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CASE STUDY: THE PITSILIA INTEGRATED RURAL DEVELOPMENT PROJECT

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Rural Development, Integrated Rural Development, Project Design, Project Management, Project Evaluation

INTRODUCTION AND BRIEF HISTORICAL REVIEW

The Pitsilia Integrated Rural Development Project was the first multisectoral development effort undertaken by the Government of Cyprus with World Bank co-financing. The Project is the only one of its kind to have been implemented in Cyprus, and it was a pioneering one in Europe, North Africa and the Near East at the time of its implementation.

The Project was initiated towards the end of 1977, with the appointment of the Project Coordinator/Manager and it was completed in April 1984 with the submission to the World Bank of the Project's Completion Report.

The origin of this Project can be traced to the setting provided by the World Bank policy statement at the Annual Meeting in 1973 in Nairobi and the inclusion of the promotion of regional and rural development as an objective of the Five-Year Plan 1972-1976 of Cyprus. Project formulation was accelerated following the Turkish invasion of 1974 which led to the displacement of one third of the Island's population and the serious dislocation of the economy of the country.

Work on the Pitsilia Integrated Rural Development Project was begun by the Government of Cyprus in November 1975, and the Initiation Report embodied the contribution of seven ministries. FAO reviewed these documents and finalized its Preparation Report in October 1976. The World Bank's appraisal followed in November 1976. The Project was approved by the Bank in August 1977 and became effective in November 1977.

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Pitsilia covers the north-eastern and south-eastern region of the Troodos mountain range. The Troodos and the Pendadactylos, the two mountain ranges, rise to some 2000 and 1100 metres respectively above sea level. The main plain areas of the island lie in between the two mountain ranges - the extensive central plain "Mesaoria" and most of the coastal areas.

Cyprus is the largest island in the Eastern Mediterranean and the third largest in the Mediterranean sea, with an area of 923,000 hectares, a maximum length of 240 km from east to west and 96 Km from north to south. It is situated 380 km north of Egypt, 70 km south of Turkey and 102 km west of Syria. Average precipitation is 500 mm, ranging from almost 1000 mm on the peak of Troodos massif to 300 mm in some parts of the Mesaoria plain. Summer temperatures are high with a mean monthly temperature of 29° C on the central plain in August, while winters are mild with a mean January temperature of 10°C in the central plain.

The *de jure* population of Cyprus, in 1995, was estimated at 760,000 for the whole Island, of which 642,000 lived in the government controlled areas and the remainder in the Turkish occupied areas. Population trends were affected by the 1974 Turkish invasion which led to a reduction of population through war losses and emigration, but subsequent economic developments in the Government controlled area, favoured population growth which stood in 1995 at 1.2 percent.

The economy of Cyprus developed rapidly following independence in 1960, until 1974, this growth being based on what were termed to be the "three pillars of growth", that is agriculture, manufacturing and services - mainly tourism. Inflation and unemployment were at low levels during this period, the balance of payments was positive and the whole population was reaping the sweet fruits of a prosperous economy.

The situation deteriorated drastically in 1974 following the Turkish invasion, that resulted in the displacement of some 200,000 people, i.e. one- third of the total population, from their homes in the occupied 37 percent of the territory of the Republic, which accounted for 70 percent of the productive and export capacity of the country. As a result, the economy in late 1974 and during 1975 was depressed and dislocated, with a large social problem in the form of the need to provide for the displaced people, a high level of unemployment which at one time was running at 50 percent of the economically active population, huge underemployment or disguised unemployment and a decline in economic activity.

The strategy for economic recovery was set in the First Emergency Plan 1975-1976 which provided for the creation of employment opportunities, incentives for the reactivation of the industry and other key economic sectors, encouragement of savings and investment and relief measures for the displaced population. In 1976 the economy in the Government controlled areas grew by 19 percent in real terms and following required adjustments in the second 2-year development plan in 1978 the economy was expanding rapidly. Unemployment was again at a low level and a totally different set of economic problems were being faced, notably a high rate of inflation, pressure on resources, and a high level of demand.

It is important to note that the Pitsilia Integrated Rural Development Project was prepared during the depressed years 1975/76 and implemented in the period from 1977 to 1983 when economic conditions improved radically.

The broad agricultural sector, which includes crop production, animal husbandry, forests, fishing and other on-farm production, was the largest single sector in the economy prior to the 1974 Turkish invasion and was essentially the backbone of the economy. Following the occupation by the invading forces of the most productive agricultural areas and the more rapid recovery demonstrated by the non-agricultural sectors, the share of the broad agricultural sector to the GDP followed a distinct declining trend and reached a minimum of 5.7 percent at current prices in 1995, employing 10 percent of the

economically active population, as compared to 15.4 percent and 30 percent respectively prior to 1974.

The Project area, as it has already been pointed out, is formed by the eastern, north and south eastern part of the Troodos Massif mountain range and is centrally located on the Island. The total area is 61,000 hectares and the region lies at elevations between 500 and 1600 m.

Pitsilia is a mountainous area of rocky land on very steep slopes that was being used mainly for grazing goats and sheep and for producing small amounts of cereals and wine grapes. Part of the land had rudimentary terraces, but much of the scarce rainfall was lost as run-off. Springs were the main source of irrigation. Farm holdings were very small and fragmented; less than 30 percent of the fields had access roads. Average per capita income was US \$ 310.00 (1974) and roughly one-half of this income was from off-farm work.

Road network and Public Transportation. Due to the region's topography, intra-regional communication was difficult. The existing village connecting roads were all of low standard, single-lane roads. It is one of the unfortunate aspects that none of the five most important intra-regional roads that connect the region with Nicosia and Limassol towns, nor the Troodos main artery, was included in the Project, mainly because of staff shortages in some Government services and the time needed to prepare the relevant techno-economic feasibility studies. Nevertheless considerable progress was achieved with the resources allocated to improvement of six secondary roads, with favourable impact on road traffic and commuting conditions. Furthermore the completion of the construction of the main trunk road connecting Agros with Nicosia in the early nineties added substantially to the region's economic development.

With respect to education, most of the region's villages were served by their own elementary schools, a great number of which were one teacher schools, a situation that seriously undermined their viability.

Health facilities in the region were below the Island's average standard. Apart from a TB sanatorium, which served the entire Island, the area was rudimentarily served by a very limited number of ill-equipped health centres housed in inadequate buildings.

Average per capita income in the region was much below the national average. An Agro-Economic Survey of Pitsilia, carried out in 1974, indicated that it was US\$310 ranging from US\$270, for farms of less than 2 hectares, to US\$360 for farms between 4 and 8 hectares. This put the population of Pitsilia among the poorest in Cyprus as the country's per capita income was then US\$1,180. Roughly one-half of the family income was from off-farm work.

