

PTD-ABX-063



WORLD VISION

**PROJECT:
INTEGRAL MANAGEMENT OF 5 WATERSHEDS
MUNICIPALITIES OF JUJUTLA & GUAYMANGO
DEPARTMENT OF AHUCHAPAN**

GRANT N° 519-A-00-99-00210-00

**QUARTERLY REPORT OF ACTIVITIES
July - September 2002
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**Submitted To:
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Executive Summary

This present report makes a description of the main actions taken by the Project of **Management of Water Producer Watersheds** carried out by World Vision in the Municipalities of Jujutla and Guaymango, Department of Ahuachapán. The Project is funded by USAID and executed by World Vision. The reported period comprehends the months from July through September of the year two thousand and two.

The efforts of the Project were focused to accomplish with the two proposed objectives and mentioned as follows:

1. Objective 1: to produce water in sufficient quantity and with the quality required for human consumption.
2. Objective 2: that 100% of producers adopt a minimum of 7 appropriate farming technologies in their demonstration fields.

The planned activities for the reported period were satisfactorily accomplished. A summary of the actions of higher relevance per objective is detailed as follows:

OBJECTIVE 1: TO PRODUCE WATER IN SUFFICIENT QUANTITY AND WITH THE QUALITY REQUIRED FOR HUMAN CONSUMPTION.

- a. Training 20 communal leaders in solid wastes treatment.
- b. Growing 41,200 forest plants in the recharging zones of five watersheds.

OBJECTIVE 2: THAT 100% OF PRODUCERS ADOPT A MINIMUM OF 7 APPROPRIATE FARMING TECHNOLOGIES IN THEIR DEMONSTRATION FIELDS.

- a. Training 30 persons in Production of Organic Vegetables.
- b. Growing of 7,000 pineapple buds at Hoja de Sal Watershed.
- c. Growing of 4,000 citric plants in the five watersheds covered by the Project.
- d. Training in environmental education to 209 students and 9 teachers in five schools of the Watersheds.

- e. Construction of 4,900 meters of slope irrigation ditches, for soil erosion control.
- f. Training 300 producers on soil and water conservation techniques.
- g. Establishment of 50 home vegetable gardens with same number of women.
- h. Growing of 20,000 bundles of Vetiver grass, for the construction of plant barriers.
- i. Calculation of the Index of Acceptability, to determine the level of acceptance of the technologies spread throughout the 3 years of life of the Project.

At the end of the report we attach the quantitative charts of objectives and goals for the current year.

DETAIL ABOUT THE EXECUTION OF THE ACTIVITIES PER OBJECTIVE

OBJECTIVE 1: TO PRODUCE WATER IN SUFFICIENT QUANTITY AND WITH THE QUALITY REQUIRED FOR HUMAN CONSUMPTION.
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Carried out Activities

As follows we detail the carried out activities during the reported period.

A. Training of communal leaders on the management of solid wastes

During the quarter a total of 20 communal leaders were trained in the management of solid wastes. The teaching methodology was theory-practical, where the participants had the opportunity to learn and practice the different methods of treatment of solid wastes. One of the most emphasized techniques was the elaboration of organic fertilizers. The participants during the workshop were committed to elaborate an organic fertilizer in each one of their plots of land.

With this type of training, it is intended to educate the communities so that they can make a good disposal of wastes and to maintain conditions with lesser contamination. With the proper disposition of the wastes it is also avoided the contamination of the waters and that could lose quality for human consumption. On the other hand, it has advantage to recycle those organic materials for the elaboration of fertilizers that will later be used to enrich the cultivation soils.

B. Growing of 41,200 forest plants

During the present quarter, 41,200 trees were grown in the five watersheds covered by the project. With this cultivation, fifty thousand are the completed trees grown throughout the year. To proceed to the growing of the trees, there were reforestation campaigns with the participation of boys and girls from different schools of the community, youngsters and producers of the watersheds. The trees were grown at the edge of the roads, next to the fences of the plots of lands, in the recharging areas of the watersheds and in plots of land for the establishment of small forests for multiple uses.

Besides of the trees produced locally, 400 fruit trees were acquired, such as: zapote, nispero, mandarine, avocado and mango, which were distributed in the farms of the twenty linking leaders. In this way, it is expected to diversify the production and to have a bank of buds, so that the producers can graft and spread plants of better quality.

