.

a. Not applicable.

b. FAA Sec. 620(d). If assistance is for any productive enterprise will it compete in the U.S. with U.S. enterprise, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan?

b. Not applicable.

3. Project Criteria Solely for Economic Support Fund

3. Not applicable.

a. FAA Sec. 531(a). Will this assistance support promote economic or political stability? To the extent possible, does it reflect the policy directions of section 102?

b. FAA Sec. 533. Will assistance under this chapter be used for military, or paramilitary activities.

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STANDARD ITEM CHECKLIST

A. Procurement

1. FAA Sec. 602. Are there arrangements to permit U.S. small business to participate equitably in the furnishing of goods and services financed? A.1. Not applicable in that under the PP amendment, no new contracts for goods or services will be financed.
2. FAA Sec. 604(a). Will all commodity procurement financed be from the U.S. except as otherwise determined by the President or under delegation from him? 2. Not applicable.
3. FAA Sec. 604(d). If the cooperating country discriminates against U.S. marine insurance companies, will agreement require that marine insurance be placed in the United States on commodities financed? 3. Nepal does not so discriminate.
4. FAA Sec. 604(e). If offshore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? 4. Not applicable.
5. FAA Sec. 608(a). Will U.S. Government excess personal property be utilized wherever practicable in lieu of the procurement of new items? 5. Not applicable.
6. FAA Sec. 603. (a) Compliance with requirement in section 901 (b) of the Merchant Marine Act of 1936, as amended, that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S.-flag commercial vessels to the extent that such vessels are available at fair and reasonable rates. 6. Not applicable.
7. FAA Sec. 621. If technical assistance is financed, will such assistance be furnished to the fullest extent practicable as goods and professional and other services from private enterprise on a contract basis? If the facilities of other Federal agencies will be utilized, are they particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs? 7. Yes.

8. International Air Transport. Fair Competitive Practices Act, 1974. If air transportation of persons or property is financed on grant basis, will provision be made that U.S.-flag carriers will be utilized to the extent such service is available? 8. Yes

9. FY 79 App. Act. Sec. 105. Does the contract for procurement contain a provision authorizing the termination of such contract for the convenience of the United States? 9. Yes

B. Construction

1. FAA Sec. 601(d). If a capital (e.g., construction) project, are engineering and professional services of U.S. firms and their affiliates to be used to the maximum extent consistent with the national interest? B. 1. Yes.

2. FAA Sec. 611(c). If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable? 2. Yes.

3. FAA Sec. 620(k). If for construction of productive enterprise, will aggregate value of assistance to be furnished by the United States not exceed \$100 million? 3. Not applicable

C. Other Restrictions

1. FAA Sec. 122 (e). If development loan, is interest rate at least 2% per annum during grace period and at least 3% per annum thereafter? C. 1. Not applicable.

2. FAA Sec. 301(d). If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights? 2. Not applicable

3. FAA Sec. 620(h). Do arrangements preclude promoting or assisting the foreign aid projects or activities of Communist-bloc countries, contrary to the best interests of the United States? 3. Yes

4. FAA Sec. 636(i). Is financing not permitted to be used, without waiver, for purchase, long-term lease, or exchange of motor vehicle manufactured outside the United States, or guaranty of such transaction? 4. Yes
5. Will arrangements preclude use of financing:
- a. FAA Sec. 104(f). To pay for performance of abortions or to motivate or coerce persons to practice abortions, to pay for performance of involuntary sterilization, or to coerce or provide financial incentive to any person to undergo sterilization? a. Yes.
 - b. FAA Sec. 620(g). To compensate owners for expropriated nationalized property? b. Yes.
 - c. FAA Sec. 660. To finance police training or other law enforcement assistance, except for narcotics programs? c. Yes.
 - d. FAA Sec. 662. For CIA activities? d. Yes.
 - e. FY 79 App. Act. Sec. 104. To pay pensions, etc., for military personnel? e. Yes.
 - f. FY 79 App. Act. Sec. 106. To pay U.N. assessments? f. Yes.
 - g. FY 79 App. Act. Sec. 107. To carry out provisions of FAA sections 209(d) and 251(h)? (Transfer of FAA funds to multilateral organizations for lending.) g. Yes.
 - h. FY 79 App. Act. Sec. 112. To finance the export of nuclear equipment, fuel, or technology or to train foreign nations in nuclear fields? h. Yes.
 - i. FY 79 App. Act. Sec. 601. To be used for publicity on propaganda purposes within United States not authorized by the Congress? i. Yes.

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His Majesty's Government

AD

MINISTRY OF FINANCE
Babar Mahal,
KATHMANDU
Nepal.

FA/AG/150-10(c)

Handwritten scribbles

December 31, 1980.

REC 2 EST
C-11

Dear Mr. Rose:

You are aware that the new proposal for the extension of the Integrated Cereals Project which is recommended by the Ministry of Food and Agriculture.

In this connection, His Majesty's Government of Nepal is interested to continue this on going project. I, am pleased to inform you that HMG/N have decided to request you to kindly extend the Project under reference for a period of two years. I would be grateful if you could take necessary action in this respect.

With best regards,

Sincerely yours,

P. P. Dahal
(P. P. Dahal)
Under Secretary

Mr. Thomas L. Rose
Acting Director
USAID Office
Kathmandu.

cc:- Ministry of Food & Agriculture
Ministry of Foreign Affairs
Department of Agriculture.

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Copy for action 6/1



His Majesty's Government
COPY
IN ANSWER OF

MINISTRY OF FINANCE
Baha. Mahal,
KATHMANDU
Nepal.
4th May 1961

6819

Ref.No:- FA/AG/150-10(c)//

Dear Mr. Brennan,

Kindly refer to my letter dated December 31, 1960 regarding the extension of The Integrated Cereals Project.

I have pleasure to inform you that EHC/W have decided to request you kindly extend the above mentioned project for a further period of one year. The total extended period of the project will be three years.

I would be grateful if you could kindly take necessary action in this respect.

With best regards,

Yours sincerely,

P P Dahal
P P Dahal
Under Secretary

ACTION	
INFO	ARC
D	✓
AD	✓
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PRM	✓
RAD	
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OR	✓

Mr. Dennis J Brennan
Director
USAID/Nepal
Kathmandu

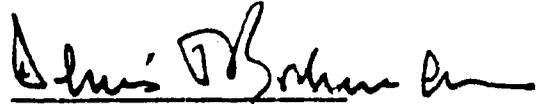
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Ministry of Food and Agriculture
Dept. of Agriculture

Subject File Copy	
Action Taken NAME	<i>AN</i>
Cable or Message	
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Section 611 (e) Certification

Integrated Cereals Project # 367-0114

The project construction element and related improvements in physical facilities are important components in achieving the project purposes of increasing the capacity of Nepal to generate improved agronomic production technology, and in facilitating the transfer and the adoption of this technology by Nepali farmers. Having taken into account, among other things, the maintenance and utilization of Projects in Nepal previously financed or assisted by the United States, the performance of the Ministry of Food and Agriculture, which has responsibility for implementing and maintaining the Agricultural Research and Extension facilities being constructed under the Integrated Cereals Project and the previous assistance from other donors specifically provided in the agricultural sector, I, Dennis J. Brennan, Principal Officer for the Agency of International Development in Nepal, do hereby certify that in my judgement His Majesty's Government of Nepal has both the financial capability and the human resource capability to effectively maintain and utilize the Project to be carried out under this Grant.



Dennis J. Brennan
Director, USAID/Nepal

Date: May 7, 1987