The development of the Pitsilia region had been serious consideration by the Government of the Republic of Cyprus since the mid sixties, more so since this was one of the most depressed areas of the Island. Nevertheless due to many pressing priorities and budgetary constraints, no specific development plan was prepared until 1974. Following the Turkish invasion, with its appalling consequences, the government worked out reassessment of development policy priorities and embarked upon the preparation of the Pitsilia Integrated Rural Development Project. A relevant feasibility study was prepared by the government of Cyprus and the FAO/IBRD Investment Centre and subsequently an Appraisal Report was prepared by a World Bank mission which formed the basis for a US\$ 10 million loan agreement signed between the government of Cyprus and the International Bank for Reconstruction and Development (IBRD) on the 18 August 1977. This agreement provided for the financing of about 40 percent of Project expenditure through a loan process at 8 percent interest rate to be repaid over a 15 year period with an initial 3 year grace period. The loan was disbursed over a 6 year period (instead of 5 year period as originally provided for in the loan agreement) to cover actual Project expenditure in foreign exchange.

During Project preparation the Pitsilia Integrated Rural Development Project was designed "to stimulate an economically depressed region by developing its productive resources and improving its social services". Initially the Project was conceived of as a comprehensive regional scheme involving all relevant ministries. At the time of the feasibility study prepared by FAO in co-operation with the Government of Cyprus, efforts were made to include in the Project a variety of development schemes covering agriculture, road construction, industrial and tourism development and forestry, along with parallel development of social services in the area.

During preparation and appraisal, however, a number of components were reduced or dropped in consultation with the World Bank for two main reasons: either the component would have negatively affected the Economic Rate of Return (ERR) for the Project, or the feasibility studies were not far enough advanced. Social components, also included in the cost-benefit calculation, were held to 8 percent of the Project costs in order that they not affect project viability negatively since economic benefits accruing from such investments were attributed zero value.

The main criteria for selecting Pitsilia for the implementation of this first multi-sectoral integrated rural development Project in the island, were:

- the low per capital income of the region,
- the extended agricultural and rural area covered by the villages of Pitsilia and the development potentialities, other than agricultural, which exist in this area.
- the relatively short distance of the area from the main urban centres of Nicosia and Limassol and
- the availability of a substantial number of daily commuters to these urban centres.

A number of feasibility studies were conducted at appraisal and during Project implementation. All such studies were extremely useful in decision making, as regards the Project as a whole, as well as its individual components and allowed judgements on investments to be made with the aim of ensuring the Project's economic viability. Nevertheless the social component was attributed to the Project as cost with no corresponding benefits and consequently this component was kept in the total Project cost at appraisal at a low 8 percent of the total Project cost.

Overall feasibility studies facilitated the integration of the Project as a whole, and allowed for consideration of the spread of the benefits in the Project area, timing of implementation, and the inter-relations among schemes.

1. Project components rejected at the Preparation/Feasibility study stage

The following Project components were considered and rejected at Project preparation stage:

- (a) **Manufacturing:** The Ministry of Commerce and Industry stated that "this Ministry has no projects and programmes to suggest for the development of the Pitsilia Region".
- (b) **Agro-industries:** The possibility of expanding rose water production or making rose-oil was considered, but rejected because further research was required and FAO assistance was requested to enable consideration in the future. Small rose water and zivania units (first distillation of grape juice) were considered in the Preliminary Report, and rejected on grounds of viability.
- (c) **Refrigerated Stores:** Provision for 10 such stores was included in the Preliminary Report, but this component was rejected when further examination showed that the existing capacity was sufficient for local production.
- (d) **Forests:** The forestry component was rejected at the Feasibility study stage because it provided a very low rate of return.

- (e) **The Nicosia-Palekhori-Agros-Limassol road scheme.** This is the scheme for which the Government has been most heavily criticised because it was omitted from the Project. It is the most important trunk road of the region, 75 km long, and the estimated cost in the Preliminary Report was £ 1,443,000. Though it was argued that this scheme would improve accessibility to and from the region, would complement the development works in the agricultural sector, contribute to the alleviation of social problems related to commuting and encourage investment in the Region, this scheme was rejected at the Feasibility stage. This was primarily because this project had to meet IBRD requirements for major road projects, which essentially meant a full feasibility study. Owing to the involvement of the Public Works Department in the feasibility study of the Limassol-Nicosia Highway, the Ministry of Communications and Works could not undertake the work involved within the time constraints. Consequently this important component of the Project had to be omitted.
- (f) **Tourism:** The proposed tourism component was small and related only to the construction of two pavilions and some picnic sites. It was omitted since the construction of trunk roads was considered a pre-condition for their success.
- (g) **Crushing plants for sand, gravel and road aggregate:** This was rejected because the Ministry of Commerce and Industry considered that a new crushing plant would create idle capacity.
- (h) **Trout Farming:** A proposal for the establishment of two trout farms in connection with irrigation works was rejected owing to the uncertainty of market conditions in 1976. A small proposal for stocking of dams for sport fishing was omitted since it could be financed from normal Budget sources.
- (i) **Secondary Education:** The Ministry of Education originally proposed the establishment of three first cycle gymnasiums in the area, but later the proposal was amended to one technological gymnasium, the cost of which was estimated at £ 150,000. Alternatively, consideration was given to adding a technical section to the Agros Gymnasium. This component was omitted by the FAO/IBRD Co-operative Programme Mission, because the Project overall had to be viable. The Mission pointed out that since an IBRD mission had been requested to study Cyprus education in depth it would be "premature for a new type of secondary school to be included at this stage within the Pitsilia project", and there were reservations regarding the viability of an Agro-technical Secondary School.
- (j) **Public Health Facilities:** The proposals regarding environmental health were from the Ministry of the Interior, and related primarily to refuse disposal and sewage schemes in villages. They appear to have been eventually omitted because of the lack of cost estimates, delays in determining policy, and the desire to ensure a viable economic return to the Project.
- (k) **Housing:** It was originally proposed that the Project should include provision for housing improvement, through loans or other means, but this idea could not be promoted because of the lack of a comprehensive national housing policy. Some consideration was also given to the repair of houses for touristic purposes, but these ideas were also rejected because they appeared uneconomic at that time.
- (l) **Mechanization in Agriculture:** A proposal had been made for the financing of mechanization in agriculture, but this was subsequently omitted during IBRD appraisal apparently because it was felt that financial mechanisms in the private sector for the purchase of machinery were adequate.
- (m) **Second Phase Project:** The FAO/IBRD Co-operative Programme Mission originally included proposals for a Second Phase Project based partly on the development of seed potatoes and

the experiments with wine grapes. This was included in the appraisal report under consulting services in the following manner "study of future development opportunities in underdeveloped rural areas of Cyprus".

PROJECT DESCRIPTION

1. *Project features and aims*

The Project's main features were as follows:

- (a) The integrated development approach to the Project area.
- (b) The development activities were aimed at developing the potentials of every village, rather than wide geographic regions, within the Project area as a whole, in the framework of the National development priorities and taking into consideration budgetary constraints.
- (c) Project investments were mutually supplementary with the aim of maximizing the accruing benefits.
- (d) Infrastructural investments were given priority with the aim of providing the prerequisites for further development.