The purpose of the growing of forest trees is to increase the forest layer of the watersheds in order to increase the capacity of rainwater filtration and that the water-bearing stratum may increase their water production capacity. On the other hand, the producers have wood and firewood for the household and they do not have the need to cut the tree zones to cover their needs. The forests also become a shelter for the animal species of the watersheds.

Picture: Energetic forest at Hoja de Sal Watershed

OBJECTIVE 2: THAT 100% OF PRODUCERS ADOPT A MINIMUM OF 7 APPROPRIATE FARMING TECHNOLOGIES IN THEIR DEMONSTRATION FIELDS.

A. Training of producers on organic agriculture

During the period of September 10 through 13, training was carried out about "Production of Organic Vegetables". The workshop had the purpose to train 20 communal leaders, denominated Linking Producers and to 10 employees of the project on watershed management. The course was in charge of CLUSA technicians, who shared their experiences regarding the organic production.

The course had a theoretical component and they learned the main concepts of organic agriculture, as well as the difference with the chemical agriculture. Two of the days were spent in a practical way on the identification and control of diseases in the vegetables, as well as the elaboration of organic tools, such as the fertilizer called *bocashi*, foliate fertilizers, vinegars, fungicides and pesticides for the control of plagues and diseases.

The last day was concluded with the field visit to a plot of land of the organic producers located in the municipality of San Julián, Department of Sonsonate. Finally, the parallel organization CLUSA was visited, as they are in charge of the commercialization of the organic products.

This workshop was carried out as a previous work in order to start the organization of the producers of the five watersheds for the production of organic vegetables.

Picture: Participants of the Organic Vegetables course.

The workshop fulfilled the expectations of the participants and it is expected that they will put into practice the learned knowledge and to share with the other producers the organic production techniques.

B. Growing of 7,000 pineapple buds

In August it was obtained and grown a total of 7,000 pineapple buds. These have been grown in the Hoja de Sal Watershed, around a water pond. The purpose in this case was besides of producing pineapples as another production option of the farmers, to make plant barriers to protect the soil.

Picture: Cultivation of pineapple

C. Growing of 4,000 citric trees

A total of 333 producers received 12 citric trees for each one in order to grow them in their plots of land. The distributed varieties were of Persian lime and

Valencia orange. This totalize, since the beginning of the project, 14 thousand citric grown in the five watersheds covered by the project.

The purpose of growing the citric is that the produces have new productive and economic options besides of the production of basic grains. On the other hand, the citric trees constitute a permanent cultivation that provides a better vegetable covering to the soil, avoiding the erosion and a higher infiltration of water that constitutes in a higher quantity of available water.

The trees grown in former years have been trimmed and fertilized in a way so that they can have a proper development and formation for an optimum production.

D. Training of school boys and girls on environment education

During the present quarter it was finished the training program of boys and girls on environment education. A total of 9 modules were covered, which were focused to the care of the environment, what is a watershed and its importance. Besides of the relationship between the environment and health.

In the educational program, 209 students and 9 teachers of 5 schools participated. Each one of the students were involved in practice activities such as cleaning campaigns in their school and village, and in the production and growing of trees. Another activity carried out by the students was the visit to the plots of land of the producers in order to know the work of the adults in their properties to conserve the natural resources.

To close the program, in every watershed was carried out an even denominated "Water Festival". During this event, there were contests of painting, singing and poetry, with subjects related to the environment. In these events the boys and girls showed the learned knowledge and their level of awareness achieved during the training.

E. Construction of 4,900 meters of sloped irrigation ditches

During the quarter a total of 4,900 barrier ditches were constructed. to make a total of 8,200 meters in the year. The sloped irrigation ditches were constructed with the labor of the producers and the advice of the agriculture technicians of the project and the linking producers.

This is a very efficient soil conservation technique for the control of the soil erosion caused by the rain currents in sloped lands. Besides of conserving the soil,

it infiltrates a great amount of water (about a barrel of water per lineal meter of ditch).

The sloped ditches in order to achieve their function in an optimum way are combined with barriers of Vetiver grass. This way, the plant barrier retains the soil from the rainwater current and the ditch is in charge of the infiltration. With this type of techniques not only avoids the deterioration of the soil, but also increases the water production of the watersheds.

