# 1.GENERAL INFORMATION

**Title of the project**: Utilizing Scarce Water Sources by by Water Harvest Management in Aladağ (county), Kışlak (village)

**Aim of the project**: The aim of this project is to utilize soft water from rain and snow as domestic water. As such, by fulfilling a need in irrigation water for the villagers those who earn their keep on agriculture in Aladağ, Kışlak.

# 2. THE STRUCTURE AND THE NEED OF THE VILLAGE WHERE THE PROJECT WILL TAKE PLACE

Kışlak is a mountainous village in a county called Aladağ in Adana. The distance of the village to the central Aladağ is 107 km; to the central Adana is 102 km. The total number of households in this village is 65 where 300 individuals are inhibiting. Due to the fact that the village is quite far from the central county and the city, as well as the transportation inconvenience, it restricts any potential economic activities for the villagers. The agricultural lands are inclined and made of small pieces in mountainous in the village which is located in steep hills. Although the village is very rainy and snowy during the winter, due to its geographical location, water from rain and snow cannot be of any use and it is wasted. Thus, the villagers are not provided enough domestic or irrigated water. Villagers in Kışlak are able to sheep& goat farming and engage in agriculture in small piece of lands at subsistence level. As a result of shortage in the water sources and lack of irrigation substructure, the villagers tend to do dry agriculture (without using any source of water) and mostly produce grain. Currently, the villagers are economically very weak. Due to the lack of the irrigation substructure, those who are unable to be engaged in agriculture (approximately 1-2 of individual(s) per household) migrate to the centrals or to the other cities for temporary jobs (i.e. construction labour) only to support their families. However, those who have insufficient education, or training or necessary skills to proceed their temporary jobs and eventually go back to their village after only few months. The main aim of the project arises here. The need for providing irrigation water is critical in order for all the cultivated area to be irrigated in the village. Once this is provided, households in the village will be able to expand their work into higher income potential ones such as fruit growing and vegetable growing so that they will be able to support their families much better.

# 3.THE DESCRIPTION AND THE AIM OF THIS PROJECT

The aim of this project is to contribute to the economic growth of this village by providing one of the essential needs of irrigation water and to offer new opportunities. To do that, geomembrane pools with the capacity of 100 tons will be constructed on the top of the sloping lands. For the sake of safety and protection of the area, the pools will be surrounded by wire fences. All the rain and snow water will be accumulated in this pool. The water coming from a small water source in the village- which is only active during the winter and spring but dry in summer -will also be accumulated in this pool. Thus, the water accumulated in this pool during the winter and spring will be used during the summer as irrigation water.

By this project, the non-agricultural lands due to the lack of irrigation water substructure will be brought in agricultural production and/or it will enable for fruit and vegetable growing even on the dry agriculture lands. Thus, the agricultural structure of the village will be developed, the income of the producers will be increased and scarce sources will be used efficiently.

During the design stage of this project the meetings have been held with the household in the village which went beneficial. The friendly talk with the households of the village will be continuing to grow during the application stage and some of the villagers will be asked to take part in the project during the application stage. By consulting the local authority of the village, 10 lowest income families will be identified and be selected for the 10 geomembrane pools to be constructed in their lands. Once the project achieves what it aims for and be successful, it will be applied in similar areas for the same purpose so that it become sustainable by providing opportunities for the low-income villagers. 10 geomembrane pools will be installed on the lowest income families’ lands of farmers in this village. Once the geomembrane pools are settled the drip irrigation system will be installed in villager’s farms so that the irrigation water will be used efficiently.

A technical support from the Directorate of Provincial Food Agriculture and Livestock will be utilized during the application process of the project. The directorate fully support the farmers in the village for sapling and livestock. As well as it continue to support farmers in this aspect; it will also conduct farmer informing operation.

Villagers will be actively working during the construction of the geomembrane pools. This collaboration with the villagers and the related institutions will create a discussion environment, brain storming opportunity and thus Rotary will be recognized at its best. In addition to that, it will provide a basis for further collaborations for the potential upcoming projects. This will enable for similar projects to be performed in nearby villages and centrals and/or our institution will be offered to take part in different projects.

# 4. OUTCOMES of THE PROJECT

To begin with, this project will support 10 farmers to have the irrigation water. The dry farm land will be brought in irrigated farming by utilising the scarce water sources, which enable for extra outputs per unit area. Those who will grow fruits and vegetables will have higher incomes in the village where there the only output was wheat , or there was no product at all. This change will considerably and directly affect the life standards of 10 households in the village. Also, those villagers who are living under the optimal living standards and are residing in rural areas will increase the living standards and the migration from rural to urban areas will be dealt with. Our project will be a constructive model and it will develop forthcoming collaborative works as such. The measurement of this project will be done by [provincial directorate of agriculture](http://tureng.com/tr/turkce-ingilizce/provincial%20directorate%20of%20agriculture) based on the quantity of the agricultural product provided irrigated water. [provincial directorate of agriculture](http://tureng.com/tr/turkce-ingilizce/provincial%20directorate%20of%20agriculture) records every statistics in this regards.

# 5. FINANCING THE PROJECT

The technical feature of the geomembrane pools that will be used in our project, the cost and the design of the project is attached. The cost of one geomembrane pool with the capacity of 100 tons is around 16280 TL. Thus, the total cost of the 10 geomembrane pools is around 162.280TL.

*COSTS per UNIT;*

1.The unit price of Membrane :60TL/m2

2.The unit price of felt is :12,27TL

3. The unit price of fence (wire fence) :43,48TL/m

4. The unit price of excavation :10TL/m3

5. **COST OF THE DRIP IRRIGATION SYSTEM**: 2,500 tl for each

**FINANCE TABLE FOR A GEOMEMBRANE POOL**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| No | Capacity | Quantity of the Essential equipment | Financing |  |  |  | Total Cost |
|  | (tons) |  |  |  |  |  |  |  |  | (TL) |
|  |  | Volume of Excavation | Membrane  | Felt | Fence | Excavation | Membrane  | Felt | