

U. S. AID MISSION TO DOMINICAN REPUBLIC

AMERICAN EMBASSY, P. O. Box 22201
SANTO DOMINGO, DOMINICAN REPUBLIC

52513
FOR U. S. CORRESPONDENTS:
U. S. AID MISSION
APO MIAMI 34041-0008

FEB 2 1987

Dear Mr. Secretary:

Subject: A.I.D. Loan No. 517-T-035
Natural Resources Management

Implementation Letter No. 4.
(AID/W No. 27)

Attached you will find a revised Project Description and Financial Plan for the subject project, as allowed under Article B of the Standard Provisions of the Loan and Grant Agreements. As discussed between our staffs, this will be the basis for implementation of the project from the date of your concurrence until the termination date of the project. This revised project description includes the expansion of field activities in watershed conservation planning and soil and water conservation, based on the findings and recommendations of the evaluation that was completed in March of 1986. It also identifies certain activities, described in the original project, that have achieved their stated purpose and therefore will no longer receive project resources.

Due to past implementation difficulties, at this time we are not prepared to extend the PACD, which is July 31, 1987. I suggest that our staffs conduct a joint review of progress as of the end of March, 1987, to determine whether an extension of the termination date to July 31, 1988 would be appropriate. This progress review will be based on a specific set of achievement targets agreed to by USAID and SURENA at the project management level. Therefore, until the review takes place, plans and commitments for the use of AID funds will be approved only for those procurements of services, commodities, or training that can be delivered or completed by the current PACD.

Attached to this letter is a financial analysis table which shows how the allocation of funds has been modified to support the change in implementation emphasis. The revised Annex 1 financial plan would remain in effect if the time period were to be extended.

His Excellency
Mr. Norberto Quezada
Secretary of State of Agriculture
Santo Domingo, N.D.

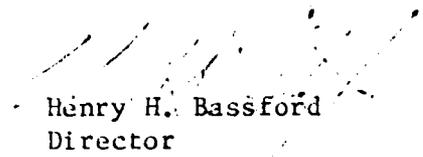
With this approach to implementation, we hope to achieve the following:

1. Increased pace of implementation in the field, with more tangible effects on soil conservation, and indirectly or over the longer term, on watershed residents' income; and
2. Better internal controls on the use of project resources.

For these actions to be achieved, we expect that you will delegate additional authorities to the Project Coordinator in the Subsecretariat for Natural Resources to control project plans, funds, and personnel. Once you have made this delegation, please provide us with a copy of said decree or resolution.

Please indicate your agreement with this revision to Annex 1 of the Project Agreement by signing one copy of this letter and returning it to A.I.D.

Sincerely,



Henry H. Bassford
Director

Mr. Norberto Quezada
Secretary of State for Agriculture

ANNEX 1

REVISED PROJECT DESCRIPTION

I. INTRODUCTION

This revised description of the Natural Resources Management Project is based on: (1) the results of the comprehensive evaluation completed in February, 1986; (2) changes needed in the project's management and organization; and (3) decisions taken regarding the use of project funds for the remaining period of the project.

The Natural Resource Management Project's objectives are to develop the field and institutional conditions necessary to address the problems of protecting the country's soil and water resources. It will strengthen the Government of the Dominican Republic's (GODR) capability to mount a soil conservation program, and develop a workable soil and water conservation model that can be implemented in high priority watersheds. The project, at its termination, will have developed the essential elements of an effective soil and water conservation structure that includes both public and private sector organizations in the implementation of watershed specific soil conservation programs. By so doing, we expect to reduce downstream sedimentation that affects irrigation and power systems, and improve the incomes and well-being of farmers in the watersheds.

II. PROJECT COMPONENTS AND OUTPUTS

The project includes two major components: Institutional Strengthening and Soil and Water Conservation. The Institutional Strengthening component incorporates activities needed to develop planning information, formulate policies and define strategies in order to promote soil and water conservation. The Soil and Water Conservation component focuses on formulating and implementing specific soil conservation strategies for selected watersheds.

A. Institutional Strengthening

1. Strengthening Natural Resources Planning

a. Information Development

The project has developed both national and watershed level information on land use, soils, life zones, and vegetative cover. Watershed specific information has been collected for the Ocoa and Las Cuevas watersheds. In the period remaining,

the project will focus on developing only the information that is needed for developing soil conservation strategies for two additional watersheds: the Nizao and the Bao.

