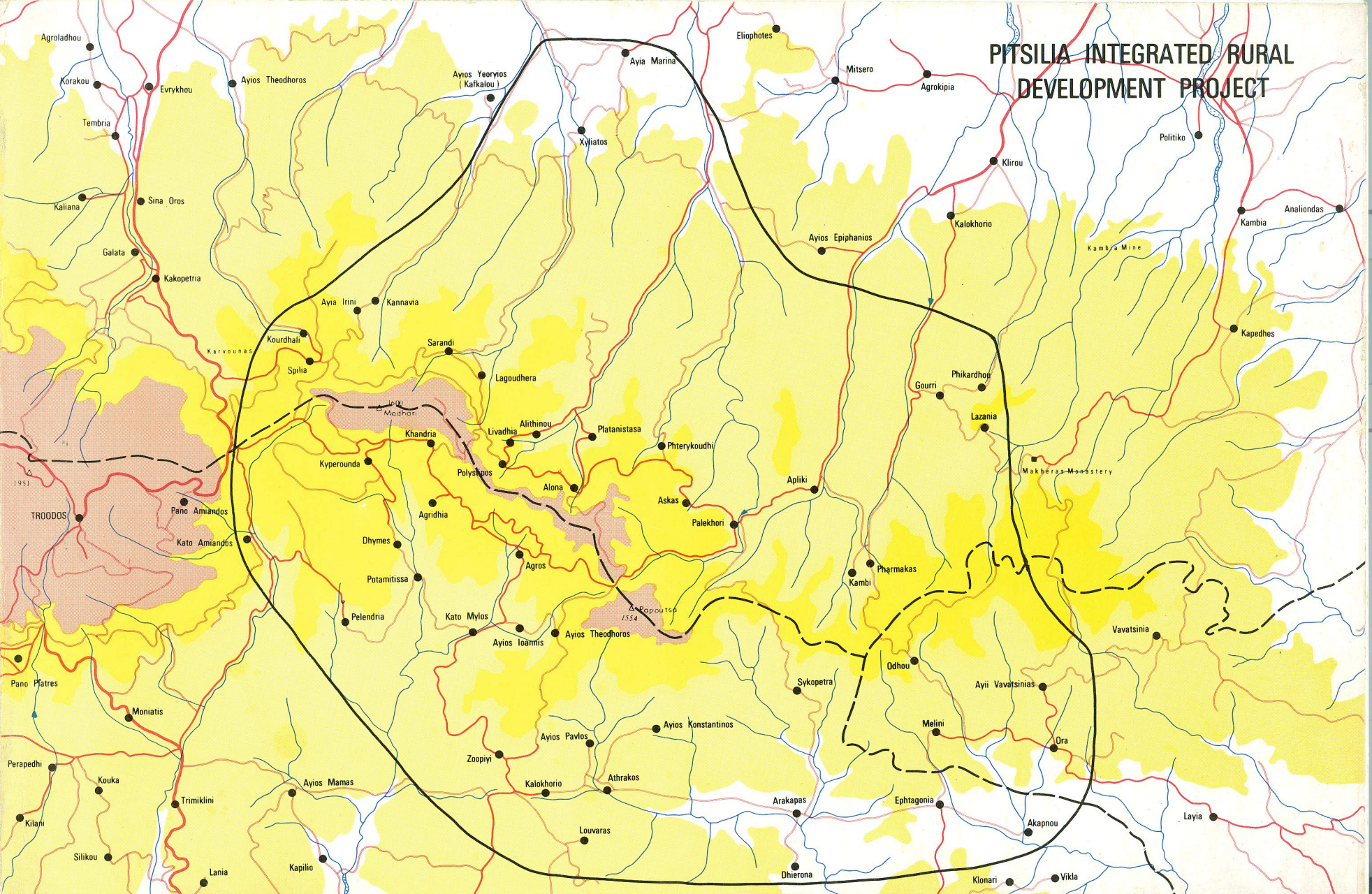


PITSILIA INTEGRATED RURAL DEVELOPMENT PROJECT



Cover : Map of the PITSILIA area

PITSILIA INTEGRATED RURAL DEVELOPMENT PROJECT



REPUBLIC OF CYPRUS



MINISTRY OF AGRICULTURE AND NATURAL RESOURCES

C. L. PHOCAS,
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Ministry of Agriculture
and Natural Resources,
Nicosia—Cyprus