The Project covered an area of some 60,000 hectares with 49 villages in the Pitsilia region, located in three out of the island's six districts, namely Nicosia (22 villages), Limassol (23 villages) and Larnaca (4 villages) with a total population of 21,000.

The primary Project aims were:

- (a) Improvement of the living standard and the quality of life of the people of the area through the productive and social investments.
- (b) Development and utilization of the area's productive resources.
- (c) Increase of the National product.

2. *Project targets*

The Project Appraisal Report (prepared in 1977) provided for a total investment of CY£8,750,000 (US\$ 21.6 million) (CY£1 = US\$2.5 in 1977).

Owing to a number of reasons and mainly its nature, the Project was flexible enough to allow for re-adjustments, where required. Therefore following the completion of the detailed techno-economic studies of the many schemes comprised in the Project, a number of qualitative and quantitative improvements were effected which resulted in an overall increase of the Project investments by 15 percent that brought the total Project cost of CY£10,500,000.00.

The Project investments were made up of 90 percent of productive investments, 8 percent of social investments and 2 percent of institutional investments. This investment allocation and the priority given to the productive sector reflect mainly the need to justify the Project on economic grounds.

Project implementation progress was very satisfactory and all Project implementation activities were completed early in 1984.

3. The Project's Productive Investments

The productive investments refer to the following sectors and activities.

i. Irrigation.

Insufficient water availability had been correctly perceived as the main limiting factor to increased agricultural production and the planned water distribution system was further modified before implementation to make use of pressurised systems throughout and thus achieve an overall conveyance efficiency from water source to farm gate of above 90 percent. On-farm improved irrigation systems achieved irrigation efficiency rates of 90 percent and therefore actual overall efficiency was above 80 percent.

The investment in irrigation accounted for about 65 percent of the total Project investment.

Initially the Project provided for the development of irrigation on 1153 hectares, but following the preparation of detailed feasibility studies this initial target was subsequently increased by 32 percent to 1516 hectares. This area represents an increase of more than one hundred percent of the pre-project irrigated area in the Project region.

Irrigation of the said area has been effected through:

- (a) one rockfall dam with a storage capacity of 1.3 million cubic meters which irrigates an area of 308 hectares.
- (b) one small arch dam (capacity 53,500 c.m.) and 18 off stream ponds, of a storage capacity ranging from 50,000 cm to 270,000 c.m.
- (c) twenty nine (29) boreholes. Water for irrigation is pumped from some 200 meter deep boreholes provided they have a safe yield of more than 15 c.m. per hour. Most of the boreholes used for irrigation yield 40-100 c.m./h.

The combined storage/utilization water capacity of the ponds (including the arch dam) and boreholes is 4.1 million c.m. which irrigate a total area of about 1000 hectares.

- (d) fifty one small irrigation rehabilitation schemes which cover a total area of 250 hectares.

Land consolidation has been implemented on a total irrigated area of 470 hectares which more or less matches the initial project target and represents an increase of 350 percent of the consolidated area in the Project region compared to the pre-Project situation.

Feasibility studies were prepared for every irrigation scheme. Such schemes were implemented on condition that the respective feasibility studies showed an internal rate of return of at least 8 percent and the farmers concerned accepted them. Farmers contributed 1/3 of the total cost of all ponds and boreholes schemes. To meet such a contribution long term loans (to be repaid over 25 years with an initial 3 year grace period) were issued to them by the government at a low (7 percent) interest rate. Every scheme is run by the farmers concerned who form for the purpose an Irrigation Division chaired by the respective District Officer. The cost of the Xyliatos dam was borne entirely by the government. Fifty percent of the cost of this irrigation scheme will be amortized at 9 percent interest rate over a 40 year period, through the water sale proceeds.

Access roads and bench terraces were constructed and on-farm improved water use systems (mainly drip and mini sprinklers) were established in all irrigation schemes.

Irrigation cost averaged, in the case of boreholes irrigation schemes, about CY£3,730.00 per hectare, and in the ponds schemes and Xyliatos dam CY£7,460.00. Included in the above figures are the headwork, the distribution system, land levelling and on-farm irrigation equipment.

These costs compare favourably with the cost of other major irrigation projects in the lowlands in Cyprus especially when taking into consideration the mountainous topography of the land and the small size and high fragmentation of the holdings, i.e. two factors that add substantially to the cost.

At the time of Project implementation all irrigation potentials of the Project area were developed with available technological and economic considerations. The irrigation schemes are more or less evenly distributed among the great majority of the area's villages. At least one major irrigation scheme was constructed in every single village in a total of 33 villages, and minor rehabilitation irrigation schemes were completed in all 49 villages of the Project area.

ii. Rainfed Land Development was carried out through the construction of appropriate bench terraces with heavy earth moving machinery on 1750 hectares (within the appraisal target limits) and the planting of winemaking vine (1480 hectares), olive (135 hectares) and almond trees (185 hectares). A government subsidy was paid towards meeting 25-50 percent of the cost of bench terracing. Low interest loans were also issued to interested farmers by the government for the purpose.

Such a terracing programme constituted a record for any area in Cyprus and exceeded by 50 percent the total soil conservation works constructed in Pitsilia during the 9 year period preceding Project initiation. In this respect it should be stressed that the pre-Project period indicated was one of intensive soil conservation activity.

This newly developed rainfed land constituted an increase of 14 percent of the rainfed area under production in the Project area during Project implementation. Thirty heavy bulldozers owned and operated by the Ministry of Agriculture as well as a number of privately owned ones were intensively used for the purpose. With the exception of the "Commandaria" (sweet dessert wine) vine area, all winemaking vines planted were of imported improved varieties, suitable for the production of "appellation wines".

iii. Road construction

A network of village roads connecting villages in the Project area, farm roads and village streets was constructed. Village and farm roads fall under productive investments. Construction of village streets and village squares is a social investment. New farm roads, of a total length of 526 kms, i.e almost double the planned target of 290 km, provided access to the field and therefore they contributed substantially to decreasing production costs. Farm roads were also an essential prerequisite for opening up new hitherto inaccessible areas for agricultural development.

The communities concerned contributed 1/3 of the construction cost of the farm roads. To meet such a contribution these communities received from the government long term low interest (7 percent) loans.

Village roads of a total length of 37 kms were completed at a total expenditure of over £1 million. This cost was entirely borne by the government. Two roads were not constructed, one because it yielded an ERR less than the minimum cut-off rate and the other because it was included for consideration in the Third Rural Highway Network Plan. Although the achievement was short of the original target of 50 km by 25 percent, the standard of the roads constructed was considerably improved compared to that provided in Project appraisal.

iv. Credit

Medium and long term low interest rate loans were issued by the government to Pitsilia farmers for the establishment of a limited number of meat processing plants, for livestock (sheep and goats) and beekeeping development, for the purchase of almond shelling and other agricultural machinery, as well as to cover their needs for operating capital.

Demand by farmers was much lower than the initial targets, because needs for incremental working capital were met either by farmers' own resources, or by village co-operative societies not requiring collateral.