(1) Cartography: Aerial photographs were taken of the entire country. From these, the Sub-Secretariat for Natural Resources (SURENA) developed standard cartographic bases at the 1:250,000 and 1:50,000 scale. Work has been initiated on the 1:20,000 scale map base for the Las Cuevas and Ocoa watersheds. The project also compared the change in land uses between 1948 and 1984 for the Ocoa and Tavera/Bao watersheds.

In the time remaining, the Project will complete the 1:20,000 scale working maps for the Ocoa and Las Cuevas watersheds, and develop working maps for the two additional watersheds. These maps will contain information on slope, soils, roads, and water channels.

(2) Erosion/Water Quality Monitoring: The project has established one permanent erosion monitoring plot and constructed one portable erosion monitoring plot. Two stream monitoring stations are being built in the Ocoa watershed. These stations and monitoring plots are needed to measure the impact of the project's watershed interventions. Therefore, in the remaining period, the project will contract for the building of two additional stream monitoring stations, one in the Las Cuevas and one in the Nizao watersheds, and the construction of 26 more portable erosion monitoring units. The portable erosion monitoring units will be installed in the field by SURENA technicians.

(3) Agricultural Zoning Study: The project has published a land use study of the Ocoa watershed and almost completed a study of land use in the Las Cuevas watershed. Computer hardware and software were purchased to facilitate the economic and ecological analyses of alternative cropping systems by soil group and geographic area.

In the remaining period, this activity will provide analyses of land uses in relation to slope and soils to the watershed management committees, in order that they can have this information when developing specific watershed strategies and intervention plans.

(4) Marketing Studies: The project financed the study of marketing channels for the principal agricultural products of the Ocoa watershed. However, this work has not influenced the development and implementation of watershed

management plans as anticipated. Therefore no further studies of the agricultural markets in the targeted watersheds are planned.

(5) Small Farmer Association Studies: The project has published studies of the farmer associations for the Ocoa, Las Cuevas and Nizao watersheds. This activity will now be called "Development of Watershed Management Committees", and will identify organizations and interest groups that need to be involved in the watershed management committee and in developing watershed intervention strategies. By the end of the project, each targeted watershed will have a watershed development committee that is actively involved in defining the watershed's soil conservation strategy and overseeing its implementation.

b. Develop National and Watershed Management Strategies

The project has drafted management plans for the Ocoa and Las Cuevas watersheds. A national watershed management strategy was also begun, as well as a management plan for the Los Haitises National Park. The project will develop and publish a national strategy for soil conservation that identifies the priority watersheds and a timetable for beginning work in them. The project, in conjunction with the watershed management committees, will develop soil conservation strategies and annual implementation plans for the four targeted watersheds.

c. Agroforestry and Forest Management Planning

The project, in response to a requirement of Law 705 of 1982, developed a national forest management plan which was approved by the GODR Congress. The project also financed a prefeasibility study for managing and utilizing two public forest areas, and provided short term training to eight DGF technicians in forest inventory methods. No further work is planned under this activity.

d. Road Rehabilitation and Maintenance

The project conducted the three planned workshops on conservation planning, including discussion of road construction, rehabilitation and maintenance for all public institutions involved in the building and maintenance of rural roads. Based on this work, the Secretariat for Public Works and Communications (SEOPC), through the General Directorate of Rural Roads (DGCV), will develop a guide that outlines the procedures to be followed by watershed planning committees (SURENA staff and

community groups) to (1) identify major erosion problems caused by or around roads and trails; (2) request assistance from SEOPC/DGCV or other sources in planning appropriate solutions to those problems, including solutions that can be carried out by community groups under technical supervision; and (3) obtain more substantial technical and financial support under the Rural Roads Rehabilitation and Maintenance Project. If necessary, the interagency agreement that defines SEOPC's involvement in the project will be revised. This may involve earmarking a limited amount of project funds to resolve existing critical problems in the targeted watersheds.

e. Natural Resource Management Policy Studies

The project has compiled and published a synopsis of all laws, decrees and regulations that govern the natural resource sector. This synopsis is being used to develop an operations manual that describes, in lay terms, these regulations.

This activity will now focus on changing existing government policies and regulations that result in management watershed practices that contribute to soil erosion; and drafting new legislation that will provide incentives and encourage soil conservation work.