March 1981

NICOSIA—CYPRUS

£ CY1 =U.S. \$ 2.5

One donum = 1337.76 sq. m. = 0.1338 hectares

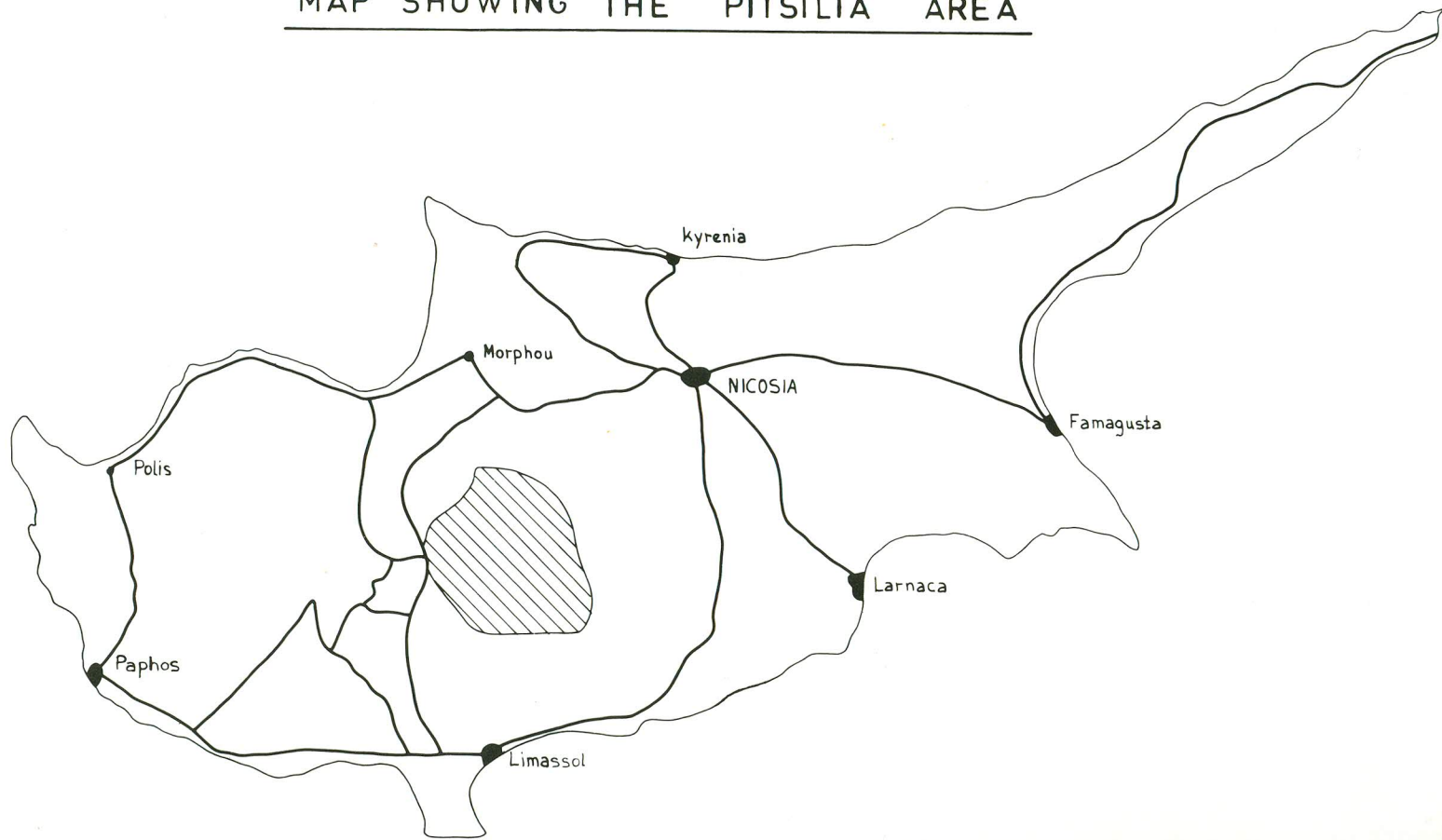
One hectare = 7.47 donums

Printed at the Government Printing Office, Nicosia

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MAP SHOWING THE PITSILIA AREA



PITSILIA INTEGRATED RURAL DEVELOPMENT PROJECT

SUMMARY

The present publication gives an account of the Pitsilia Integrated Rural Development Project, its nature and its objectives, highlights the main problem areas as detected so far during its implementation, and underlines the most important economic, social and demographic effects which are expected to accrue within the context of the economic, social and demographic conditions of the Project area. The above analysis is made against the island's agricultural background and taking into consideration the basic economic and demographic variables of the Country. The publication shows agriculture's importance in relation to the other sectors of the economy and underlines the importance which government attributes to rural development, within the context of which the Pitsilia Integrated Rural Development Project has been initiated and is implemented. The Project is well under way in its fourth implementation year with its various components and time schedules implemented according to the original plans. The Project covers 49 villages with a total area of 60,000 hectares and a population of 21,000, with 26% of the economically active population engaged in agriculture.

The Project is made up of productive, social, and institutional investments. The first refer to the development of the region's

water resources, opening up of new agricultural land through bench terracing, land consolidation, construction and upgrading of an extensive network of farm and village roads, and provision of credit for agricultural development. In the social sector the primary education is upgraded, the health facilities are substantially improved, village domestic water supply is upgraded to compare favourably with that of the urban centres, and village streets are improved substantially. Through the institutional investments, reorganization and upgrading of the region's government services is sought and a number of research projects is carried out in the region.

In giving an account of the region's demography the publication shows that there exists a marked depopulation trend, which is more prominent among the most productive age group of 15—59 years.

An account is given of the Project's implementation and administration problems up to-date. With regard to the Project's impact, this is expected to be economic, social, and demographic by improving the standard and quality of life of the region's population through the increase of employment opportunities in the region, doubling per capita income and upgrading the social and environmental conditions in the region.



Partial view of Pitsilia in winter

PITSILIA INTEGRATED RURAL DEVELOPMENT PROJECT

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INTRODUCTION

The present publication deals with the Pitsilia Integrated Rural Development Project which aims at the economic and social development of the Pitsilia region, one of the most depressed areas of Cyprus.

The publication is divided into the following chapters :

- I. Cyprus area, population and income.
- II. Brief description of Cyprus Agriculture.
- III. Pitsilia Integrated Rural Development Project : Area, Population, Objectives, Investment categories, Cost estimates.
- IV. Project administration, coordination and implementation problems.
- V. Project economic, social and demographic impact on Pitsilia.

I. Cyprus : Area—Population—Income.

Cyprus is the largest island in the Eastern Mediterranean and the third largest of the Mediterranean sea with an area of 925,000 ha and a total population of about 620,000. Following the 1974 Turkish invasion and occupation of 40% of the Republic's territory some 200,000 Greek Cypriots have been driven out their homes in the occupied area and fled to the government controlled area, while some 45,000 Turkish Cypriots have been forced by the invading forces to abandon their homes in the south and concentrate in the north.

These events, temporary as they might be, have brought about among other things, certain demographic changes such as a

reduction of the total population in the government controlled area to 502,000 and the increase of population density to 90 persons per square kilometer. Urban population is slightly higher (53%) than the rural (47%).

The urban population is concentrated in the five towns namely Nicosia 122,000 (government controlled sector), Limassol 103,000, Larnaca 30,000, and Paphos 11,000 (end 1978 estimates). Per capita income in 1974 and 1979 was estimated at US \$1,326 and US \$2,913 respectively at current market prices. At constant 1973 prices it was US \$1,256 and US \$1,731 respectively.

