

PN-ABG-218

**DES CHANTIERS REGIONAUX DE DEVELOPPEMENT:
AN EVALUATION**

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**DES CHANTIERS REGIONAUX DE DEVELOPPEMENT:
AN EVALUATION**

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EXECUTIVE SUMMARY

Background

The Government of Tunisia (GOT) has been undertaking a major Structural Adjustment Program. In the long run, it will lead to increased economic growth. However, in the short run it is expected to reduce employment in some important sectors of the economy. Unemployment has been further aggravated by an extremely severe drought during 1988 and 1989. In order to alleviate the hardship caused by this unemployment, the Government has expanded its Programme des Chantiers Ruraux de Developpement (PCRD). Between 1987-1989, the U.S. allocated \$57 million (equivalent) from PL 480 local currency funds to expand this program above the 25,000 jobs previously planned by the GOT. The objective was to provide a substantial income safety net to the poorest of the unemployed.

PCRD activities are identified at the local level (governorate) and include forestry works (31 percent) desertification control (10.1 percent), soil and water conservation (30.8 percent), improvement and maintenance of public works (9.4 percent), improvement and maintenance of archaeological sites (0.7 percent) and refurbishing of unsound buildings and the school building program (8.0 percent). Most activities are implemented by the Department of Agriculture; the rest are implemented by the municipalities and the Departments of Health and of Education. To maximize the employment impact of the program, 80 percent of the PCRD budget is used to finance the salaries of unskilled workers. The remaining amount is allocated to skilled labor and other complementary inputs. Daily wages of D2 and D3 are paid to unskilled and skilled labor, respectively.

Consistency with Objectives

The program is consistent with the basic objective of acting as a safety net for unemployed workers. Almost 85 percent of rural chantiers workers and 70 percent in the urban areas come either from the agricultural sector or from industry and construction. The agricultural sector has been affected by the drought, while the other two have been affected by the demand reductions induced by the Structural Adjustment Program. Since the initiation of the program, about 40,000 jobs have been created giving support to more than 100,000 families.

Reaching the Destitute

The Program reaches the poorest among males via a rotation system that gives most of the unemployed the opportunity to work. The frequency of rotation is directly proportional to the demand for jobs. The level of poverty is the most significant criterion for eligibility in the program. Over 90 percent of chantiers workers are unskilled old and young people with at most a primary education. This figure, along with the fact that a very large number of people are willing to work for a price below the acceptable minimum of previous years, are indirect evidence of the proper targeting of the PCRD.

Cost Effectiveness

It is difficult to judge the cost-effectiveness of the Program directly. In addition, different pieces of evidence yield contradictory results. For example, comparisons with norms established by the GOT for specific actions show a great

assortment of results, only partly explained by definitional problems and inaccurate reporting. In the opinion of experts who visited several chantiers during 1988, the projects can be considered generally cost-efficient. Yet, whenever a farmer can choose between the PCRDR labor-intensive technique and a relatively more mechanized one, he chooses the latter for its lower cost. Even when evaluating the cost of the task at shadow prices, the mechanized approach would still be cheaper. However, it should be noted that a program designed to become a safety net for the poor unemployed cannot simultaneously pretend to maximize productivity, though compatibility is possible.

Program Size

Given the extent of unemployment, the Program cannot absorb all unemployment and was not created to do so. Nevertheless, in 1988 it absorbed about 20 percent of total unemployment. Further, its rural component, the most significant, is well integrated into other regional and national programs of development of the Department of Agriculture. Urban chantiers are in accordance with their priority actions.

Self-Elimination

To the extent that the main objective of the Program is to provide a safety net for the highest number and not to obtain the highest productivity per dollar invested, the PCRDR is not designed to be self-eliminating. However, the Program helps to create conditions for partial self-elimination with the creation of permanent jobs (i) in forestry projects, through the maintenance of fodder shrubs and pasture land, animal production, and maintenance and exploitation of forests; (ii) in soil and water conservation works, through agriculture land recuperation and increased productivity, and in quality of fruits and cereals. About one thousand permanent jobs may have been created in these two sectors, while an equal number may have been consolidated.

The Program and the Private Sector

The Program directly supports the private sector and it stimulates that sector to take on some actions of the Program. The former occurs through unrequited transfers to the private sector. A large part of soil and water conservation activities can be considered unrequited transfers. The transfer is nonexistent in the urban sector.

An implicit objective of the PCRDR is to create permanent employment in the private sector. The Program has been conducted coherently, having created permanent jobs on farms in rural areas. The concomitant action by the private sector of hiring chantiers workers has been limited so far, because the productivity of chantiers workers is low. Furthermore, the relatively inflexible labor legislation impedes private sector hiring.

Recommendations

Although PCRDR performance has improved since its inception, the Program can only improve further if additional efforts are made in specific areas, which are briefly discussed below.

Reaching the Target Groups

- (1) The practice of paying wages over the market wage rate should be stopped. In some chantiers, daily wages in excess of the market wage rate are paid to chantiers workers using funds from municipalities and other sources. This practice lessens the incentives to look for permanent jobs elsewhere. If this practice does not stop, projects should be taken out of the program where this occurs.
- (2) Chantiers programs for women should be established.
- (3) Rotations should be kept in line with unemployment pressure.
- (4) The share of financing for urban activities should increase.
- (5) The geographical distribution of PCRDR activities should be made in accordance with the unemployment distribution.

Improving Cost-effectiveness

- (6) Project evaluation techniques, training, supervision and extension should be strengthened. Overall cost-effectiveness can be improved without changing the nature of the program. Follow-up procedures, which are almost nonexistent at the moment, should be developed. Training and supervision should also improve in quantity and quality. In addition, more and better extension into the community would increase participation that would help to sustain chantiers activities (particularly soil and water conservation activities).
- (7) Efforts should be made to improve the image of the chantiers, particularly in urban areas. The interest of the population determines the choice of projects, particularly in urban areas. Cost-effectiveness will also depend on the maintenance of the project. Regular financing in the public institutions' budget will be required.
- (8) Analysis and dissemination of on-going experimentation in chantiers are required.

Linkages to the Private Sector

- (9) Priority should be given to "brigades mobiles" and the creation of small enterprises in urban areas. This will require more technical assistance and a revamping of schemes like FONAPRA to allow it to lend working capital.
- (10) The creation of permanent employment in rural areas from PCRDR activities would gain much from better knowledge of the benefits derived from specific forestry and soil and water conservation activities. Gains could be derived by using alternative techniques for similar works in different regions. This has not been done to date.

Other Recommendations

- (11) The information collected should shift from an input to an output, or project, orientation. Lags in the bi-quarterly remittance of basic information on projects financed by PCRDR should be shortened; perhaps credits could be

allocated to the governorates subject to the timely remittance of that information. Information on workdays and financing should be presented on a more consistent basis.

- (12) Integration of the chantiers administration with the institutions in charge of employment policies would be welcome. The program management would gain by increasing its integration with relevant government institutions.

The Longer Term

In the longer term, the best employment policy is that which supports the creation of permanent jobs. The adjustment process to a significantly improved situation will require a safety net. Welfare and efficiency considerations do not necessarily coincide during this adjustment process.

The Program was conceived to provide a safety net to people unemployed as a consequence of the SAP and the drought. The Program can be justified in the future for the same type of reason, namely, a large unexpected event affecting an important sector such as agriculture. Unemployment resulting from the SAP requires other types of actions. The chantiers should play a secondary role in this case, because other safety nets exist for workers displaced by the SAP, such as social security and special reconversion funds.

On the other hand, seasonal unemployment related to the agricultural cycle is fully anticipated and should be dealt with by increasing productivity. This would allow farmers to create their own safety net. Finally, the rapid growth of the labor force for demographic reasons requires a review in depth of the whole education and training system to face the challenge of that explosion.