2. Strengthening the GODR Environmental Education Program

The project has met its targets for strengthening the GODR's efforts to educate the public about the importance of natural resources. The project has trained staff and is purchasing equipment to provide SURENA with the capability of developing mass media messages on natural resource conservation issues. Television and radio messages have been developed and transmitted to increase public awareness of natural resource management issues. The project has sponsored numerous workshops, shortcourses and seminars to promote watershed resources conservation for distribution to farmers, soil conservation promoters and school children. A National Conservation Training Center was constructed and is being used as both a demonstration center for soil conservation practices, and as a training center to instruct school teachers in watershed conservation and soil conservation promoters and technicians in soil conservation technologies. These activities will continue, but will be supported by SURENA's regular program budget rather than by the project.

3. Strengthening Interagency Administration

Under this activity, an office for project management was created and staffed by eight Dominican specialists, two project managers, three project administrators, two systems analysts, and a training specialist. The office received over 60 person months of technical assistance to help with project implementation. In response to the evaluation, the office drafted a resolution to integrate the project into SURENA and to reorganize the Subsecretariat's planning and management functions.

In order to make this integration effective, the project will support SURENA's reorganization efforts and provide training in management and planning with the goal of developing a more systematic approach to planning, budgeting and evaluation.

B. Soil and Water Conservation

This component consisted of activities that were to promote soil and water conservation in watersheds. Previously, the focus was on small farm soil and water conservation. Based on the evaluation's findings and recommendations, this component will now focus on reducing soil erosion and stream sedimentation caused by all forms of land use in the watersheds.

This component will be implemented by a watershed development committee composed of GODR technicians and representatives from the watersheds' various interest groups. The watershed management committees will define the soil conservation strategies for their watersheds. Then, based on an estimated budget allotment from the project's central office, the watershed management committee will develop annual implementation plans including detailed budgets that outline how they will address their watershed's high priority soil erosion problems. These plans will be submitted to the project's central office for review and approval. Following approval, the central office will disburse to the watershed management committee, on a monthly basis, the funds needed to implement their work plans. The watershed management committee will be responsible for implementing the work plans, managing project funds at the field level, and contracting with private companies and organizations to carry out specific field work. The project's central office will conduct periodic reviews of their activities and audit their accounts.

The annual implementation plans may include a variety of soil conservation interventions, such as on-farm soil conservation,

road repair and maintenance, reforestation, gully control, and rangeland improvement, depending upon each committee's determination of their watershed's highest priority problems.

1. Soil Survey and Interpretation

This project activity has conducted soil surveys of the Ocoa and Las Cuevas watersheds, and produced soil maps for the Ocoa watershed. The soil map for the Las Cuevas watershed as well as the soil interpretations for both the Ocoa and Las Cuevas watersheds are almost completed.

The project's central office will hire a local company to complete the development of soil maps and interpretations for the Ocoa and Las Cuevas watersheds.

2. Farm Conservation/Soil Conservation

This activity's purpose was to encourage small farmers to incorporate soil conservation practices in the farming systems. To this end, the project has developed soil conservation plans for more than 1500 farms averaging less than 5 hectares in size in the Ocoa and Las Cuevas watersheds. Given the revised focus of the Soil and Water Conservation component, the implementation of this activity will change. The watershed management committees will contract with companies to carry out farm planning and soil conservation extension work in the watershed's targeted areas. All farmers within the targeted areas, regardless of the size of their land holdings, will be contacted about developing a soil conservation plan for their land. If willing, they will receive technical assistance in developing the plans. The project will also provide incentives as needed to stimulate farmers to implement their farm conservation plans.

By the project's end, an additional 1000 farm plans covering an estimated 10,000 hectares will have been drafted for farms within the targeted watersheds. This will translate into more than 2000 hectares of land being farmed in ways that protect and permit productive utilization of soil and water resources.

3. Incentive Packages

The project has used low interest credit, cash, farm tools and tree seedlings as incentives to encourage farmers to implement their farm plans. To date, the project has disbursed approximately US\$1,825,000 in credit and cash incentives, and distributed more than one million tree seedlings and several hundred

picks and shovels to farmers. However, these programs imply a high recurrent cost to the government which it will find difficult to sustain. For this reason, the credit and cash incentive programs are being phased out, and the in-kind incentives are being reviewed in terms of their costs and achievements.