The economically active population was estimated in 1978 at 202,000 and the main employment activities were Agriculture, Forestry, Fishing and Hunting (22%), Manufacturing (17.6%), Services (13.3%), Construction (9.0%), and Wholesale and Retail Trade (8.8%).

II. Cyprus Agriculture.

Up to 1975 agriculture (together with forestry, fishing and hunting) consisted the main single sector of the economy of Cyprus contributing 16.7% (about C£55 million) to the Gross Domestic Product at current factor cost and 60% to the total exports of the country. Until 1974 (before the Turkish invasion) 33% of the economically active population was gainfully employed in Agriculture. Since then and following the occupation of most of the more productive agricultural areas, agriculture has declined in

importance. In 1979 the quantity index of all agricultural produce stood at 91.6% of the 1967 index, the value of agricultural exports fell to 26.2% of total domestic exports and employment in agriculture was restricted to 22% of the total economically active population. As a result of the smaller increase of the agricultural production, coupled with a rapid expansion of other sectors of the economy, agriculture in 1979 ranked fourth in its share in the formation of the Gross Domestic Product (at current factor cost) with 11.5%, having been overtaken by Industry (17.8%), Trade (16%), and Construction (12.5%) and having been only marginally higher than Transportation, Storage and Communication (11.0%), and Services (10.8%).

Gross agricultural output at current prices in 1979 was C£94,576,000 made up by 64.5% of crop production and by 36.5% of livestock production. Value added of crop production reached a favourable 76.5% but that of livestock production remained low at 33%, the main reason being its heavy reliance on imported feeding stuffs. Value added of the total agricultural sector (including fishing, forestry and hunting) was 60%.

Crop production in Cyprus is distinctly classified into rainfed and irrigated, revenue per hectare of the latter being on the average twelvefold that of the former. Rainfed crops include mainly wheat, barley, fodder crops with the exception of lucerne which is grown under irrigation, legumes, wine producing vines, olives, almonds and carobs. The most important irrigated crops are potatoes, citrus, deciduous fruit trees, vegetables and table grapes. The animal husbandry sector includes intensive poultry and pig production units, intensive and semi-intensive cattle units and free grazing sheep and goats with appreciable numbers of animals of improved breeds. This pattern of agricultural production is basically a post independence development of the last 20 years and has fully changed agricultural production in the country from its subsistence form into full commercialization.

The government agricultural policy before 1974 was expressed in three consecutive five-year development plans. Following the Turkish invasion, the occupation of about 40% of the territory of the Republic and the displacement of some 200,000 people, it was only

natural that government policy, aims and targets be reoriented to aim at alleviating these catastrophic events. Two 2-year emergency plans for economic action were prepared and implemented very successfully. Following these two plans, a three year emergency plan for economic action covering the period 1979—81 has been initiated and is currently under implementation.

Its aims as regards rural development can be summarized as follows :

To provide the rural population with adequate living standard, to reduce the disparity that exists between the urban and rural areas, to exploit the development advantages of the different regions in the framework of regional development plans, to increase the productivity of the rural labour force, to improve the structure of the government services through the development of rural centres, and the intensification and optimization of the economic and social return of the different development projects in the rural area mainly through integrated rural development projects.

III. Pitsilia Integrated Rural Development Project

It is within the above described policy that the government of Cyprus has initiated the Pitsilia Integrated Rural Development Project since 1975. Following a two-year period of intensive surveys and studies Project implementation started at the beginning of 1978. The Project aims at improving the living conditions of the people of Pitsilia region by developing the productive resources of the area and improving the social services. Presented in other terms the Project aims at transforming the rural environment of the area through increased production and productivity, better income distribution and improved social infrastructure. The process by its very nature is long, indivisible and a continuous one which starts with agricultural development but goes far beyond that and aims at changing and improving the whole rural environment.

The Project is the first of its kind to be implemented in Cyprus and a pioneering one in the Middle East, North Africa and Europe.

1. The Project Area and Population

The Project covers Pitsilia region to which some poor villages in its periphery have been added. In total 49 villages have been included in the Project area sharing certain common characteristics. Administratively they belong to three districts namely Nicosia, Limassol and Larnaca. The total area of the region amounts to 60,000 ha and has a population of 21,000.

The region lies at an elevation ranging between 500 and 1,600 metres above sea level. There are two mountain peaks i.e. Madari 1,600 m and Papoutsia 1,554 m. A rugged topography prevails and the terrain is dissected by numerous streams and small deep valleys.

The Project region is an area of traditional agriculture with a marked trend of depopulation

The population of the area showed an absolute decline from 21,638 in 1960, to 21,457 in 1976. This decline was partly in line with the general declining trend of the island's rural population, but it was more prominent in Pitsilia mainly due to the poor natural resources of the area.

The table herebelow shows the villages of the region in the three districts and the population developments between 1960 and 1976.

A. NICOSIA DISTRICT

Village	1960	Population 1973	1976
1. Kannavia	222	222	317
2. Ayia Irini	122	88	117
3. Kourdali	555	437	557
4. Spilia			
5. Sarandi	164	149	141
6. Lagoudhera	310	328	350
7. Polystipos	430	489	521
8. Livadhia	188	128	103
9. Alithinou	73	50	41
10. Platanistassa	590	561	663
11. Alona	569	507	571
12. Phterikoudhi	294	261	303
13. Askas	363	362	400
14. Palekhori	1,906	1,683	1,729
15. Apliki	120	130	156
16. Gourri	397	365	364
17. Phikardou	81	32	28
18. Lazania	101	51	45
19. Kambi	228	235	212
20. Pharmakas	479	504	526
21. Ayia Marina	516	539	752
22. Xyliatos	131	140	177
Total Nicosia District	7,839	7,261	8,073