The PCRDR, in its current form, creates permanent jobs directly through support to farmers, and indirectly through on-the-job training. However, this impact is quite limited. On-the-job training requires basic skills which are absent in today's workers. Most of the unemployed are unskilled people. Consequently, the eradication of unemployment is partly dependent on the acquisition of skills, complemented by on-the-job training.

The future of any USAID program to alleviate poverty should strongly consider a skill learning and entrepreneurship training program within the context of the national training policy. The Office de l'Emploi et de la Formation Professionnelle, with World Bank support, has prepared a project along these lines. The training aspects could be improved through USAID finance of a program focusing on development of specific on-the-job training centers in special chantiers.

The safety net will be required for a long time, though its relevance may diminish with the disappearance of the drought and the upsurge of the economy. Financing of this activity should be maintained, but should shift in priority in favor of training, extension, and supervision. One practical outcome of this recommendation is the probable need to split the Program into two different parts: one related to the safety net within the CGDR and the other to the training component.

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1.0 BACKGROUND

The Government of Tunisia (GOT) is undertaking a major Structural Adjustment Program (SAP) designed to reduce the budgetary and trade deficits and to improve Tunisia's competitive position in world markets. The program includes measures to increase exports; to make local industry more competitive; and to reduce subsidies. It constitutes a general fiscal austerity program. In the long run, these and other actions will lead to increased domestic production and exports, and thus, to an improvement in economic growth. However, in the short run, the policy reforms are expected to curtail certain operations and reduce employment in many sectors.

In order to alleviate the unemployment associated with the SAP, the Government has expanded its Programme des Chantiers Regionaux de Developpement (PCRD). The employment situation was further aggravated in 1988 by a severe drought that continues in 1989. Between 1987 and 1989, the U.S. allocated \$57 million (equivalent) from PL 480 local currency funds to expand this program above the 25,000 jobs previously planned by the GOT. The first of these funds became available in the fourth quarter of calendar year 1987.

A first evaluation of U.S. assistance to the chantiers program conducted in April-May 1988 focused on (1) providing quantitative estimates of the results achieved, particularly in terms of employment; and (2) providing the basis for improvement in operation and monitoring of the program. The evaluation concluded that the program was achieving its objectives.

A second evaluation has been recently carried out. The objectives of this evaluation are as follows:

- (1) to assess the cost-effectiveness of the program in terms of output achieved or to be achieved;
- (2) to identify the characteristics of the beneficiaries of the chantiers program; especially to assess skill levels and prior training/experience of a sample of workers;
- (3) to measure employment generation and the physical output generated;
- (4) to review the rural/urban character of the program and make recommendations for urban based work;

- (5) to make recommendations for improvements in operation and monitoring of the program.

Results are based on discussions with staff, GOT officials, and representatives of the private sector, and on visits to more than 40 chantiers scattered among nine governorates.

1.1 Current Unemployment Situation

The Chantiers Program was designed to alleviate unemployment. The last registered unemployment rate was 14.8 percent for 1988. However, despite a marked improvement in manufacturing and tourism-related employment, unemployment has continued to rise. Currently, more than 350,000 people are unemployed. This official figure substantially underestimates the actual number of unemployed, partly because there is significant under-reporting in the rural areas.

Long-term trends help to explain this rate of unemployment. Labor force growth rates have been high. There has been a significant increase in the number of younger workers entering the labor market. Labor legislation and high effective protection have stimulated capital intensive investments by the public and private sectors. Employment generation has thus been below what it would have been in the presence of a more neutral structure of incentives.

Unemployment has also been fueled by short term factors. The SAP required a reduction in the GOT investment budget and a tightening of loan conditions for housing, causing a sharp decline in Tunisia's third most important industry, construction. It is likely that over 70,000 laborers, mostly urban and unskilled, have been thrown out of work in the construction industry. In addition, some parastatal and private companies have been under pressure to improve their efficiency. This has resulted in additional deterioration of the employment situation in cities and has fueled social discontent.

Since 1987, poor families have been adversely affected by the food subsidy reduction and by the increase in unemployment among unskilled workers. A severe drought in 1988 reduced agricultural productivity and exacerbated the usual seasonal pattern of rural unemployment/underemployment. The continuation of the drought during 1989 has compounded rural unemployment/underemployment. Migration to

cities has increased as a consequence, generating additional urban unemployment and social unrest.

Unemployment will eventually be reduced through increased investment and GDP growth. Both are expected to improve in the near future. However, their full impact on reducing unemployment will take a few years to be realized. To avoid unnecessary human suffering and political instability in the meantime, the GOT decided to increase its support to unemployed persons by expanding its Chantiers Program. Given the severe budgetary constraint imposed by the SAP, financing for this effort came from USAID.

1.2 The Program

1.2.1 Main Features

The basic objective of the PCRDR is to provide a safety net to unemployed workers in exchange for productive work on priority public projects. The program is part of a wider Programme de Développement Rural (PRD) managed by the Commissariat Général de Développement Régional (CGDR).

PCRDR activities are identified and evaluated at the local level (governorate) and subsequently discussed with the CGDR. The PCRDR budget is determined by the U.S. authorities in agreement with the GOT and transferred to CGDR for its management. The local funds counterpart of the PL 480 finances the PCRDR.

Allocation of resources among governorates and project selection are made according to the following criteria:¹

- unemployment level in the governorate;
- employment impact of the project;
- amount of credit allocated to the Chantiers in the regional development program;

¹ From E. Costa, Consultant Report on the Operation and Results of the Chantiers de Développement Program, May, 1988.

- percentage of utilization of credits available to the governorate within the regional development program;
- the economic return of the projects, whenever available.

Although most of these criteria are reasonable, the economic rate of return often cannot be calculated, because the necessary information is lacking. Most projects pass the acid test of cost-benefit analysis with perhaps one exception². Two other chantiers visited invite additional comments. One is the fishing port of Sfax, where chantiers workers are used for maintenance due to lack of budget for maintenance. This port renders services to successful fisherman who are only charged a nominal payment in return. The other case is the use of chantiers to build the police guest quarters of Skaleba.

PCRD actions are divided into four categories: forestry, soil and water conservation, maintenance of public buildings, and other activities, which include archaeological sites and surface wells. Forestry and soil and water conservation activities are implemented by the Department of Agriculture. The remaining activities are implemented by municipalities, the Departments of Health and Education, the National Institute of Archaeology, and the Department of Tourism.

1.2.2 Activities

The following types of activities have been financed by the program (see Table 1 and Tables A-1, A-2 and A-3 in Appendix for details).

Forestry: planting trees and hedgerows, forest maintenance, reforestation and anti-desertification works, planting cactus and acacia for animal feeding, forest road maintenance, nursery works, etc;

Soil and water conservation: land leveling, terracing of hillsides, construction of rockfill gabions or concrete filtering dams, river diversion works, soil-fixing through planting, digging and maintenance of surface wells, construction and maintenance of rural tracks and roads;

² This exception is the "nappes alfatieres." Since the objective of this project is to provide inputs for the cellulose industry of Kasserine, the evaluation should also include cellulose production since this industry has lately suffered serious setbacks.

Table 1. PCRD Program. 1987-1988

Type of Project	1987		1988		Total	
	D Million	%	D Million	%	D Million	%
Forestry	1.3	28.9	4.9	34	6.2	32.8
Soil and Water Conservation	1.6	35.5	4.0	27.8	5.6	29.6
Maintenance of Public Buildings	1.2	26.7	3.3	22.9	4.5	23.8
Other	0.4	8.9	2.2	15.3	2.6	13.8
Total	4.5	100	14.4	100	18.9	100

Source: CGDR

Improvement and maintenance of public works: urban water and sewage systems maintenance, street and sidewalk improvement, public buildings maintenance;

Other: improving and maintaining archaeological sites, resorption of unsound buildings, and participation in the school-building program.

1.2.3 Achievements

As measured by CGDR, physical achievements of PCRDR between the last quarter of 1987 and the end of 1988 look impressive (Table 2):

- planting 2775 hectares of forest trees;
- improving 2437 hectares of pasture;
- protecting and maintaining 7656 hectares of forest;
- protecting 827 hectares from desertification;
- improving 169 kilometers of forest roads and tracks and maintaining another 1608 km (fire-breaks);
- improving 14180 hectares of private land;
- treating 5291 hectares of river basins;
- other soil and water conservation activities on 8440 hectares;
- maintaining more than 30 km of sidewalks;

A large share of PCRDR actions are related, at least indirectly, to land maintenance, such as activities designed to prevent desertification and soil erosion.

The measures described above, however, do not accurately reflect the hectares effectively improved or saved, because several of these activities have to be carried out simultaneously on the same hectare, such as planting fodder shrubs and trees, land leveling, and the creation of windbreaks. Consequently, hectares treated by each activity cannot be simply added to estimate the effects of the program. The effective area improved or saved is then much less than the one indicated in the list of achievements. Data, when available, barely allow for the identification of inputs, much less of outputs. Even if information were to quantify the outputs (e.g.,

Table 2. Physical Achievements of PCRD, 1987-1988

Activities	1987		1988		Total	
	Workdays	Output	Workdays	Output	Workdays	Output
Forestry	300,492		1,462,460		1,762,952	
Planting	61,222	192 ha	645,158	2,583 ha	706,380	2,775 ha
Forest maintenance	65,276	1,896 ha	323,987	5,760 ha	389,262	7,756 ha
Planting fodder shrubs and pastures improvement	81,819	841 ha	284,360	1,596 ha	366,179	2,437 ha
Protection against desertification	39,889	154 ha	24,972	673 ha	74,861	827 ha
Creation and maintenance of brise-vents	4,685	16 km	39,670	335 km	44,355	351 km
Improvement forest road and tracks	24,500	49 km	32,610	120 km	57,110	169 km
Maintenance of roads and tracks	23,101	250 km	101,703	1,358 km	124,804	1,608 km
CES	387,747		1,429,940		1,808,687	
Terracing	145,057	2,324 ha	723,429	11,856 ha	868,486	14,180 ha
Treatment of river basins	141,774	1,001 ha	454,705	4,290 ha	596,479	5,291 ha
Strengthening of CES works	2,966	155 ha	177,462	4,054 ha	180,428	4,209 ha
Safeguard of CES works	88,950	4,889 ha	74,344	3,551 ha	163,294	8,440 ha

hectares saved or improved, cubic meters of water recuperated, etc.) would be preferable to obtain measurements of the additional production forthcoming from hectares improved by PCRDR activities. This would allow cost-benefit comparisons to be made with other chantiers programs and projects.

Most forestry and soil and water conservation activities undertaken by the PCRDR are usually part of larger projects. An effort should be made to present quantitative information on activities within the context of these projects. At the least, more appropriate units should be chosen for specific works: meters or cubic meters for terracing and gabions, number of bowls and surface wells as well as their output capacity, etc. Further, an approximation to an output-oriented presentation should be tested. This effort, important in forestry and soil and water conservation activities, may prove more difficult for urban chantiers. For the urban chantiers, information could improve if a relevant unit is defined for the activity--square meters for painting, for example.

The tables prepared by the CGDR that relate to financing are not consistent. There should be a more precise relationship between dispersed credit and number of workdays; currently, there is not. The quality and consistency of this basic information should be improved. Information releases should always carry a date of distribution and information sources should always be identified.

2.0 FINDINGS

The program meets the basic objective of providing a safety net for the poorest unemployed workers. That is, it hires a large number of the unemployed and these are among the poorest of the poor.

2.1 Employment Generation

To maximize the employment impact of the Program, 80 percent of the budget of the PCRDR finances the salaries of unskilled workers. The remaining 20 percent is allocated to skilled labor and other complementary inputs. Daily wages of D2 and D3 are paid to unskilled and skilled labor, respectively. These wages are lower than those paid in the labor market, but are higher than the reservation wage³ for many categories of labor.

The PCRDR has supported the SAP and has reduced the drought-related unemployment impact. Though it is difficult to divide the chantiers workers by source of unemployment (SAP, drought, etc.) and source of financing (PCRDR, PRD, PDRI, special programs, chantiers national projects), it is known that almost 85 percent of rural chantiers workers come from the agricultural sector and 70 percent of the urban chantiers workers come from industry or construction. The rural sector was affected by the drought; industry and construction have suffered contractions induced by the SAP. From the beginning of the program to December 1988, about 40,000 additional jobs have been created, giving support to about 100,000 families.

While the PCRDR has reduced urban unemployment, it is better designed to reduce drought-related unemployment. First, the PCRDR is a part of the rural orientation of regional development projects. Second, there is a relatively low share of financing available for urban chantiers (discussed below). Third, part of the SAP-related unemployment has its own safety net.

PCRDR actions are integrated into wider plans of development in forestry and soil and water conservation. PCRDR activities in these areas tend to be labor-intensive. In fact, technicians use the PCRDR to finance the most labor-intensive

³Minimum wage to induce someone to work.

component of a project. Materials and skilled labor wages are financed with other funds, such as PRD, PRDI, etc.

The PCRD has been extremely well received by GOT officials and even more so by governors, for whom it represents a political stabilizer. They believe it is an efficient tool to alleviate the social unrest that is a consequence of high unemployment. The high labor content fostered by the PCRD allows local authorities to focus on activities which are more labor intensive than other regional development programs like PRD or PDRI.

The justification for the Program will gradually disappear as the economy recovers or with the creation of additional permanent jobs. However, the seasonal pattern of unemployment of very poor farmers will still require some kind of safety net.

The creation of permanent employment requires some attention. The PCRD is not an inherently self-terminating program. It has, however, helped create permanent jobs in forestry and soil and water conservation projects; to this extent, the program is self-terminating. I estimate that at most 1000 permanent jobs have been created in these two sectors and an equal number may have been consolidated. This result implies an investment per permanent job of about D6,000, far below the D43,300 estimated as a national average in the Sixth Plan.

In urban areas, very few permanent jobs were created by the PCRD. At a maximum, 200 jobs may have been created in the 15 month period ending December 1988. This result represents an investment per permanent job equal to the average estimated in the last national plan.

To increase the number of permanent jobs created by PCRD, future project selection criteria should give more weight to longer-term employment opportunities that would exist after the project is completed. A follow-up of on-going projects should be carried out immediately to see how well they have done in this regard.

2.2 Profile of the Beneficiaries

The Program reaches its targeted population, the poorest males. Local authorities use a rotation system to give most of the unemployed the opportunity to work. The frequency of rotation is directly proportional to the demand for jobs. The departments present their labor requirements, in terms of skills, permanence, age, etc., to the local authorities. The village chief and a representative of the party select the chantiers workers.

Among the 40 chantiers visited, the rotation varied from two weeks to two years. The eligibility criteria most often used were degree of poverty, head of a family, age between 18 and 55, skill, importance of unemployment, and geographical provenance. The degree of poverty is generally the deciding factor. For example, in some governorates, as poverty and unemployment increased with the drought, the rotation increased from 2 to 3 per year to 5 in 1988. Most chantiers workers (91 percent) are unskilled old and young people that have not obtained more than a primary education. Additional evidence that the PCRDR is reaching its target group is that many people are willing to work for a wage below what was previously acceptable. Although some skilled workers feel exploited, it is my impression that the D2/day rate for unskilled labor is most welcome. However, the workers are pressing for a reduction in the frequency of rotation.

To evaluate the PCRDR and make recommendations for its improvement, a more precise knowledge of its beneficiaries was needed. A survey of 320 workers was carried out in 32 chantiers and 8 governorates. In each governorate, four different chantiers were selected, two related to soil and water conservation, one related to forestry, and one related to urban activities. Further, vehicle accessibility constrained the choice of chantiers. From each chantier, 10 workers were randomly selected from the available chantier workers list⁴.