The adoption of soil conservation practices should, over the long term, improve farm productivity and increase farmer income. However, initially, some farmers will need an incentive to stimulate their adoption of the recommended conservation practices. The watershed management committee will tailor these incentives to meet the needs of the target farmer group and the target area. The objective of these incentives will be to provide the needed stimulus at the lowest cost. Incentives to be used include providing farmers with tree seedlings, hand tools or irrigation equipment. The watershed management committee's annual work plans will include estimates of the type and cost of incentives to be provided. These will be monitored closely by the project's central office.

4. Watershed Protection/Reforestation

The project has reforested approximately 500 hectares of highly erodable areas. In the remaining period, an additional 1000 hectares will be reforested using pine and fast growing multi-purpose tree species. Seedling production and their planting will be contracted out to local companies and organizations such as Los Arbolitos and Prograssio which have a proven capability to do the work. In addition, to meet farmer demand for low cost tree seedlings, the project will turn over its tree nurseries to watershed community organizations. These organizations will be eligible to receive small grants from the project to finance the nurseries' rehabilitation and initial operating costs. Thereafter, the nurseries will be self supporting through the sale of tree seedlings.

5. Hillside Farming Systems Research

The project has established twelve experiments to determine the most appropriate tree species for the various soil/climate zones in the targeted watersheds. Trials with the use of grasses for cut-and-carry forage and living barriers have also been established at five locations. Performance trials were also started to test four different species of coffee.

The watershed management committee will now be responsible for monitoring this activity. All research work funded by the project in the watersheds will be included in their annual

work plans. SEA researchers on loan to the project will be required to submit work plans with budgets to the committees for review and approval. The researchers will need to respond to the watershed management committee's priorities, demonstrate results from their work, and produce information that can be extended to farmers. The watershed management committees will monitor the research, determine its relevance to their priorities, and provide the financing needed to carry it out.

III. FINANCIAL PLAN

AID project financing will not exceed Ten Million Five Hundred Thousand Dollars (US\$10,500,000), of loan funds and Five Hundred Thousand Dollars (US\$500,000) of grant funds. GODR counterpart financing will not be less than the equivalent of Ten Million Two Hundred Thousand Dollars (US\$10,200,000), including those costs borne on an "in-kind" basis. Table 1; Financial Plan summarizes the project's revised cost estimates and financial plan. The narrative below describes the additional planned commitments, and use of funds during the remaining project period.

A. A.I.D.

1. Technical Assistance (US\$238,000): To date, the various activities in the project have received 91 person months of long term advisory assistance, 61 through a PASA with the U.S.D.A. to the Strengthening Interagency Coordination activity and 30 person months from the University of Kentucky (UK) to the Hillside Farming Systems Research activity. The project has also received a total of 60 person months of short term advisory assistance distributed among the other project activities. This assistance has been provided primarily by Michigan State University (MSU) and the U.S. Soil Conservation Service.

In the time remaining, it is estimated that an additional 26 person months of technical assistance (already committed) will be provided to the project from the MSU contract, the Soil Conservation Service PASA, and the UK contract. In addition, a contract recently signed will provide approximately 8 person months of assistance in management and planning to this component's watershed management planning and interagency administration activities.

2. Equipment/Materials (US\$310,000): Commodities to be procured from the U.S. during this remaining period include computer, cartographic, and media communication equipment, and expendable materials and supplies needed to operate this equipment.

Equipment and supplies to be procured in-country include computer upgrading kits for the project's existing equipment, and expendable supplies primarily published materials, used in the research and farm conservation work.

3. Training (US\$204,000): The project will continue to provide short term training in natural resource management planning, resource utilization and conservation, and in environmental education in-country. Other in-country training will be provided through formal courses, workshops and seminars to soil conservation technicians, elementary and secondary school teachers, para-technicians, and farmers. Approximately 200 persons will receive such training. Some of these courses will be conducted by U.S. technicians and require both foreign exchange and AID project local currency resources.

4. Nurseries (US\$200,000): The project will turn over the operation of project nurseries to local community organizations, and provide them with small grants to finance the nurseries' rehabilitation and the start up operations. The project will continue to operate the nursery at the experiment station at Sabana Larga.

5. Technical Services (US\$2,290,000): SURENA will contract with local companies for assistance in publishing educational materials and manuals, conducting socio-economic studies in the additional watersheds, installing river monitoring stations, constructing portable soil erosion monitoring units, and finalizing the soil survey information. The watershed management committees will contract with local companies for seedling production and reforestation, farm planning, and provide funding to local private voluntary organizations and universities for assistance in implementing the farm conservation and research programs.

6. In-Kind Incentives (US\$ 250,000)

The watershed management committees will purchase tree seedlings (primarily fruit trees) from local and national nurseries and distribute them to farmers participating in the soil conservation program. The committees will also provide limited quantities of farm tools to individual farmers, and irrigation equipment to groups of farmers as incentives under the soil conservation program.

7. Operating Costs (US\$ 250,000)

A.I.D. funds will finance a portion of the project's operating costs in the field and the repair of project's field vehicles.

B. GODR

1. Personnel (US\$1,300,000): The implementation of this component requires approximately 35 people. These people staff the project coordinating office and provide the core project support to the project field offices.

2. Vehicles (US\$300,000): Funds programmed for vehicles will be use to repair existing project and SURENA vehicles to enable the expansion of the project into the planned additional watersheds.

3. Training (US\$170,000): SURENA will finance the per diem salary and some in-country training costs to carry out their environmental education program.

4. Operating Costs (US\$1,120,000): These funds will finance vehicle operating costs, office supplies and maintenance, and per diem for project personnel.

TABLE 1: FINANCIAL PLAN
(US \$000)

ACTIVITY	ORIGINAL ANNEX I FINANCIAL PLAN					REVISED ANNEX I FINANCIAL PLAN				
	AID		GRANT US	TOTAL	GODR COUNTERPARTI/ US	AID		GRANT US	TOTAL	GODR COUNTERPARTI/ US
	LOAN US	LC				LOAN US	LC			
INSTITUTIONAL STRENGTHENING	2,071	243	500	2,814	2,733	3,021	1,416	500	4,937	4,684
Technical Assistance	605	-	500	1,105	-	1,259	4	500	1,763	-
Personnel	-	-	-	-	1,284	-	-	-	-	2,025
Vehicles	-	6	-	6	150	-	6	-	6	380
Equipment/Materials	250	175	-	425	40	164	479	-	643	896
Aerial Photos	400	-	-	400	-	570	46	-	616	-
Training	810	-	-	810	460	1,028	228	-	1,256	164
Operating Costs	6	62	-	68	799	-	113	-	113	1,219
Technical Services	-	-	-	-	-	-	540	-	540	-
SOIL AND WATER CONSERVATION	750	4,651	-	5,401	4,721	1,019	5,044	-	6,063	5,516
Technical Assistance	398	-	-	398	-	534	-	-	534	-
Personnel	-	-	-	-	1,083	-	-	-	-	2,923
Vehicles	-	40	-	40	240	-	90	-	90	200
Equipment/Materials	62	80	-	142	-	170	341	-	511	391
Credit	-	2,100	-	2,100	2,100	-	848	-	848	400
Cash Incentives	-	2,130	-	2,130	-	-	977	-	977	-
In-Kind Incentives	-	-	-	-	60	-	250	-	250	198
Nurseries	-	88	-	88	-	-	316	-	316	-
Training	290	112	-	402	28	315	154	-	469	145
Operating Costs	-	101	-	101	1,210	-	318	-	318	1,259
Technical Services	-	-	-	-	-	-	1,750	-	1,750	-
CONTINGENCY/INFLATION	1,133	1,670	-	2,803	2,682	-	-	-	-	-
TOTAL PROJECT	3,954	6,564	500	11,018	10,136	4,040	6,460	500	11,000	10,200
TOTALS (ROUNDED)	3,950	6,550	500	11,000	10,200					

1/ Loan Agreement states that GODR counterpart contribution would not be less than the equivalent of US\$10,200,00. Exchange rate at the time the agreement was signed was US\$1 = RD\$1.