B. LIMASSOL DISTRICT

23. Khandria	560	581	558
24. Kyperounda	1,538	1,806	2,007
25. Pano Amiandos	430	200	203
26. Kato Amiandos	406	372	463



General view of Palekhori village

B. LIMASSOL DISTRICT.—contd.

Village	Population		
	1960	1973	1976
27. Dhymes	373	391	347
28. Agros	1,476	1,256	1,310
29. Agridhia	525	557	511
30. Potamitissa	339	293	281
31. Pelendria	2,094	2,253	2,218
32. Kato Mylos	192	199	167
33. Ayios Ioannis	875	929	994
34. Ayios Theodoros	604	467	395
35. Zoopyi	265	254	261
36. Kalo Khorio	548	528	513
37. Athrakos	7	—	1
38. Ayios Pavlos	244	214	220
39. Ayios Konstantinos	250	272	245
40. Sykopetra	217	193	187
41. Louvaras	328	384	365
42. Eftagonia	427	350	349
43. Arakapas	401	415	403
44. Akapnou	175	100	84
45. Dhierona	322	353	304
Total Limassol District	12,596	12,387	12,386

C. LARNACA DISTRICT

46. Odhou	250	215	223
47. Melini	221	156	154
48. Ora	335	236	300
49. Ayii Vavatsinias	397	350	321
Total Larnaca District	1,203	957	998
GRAND TOTAL	21,638	20,585	21,457

In 1976 out of the total population of the Project area (49.5% males and 50.5% females) 26.7% were in the age group of up to 14 years, 54.8% (49.7% males) in the age group of 15—59 years and 18.5% (44.3% males) over 60 years.

The national percentage averages of the rural and urban population of the age group 15—59 were 57% and 62.3% respectively, and those of the overaged (above 60 years) 16.4% and 12.4%.

These demographic data show that in Pitsilia region there is a marked trend of depopulation coupled with a distinct decline of the economically active and most productive age group and an increased percentage of the overaged.

The total cultivated land in Pitsilia is 14,500 hectares out of which about 10% is under irrigation (1432 ha). The main irrigated crops are deciduous fruit trees (70%), citrus (11%), and vegetables 15%. The total rainfed agricultural area amounts to 13,000 hectares, out of which 6,560 hectares are under vineyards, 2,600 hectares under olive trees, and 1,300 hectares under almond trees.

Farm holdings in the Project area are small, the average family ownership being 3 hectares as against 4.6 hectares the national average (for the area under government control). About 72% of all plots have no access neither by public path nor farm road. Fragmentation of the holdings is high, the average family farm having about 13 plots scattered around the village. The plot size, as a result of the fragmentation, ranges from 0.1 hectare for irrigated land to 0.3 hectare for dryland.

Out of a total number of holdings of 44,522 in the government controlled area of the island, 4,492 i.e. about 10% are in Pitsilia.

In 1977, 26% of the economically active population of the region were fully engaged in agriculture.

2. The Project.

The main objective of the Project is to stimulate the economically depressed region of Pitsilia by developing its productive resources and by improving its social services such as health and education. The total investments will amount to about US \$25 million of which



General view of Ayios Ioannis village

US \$10 million have been secured through a World Bank loan. The balance will be covered by the government of Cyprus. The Bank loan will be disbursed over a five year period and will be repaid in 15 years, including a 3-year grace period. The loan will bear an interest rate of 8% per annum. The Project implementation period is 5 years (1978—1982). The loan terms and conditions are the concern of the government of Cyprus and the World Bank and will not, generally speaking, affect the participating farmers. The latter receive their loans and subsidies for the development works to be carried out in their area, their villages and their land, on the same lines so far followed and in accordance with the government policy for the transfer of income to the less developed rural areas of the island.

The Project is subdivided into three investment categories namely productive, social, and institutional.

2.1. Productive investments.

Such investments aim at developing the region's water resources, opening up of new agricultural lands in sloppy mountainous regions of the Project area, through terracing, and the construction of an extensive village and farm roads network. More specifically the following are provided for :

2.1.1. Development of the region's water resources to irrigate some 1,150 hectares through the following schemes :

- a— Construction of a dam at Xyliatos with a capacity of 1.3 million cubic metres to irrigate 300 hectares.
- b— Construction of some 20 ponds with a total estimated capacity of 1.7 million cubic metres for the irrigation of about 400 hectares.
- c— Development of some 20 boreholes with a combined yield of 1 million cubic metres to irrigate about 300 hectares.

With the completion of the above schemes the irrigated area in the Project region will increase by 80 percent.

- d— Rehabilitation of existing minor irrigation schemes to irrigate 150 hectares



A total area of about 300 hectares will be irrigated in the Project region from some 20 boreholes drilled with heavy rotary drills.

Potatoes, vegetables, deciduous fruit trees (mainly cherries and to a lesser degree peaches, plums and apples), table-olives, table-grapes, citrus and almond trees are the most important crops to be grown in the new irrigated areas.

Generally speaking, work progress as regards the irrigation component has been so far satisfactory considering the pioneering nature of the Project and the technical, administrative and institutional problems which emanated thereto.

Briefly, it can be stated that the irrigation works so far completed together with those which are under construction, as described herebelow, cover a total area of 965 hectares i.e. 84% of the Project target and it is expected that the Project provision as regards the irrigation sector will be fully met. The total capacity of the water sources (Xyliatos dam, ponds, boreholes) of the schemes under construction is 3,150,000 cubic metres or 78% of the Project total water sources of 4 million cubic metres planned for the development of new irrigated areas.

More particularly as regards work progress in the irrigation sector the situation is as follows :

- (a) The Xyliatos dam is well under construction and it is planned that about 80 hectares will be irrigated in spring 1982 and the remaining 220 hectares late in the year.
- (b) Twelve ponds and one arch dam are under construction at various stages, to irrigate about 300 hectares in 1981.
- (c) Ten boreholes are being developed to irrigate 195 hectares in 1981.
- (d) Finally a number of minor irrigation schemes covering 170 hectares have been rehabilitated.
- (e) Meanwhile feasibility studies for eight pond irrigation schemes have reached an advanced stage and constructional works, with regards to the economically feasible ones, are planned to start in Summer 1981 together with a number of borehole irrigation schemes for which pumping test results will prove positive.