The principal results of the survey are summarized below and are complemented by the consultant's observations in the field. The analysis is based on three aspects

⁴ The CGDR with USAID support prepared the survey questionnaire. It is available in Rapport d'Enquete, and is annexed to this evaluation. The survey results are also presented in this document.

of chantiers workers: age, education, and capital. Geographical origin and prior experience are also analyzed.

2.2.1 Age

Overall, slightly more than one-third of all workers are outside the legal working ages of 18 to 60. Youth represent a minority: no more than 6.3 percent in the urban sector, and even less in rural areas. Workers over 59 represent more than 30 percent. The age composition of the chantiers workers between 18 and 60 varies from the rural to the urban sector. The youngest group has relatively more weight in the urban sector while the eldest group has more weight in the rural sector. This is consistent with the hypothesis that more opportunities for better paid jobs are available in cities than in rural areas. On the basis of the above findings, one would expect the following:

- high urban unemployment among youth;
- lower urban unemployment for older workers than in rural areas;
- the youngest and oldest belonging to the poorest segments of society, where poverty is measured in terms of labor income. This is consistent with the life cycle theory of income. Although an insufficient indicator of the targeting ability of the PCRD, the age structure of chantiers workers is the first suggestion that the program is achieving its main objective.

2.2.2 Education

Levels of income and education are tightly correlated; the probability of unemployment is higher for the uneducated than for the educated. The survey shows that less than 9 percent of the population have received more than a primary education. Over 90 percent of the population have not received any formal professional training. Since most chantiers workers belong to the category of least educated, they probably belong to the poorest strata of the population.

The worrisome phenomenon of unemployment among the highly educated is limited. It is higher in the urban rather than in the rural sector. As expected, the level of education is higher in urban areas, because the education system is better and migrants to urban centers have usually received a longer formal education than average rural workers. With two or three exceptions, we did not find highly

educated people on the chantiers visited. The exceptions had been unemployed since leaving the university.

2.2.3 Capital

Non-human capital can be an important source of revenue. We found that 74 percent of rural chantiers workers were landowners while only 23 percent of workers in urban chantiers owned land. In other words, 61 percent of workers surveyed possessed some non-human capital. No information is available on other forms of non-human capital. This result would tend to cast doubts that the program's objective is being met, at least in the rural areas. However, there are several caveats.

First, 45 percent of rural workers have come to chantiers because of the drought, an indirect indication of low agricultural productivity and incomes during 1987-1989. Second, a high percentage of the rural sector had been looking for other jobs and came to the chantiers out of desperation. This suggests that their farm income, if any, was insufficient. Third, the average size of land holdings in the survey is 5.6 hectares which produces in a normal year an income barely adequate to feed the average Tunisian family of 6.⁵

Fourth, a much higher percentage of chantiers workers come from the construction sector relative to those who have professional training in construction. Only 2.8 percent of the chantiers workers have some training in construction while 24 percent come from the construction sector. This evidence that chantiers workers coming from construction are unskilled suggests that they were already receiving the lowest wages in that sector and were also more likely to be laid off in the event of an economic contraction. These types of workers belong to the lowest percentiles of the personal income distribution.

Consequently, the program is correctly targeted, at least during the period of the drought. The program may well be correctly focussed even in the absence of the drought to the extent that farm productivity is very low. This was observed in the

⁵ This excludes intensively cultivated lands, for example, under irrigation and under greenhouses.

areas visited. The program is well targeted for the 40 percent of those workers who are landless and who have no other form of non-human capital.

2.2.4 Origins

Most chantiers workers worked in agriculture (66.3 percent). In urban areas, half worked in construction. The second most predominant activity of origin is construction in rural areas and agriculture in urban areas. More than three-fourths of the population surveyed come from these two sectors. Their presence in the chantiers is consistent with the effects of the drought and seasonal fluctuations along with the SAP-induced reduction of aggregate demand affecting construction. A small but important share of the survey group were not identified by origin: 6.3 percent and 20 percent in the rural and urban sectors, respectively. The difference is explicable, since the unemployed are potentially more numerous in cities than in rural areas. These results provide a hint of the difficulty of accurately targeting a program according to an origin of unemployment criterion. On the whole, the program serves as a safety net for the drought and SAP-related unemployment, even if the eligibility criterion applied do not fully account for the origin of unemployment.

One would have expected to find a greater index of mobility in the urban rather than in the rural sector, that is, a greater share of workers coming from other governorates and foreign countries. Although there is some hint of this in the survey, the differences are small, since the representativeness of the urban sample is limited.

Other indications suggest that the chantiers clearly represent a safety net for those unable to find work. Half of the rural population and more than 77 percent of the urban population accepted work in the chantiers because they were unable to find other employment.

2.2.5 Other Characteristics

On average, 70 percent of rural workers have had two and one-half years of prior experience on the chantiers; this compares with 50 percent of urban workers.

This is because there is a longer history of chantiers in rural areas than in urban areas. The work span in the urban chantiers is longer (9.3 months) than in the rural sector (6.2 months). In the cities, it is customary to retain workers on chantiers until the work is completed. In the rural sector, workers often are hired for a predetermined time span.

More than 45 percent of chantiers workers continue to look for employment elsewhere. This does not imply that the majority are satisfied working in the chantiers. Rather, they miscalculate the degree of tightness in the labor market and their own limited abilities to find employment, given their age and skill levels. This is confirmed by the observed paucity of job promises.

The participation of women in the program is nil. The PCRD is not tailored to their needs and this finding indirectly reflects the acute masculine unemployment to which authorities give priority.

Another survey was taken during December 1986-January 1987 of unemployed workers. The survey's objectives were to analyze the attitude of job searchers with respect to chantiers and to identify the unemployed potentially interested in working in the chantiers.

More than 60 percent of job searchers without qualifications accept working on the chantiers; this percentage is lower for first time job seekers (56 percent), probably because they perceive a higher probability of better job alternatives. This is especially true in urban areas where the percentage of job seekers attracted by the chantiers is systematically lower than in rural areas. Further, availability for chantier work increases with age for unskilled labor, probably because, with little or no training, the likelihood of finding a job decreases. The main reasons given for refusing to work in the chantiers were low wages, instability, lack of social security and absence of relevant on-the-job training.

World Food Program (WFP) rations, by complementing the low daily wages for workers in forestry and soil and water conservation activities, have compensated for some of the unattractive aspects of many chantiers jobs. There is no evidence of spillover or loss of food among the workers and their families.

Frequent rotation is a powerful means to give all poor people a possibility of working. Targeting of the PCRDR could improve if a more frequent rotation were applied everywhere. The consultant recognizes that rotation contradicts other objectives of the PCRDR, such as providing on-the-job training or cost-effectiveness. Frequent rotation lowers the possibility of permanent job creation. However, to provide a safety net for the greatest number requires rotation proportional to unemployment. USAID could envisage keeping the safety net objective until the drought is over. By then, part of the SAP-related unemployment would have been absorbed. Then, in the long term, the shifting of USAID support could be considered, giving more weight to the creation of permanent jobs while maintaining some safety net through PCRDR. This issue is discussed in the last section of this report.

2.3 The PCRDR as Part of a Wider Employment Program.

In 1988, the PCRDR absorbed about 20 percent of total unemployment. The PCRDR represented 16 percent of funds available for chantiers, either national or regional, during the period 1987-88, and 20 percent of those for 1988 alone. The larger rural component is well integrated into other regional and national development programs run by the Department of Agriculture. Other donor activities⁶ are complemented by USAID additions to the rural works program (Table 3). Urban chantiers are not as well integrated into the programs of municipalities and other institutions.