4. The Project's Social Investments

The Project's social investments consisted of four components, namely the health component, the education component, improvement of village domestic water supply and improvement of village streets.

i. In the health sector all schemes were completed and many targets were exceeded. An existing TB sanatorium was converted into a full fledged rural hospital equipped with an up-to-date surgical theatre, an X-ray department, laboratory facilities, dental and outpatients units and 50 bed capacity inpatient wards. The latter represents a 150 percent increase over the initial Project provision (20 beds) and came about as a result of the strong demand by the people of the area served by the hospital.

An old health centre at Agros was renovated and expanded and it was converted into a small rural hospital. Three new health centres were established and a fourth one at Palechori was expanded. With the exception of a small donation by Agros community the cost of the above schemes was borne entirely by the government. Health services provided to the 21,000 inhabitants of the Project area have hence improved substantially.

ii. With regard to domestic water supply, house to house piped schemes in 23 villages, against the appraisal provision of 15 villages, were completed and all villages were supplied with drinking water in adequate quantities. The contribution of the communities' concerned towards the expenditure involved amounted to 50 percent of the respective cost. The respective communities were provided with long term low interest (7 percent) loans to meet the balance.

iii. In the education sector one central elementary school was constructed at Kalo Khorio village against abolition of 5 small schools of one to two teachers. This six classroom school contributed substantially towards improving the educational standard in the villages concerned and was used as a model for further expansion in other regions. A second school was scheduled initially to be established at Alona village, but due to the rapid decline in the numbers of pupils this was abandoned.

The contribution of the communities concerned towards the cost involved was limited to 10 percent of the total expenditure. Transport cost of the pupils between the school and their respective villages is borne by the government.

iv. With regard to the village streets, following a very favourable response and a strong demand on the part of the villages concerned, the initial target was doubled. The communities' contribution amounted to 33 percent and it was covered by long term low interest (7 percent) government loans.

5. The Project's Institutional Investments

Finally, under the category of institutional investments the following were included: Reorganisation and strengthening of agricultural extension and veterinary services in the Project area, establishment of a farmers' training centre, and the conducting of (a) field agricultural trials adapted to the conditions of the area and (b) special studies pertinent to agricultural and rural development in Cyprus.

All activities were successfully completed and the entire relevant expenditure was borne by the government. More specifically, the Pitsilia region was converted, for Agricultural Extension purposes, into a separate agricultural district. Offices and a farmers' training centre, with dormitory facilities, were

constructed at Agros. With regards to the Veterinary Services, offices and a veterinary clinic were constructed next to the Agricultural Offices at Agros and the existing veterinary health facilities at Palekhori were upgraded.

Applied research of local interest was initiated, a study on financing the agricultural sector and a report for a second Integrated Rural Development Project to be implemented elsewhere in Cyprus, based on the experiences gained from the Pitsilia Integrated Rural Development Project, were completed.

Project targets and corresponding achievements are summarized below in tabular form:

	Target	Achievement
(i)	A. Productive Investments Water resource development to irrigate about 1,150 ha through about 70 minor schemes and the construction of a dam at Xyliatos	Construction of 100 irrigation schemes (Xyliatos dam, one arch dam, 19 ponds, 28 boreholes, 51 rehabilitation schemes). An area of 1,516 ha has been placed under irrigation.
(ii)	Construction of soil conservation works on about 2,550 ha	Bench-terraces have been constructed on 2,370 ha.
(iii)	Completion of land consolidation on about 500 ha	Land consolidation has been completed on 475 ha.
(iv)	Construction of about 290 km of farm access roads	Farm access roads constructed for a total length of 526 km
(v)	Develop of on-farm irrigation systems on about 100 ha	On-farm systems established on 235 ha and designs prepared for about 1080 ha.
(vi)	Provide incremental credit for working capital, agro-processing, livestock and infrastructure	Demand by farmers has been much lower than the initial targets because needs for incremental working capital have been met either by farmers' own resources or by village co-operative societies not requiring collateral.
(vii)	Upgrade about 50 km of existing village roads	Thirty-seven km were upgraded. Two roads were not constructed, one because it yielded an IRR less than the minimum cut-off rate and the other because it was included for consideration in the Third Rural Highway Network Plan.
(i)	B. Social Investments Construct two central elementary schools to consolidate about 12 smaller schools and provide educational opportunities for about 500 pupils.	One central elementary school has been constructed to consolidate 5 small ones. The second school was not constructed due to rivalries between the two main villages where the school might be constructed.
(ii)	Upgrade two existing rural health centres and three sub-centres and modify existing facilities at the Kyperounda sanatorium to provide for a 20 bed inpatient facility.	With the construction of a surgery theatre and an out-patient department Kyperounda sanatorium has been converted into a conventional hospital with 50 bed in-patient facility. Agros and Palekhori rural health centres have been upgraded. Rural health sub-centres have been constructed at Kalo Chorio, Pelendria and Kato Amiandos.
(iii)	Upgrade domestic water supply facilities in about 15 villages	Domestic water supply facilities have been upgraded in 22 villages.

.../continued

	Target	Achievement
(iv)	Upgrade about 20 km of existing village streets	About 30 km of village streets have been upgraded. In addition a number of squares has been constructed in a number of villages
	<i>C. Institutional Investments</i>	
(i)	Reorganization of the existing extension service and construction of a farmers training centre at Agros	Pitsilia region has been converted into a separate agricultural district; offices and a farmers training centre with dormitory facilities constructed at Agros.
(ii)	Upgrade the existing veterinary health facilities at Agros and Palekhori.	Offices of the DVS and a veterinary clinic have been constructed at Agros. The necessary equipment for upgrading Palekhori veterinary health facilities was purchased.
(iii)	Carry out applied research on specific agricultural problems of the Project area.	Applied research was carried out on potato seed production, new varieties of wine grapes and production of kiwi-fruit.
(iv)	Studies	
-	Evaluation of the system of investment financing for the agricultural sector in Cyprus	Completed
-	Assessment of the future development opportunities in underdeveloped rural areas of Cyprus	Based on PIRD Project implementation experiences, the Government of Cyprus prepared a second integrated rural development project, which regrettably was not implemented because of negative economic and other considerations
-	Monitoring and evaluation of the effects of the Project	First stage completed
-	Review of engineering and agricultural aspects of the Project	No need for a separate study.

PROJECT ADMINISTRATION

Great difficulties have been experienced in putting into effect programmes of Integrated Rural Development in many parts of the world. In some cases, no doubt, the programmes have failed because they were misconceived, but an increasing number of papers, reports and evaluations have drawn attention to weaknesses in administration as a major cause of failure.

"Administration" and "management" are interpreted, though not exclusively, as:

- giving directions and making decisions;
- formulating policies and plans;
- implementing policies and plans, and monitoring them;
- maintaining interpersonal relationships with others (subordinates, those at the same level in other services, departments, organizations and superiors)
- using management techniques, for planning, execution and evaluation of operations and

- (f) providing administrative services: clerical, accounting, financial, etc.