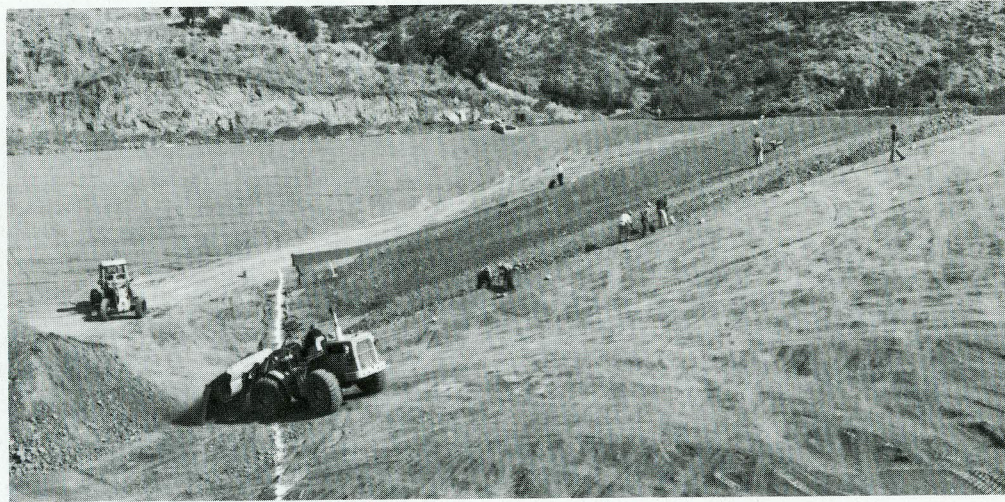
Construction of Xyliatos dam is well under way. Construction of a 110 metres long diversion tunnel (photo) and of the coffer dam has been completed while all other related activities are in full progress with the aim impounding to be effected early in 1982 and scheme completion by the end of the same year. The dam has a capacity of 1.3 million c.m. and will irrigate 300 hectares.



Khandria pond : capacity 70,000 c.m.



Partial view of Eftagonia No. 1 pond : capacity 92,000 m³



Constructional details at Eftagonia No. I pond (lining of P.V.C. membrane).



Pelendria pond : capacity 123,000 c.m.

The Project provides for the construction of some 20 ponds, with a total capacity of 1.7 million m³ of water for the irrigation of 400 hectares.



Melini pond : capacity 58,000 c.m.



Ayii Vavatsinias arch dam and pond under construction. Both schemes have a total capacity of 108,500 c.m. A joint irrigation distribution system commands an area of 24 hectares.

2.1.2. Construction of soil conservation works (mainly bench terracing by heavy crawler tractors) on about 2,550 hectares. This area is by 50 percent larger than what had been covered in Pitsilia with soil conservation works during the preceding ten years. The rainfed land (1,735 hectares) to be bench terraced will be planted mainly with improved wine making varieties of grapes (1,500 ha) and to a lesser degree with almond and olive trees.

Bench terracing has so far been completed on 670 hectares i.e. 26 percent of the Project target has been achieved. The delay which has occurred is due entirely to the non availability of an adequate number of crawler tractors needed for the purpose. To this end proper steps have been taken and the work is planned for completion by 1983 (i.e. a year's delay from the original target date)

2.1.3. Land consolidation on 433 hectares in areas which will be irrigated from the Xyliatos dam and the major ponds and boreholes. The above area is four times larger than the total area so far consolidated in Pitsilia.

Land consolidation is almost completed on 153 hectares and completed up to 70% on 280 hectares.

2.1.4. Construction of about 300 kms of farm access roads. Such a scheme by far exceeds any scale of investments for the purpose anywhere in the Island.

Work progress has been very satisfactory and both the villages authorities and the farmers whose properties have been adversely affected because of the construction of such roads, have cooperated fully with the Project authorities. Consequently 240 kms of farm roads have already been constructed and another 60 kms will be constructed in 1981 in the Xyliatos land consolidation area. Total cost will be £560,000 as originally provided for in the Project cost estimates.

2.1.5. Development of on-farm water distribution and water use systems on about 1,000 hectares. Work progress has so far been negligible as the first irrigation schemes have just been completed and planting will be effected in 1981. Establishment of on-farm water distribution and use systems follows planting.

2.1.6. Provision of credit for incremental working capital, agroprocessing industries, livestock, agricultural machinery, and beekeeping development.

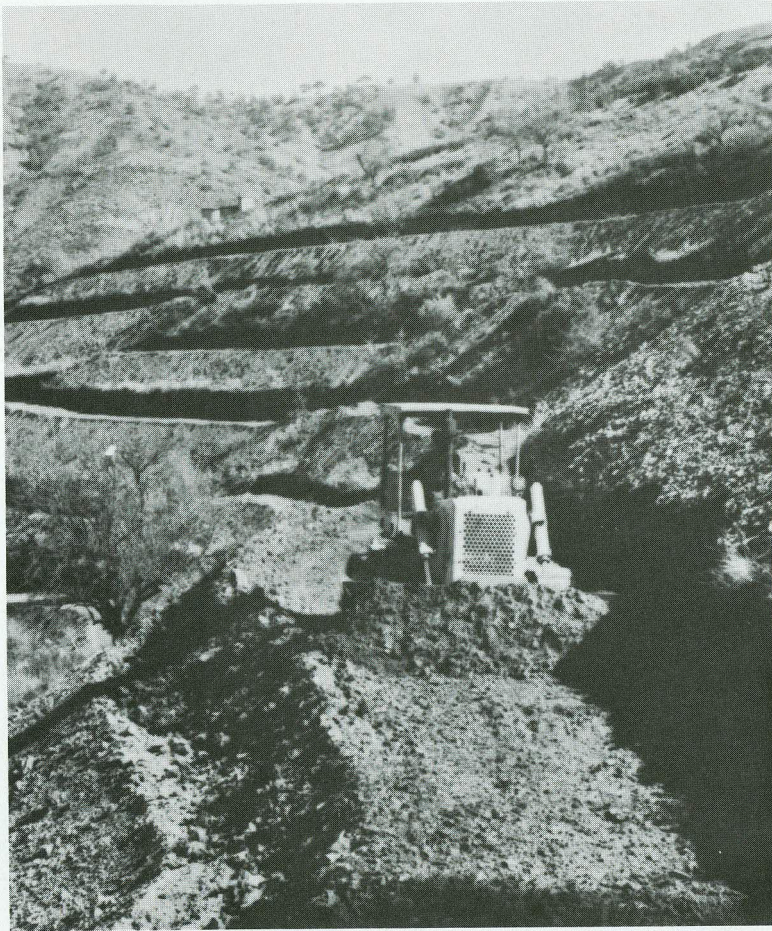
Issue of loans to interested farmers is in progress and priority is given to beekeeping, meat processing industries, and almond shelling machines. It is expected that the issue of loans for incremental working capital, the purchase of farm machinery and implements (tractors, sprayers etc), the establishment of a milk processing unit, and the development of livestock (sheep and goats) units will be initiated in 1981.