Picture: Sloped ditches with plant barriers of Vetiver grass

F. Training about soil conservation

During the quarter, there was training on knowledge feedback about the techniques of soil conservation and fertility. The carried training was the following:

- Use of Type “A” level, for the trace of level curves
- Construction of sloped ditches
- Elaboration of plant barriers
- Construction of infiltration ditches and
- The use of green fertilizers

A total of 300 producers received more than one of the training mentioned above. The methodology used to provide the training was through the training of the linking producers and at the same time, they trained the producers assigned under their responsibility. The purpose that the linking producers train the rest of the producers is because of the idea that when the project finishes the agriculture extension project be sustainable.

The training of the linking producers leaders included, besides of the theoretical practical part, field visits to the other watersheds covered by the project.

G. Establishment of 50 home vegetable gardens

During the reported period, it was worked with fifty women for the establishment of same number of home vegetable gardens. The gardens were establish in the following watersheds:

- Hoja de Sal: 20 gardens
- El Interno: 20 gardens

- Cuevitas: 10 gardens

The home vegetable gardens were made in a plot of land near to the homes of the beneficiary families. The vegetables promoted were the following: tomato, cucumber, radish, green pepper, and others. The idea to produce in small areas is that the persons have a safe supply of vegetables and to diversify their diet and save money in the purchase of these vegetables.

The Project provided the necessary materials for the establishment of the gardens and the technical assistance. Also, each one of the beneficiaries provided the plot of land and labor to establish each garden.

H. Growing 20,000 bundles of Vetiver grass

In the period from July through September of the current year, an additional total of 20,000 bundles of Vetiver grass were grown. With this quantity of grass, it was constructed a total of 2,860 meters of plant barriers in the Cashagua watershed. With this amount of grass totalize 120,000 bundles grown in the current year.

The plant barriers of Vetiver grass is the most spread technology by the project for the soil conservation and rainwater infiltration. The Vetiver grass has the quality of having dense foliage and deep roots, ideal for the erosion control of the soils with elevated slopes. At conserving the soils, it benefits the higher infiltration of rainwaters, increasing the hydric production of the water-bearing layers. Another noticeably matter is that the soil stays humid for a longer time.

Summary Chart For Progress Indicators

Description	Planned 2002	Actual All Year	Percentage from World Bank
4.1 Rural households in target areas with water that meets quality and time standards	H: 65 F: 65	M: 29 F: 30	
4.2 Rural households nationally with water that meets quality and time standards.	M: 57 F: 57	34	
4.1.1: Area covered by improved practices	1,500	1. 4,736	1.400
1. Soil conservation/reforestation	2,1,300	2. 1,479	2.155
2. Organic cropping	3.1,300	3. 1,206	3.165
3. Integrated pest management			
4.1.1.1: Farm units utilizing improved practices	5,000	2,067	350
4.1.2.1: Households benefiting from improved solid-waste management	6,535	2,994	225
4.1.2.2: Households benefiting from improved wastewater management	1,666	516	150
4.1.3.1: Industries using pollution prevention practices	8	2	
4.2.1: Water delivery systems that meet flow standards	90	31	2
4.2.1.1: Rehabilitated, expanded and new systems	1. 9	1. 4	1. 0
1. rehabilitated systems	2. 20	2. 3	2. 0
2. expanded systems	3. 63	3. 18	3. 2
3. new systems			
4.2.2.1: Local organization members and technicians trained	M: 1,200 F: 1,260	M: 796 F: 598	M: 180 F: 180
4.2.2.2: Water system costs covered by collected fees	82	1	2
4.3.1: Water-related changes resulting from citizen-group actions	300	190	4
4.3.1.1: Salvadorans knowing at least one cause and at least one consequence	M: 85 F: 87	M: 65 F: 28	M F
4.3.2.1: Salvadorans knowing at least one solution for unclean water	M:80 F:75	M: 64 F: 27	M: F:
4.3.3.1 : Organizations working on water-related issues	50	152	12

Description	Planned 2002	Actual- AID- 1999	Contribution from World Vision
4.4.1 Water-related ordinances passed	25	5	-
4.4.2 Resources invested in water-related projects	18	10	-
4.4.1.1 Municipalities with water-resource management plans	11	9	-
4.4.2.1 Municipalities operating their own water systems	11	8	-