2.4 Cost-Effectiveness

The cost effectiveness of PCRDR activities is difficult to estimate, because of the wide variety of actions with no tangible direct and measurable benefits, and the vast diversity of conditions among chantiers for similar projects--gradient and soil conditions, distance from water, storage, lodging, weather conditions, etc. Further, different pieces of evidence yield contradictory results. For example, comparisons with GOT norms for planting trees, forest maintenance, reforestation and anti-

⁶ These include the WFP (Lutte contre l'Erosion et la Désertification), the World Bank (Forestry Development Project), and FAO (UNDP/FAO, Renforcement des Arrondissements, CES et Formation des Techniciens d'Exécution CES de la Tunisie Centrale).

Table 3. Financing of Chantiers by Source of Financing, 1987-1988

Activity	1987			1988		
	PL 480	Other	Total	PL 480	Other	Total
Forestry	853	6,400	7,253	3,815	6,400	10,215
CES	1,072	11,700	12,772	3,823	19,626	23,449
Maintenance of Public Building	686	12,500	13,368	2,937	21,500	24,449
Archaeological Sites	170	-	170	260	-	260
Other	20	-	20	982	-	982

desertification works, land leveling, terracing, construction of check dams and weirs exhibit wide variation, partly explained by the problems of defining activities and inaccurate reporting.

The consultant established some flexible norms based on field observations. These are summarized in Table 4. He also found some variance as well as results that did not meet the norms. Further, the 1988 PAM mission found that projects were generally cost efficient. Yet, these findings conflict with observed field practices. For example, when a farmer can choose between the PCRDR labor-intensive technique and a relatively more mechanized one, he often chooses the latter because it has a lower cost. Even when the task cost is evaluated at shadow prices, the difference still favors the mechanized technique.

In order for the Program to become more cost-effective, the following conditions must exist: (a) higher chantier labor productivity; (b) amended image of chantiers by the beneficiaries; (c) more appropriate labor intensive techniques; (d) prior PCRDR projects maintenance; (e) more and better supervision.

For example, in the governorate of Kairouan, one technician is responsible for 15 chantiers scattered over a wide area. Even if transportation were always available (not always the case), his presence would be required for at least one hour daily on each chantier to be effective. Unfortunately, the technician visits each chantier only once per week. To the extent that the laborers work a two week shift, the impact of technicians on workers is extremely limited. However, the quality and quantity of supervision has improved: the number of technicians has increased, job stabilization has improved, and basic studies useful for technical intervention have been conducted.

The main conclusion of this section is that a program designed to be a safety net for the poor unemployed cannot simultaneously maximize productivity. On-the-job training may conflict with the desire to reach the maximum number of poor unemployed. On-the-job training requires more labor stability and hence, reduction in the frequency of rotation.

Table 4. Tentative Norms for PCRD Activities

Activity	Unit	Number of men per day
Bush and shrub clearing	20 m	1
Individual bowls	10-15	1
Plantations against erosion forestry*	40 1 ha	1 300
Windbreakers	1 ha	300
Wall (construction)	100 mts	100
Anti-desertification works	6mts/20palms/mt 2 mts/40 palms/mt	1 1
Gabions	3m ³	4
Terracing	1.5 mt, or 3m ³	1 1
Sidewalks	30 mts	3

*includes preparation, land leveling

Note: The norms should be interpreted with care. Man/day skilled and unskilled labor are not presented separately. Some activities require a team of both skilled and unskilled workers (gabion, wall, sidewalk), others, not (plantation, individual bowls, etc.). Time of chantiers responsible and technicians is not included.

2.5 The Urban/Rural Character of the Program

PCRD support has been more heavily concentrated in rural areas: more than two-thirds of the employment generated by the Program has been in rural areas (Table 5). The question arises as to whether this distribution of PCRD funds is equitable in the sense that the funds are distributed in direct proportion to the extent of unemployment. Unfortunately, no direct recent evidence is available. Evidence is available on registered unemployment by governorate (Appendix, Table A-4). However, this underestimates unemployment, as many job seekers do not register in the employment offices, rural workers in particular.

Another shortcoming of official unemployment statistics is the impossibility of determining the share of urban unemployment. Indirect evidence suggests that the unemployed are more numerous in cities. First, the absolute poor represent a higher percentage of a larger fraction of the total population in the cities than they do in the rural areas; poverty is often related directly to unemployment. Second, migration to cities has expanded as a consequence of the drought, thus increasing the likelihood of urban unemployment. Therefore, it appears that PCRD funds may have been unequally distributed among areas, given the geographical distribution of unemployment.

Governors have also expressed their concern for urban unemployment in particular because of the more immediate political impact. In light of these considerations, it may be worthwhile to consider directing the Program more toward urban activities. If this is to occur, identification of new activities will be necessary⁷. This will entail examining unsatisfied local demand for services and considering the possibilities of sub-contracting for existing activities. It will be difficult, if not impossible, to identify projects which are simultaneously socially useful, productive, generate permanent employment, non-competitive with private sector activities, and capable of taking advantage of the greater diversity of individuals found in cities. To avoid unnecessary complications, the main consideration should be community approval. A problem with most PCRD activities is lack of basic project evaluations. Consequently, a significant effort will have to be

⁷ A listing of some urban activities is presented in the Appendix, Table A-5.

Table 5. Rural-Urban Comparisons

Sector	Population ^a (1985)		Absolute Poor ^a (1985)		PCRD Employment Generation ^b (1987-1988)	
	Thousand	%	Thousand	%	Thousand	%
Rural	3,271	45.8	229	41.3	17.2	66.6
Urban	3,869	54.2	325	58.7	9.2	33.4
Total	7,140	100.0	554	100.0	26.4	100.0

Sources: ^a Institut National des Statistiques.

^b CDGR, Rapport d'Executions du PCRD an 31/12/88.

undertaken at the local level with the support of technical teams of different departments such as Public Works, Education, and Health.

Urban activities seem to require a larger proportion of materials than rural activities. The 20 percent share assigned by PCRDR has been largely exceeded in cities; the excess is financed by municipalities or the departments concerned. Support from other institutions increases their interest and control over these activities. More importantly, their support stimulates the search to find very labor intensive activities that do not compete with private enterprises.

Because urban areas are a more propitious environment for the creation of small enterprises, PCRDR should increase its support to this activity. In addition, one beneficial aspect of the urban activities for the unemployed is the lower cost of training and supervision. Consequently, the Program should take advantage of the lower cost to improve substantially on-the-job training. This is a necessary condition to increase permanent job creation.

The distribution of PCRDR funds raises the more general issue of the geographical distribution among governorates. According to Table 6, the absolute poor are unevenly distributed among regions. Further, the registered unemployed in 1988 varied significantly among governorates, from less than one percent (Tataouine) of the total registered to 12.1 percent (Tunis). However, during the same year, PCRDR funds were more evenly distributed, from 1.9 percent in Monastir to 7 percent in Kairouan and Gafsa (see Appendix, Table A-6). To the extent that the prime objective of the Program is to be a safety net for the unemployed, it would then be appropriate to reallocate funds more in accordance with the geographical distribution of the unemployed. Of course, objective decisions would require an improved statistical basis of measuring unemployment.

2.6 The Program and the Private Sector

The PCRDR directly supports the private sector. It also stimulates that sector to take over some activities of the Program.

The PCRDR supports the private sector by making unrequited transfers. A large part of soil and water conservation activities have the potential to be unrequited

Table 6. Distribution of the Poor by Geographical Location in 1985

Location	Urban		Rural		Total	
	No.	%	No.	%	No.	%
District of Tunis	49,000	3.8	2,000	1.6	51,000	3.6
Northeast	50,000	9.7	28,000	5.8	78,000	7.8
Northwest	33,000	11.1	85,000	10.4	118,000	10.6
West Central	42,000	17.5	72,000	9.0	114,000	10.9
East Central & Sfax	52,000	5.6	24,000	4.3	76,000	5.1
South	99,000	16.2	18,000	4.0	117,000	10.9
Total country	325,000	8.4	229,000	7.0	554,000	7.7

Source: Institut National des Statistiques.

transfers: the protection of private lands against erosion and desertification accompanied by actions to improve land productivity directly. This type of transfer has so far been limited, however. In the rural sector, most chantier activities take place on public lands. Other factors limiting the extent of this transfer are low chantier productivity and lack of awareness on the part of farmers of the benefits of forestation and soil and water conservation activities. Farmers make limited use of chantier activities to improve their land productivity despite financing availability through FOSDA and a generous subsidy of up to 60 percent of the investment cost. They prefer the 100 percent subsidy that some receive now through PCRD, PRD, or some other program. Policy should be less ambiguous in this respect in the future.