2.1.7. Upgrading of about 50 kms of village roads connecting different villages of the region.

Construction of 13.5 kms of village roads has been completed and constructional works are in progress for a total length of an additional 15 kms.

As a consequence of the above described productive investments in addition to increased agricultural production, productivity of the new agricultural lands will increase substantially (about five times compared to the productivity of the existing agricultural lands in the area) and production cost will be reduced appreciably as a result mainly of mechanization of the agricultural production and more efficient transportation of agricultural inputs and outputs.





Bench terraces with heavy crawler tractors have been constructed on 700 hectares and by the completion of the Project another 1,870 hectares of such terraces will be constructed.

In 1981 the total Project provision for the construction of 300 kms of farm and farm access roads will be met.

Such bench terraces and farm roads allow for the development of hitherto unproductive lands, the mechanization of the agricultural activities and the substantial reduction of production cost.



Arakapas—Eftagonia road—completed.

The development of the village roads connecting network is one of the major investment Project components.



Improved (paved) streets at Kalo Khorio and Ayios Ioannis villages. Upgrading of village streets is one important Project social component aiming at improving the standard of living conditions in the villages.



A view of the Kyperounda Sanatorium, which has been converted into a conventional hospital to provide for a 50 bed in-patient facility. A modern surgical theatre and outpatients examination rooms have also been constructed.

2.2. Social Investments.

- 2.2.1. In the Education Sector, the Project provides for two central elementary schools (one at Kalo Khorio and the other at Alona) to be constructed by consolidating about 12 small schools, to provide better educational opportunities to about 500 pupils.

It is expected that constructional works for one (Kalo Khorio) of the two central elementary schools will start soon, while administrative arrangements are made by the Ministry of Education with regards to the second school (Alona) where other communities claim the construction of the school within their areas.

- 2.2.2. In the Health Sector, the Project provides.

- a. Part of an existing sanatorium at Kyperounda to be converted into a conventional hospital to provide for a 20 bed in-patient facility.
- b. An existing rural hospital at Agros and a rural health centre at Palechori to be upgraded and three new rural health centres to be established at Kalo Khorio, Kato Amiandos and Pelendria.

All Project obligations regarding the health sector have been fulfilled and efforts are being made to put the hospitals and the health centres into full operation. Following a very favourable reaction on the part of the people of the region the capacity of the Kyperounda hospital in-patient unit has increased to 50 beds and an additional 4-bed in-patient unit has been created at Agros rural hospital.

- 2.2.3. Domestic water supply facilities to be upgraded in those villages where such facilities are inadequate, with the aim to provide house to house water supply in all villages of the Project area in quantities per capita comparable to those of the urban centres.

The domestic water supply facilities of eleven villages have already been upgraded. Additionally studies and designs for the improvement of the domestic water

supply of six villages have been completed and constructional works will commence during the year. Consequently plans will be developed for another three villages.

- 2.2.4. Upgrading of about 20 kms of existing villages streets. This has already been completed and additional expenditure over and above the Project's provision has already been effected for further improvement of village streets following persistent demands from the villages concerned.

2.3. Institutional Investments and Studies.

- 2.3.1. Reorganization and strengthening of the Agricultural Extension Service in the area and upgrading of the Veterinary Services at Agros and Palechori. For this purpose the Project provides for the appointment of generalist agricultural extension staff, specialists, and assisting personnel, as well as veterinary and para-veterinary staff, and the construction at Agros of a Farmers Training Centre, with a boarding capacity of 20, for the intensive training of farmers and farm women of the area on agricultural and home economics subject matters.