When a new organizational set-up is established, as in the case of the Pitsilia Integrated Rural Development Project, it should be ensured that required adjustments in structure and administrative procedures will be effected to meet changing objectives. Administrative and managerial arrangements and methods, designed and developed in a different environment, may have little direct application to the policies, objectives and detailed plans of another country and can rarely be transplanted directly. Nevertheless, experience from a wide range of countries has demonstrated that there are some features that are common to many countries and therefore it should be possible to draw on experience in other countries for valuable approaches that may be adaptable. Otherwise the best internal appraisal system is likely to become excessively inward looking and to fail to take advantage of the experience of the others.

1. Altogether some twenty (20) government or quasi government Department/Agencies were involved in Pitsilia Integrated Rural Development Project implementation and each of the above was vested with the responsibility of implementing the relevant part of the Project which fell within its jurisdiction.

2. Planning, co-ordination, follow-up and evaluation of work progress was vested by the government of Cyprus and the World Bank with the Project Co-ordinator/Manager who was supported by a small Project Unit. The Project Co-ordinator, who was the de facto Project Manager, was acting on behalf of the Director General of the Ministry of Agriculture and Natural Resources. In this respect the following points have to be stressed, in view of their importance in overall successful Project implementation.

It is widely accepted that rural development projects because of their cross-sectoral nature, are most difficult to administer. Two basic options are available with respect to project administration:

- (a) to create a fully staffed project unit to which all personnel engaged in project implementation would be seconded from the relevant Ministries and Services, if available, or otherwise would be appointed for the duration of the project, or
- (b) to establish a project unit staffed with the minimum number of personnel for co-ordinating the activities of the Ministries/Departments involved in project implementation, to establish project priorities and for project follow-up and evaluation.

Arrangements in the first instance are conducive to the creation of a "development spirit" among the staff alien to routine government work. They tend to form breeding nurseries for well experienced development leaders and are highly conducive towards creating a "team spirit" among the project Implementing Unit personnel, as well as between the project staff and the project Manager. The latter, through a line authority, is in a position to check, follow up and evaluate staff performance and work progress at any time, a situation that enables him to make timely adjustments and take effective action to ensure proper and smooth project implementation.

In this respect among the most serious impediments to timely and effective implementation of a number of activities of the Pitsilia Integrated Rural Development Project was the fact that the Project Co-ordinator/Manager, who had no line authority over the staff engaged in Project implementation, very often found himself in a disadvantaged position, should his decisions and priorities conflicted with those of the management of the implementing agencies. Furthermore, in a number of instances follow-up and evaluation of work progress became an indirect, cumbersome, time consuming and quite often unyielding process.

The World Bank's Project Performance Report, referred to earlier, comments as follows in this aspect:

"In rural development, the question of the best organizational form for co-ordinating multi-agency projects continues to be an unresolved dilemma, so the experience of this project is of special interest. Some favour creation of a project implementing unit with newly appointed staff and secondment from relevant ministries to assure expeditious implementation. This Project used the alternative, frequently less dynamic, approach of leaving implementation in the various agencies and operating a small co-ordination unit at the directorate level in one ministry. This has the drawback of not being in the line of command. Nevertheless, the role was performed effectively in this case and served the function of eventually obtaining a much deeper understanding and commitment to the project by the participating entities".

"In the 1970s, Cyprus had little experience in large scale multi-component projects. Given the successful attainment of Project objectives, it is evident that the Pitsilia Integrated Rural Development Project has helped improve the Project implementation capability of participating agencies. Due to the nature of the Project, co-ordination skills and practices were strengthened, as well as co-operation reinforced, not only in the Ministry of Agriculture and Natural Resources and the small Project Unit, but in other agencies as well. While the experience with the co-ordination and management arrangements did not prove the superiority of the approach chosen, it demonstrated that successful Project implementation could be achieved through the agencies that were operationally responsible for the activities the Project undertakes. Also, it was clear that in this approach, co-ordination assumed importance, although a small co-ordination unit may suffice, provided it is manned by staff with adequate authority and capabilities".

4. The report further stresses that "12 other components (in addition to water and irrigation development) were included making the Project very complex and demanding to implement. The Project has transformed a large part of the landscape in the arid and mountainous Pitsilia area to a terraced, well-organized, and productive agricultural land which is supported by much advanced social, infrastructural and farmers - oriented services than earlier".

5. A Project Policy Committee chaired by the Minister of Agriculture and Natural Resources provided to policy framework for the Project. Members of this committee were the Directors General or their representatives of the Ministries involved.

6. A Project Co-ordination Committee was set-up to organise Project implementation, as originally provided in the Project Appraisal Report.

7. Although setting up the co-ordination mechanism took some time in the beginning of the Project, the various co-ordination bodies proved instrumental to successful Project implementation. The Co-ordination Committee, however, turned out to be too large and was not able to cope with the multitude of Project activities. At the end of the second Project implementation year, the Co-ordination Committee was replaced by five Working Committees (for soil conservation, irrigation schemes, Xyliatos-dam, roads, and rehabilitation and water supplies schemes). Later, new committees were added to deal with economic aspects of the Project, district level co-ordination, as well as monitoring and evaluation procedures. Further development took place in 1982, when regular, separate meetings of these committees were discontinued and joint sessions or meetings were selectively organized.

8. The fact that the main part of the Project was implemented by one ministry, although through several departments, and the various committees which were established, ensured that all involved agencies worked in good harmony and sufficient vigour. The committees were not only necessary for co-ordination, but they provided a forum for popular participation, necessary for any socio-economic development effect. Timely adjustments in the number and functions of the committees prevented them from becoming stale and permanent bodies.

9. Another important arrangement, leading to better co-ordination and effective implementation, was the nomination of a contact officer in each of the participating ministries and departments. They attended the committee meetings on behalf of their organizational units, and followed up on the recommendations of the committees.
10. The latest of these adjustments was the reduction of the working committees to two, leaving one for water development schemes and another for land consolidation.
11. All the above committees were chaired and convened by the Project Co-ordinator/Manager.
12. The success of these arrangements for Project implementation points to a need for gradual adjustments of co-ordination arrangements according to changing situations and Project progress (World Bank Project Performance Audit Report).
13. An interesting feature of the co-ordination arrangements was the gradual shift of co-ordination responsibility over the life of the Project, first from the Planning Bureau to the Ministry of Agriculture and then to special committees and the Project Unit. The Planning Bureau, which relinquished the responsibility for co-ordination when the Project became primarily agricultural, maintained its interest in the Project development and its place in the Project Policy Committee, thus continuing to provide help in facilitating easier access to various executive bodies and political decision makers.
14. Elsewhere in this presentation the need is stressed to involve farmers and the rural people concerned early enough in the planning process of an Integrated Rural Development Project and the rationale behind such a need is adequately covered. Nevertheless because of time and staff constraints such an involvement was more or less neglected and people's information on Project scope, goals and targets was minimal at the early stages of Project implementation.