The transfer is nonexistent in the urban sector. However, at the archaeological site of the Kasbah a private firm was financing chantier activities in exchange for use of the space (improved by its investments) in the old Kasbah walls free of charge for three years. Informal private support to chantier activities was also found in some governorates. Private firms and individuals have supported some activities either with required inputs like transportation or with unpaid work. However, this support is sporadic.

One objective of the PCRD is to create permanent employment in the private sector. The Program has created permanent agricultural jobs in the rural sector. It has shared the responsibility of permanent job creation in urban areas through maintenance activities (painters and bricklayers) that develop on-the-job training. Concomitant action by the private sector of hiring chantier workers has been so far limited.

The Program has also stimulated the creation of microenterprises while supporting the multiplication of "brigades mobiles"⁸, a valuable step in the creation of new small enterprises. However, the private sector has not reacted enthusiastically for several reasons. First, the private sector has a limited absorptive capacity in many locations. Second, in many places, the private sector is still feeling the effects of the SAP. Third, labor legislation has constituted a disincentive to hiring workers. Fourth, the low productivity of chantier workers makes them less attractive to employers. In fact, it has become clear that the

⁸ Small enterprises providing a variety of services (painting, electricity, plumbing, etc.) over a wide geographical area.

private fine sector prefers to hire skilled labor, which is scarce among chantiers workers. Even if skills are available, they are often the wrong skills. This mismatch has been observed in the textile industry in the coastal cities. In Sfax, thousands are unemployed, while 4 thousand sewers are needed but are not being built.

Competitive PCRDR activities within private sector operations could reduce the potential of that sector, though this is generally not the case. However, to the extent that urban activities are enhanced, this threat will grow. To avoid this, urban project choice requires careful attention. In particular, prime consideration should be given to projects with higher labor intensity and low wages.

Participation of the private sector in chantiers activities can be improved in several ways. First, more formal and on-the-job training should be provided. Second, the creation of small enterprises can be enhanced by strengthening FONAPRA and by providing technical assistance. Microenterprises require capital for equipment. They also need working capital which is unavailable to them in the capital market. USAID could consider special support in this area. Microenterprises have been created in different governorates, from one to 20 in the period 1987-1988. Their experience suggests that they can become independent only if they provide a service that is in demand. Third, information on the brigades mobiles activities should be distributed both in the private and public sectors to increase their market and to help transform them into independent small service enterprises. Fourth, the GOT could consider auctioning labor intensive public projects to the private sector where workers would receive the alternative wage. A change in the public project composition towards more labor intensity would expand this possibility and help to create more permanent jobs.

On the whole, PCRDR actions have not been competitive with the private sector in forestry and some of the soil and water conservation activities.

3.0 RECOMMENDATIONS

Recommendations presented in sections 3.1 to 3.1 are directed to improving the PCRDR, given its actual objective. In section 3.5 a change of objective is discussed.

Although the PCRDR performance has improved since its inception, the Program can only improve further if additional efforts are made in specific areas. A few recommendations for such improvements will be discussed here.

3.1 Reaching the Target Groups

The practice of paying wages over the market wage rate should be stopped. In some chantiers, daily wages in excess of the market wage rate are paid to chantiers workers using funds from municipalities and other sources. This practice lessens the incentives to look for permanent jobs elsewhere. If this practice does not stop, projects should be taken out of the program where this occurs.

Chantiers programs for women should be established. Although local authorities may already have the freedom to create such programs, they are reluctant. Some experimental chantiers could be encouraged by the CGDR in Kairouan, for example, where this reluctance has specifically been demonstrated.

Rotations should be kept in line with unemployment pressure.

The share of financing for urban activities should increase.

The geographical distribution of PCRDR activities should be made in accordance with the unemployment distribution.

3.2 Improving Cost-effectiveness

Project evaluation techniques, training, supervision and extension should be strengthened. Overall cost-effectiveness can be improved without changing the nature of the program. In particular, project evaluation techniques should be amended, with greater attention given to economic aspects. Together with a revamped follow-up procedure (almost nonexistent at the moment), the choice of projects could be rectified to benefit the country. Training and supervision should

also improve in quantity and quality to carry out the previous recommendations and to improve the productivity of chantiers workers. In addition, more and better extension into the community is also essential to increase the participation of the population in sustaining chantiers activities (particularly soil and water conservation activities).

Efforts should be made to improve the image of the chantiers, particularly in urban areas. If the chantiers' image improves, productivity and cost-effectiveness will also increase. The interest of the population determines the choice of projects, particularly in urban areas. Cost-effectiveness will also depend on the maintenance of the project. Regular financing in the public institutions' budget will be required.

Analysis and dissemination of on-going experimentation in chantiers are required. A careful analysis of experimentation results with new techniques should be carried out and distributed to officials in the public and private sectors to avoid loss as it occurs now.

3.3 Linkages to the Private Sector

Priority should be given to "brigades mobiles" and the creation of small enterprises in urban areas. This will require more technical assistance and a revamping of schemes like FONAPRA to allow it to lend working capital.

The creation of permanent employment in rural areas from PCRD activities would gain much from better knowledge of the benefits derived from specific forestry and soil and water conservation activities. Gains could be derived by using alternative techniques for similar works in different regions. This has not been done, because there has been no follow-up, probably the consequence of human resource limitations.

3.4 Other Recommendations

The information collected should shift from an input to an output, or project, orientation. Lags in the bi-quarterly remittance of basic information on projects financed by PCRD should be shortened; perhaps credits could be allocated to the governorates subject to the timely remittance of that information. Information on workdays and financing should be presented on a more consistent basis.

Integration of the chantiers administration with the institutions in charge of employment policies would be welcome. The program management would gain by increasing its integration with relevant institutions such as l'Office de l'Emploi et de la Formation Professionnelle (Department of Social Affairs). All actions taken by the GOT to reduce unemployment will enhance the performance of the PCRD. One potential activity, technical education, is of paramount importance. It is not only a condition for young people to find permanent jobs, but also a requirement to improve the training and supervision of the chantiers program.

In summary, the Program should go ahead as it is now, subject to adjustments along the lines of the recommendations. The Program should seek to make FONAPRA operational and, for that purpose, it should consider a specific fund to complement FONAPRA actions. The Program should consider supporting follow-up and project evaluation activities with technical assistance. The Program should make sure that the chantiers are fully integrated in the USAID-funded analysis of employment policies. Issues of role, limitations, interrelation with other policies, and their phasing should be considered in that study.

3.5 The Longer Term

In the longer term, the best employment policy is that which supports the creation of permanent jobs. The adjustment process to a significantly improved situation will require a safety net. Welfare and efficiency considerations do not necessarily coincide during this adjustment process.

The Program was conceived to provide a safety net to people unemployed as a consequence of the SAP and the drought. The Program was fully justified in light of the drought and can be justified in the future for the same type of reason, namely, a large unexpected event affecting an important sector such as agriculture. Unemployment resulting from the SAP requires other types of actions. The chantiers should play a secondary role in this case, because other safety nets exist for workers displaced by the SAP, such as social security and special reconversion funds.

On the other hand, seasonal unemployment related to the agricultural cycle is fully anticipated and should be dealt with by increasing productivity. This would

allow farmers to create their own safety net. Technical education and extension are of paramount importance in this regard. Unrequited grants, which many farmers are receiving now, are not the solution. They cannot be used efficiently without additional investment in human capital. In addition, these grants do not foster private initiative; they increase dependency on the authorities. Finally, the rapid growth of the labor force for demographic reasons requires a review in depth of the whole education and training system to face the challenge of that explosion. Then, on all counts, lack of technical education and extension are common denominators to all sorts of unemployment.