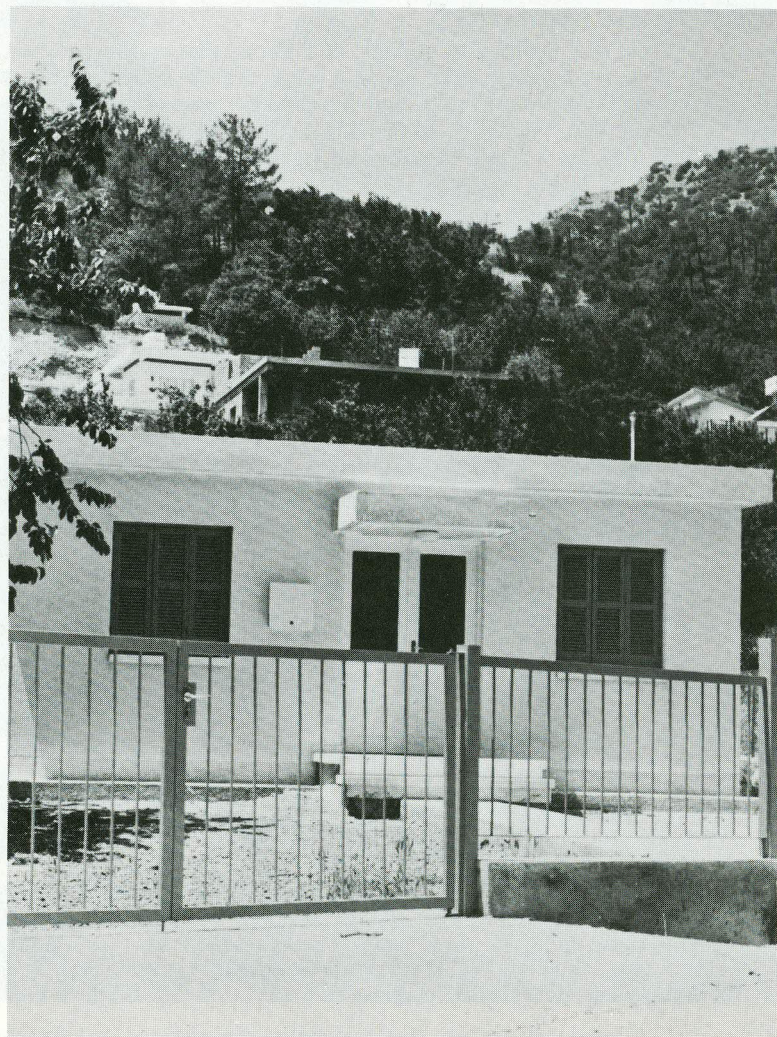
Constructional works for the Agros Farmers Training Centre and the offices of Veterinary and Extension Services started in 1980 and are expected to be completed by 1982.

- 2.3.2. Provision is made for applied research on specific agricultural problems in the Project area, such as production of potato seed, introduction of new horticultural trees and crops etc. Such research is carried out in many localities of the Project area and in five experimental vineyards established in the region for the purpose.

- 2.3.3. In cooperation with the World Bank and other international Organizations several studies will be conducted to assist the government of Cyprus in the fields of agriculture and rural development.



The Agros rural hospital.



The health centre at Kato Amiandos.

One such study, namely the evaluation of the agricultural financing system in Cyprus, has been completed and a second one concerning the monitoring and evaluation of the Project's effects will be initiated in 1981.

2.4. Project Costs.

A general description of the productive, social, and institutional investments has been given in paragraphs 2.1—2.3. Project cost estimates and expenditure in Cyprus pounds up to the 31st December 1980 are given in the table herebelow :

S/N	Schemes	Cost Estimate	Expenditure up to 31/12/80
1.	Xyliatos dam and distribution system	860,000	278,790
2.	Ponds, boreholes and distribution system	2,980,000	875,499
3.	Soil conservation works in the new irrigation schemes areas	510,000	6,981
4.	On-farm water distribution and irrigation systems	550,000	2,788
5.	Minor irrigation rehabilitation schemes	200,000	121,027
6.	Soil conservation dry-land areas	1,140,000	213,290
7.	Farm access roads	560,000	381,708
8.	Village roads	540,000	531,939
9.	Village streets	160,000	178,998
10.	Village water supply	230,000	95,474
11.	Health sector	120,000	110,730
12.	Schools	250,000	-----
13.	Agricultural and Veterinary Services	105,000	25,877
14.	Agricultural research	64,000	25,636
15.	Consulting services	54,000	14,463
16.	Credit for agro-processing machinery, livestock and incremental capital	427,000	5,060
	TOTAL	8,750,000	2,868,260

IV. Project Implementation, Administration and Related problems

Most of the schemes which are implemented within the framework of the Pitsilia Integrated Rural Development Project come under the jurisdiction of the Ministry of Agriculture and Natural Resources and mainly under the Departments of Water Development, Geological Survey and Agriculture. Agricultural research is conducted by the Agricultural Research Institute of the said Ministry. A substantial part of many schemes is implemented by the Ministries of Communications and Works, Education, Health, and Interior, mainly by the District Administration of Nicosia, Limassol and Larnaca districts. The cooperative movement plays a major role in handling the credit component of the Project to participating farmers through the existing institutions such as the Cooperative Central Bank, the village cooperative societies etc. Furthermore the cooperative movement has a major role to play as regards marketing and handling of the agricultural products to be produced in the Project area. Finally the Ministry of Finance and the Planning Bureau are extending their support during the different stages of Project implementation.

A Project Policy Committee has been established for planning, coordination, follow up, and evaluation of Project activities. It is composed of senior officers from all Ministries and Services involved in Project implementation and it is chaired by the Minister of Agriculture and Natural Resources.

The coordination of the Project activities carried out by the different Ministries and Services has been vested with the Project Coordinator and the Assistant Project Coordinator. These two officers are also the liaison officers with the World Bank. The first is the Director-General of the Ministry of Agriculture and Natural Resources and the second a senior officer of the same Ministry specially seconded for the purpose.

Seven coordinating working committees have also been established composed of senior officers from the different Ministries and Services involved in Project implementation. These committees are chaired by the Assistant Project Coordinator, who is the *de facto* Project Manager, and they deal with coordination matters, detailed planning, follow up, and evaluation of Project activities.

Farmer's participation in Project implementation is very active and it takes many forms ; in the approval of all irrigation and land

consolidation schemes, in the establishment of soil conservation divisions for bench terracing the areas to be irrigated, in the running and maintenance of all irrigation schemes, in the financial contribution towards meeting the cost of most Project schemes (15—50 percent of the cost with the exception of the health sector where the total cost is borne by the government). Medium to long term loans at concessionary terms are issued for the purpose to the participating individual farmers or group of farmers (irrigation and soil conservation divisions) or to the communities concerned.

When giving an account of problems faced with during Project implementation, reference should be made to the following five fundamental prerequisites which are essential for the success of any Integrated Rural Development Project :

- a. Involvement of the rural people concerned.
- b. Availability of adequate and reliable data
- c. Availability of know how
- d. Availability of capital resources
- e. Proper administrative set-up, which would allow for the decentralization of the decision making process and for the delegation of responsibility to the Project policy making and executive bodies.