Nevertheless Project management was quick enough to perceive the need to inform and involve farmers in Project implementation and embarked upon an intensive programme of activities including personal contacts with the region's formal authorities and opinion leaders, and general gatherings and meetings to inform and involve the area's general public, as well as mass media activities to make the Project known both to the region's population as well as to the wider public, to ensure inter alia wider acceptance and public support.

It is in the light of the facts mentioned above that the World Bank's Project Performance Audit Reports acknowledges that "major credit for its (the Pitsilia Integrated Rural Development Project) implementation belongs to project management and officers participating in the various co-ordination units".

PROJECT RESULTS AND PROSPECTS

1. Economic Rate of Return

At appraisal it was estimated that the economic rate of return (ERR) on all Project costs would be 12 percent and the return on costs of productive components alone would be 13 percent. In practice the results were somewhat better. The Project Completion Report (PCR) prepared by the Government of Cyprus estimates the return to productive investments alone at 21 percent and the return to all Project costs at 19 percent. There is good evidence to support this upward revision, both in terms of the rapidity with which the new irrigated areas were brought into production and the good yields obtained, as well as the efficient use of resources in Project implementation. However, the PCR estimate may slightly exaggerate the rate of return because the methodology used was based on historical prices of the investment costs (i.e. pre-1983), and 1983 prices of the benefits stream. To compensate for this, the overview has revised the ERR downward by 25 percent to adjust investment

costs for inflation. This results in re-estimated ERR's for all productive investments and for the entire Project (i.e., including social components) of about 16 percent and 14 percent, respectively. The audit concurs with this estimate (I.B.R.D. Project Performance Audit Report).

These higher rates of return are primarily attributed to:

- (a) the relatively modest cost overrun;
- (b) the substantially larger increase in irrigated area than planned;
- (c) changes in utilization of completed schemes;
- (d) the high returns from land consolidation; and
- (e) early utilization by farmers of the completed schemes and appropriate cropping patterns.

2. At the Project appraisal stage it was estimated that at full maturity of the Project, per capita income in Pitsilia would double at constant prices. At completion this objective was substantially exceeded mainly due to the increase of the irrigated area over the initial target by 32 percent and the development of a number of favourable chain effects as a result of the initial investments.

3. Government found the feasibility approach and the preparation period to be very useful in arriving at component choice and sharpening the definition of each component. The more effective use of water through conservation and management of both surface water and groundwater became the key component of the Project.

4. Government was disappointed that the improvement of trunk roads to the region could not be included because of the condition imposed by the World Bank that a separate full feasibility study be undertaken for such roads. It was strongly believed by both the government and the people of the areas concerned that such roads would have provided the key ingredient to development of industries and tourism in the region. Evidence in support of this belief has been provided early enough, immediately following completion of Project implementation, when an ex-post evaluation, with respect to the village connecting roads constructed as part of the Project activities, has shown that IRR for each road scheme was higher than originally expected, as estimated in the appraisal Report, although the construction cost was generally higher than the original estimate due to higher level of betterment of the standard of the roads than originally planned for. The reason for this is the higher "generated traffic flow" resulting from the overall development schemes and activities in the Project region.

The conclusion from the ex-post evaluation is that the improvement of roads in the Project region has provided substantial economic and social benefits to the region, beyond those anticipated in the Appraisal Report.

5. While the overall Project concept centered around integrated rural development, the benefits were mainly expected to arise from increased agricultural production. Most Project components contributed to this goal particularly water resource development, soil conservation, farm roads construction, agricultural extension and research. They were all implemented fully and some of the key objectives were surpassed. The agricultural extension staff was instrumental in promoting the necessary changes in agricultural practices, through conducting a very intensive programme of personal contacts, of farmers training courses, field trips and demonstrations. These activities were strongly backed-up by mass media programmes generated by the Ministry of Agriculture's Extension Service headquarters. The changes in cropping pattern caused by the Project generated a strong demand for a variety of inputs. Yields of with-project crops are comparable to those of the Island's most productive areas.

The Agricultural Research Institute increased its research efforts in the Project area, working in collaboration with both extension officers and contact farmers. Agricultural research provided valuable

information, concerning seed potato production and wine-grape varieties in Pitsilia. An important expansion of extension work became possible when in 1983 the Farmers' Training Centre was completed at Agros. Ever since thousands of trainees, both farmers and rural women, have attended courses at the Centre.

Extension work was made more effective by organizing a special agricultural district for the Pitsilia area that deviated from the government of Cyprus administrative district. Additionally, operation of the central veterinary clinic at Agros has added beneficial effects for the health of the area's livestock population.

6. Production from the new irrigated and rainfed areas as well as increased land productivity by more than 500 percent, are the two main factors which led to the increased per capita income. Productivity increases were brought about through the construction of access and farm roads, the mechanization of farming operations and the use of up-to-date technology and science in the production process. It should be stressed in this respect that due to the availability of adequate infrastructure and the use of appropriate technology and science the newly developed Project areas yield a sustained production at lower cost and hence these areas have become the main productive agricultural regions of Pitsilia following the economic marginalization of the old agricultural areas of the region.

7. Land Consolidation:

- (a) facilitated construction of a rational water distribution system,
- (b) provided farmers with public access to their parcels, thus helping to increase the area of cultivated land,
- (c) made possible increased production and lower production losses.

The number of land owners in all consolidated areas was reduced by 50 percent. This reduction by itself would not be a viable outcome in many farming areas. However in this case the majority of the owners were part time farmers and absentee owners and were not fully utilizing small fragments of land which did not have public access.

8. Creation of 2,000 new employment opportunities in agriculture has been effected. This represents a 30 percent increase of the available employment posts.

9. The educational and health standards of the people in the Project area have improved substantially through upgrading the school and health services, domestic water supply, village streets and village environmental conditions in general.

In the educational sector a central elementary school was constructed while six one-teacher primary schools in an equal number of villages were abolished. The main objective of the creation of a central school is to offer education of a wider socio-cultural significance enabling the visualization by the pupils of an active membership in a developing area where collective effort is necessary for general achievement and cultural development. This objective emanates from the government policy of consolidating smaller schools into centrally located larger ones. The latter afford enhanced opportunities to specialize and enrich the early lives of rural children, permit the pooling of teachers, allow for the provision of special facilities such as social classrooms, libraries, laboratories and the like, and permit savings in operating cost through pooling of resources.

In the health sector the most impressive changes relate to Kyperounda hospital, where the number of outpatients increased eightfold (from 1189 to 9,637) in 1979 when the hospital became operational.

Appreciable increases were also noted in the health centres. Upgrading and development of domestic water supply not only contributed to improved environmental and health standards, but was

the major infrastructural factor which contributed to the housing and tourist development of extensive rural areas in the region.

10. The Project established the prerequisites for further development and created better prospects for additional employment opportunities, increased incomes and improved living standard.