The PCRDR, in its current form, creates permanent jobs directly through support to farmers, and indirectly through on-the-job training. However, this impact is quite limited. Although this situation could improve without changes in the Program objectives, it would be a slow and difficult task. On-the-job training requires basic skills which are absent in today's workers. Most of the unemployed are unskilled people. Consequently, the eradication of unemployment is partly dependent on the acquisition of skills, complemented by on-the-job training.

The future of any USAID program to alleviate poverty should strongly consider a skill learning and entrepreneurship training program within the context of the national training policy. The Office de l'Emploi et de la Formation Professionnelle, with World Bank support, has prepared a project along these lines. The training aspects could be improved through USAID finance of a program focusing on development of specific on-the-job training centers in special chantiers. Actual chantiers are not efficient training activities. Extremely low skills and insufficient training and supervision are significant obstacles to using the chantiers as training grounds.

The safety net will be required for a long time, though its relevance may diminish with the disappearance of the drought and the upsurge of the economy. Financing of this activity should be maintained, but should shift in priority in favor of training, extension, and supervision. One practical outcome of this recommendation is the probable need to split the Program into two different parts: one related to the safety net within the CGDR and the other to the training component, probably located within l'Office de l'Emploi et de la Formation Professionnelle.

Table A.1. PCRD Program by Activities and Regions, Last Quarter 1987

Governorates	Forestry	CES	Maintenance of Public Buildings	Archeol. Sites	Other	Total
Tunis	102	--	153	23	18	297
Ariana	50	--	50	9		110
Ben Arous	20	80	40	11		151
Biezerte	80	50	109	13		252
Nabeul	50	70	77	29		226
Zaghoun	50	80	40	23		193
Sousse	40	100	20	12		172
Monastir	20	50	80	13		163
Mahdia	50	100	100	17		267
Sfax	80	100	20	17		217
Gabes	20	70	50	17		157
Medenine	60	95	41	19		215
Tataouine	50	100	10	4		164
Beja	70	30	30	17		147
Jendouba	50	40	40	23		153
El Kef	50	40	40	15		145
Siliana	30	60	57	19		166
Kairouan	140	191	69	27		426
Kasserine	50	40	40	36		166
Sidi Bouzid	40	150	27	17		234
Gafsa	50	40	40	19		149
Tozeur	80	50	20	8		158
Kebili	91	20	49	11		171
Total	1,324	1,556	1,202	400	18	4,500

Table A-2. PCRD Program by Activities and Regions, 1988

Governorates	Forestry	Maintenance of Public CES Buildings	Archaeol. Sites	School Buildings	Other	Total	
Tunis	189	--	291	--	--	120	599
Ariana	232	92	176	--	21	20	541
Ben Arous	292	50	178	--	--	20	540
Biezerte	170	110	110	--	30	50	470
Nabeul	75	102	153	--	52	20	402
Zaghoun	150	230	172	--	--	20	720
Sousse	160	140	130	120	40	20	502
Monastir	120	122	65	--	20	55	282
Mahdia	170	450	80	--	--	20	720
Sfax	76	300	174	--	--	20	570
Gabes	220	100	230	--	--	40	590
Medenine	268	140	107	--	--	96	612
Tataouine	240	100	182	--	--	260	782
Beja	200	150	150	--	--	20	520
Jendouba	362	70	--	--	--	20	452
El Kef	250	180	100	10	--	120	720
Siliana	130	324	337	--	20	158	970
Kairouan	373	496	77	--	--	74	1,020
Kasserine	240	360	130	--	40	20	790
Sidi Bouzid	100	230	181	16	65	60	652
Gafsa	240	135	211	--	--	436	1,022
Tozeur	290	50	24	--	--	58	422
Kebili	350	70	80	--	--	80	580
Total	4,897	4,011	3,339	146	288	1,808	14,559

Table A.3. PCRD Program by Activities and Regions, First Half 1989

Governorates	Forestry	CES	Maintenance of Public Buildings	Archaeol. Sites	Other	Protection Against De- sertification	Total
Tunis	100	--	113	--	9	--	213
Ariana	111	40	104	--	23	--	259
Ben Arous	108	30	156	--	23	--	317
Biezerte	175	110	110	--	30	50	470
Nabeul	60	102	153	--	52	20	402
Zaghoun	190	230	172	--	--	20	720
Sousse	100	140	130	--	40	20	502
Monastir	50	122	65	--	20	55	282
Mahdia	77	450	80	--	--	20	720
Sfax	70	300	174	--	--	20	570
Gabes	150	100	230	--	--	40	590
Medenine	200	140	107	--	--	96	612
Tataouine	60	100	182	--	--	260	782
Beja	371	333	110	--	--	--	814
Jendouba	1,087	568	14	--	190	--	1,859
El Kef	325	350	13	170	30	--	888
Siliana	279	526	313	--	70	--	1,188
Kairouan	860	722	109	20	30	--	1,721
Kasserine	760	470	67	--	--	--	1,317
Sidi Bouzid	325	559	63	--	25	--	972
Gafsa	100	100	601	--	96	250	1,146
Tozeur	31	69	42	--	20	--	162
Kebili	170	--	152	--	--	--	322
Total	5,760	6,362	2,985	190	812	3,612	19,872

Table A.4. Number of Registered Unemployed (Age 18-59)

Governorates and Regions	1984	1988	%
Tunis	32,300	33,000	12.1
Ariana	11,300	10,300	3.6
Ben Arous	9,400	13,000	4.1
Biezerte	17,700	13,000	4.8
Nabeul	10,600	13,716	4.4
Zaghoun	3,800	14,000	4.5
Sousse	9,900	19,233	6.1
Monastir	8,800	4,000	1.3
Mahdia	7,200	12,350	3.9
Sfax	15,100	13,000	4.8
Gabes	9,100	4,183	1.3
Medenine	5,100	5,124	2.9
Tataouine	2,000	1,502	0.5
Beja	1,800	15,650	5.0
Jendouba	23,200	25,278	8.1
El Kef	12,200	20,604	6.7
Siliana	9,200	18,000	5.7
Kairouan	11,300	26,000	8.3
Kasserine	11,900	19,611	6.2
Sidi Bouzid	9,100	4,000	1.3
Gafsa	100,000	13,900	4.4
Tozeur	1,900	2,700	0.9
Kebili	2,300	3,850	1.2
Total	245,200	314,006	100.0

Table A.5. Exemples d'Activites Urbaines

Points d'eau Publics
Amenagem et Entret. de Puits Publics
Amenagem et Entret. de Sources
Amenagem et Entret de kBorne-Fontaines
Amenagem/Entret de Citernes Publiques
Amenagem/Entret de Stations de Pompage
Amenagem et Entretien de Reservoirs
Amenagem et Entretien de Potences
Creation de Puits Publics
Creation de Citernes Publiques
Campagnes D' Assainissement
Campagnes de Proprete
Campagnes Antiveneneuses
Reseaux d' Assainissement
Installation de Reseaux d'Egouts
Entretien de Reseaux d'Egouts
Raccordement aux Reseaux d'Egouts
Trottoirs
Construction et Pavage de Trottoirs
Amenagement de Trottoirs
Pistes
Entretien de Pistes
Passages Buses Sur Pistes
Travaux de Drainage
Drainage de Pistes
Rabattements de Nappes
Evacuation des eaux Usees
Evacuation des eaux Pluviales
Divers Trav. d'Assain. et d'Entretien.
Amenag. Assain Entret. de Edif. Publ.
Curage de Fosses Sceptiques
Entretien des Ouvrages d'Art
Murs de Soutenement
Mise en Valuer des Sites Archeologiques
Fouilles et Sondages

Table A.5. Continued

Entretien des Sites Archeologiques
Restauration de Sites Archeologiques
Conservation des Sites Archeologiques
Amenagement et Entretien de Musees
Div. Act. de Conserv. du Patrim. Archo.
Part. au Prog. d. Eradicat. des Log. Rudim
Particip. au Prog. de Const. Scolaires
Construction de Salles de Classe
Amenagem et Entret. de Salles de Classe
Constr. de Cloture(s) Pr. Etablis. Scol.
Constructions Scolaires
Amena/Entret. des Construct. Scolaires
Divers
Acquisition de Tracteurs Equipes
Creation de Puits de Surface
Creation de Citernes Privees
Amenagem et Entret. de Puits de Surface
Amenagem et Entret. de Citernes Privees
Travaux Divers
Projets de Mise en Valeur et de Develop.