In the case of Pitsilia Integrated Rural Development Project the first four prerequisites have been adequately secured. As regards Project administration and implementation it is a widely accepted fact that rural development projects, because of their cross-sectoral nature, are indeed the most difficult to administer. To this end two options are available ; either

- (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, and/or would be newly appointed if it is not available or
- (b) to establish a Project Unit staffed with the minimum number of personnel, with the primary aim to coordinate the activities of the relevant Ministries and Services, to establish Project implementation priorities, and for follow-up and evaluation.

Both options have their own merits and drawbacks. Development of a negative approach towards such projects by some government services is sometimes the basic argument against the first option, but it is a generally acknowledged fact that whenever strong Project Units have been established, they have become key elements of success with regard to the implementation of the relevant projects, and they have contributed substantially to the development of very efficient and effective nuclei of government services capable of dealing with complex, multisectoral problems and activities which warrant vigorous approach and swift action. On the other hand there are widespread problems in project implementation emanating mainly from lack of proper administrative structure due to the existence of a rudimentary project unit and the multiplicity of sources of command and decision making authorities.

With Pitsilia Integrated Rural Development Project the main problem areas may be classified into three categories as follows :

1. Technical engineering and agricultural problems encountered for the first time, a situation which was expected in many respects since the inception of the Project, mainly as a result of its pioneering and innovative nature.
2. Administrative problems emanating from the need to follow established government administrative procedures and the inadequate delegation of responsibility and decision making to the Project policy and executive bodies.
3. Coordination and administration problems resulting from the very loose staff relationship between the Project Unit and the numerous technical, administrative and auxiliary staff involved in Project implementation. The above despite the good will and the very favourable sense of cooperation shown by the overwhelming majority of Ministries, Services, and individuals involved in Project implementation. Nevertheless planning, coordination, follow-up, and evaluation of Project activities by the Project Unit is a very tedious process, very often unproductive, due to the non-availability of direct line of command between the Project Unit and the executing agencies and the existence of a large number of decision making authorities of the cooperating agencies.

V. Project Economic, Social, and Demographic Impact on Pitsilia.

It has been estimated that at Project's full maturity :

1. Per capita income in Pitsilia will double as a result of
 - 1.1. increased employment opportunities to be brought about through the creation of 2,000 additional permanent jobs in agriculture. This constitutes an increase of more than 30% regarding availability of total employment opportunities in the agricultural sector in the region. In addition to such a direct effect on employment the Project is expected to generate a variety of indirect chain effect on many agricultural supporting activities, in the transport and communication sector, in the services sector etc;
 - 1.2. increased production and productivity ; and
 - 1.3. lower production cost
2. Health, education, rural domestic water supply, and other social and environmental conditions in the region, such as government services and village streets, will improve substantially following Project implementation and would compare favourably with those prevailing in the urban and the more developed rural areas of the Island.
3. The above would be the main positive effects of the Project on the region which would contribute towards the welfare of the local population. Such a situation is expected to contribute positively towards the success of the government policy aiming at curbing the present depopulation trends in the region. Concurrently the current increase in land prices in the urban centres for housing, a situation which renders such land inaccessible to the great majority of the low income rural population of the region, acts as a deterrent to emigration from the region. Signs of such effects are already evident in many villages of Pitsilia region, where many newly married couples build their homes and live in their villages and commute daily to the towns for employment purposes.
4. The Project is expected to have a distinct effect on commuting. Commuting of the economically active population from Pitsilia, mainly to Nicosia and to a lesser extent to

Limassol, is a distinct characteristic of the area which has lately acquired increased importance.

Recent (1977) statistical data, compiled by the Department of Statistics and Research show that 40% of the economically active population commute daily from the region in connection with their employment. Nicosia town is by far the most important centre to which commuting is effected. To the above figure high school students commuting to their schools are not included. Compared to the total population of Pitsilia the daily commuters from the region (including 2.8% who commute to nearby mines) reach 25 percent.

As a result of the creation of additional employment opportunities and better living conditions in Pitsilia region, the Project is expected to contribute substantially towards curbing the existing depopulation trends and increasing the percentage of the productive age group (15 to 59 years of age) through the creation of employment opportunities and improving the quality of life in the region.

The above coupled with an improved trunk and village roads network connecting Pitsilia region with Nicosia and Limassol towns, are expected to have a favourable effect on commuting, albeit distinctly different from to-day's, as well as on the availability of labour force to cater for the additional labour requirements in the Project area. In other words improved living conditions in Pitsilia and ease of access to the two towns are expected to generate a negative effect on emigration and to develop a trend for regular, partial or seasonal commuting to the urban centres for earning an additional income. On the other hand commuting of people from Pitsilia who have already migrated to their villages to develop and run their agricultural properties would be facilitated. Such activities are bound to generate direct agricultural and indirect service income to the region.

The 1977 census of agriculture has shown that 26% of the economically active population of the region are fully engaged in agriculture. With the present full employment conditions, and at times of overemployment, the additional labour demands in the Project area are expected to be met mainly through increased labour productivity and through savings in time spent for com-



A major component of Project investment aims at improving living conditions in Pitsilia. Picture shows a square at Arakapas village constructed by Project funds.

muting which presently amounts to 4—5 hours daily per person. Part time farming, which is presently exercised in 57% of the agricultural holdings in the region by 37% of the farmers, is expected to acquire increased importance with the Project and the conditions that would develop following the upgrading of the road network in the region, as well as to and from the region.

In concluding it can be stated that the Pitsilia Integrated Rural Development Project will have considerable effects on the welfare

of the population of the region, through the creation of increased employment opportunities and additional income, and through upgrading the environmental and social conditions of the region. The Project is expected to contribute substantially towards curbing the depopulation trend and when supplemented with improvements in the trunk roads network to increase commuting to the region, to improve commuting conditions, and to increase availability of labour force through increased productivity and savings in commuting time.





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General view of Melini pond.

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