11. The Project brought about the development of a series of beneficial chain effects such as construction of new houses, agro-tourism development, improved conditions for social life etc., Following a substantial initial delay the construction of the Palechori-Agros and eventually the Agros-Troodos ring road, as well as the policy for the promotion of the agro-tourism industry in a number of mountainous villages, are considered key elements which boosted substantially development in the area and contributed towards maximization of Project benefits. Evidence is also available that further development of the industrial sector in the Project area, based mainly on the productive utilization of the untapped female labour force, could further enhance the development of the area.

PROJECT IMPLEMENTATION EXPERIENCES, FINDINGS AND LESSONS

The Pitsilia Integrated Rural Development Project, in addition to its pioneering nature, proved to be innovative as well, having had introduced a number of practices which added substantially to relevant projects' design and implementation:

1. The audit mission of the World Bank which prepared the Bank's "Project Performance Audit Report" in 1985, states the following regarding Project implementation experience, findings and lessons: "This complex Project has by and large, been successful. Despite its complexity, the Project was completed only one year behind schedule. Most key objectives regarding production, social infrastructure and institutional development were attained and, in some instances, surpassed. For instance, physical accomplishments in irrigation development, farm road construction and domestic water supplies exceeded appraisal estimates by 32, 94 and 46 percent respectively.

According to the World Bank mission the key aspects in successful implementation appear to have been:

- (a) a Project design which gave first importance to the key limiting factor, which in this case was water
- (b) a competent, highly motivated and persistent Project Coordinator/Manager
- (c) strong government commitment
- (d) sound procedures for involving villages to assure their agreement on priorities and requiring their commitment throughout implementation and
- (e) warranted flexibility on the part of Bank staff in supporting key project modifications requested by the Project Unit. It is worth noting the World Bank's Project Completion Report reference in this respect: "The project authorities complied diligently with the covenants and the reporting requirements. On a number of occasions when unforeseen circumstances or other reasons called for changes in Project design or components, Government of Cyprus alternative proposals were well-argued and appropriate responses to changed circumstances, aiming at compensating for time lost due to slow start-up, safeguarding achievement of benefits, and ensuring timely execution of the Project. Consequently, the Bank agreed with most requests for Project modification".

It is further stated in the audit report that in this case, a multi-component Project design proved viable in spite of the numerous and complex problems of coordination that might easily have led to failure. The lessons to be learned are: (i) a multi-component rural development project can be implemented without major delays or deviations from the original objectives, if there is strong

government commitment, competent and devoted management, and a suitable coordination mechanism; and (ii) flexible coordination arrangements are needed for adjusting to the different phases of the Project and changing circumstances.

"The total cost of the Project as implemented was about US\$24.3 million, 16 percent higher than estimated at appraisal, largely because of exceeding original project targets.

With the Project investments completed the Economic Rate of Return (ERR) is now (1985) estimated at 16 percent compared to 12 percent at appraisal".

2. In the irrigation sector the Project introduced a number of innovations and contributed to data accumulation and expertise development in the following fields:

- (a) The construction of a great number of irrigation schemes, especially boreholes and off stream ponds in mountainous areas to serve the majority of Project communities. Altogether one hundred (100) medium and small scale irrigation headwork development schemes with associated irrigation networks were constructed.
- (b) The utilization of surface waters for irrigation purpose in steep mountainous areas through the construction of a sizeable number of off stream ponds. Such ponds are water tight and the only water losses are those occurring through evaporation.

The economic viability of such ponds depends on a number of factors most decisive among which are the pond size and site. In this connection it was established that at Project implementation time, such ponds should have a capacity of not less than 50,000 c.m. and should be located in suitable sites where the earthworks excavations would equal the fills (embankments) to avoid costly long distance transportation of earth. Furthermore, the specific feasibility studies conducted with respect to Xyliatos dam and for every pond and borehole irrigation scheme, were essential for the proper assessment of costs and benefits and in a number of cases led to a reconsideration of concepts and innovation in planning such schemes, as for example in the case of high costs and uncertainty over supplies, which led to linking borehole and pond schemes.

Expertise gained in constructing off stream ponds has been successfully applied elsewhere in Cyprus and in a number of Greek islands.

- (c) The detection and utilization for irrigation purposes of deep underground water in substantial quantities in igneous geological formations such as those of the Project area, has made a breakthrough in the relevant world bibliography.

3. Two main findings can be drawn from the land consolidation components:

- (a) in this Project, where consolidation was combined with the introduction of irrigation and access roads, it yielded a satisfactory rate of return as a component and contributed to the overall success of the Project; and
- (b) it is a feasible and worthwhile undertaking when well implemented with strong leadership and adequate farmer participation

4. In the course of the six year Project implementation period, despite the attainment of all major objectives, several issues hampered Project implementation but they were successfully addressed.

- (a) Project Commencement and Co-ordination

The first delaying issue was the slow start of implementation. Nearly a year was needed to set up the Project Unit and for co-ordination arrangements, to mobilize officers in various ministries, and to involve the concerned rural communities in the operations of the Project.

Technical drawings needed to be finalized and since the viability of numerous pond schemes was uncertain, the World Bank insisted on "mini-feasibility" studies on each scheme.

However, this careful preparatory work paid off in later stages of implementation, when it became possible to accelerate construction works and disbursement of funds.

(b) Technical problems.

- i. Due to lack of previous local experience in pond construction two problems developed. They were associated with the backfield of the membrane used for water tightening of the ponds and the adequate drainage of the spring water flowing under the membrane which initially caused some damages to the membrane lining. They were both solved very satisfactorily.
- ii. Due to the existence of a number of authorities dealing with road construction and the lack of a unified supervisory body, certain defects were detected in the roads constructed and remedial works had to be carried out.
- iii. Finally the inadequate amount of available earthmoving heavy equipment and the lack of experimental data as regards suitability of new wine making grape varieties to be grown under rainfed conditions in the bench terraced areas led to delay as regards the development of the rainfed sector by one year for the constructional works (bench terraces) and two years for the planting activities.

(c) Staff

Serious staff shortages, especially trained staff, with the Water Development Department and the Department of Agriculture contributed substantially to the one year delay in the Project's completion date. Additionally, the Project Co-ordination Unit with its rudimentary staffing was under sustained pressure to cope with the volume of work.

(d) Participation of farmers and rural people:

The need to involve the rural people concerned at an early stage in rural development projects' preparation should never be underestimated. The importance of such people's early involvement and participation in project planning can prove decisive for the success or failure in project implementation and timely completion.

In view of the limited time available at the Project preparation and feasibility stages, farmers' and rural people's participation at these initial stages was rather limited and therefore it was highly important to inform and involve the local people concerned at the Project's initial stages with regard to all Project provisions, more so since a great number of Project schemes were contributory and farmers' and local people's share made up 33-50 percent of the cost. Consequently a very intensive schedule of activities to inform and involve the local population was effectively administered during the first implementation year.