METHODS OF IMPLEMENTATION AND FINANCING

Implementation Method	Financing Method	Approx Amount US\$
<u>Technical Assistance</u>		<u>2,297,000</u>
Long Term		
PASA	Direct Pay	500,000
Direct Contract	Direct Pay	346,000
Short Term		
Direct Contract	Direct Pay	1,263,000
PASA	Direct Pay	188,000
<u>Commodities</u>		<u>1,810,000</u>
USAID Procurement/ Contract (Purchase Order - P.O.)	Direct Pay	40,000
Host Country Procurement/ Contract (Letter of Commitment - LOC)	Direct Pay	250,000
Host Country Procurement/ Contract	Direct Reimbursement	1,520,000
<u>Training</u>		<u>1,725,000</u>
Direct Placement (S&T/IT)	Direct Pay	1,000,000
Direct Placement (Placed by Mission)	Direct Pay	343,000
Host Country Contracts (For Profit or Non-Profit Contractors)	Direct Reimbursement	382,000
<u>Technical Services</u>		
Host Country Contracts (For Profit Contractors)	Direct Reimbursement	<u>2,290,000</u>
<u>Operating Costs/Nurseries</u>		<u>803,000</u>
<u>Credit/Incentives</u>		<u>2,075,000</u>
TOTAL		11,000,000

FINANCIAL ANALYSIS TABLE
(US\$000)

Attachment 1
Implementation Letter
(AID/W No. 27)

ACTIVITY	ACTUAL COMMITMENTS AS OF 10/31/86					PLANNED COMMITMENTS 11/1/86 TO PACD					ACTUAL AND PLANNED COMMITMENTS TOTAL				
	AID		GRANT US	TOTAL	GOOR COUNTERPART/	AID		GRANT US	TOTAL	GOOR COUNTERPART/	AID		GRANT US	TOTAL	GOOR COUNTERPART/
	LOAN US	LC				LOAN US	LC				LOAN US	LC			
INSTITUTIONAL STRENGTHENING	2,653	796	500	3,949	3,834	368	620	-	988	850	3,021	1,416	500	4,937	4,684
Technical Assistance	1,121	4	500	1,625	-	138	-	-	138	-	1,259	4	500	1,763	-
Personnel	-	-	-	-	1,625	-	-	-	-	400	-	-	-	-	2,025
Vehicles	-	6	-	6	280	-	-	-	-	100	-	6	-	6	380
Equipment/Materials	44	449	-	493	896	120	30	-	150	-	164	479	-	643	896
Aerial Photos	570	46	-	616	-	-	-	-	-	-	570	46	-	616	-
Training	918	178	-	1,096	114	110	50	-	160	50	1,028	228	-	1,256	164
Operating Costs	-	113	-	113	919	-	-	-	-	300	-	113	-	113	1,219
Technical Services	-	-	-	-	-	-	540	-	540	-	-	540	-	540	-
SOIL AND WATER CONSERVATION	859	2,450	-	3,309	3,476	160	2,594	-	2,754	2,040	1,019	5,044	-	6,063	5,516
Technical Assistance	434	-	-	434	-	100	-	-	100	-	534	-	-	534	-
Personnel	-	-	-	-	2,023	-	-	-	-	900	-	-	-	-	2,923
Vehicles	-	40	-	40	-	-	50	-	50	200	-	90	-	90	200
Equipment/Materials	130	221	-	351	391	40	120	-	160	-	170	341	-	511	391
Credit	-	848	-	848	400	-	-	-	-	-	-	848	-	848	400
Cash Incentives	-	977	-	977	-	-	-	-	-	-	-	977	-	977	-
In-Kind Incentives	-	-	-	-	198	-	250	-	250	-	-	250	-	250	198
Nurseries	-	116	-	116	-	-	200	-	200	-	-	316	-	316	-
Training	295	130	-	425	25	20	24	-	44	120	315	154	-	469	145
Operating Costs	-	118	-	118	439	-	200	-	200	820	-	318	-	318	1,259
Technical Services	-	-	-	-	-	-	1,750	-	1,750	-	-	1,750	-	1,750	-
TOTAL (US\$)	3,512	3,246	500	7,258	7,310	528	3,214	-	3,742	2,890	4,040	6,460	500	11,000	10,200

1/ All counterpart contributions calculated at the rate of exchange in effect at the time of the signing of the Loan Agreement, US\$1.00-RD\$1.00. The opinion of the Regional Legal Advisor of Feb. 22, 1985, states that maintenance of value does not apply to host country contributions, and except when additional resources are required, the resource input of the host country is fixed at the calculated initial total project requirements, which in this case are not less than the equivalent of \$10,200,000.