Table A.6. Regional Distribution of PCRD Funds (Dinars)

Governorates	1987 4th Quarter	1988	Total	% of Total
Tunis	138,412	239,549	337,961	5.4
Ariana	128,765	91,228	219,993	3.2
Ben Arous	67,890	160,393	228,283	3.3
Biezerter	126,150	167,398	293,548	4.2
Nabeul	106,984	126,613	233,597	3.4
Zaghoun	94,000	243,827	337,827	4.8
Sousse	76,888	203,489	280,377	4.0
Monastir	76,660	73,340	150,000	2.2
Mahdia	133,406	313,249	446,655	6.4
Sfax	101,096	224,619	325,715	4.7
Gabes	53,286	166,664	219,950	3.2
Medenine	92,447	123,862	216,309	3.1
Tataouine	75,718	216,437	292,155	4.2
Beja	71,159	216,478	287,637	4.1
Jendouba	72,522	125,721	198,243	2.9
El Kef	73,530	245,330	318,860	4.6
Siliana	73,047	356,663	429,710	6.2
Kairouan	203,485	385,207	588,692	8.5
Kasserine	73,932	241,939	315,871	4.5
Sidi Bouzid	109,794	214,432	324,226	4.7
Gafsa	70,850	416,947	487,797	7.0
Tozeur	77,093	64,644	141,737	2.0
Kebili	68,765	170,318	239,083	3.4
TOTAL	2,165,879	4,788,347	6,954,226	100.0

Evaluation du PCRD
Liste des Chantiers
Visites des Personnes Rencontrees

Date	Gouvernorat	Projet Visite	Responsables Recontes
Le 26-7-89	Kef	Projet Kasbah	Monsieur le Gouverneur: Mohamed Saad Mohamed Tlili: Institut National d'Archeologie (I.N.A.)
Le 27-7-89	Kasserine		Monsieur le Gouverneur: Hedi Ayach. L'ex - Secretaire General du Gouvernorat: Mahmoud Ben Hnini. Monsieur Habib Hizem: Directeur General de la C.E.S. Mr. Hamed Rajah: Chef de L'Arrondissement C.E.S. and Commisariat Regional au Developpment Agricole de Kasserine. Mr. Arbi Agid: Chef de L'Arrondissement Forets. Mr. Houcine Kraani: Chef de L'Arrondissement Alfa. Mr. R.: Directeur de la Cellule de Plantification Regionale du Gt. de Kasserine.

Date	Gouvernorat	Projet Visite	Responsables Rencontres
Le 30-7-89	Tozeur	Awam	Mr. Le Gouverneur=Faouzi. Mr. Le Directeur de PRD=Rachid Ellamouchi. Mr. Le Chef d'Arrondissement Foret=Habib Laabidi.
			-Projet Confection de trottoirs dans l'ancienne ville de Tozeur. -Projet Construction du Siege d'une ecole primaire a Tozeur. -Projet Lutte contre la desertification et protection de l'Oasis de Tozeur. -Project Ibn Chabbat: mise en valeur agricole:plantation de palmiers dattiers. -Projet Construction d'un bloc sanitaire dans une ecole primaire a Tozeur.
Le 31-7-89	Kebili		Mr. Le Sre Gl du Gt:Brahim Briki Mr. Le D du PRD:Belgacem Galaaouni Mr. Le Chef d'Arrondissement foret:JELASSI Mr. Le Vice President de la Municipalite de Douz.
			-Projet Lutte contre la desertification et de protection de la ville de Douz contre l'ensablement. -Projet Confection de trottoirs a Douz. -Protection de la route Noyal-Klibia:rehaussement tabia etfixation par plantation.

Date	Gouvernorat	Projet Visite	Responsables Rencontres
Le 1-8-89	Gabes		<p>Mr. Le S.Ge du Gt - Habib Hammas. Mr. Le Dr. du PRD - Mohamed Bedoui. Mr. Le Chef de l'Arrondissement CES - Fethi M'Hiri. Mr. Ingenieur de l'Arrond. CES - Salem Ben R'houma. Mr. Le Chef de l'Arrondissement foret - Mabrouk Jeddi. Mr. Ingenieur de l'Arrond. foret - Touiti.</p> <p>-Projet CES = epandage des eaux de crues de Oued R'mal: confection of gabions. -Projet Gouida = traitement de tete de ravins (CES). -Projet El Mida = CES = confection de tabias sur terres privees consolidation par cactus -Projet de creation de reserves pastorales (cactus): a Khaageet Aicha (Foret). -Projet de protection de la route de Gabes-Gafsa (foret) par brise vents seches = roseaux et palmes seches et vives = acacia et eucalyptus -Projet de protection de l'oasis de Metonia contre l'ensablement: plantations d'eucalyptus realisees dans les annees 1960.</p>
Le 2-8-89	Sfax		<p>Mr.Le Gouverneur de Sfax - Fadhel Khlil Mr. Ridha El Hkaiem - Cadre du PRD Mr. Habib Lassoued - Directeur Regional de la Sante. Mr. Ali Aouari - Institut National de L'Archeologie. Mr. Mahmoud Abdelhedi - Directeur Regional de la Peche (Commisariat General a la Peche)</p>

Date	Gouvernorat	Projet Visite	Responsables Rencontres
Le 4-8-89	Kairouan		<p>Mr. Le Gouverneur: Jamel Sassi Mr. Le Directeur du PRD: Hedi Ben Dbibiss Mr. Le Chef de l'Arrondissement CES Mr. Le Chef de Subdivision foret de Kaiouan: Zouaari Les responsables du Projet Oued Merguellil</p> <p>-Projet d'Amelioration pastorale a la ferme cooperative Ennasr. mise en defense, planation de cactus, d'acacia. -Projet de confection de trottoirs: Ville de Kairouan -Visite de L'Administration du Projet Oued Merguellil (CES) (plantation d'acacia, seuils deversoirs en gabion). -Projet CES = Oued Benzitonn a El Ala = preparation de cuvettes pour plantation. -Projet PAM a Hoffouz = banquettes et mise en valeur arboricole.</p>

Date	Gouvernorat	Projet Visite	Responsables Rencontres
			<ul style="list-style-type: none"> -Mr.Masmoudi:Directeur de la Chambre du Commerce et l'Industrie. -Mme. Kammoun:Chef Service "Public Relation" a la Chambre -Un chef d'enterprise de confection de pull-over-femmes. -Mr. Hermess:Le Chef de l'Arrondissement CES -Mr. Safi Ingenieur de l'Arrondissement foret
		<ul style="list-style-type: none"> -Projet d'Entretien deu dispensaire d'Echihia -Projet de restauration de la Kasbah -Projet d'entretien du port de peche de Sfax -Entreprise privee de confection de tabias consolidee avec des acacias -Projet de CES a el Ouabed: confection des tabias consolidee avec des acacias travaux entrepris dans le cadre du projet acacias de protection de la ville de Sfax contre les inondations retenues d'eaux (barrages sur oued) DHIBI. -Projet de reboisement a Oum Salah (El Heucha): pin d'Alep, eucalyptus. 	