The World Bank's "Project Performance Audit" Report has the following to say in this respect:

"Where farmers are expected to share in the costs as well as the benefits, it is important that they be involved early in the Project and participate fully in key decisions affecting them. In this case, after limited involvement in Project preparation, farmers participated actively in most aspects of implementation. This included farmer approval of all irrigation and land consolidation schemes, establishment of soil conservation divisions for bench terracing, operation and maintenance of all irrigation schemes, and financial contributions towards meeting the costs of most Project components. The most intensive interaction

with farmers occurred in the six villages where land consolidation was implemented after substantial interaction to take into account objections and reaching solutions. Overall, the farmers response was positive as reflected by the 80 percent majority who voted in favour of consolidation and thus made possible the successful termination of the farm access roads and irrigation distribution system, which were affected by the land consolidation."

5. The Project generated much useful experience regarding co-ordination between and collaboration among the various participating agencies. The implementation approach adopted, i.e., execution of the Project components by the agencies that have normal line responsibility for such tasks, with only a small co-ordination unit, involves both possible benefits as well as risks. It could increase the implementation capacity and skills in several ministries and units, since no central body has primary responsibility for Project work. Alternatively, the result could be that the Project tasks would be viewed only as an additional burden by the staff of the participating organisations resulting in no institutional growth. In retrospect it is argued that the pattern of agency-oriented implementation, the approach adopted in the case of Pitsilia Integrated Rural Development Project, created substantial co-ordination problems, because the Project Co-ordinator/Manager had no line authority over staff engaged in the implementation of various components.

CONCLUSIONS:

1. The Pitsilia Integrated Rural Development Project was shaped and put into effect during a nationally and economically critical period for the Republic of Cyprus, immediately following the Turkish invasion in 1974, with main objectives to create employment opportunities for the massively unemployed, to reactivate the economy of a depressed rural area that was expected to bear wider beneficial effects on the Island's economy, to create an inflow of hard currency and to promote among the population a spirit of confidence for the future of their Country.

2. At the preparation and feasibility stages an effort was made to include in the Project a variety of development schemes covering a wide range of economic sectors such as agriculture, road construction, industrial and tourism development and forestry with a parallel development of the social services in the area.

Unfortunately, budgetary and other financial constraints, criteria of economic viability, the uncertain if not gloomy prospects that prevailed in the Country in the aftermath of the Turkish invasion, especially in the tourism and industrial sectors, and finally the inability of some government agencies to proceed with the preparation of the necessary feasibility studies needed for some major schemes, necessitated the curtailment of many Project components. Nevertheless, despite the above shortcomings, the Project maintained its integrated nature and constitutes an innovation for the geographical region of Cyprus.

3. With a per capita investment of more than CY £ 500.00 the Project set a record in this respect for Cyprus standards. Indicative of the magnitude of this investment is the fact that it exceeded by far per capita government development investment incurred annually at the time of Project implementation and has so far no parallel in the rural development sector.

4. The objective of the Pitsilia Integrated Rural Development Project was to stimulate an economically depressed region by developing its productive resources and by improving its social services. It is a long accepted fact that the Project has gone a long way towards meeting this objective.

Farm production and income in the Project area increased remarkably, the roads constructed are carrying a considerably higher level of traffic than anticipated, while the response of the public to

the improvements in health and education services and village infrastructure has more than justified the investment. Revitalization of economic life in a good number of villages of the Project area is a real fact and this led to a self-sustained economic growth.

5. The economic viability of the Pitsilia Integrated Rural Development Project as calculated through the ex-ante, on-going and ex-post economic analyses, has set a strong favourable precedent and a successful test case for implementing similar projects elsewhere in Cyprus and abroad. Completion of Project implementation, within the initial time and investment cost targets, provided strong evidence of and was an important contributing factor to the Project's success. This is also manifested by the fact that 90 percent of the Project irrigated and 74 percent of the rainfed areas were estimated to have been put under production by farmers one year after Project completion.

6. The successful experiences of the Pitsilia Integrated Rural Development Project have contributed decisively to changing attitudes about the potential of depressed rural regions among the decision makers and have led to increased government investments for the development of such areas. Regrettably though such investments were not effected within an integrated approach, but rather through individual projects.

7. Owing to the preparation of the Pitsilia Integrated Rural Development Project, during the period 1975-1976, when economic conditions in Cyprus were difficult and the non-agricultural sectors faced problems of low demand and over-capacity, the PIRDP was based primarily on the development of agriculture and more specifically irrigation.

With the rapid development of the economy in general during the period after 1977, it was evident that integrated rural development projects should be more broadly based on productive sectors, though agriculture should continue to have a leading role. The population demanded strongly the construction of trunk roads and the introduction of tourism and manufacturing into the region. In retrospect their assessment appears to have been correct. Since Project completion, private investments in hotel and countryside house development as well as substantial government budgetary allocations for trunk road construction and the development of the first industrial estate in a rural area adjacent to the Project area, have contributed substantially to the Region's economic take-off and development. Nevertheless it is believed that a second stage integrated non-agricultural development project would have contributed to a more comprehensive, timely and economic approach to the region's development and uplift.

8. Experiences gained through Project implementation in a number of technical matters and in Project administration contributed substantially to expertise development in the relevant fields.

9. In the words of the World Bank Performance Audit Report "The project provides a good example of how a multi-component rural development project can be implemented without major delays or deviations from the original objectives, once the necessary governmental commitment, devoted management and suitable co-ordination mechanism are secured. Co-ordination, however, is not sufficient, if collaboration and understanding of common goals does not exist among the participants.

"The fact that the main part of the project was implemented by one ministry, although through several departments, and the various committees which were established, ensured that all involved agencies worked in relatively good harmony and with sufficient vigour. The committees were not only necessary for co-ordination, but they provided a forum for popular participation, necessary for any socio-economic development effort. Timely adjustments in the number and functions of these committees prevented them from becoming stale and permanent bodies".

10. Despite its shortcomings and limitation, the Project met most if not all the internationally accepted characteristics of integrated rural development as follows:

- (a) Within the context of the total rural population it places special emphasis on poverty eradication.
- (b) It is action orientated through the formulation of projects which are adjusted to the conditions prevailing in each particular area.
- (c) It is co-ordinated in the sense that it co-ordinates policy and investment and manpower programming between the local and area levels on the one hand and within the objectives and constraints at the national level on the other.
- (d) It is comprehensive in the sense that within the rural area it assesses all the relevant sectors of the economy and their interrelationships.
- (e) It is democratic in the sense that it operates through active local participation.
- (f) It aims to improve the existing vertical structure of government agencies by introducing the horizontal co-ordination at the level of the area under consideration.
- (g) Therefore, integrated rural development acts mainly in spatial units, delineated according to national and local conditions, but they should be small enough to enable the responsible authority in charge to know, understand and respond to the local population and large enough to enable the exploitation of inter-sectoral and inter-agency complementarities.

The contents of this presentation no doubt would lead us to the conclusion that taking into consideration these characteristics, the Pitsilia Integrated Rural Development Project planning and implementation ensured an appropriate bureaucratic set up, availability of resources, availability of know-how and farmers' participation, all essential elements for a successful integrated rural development endeavour.

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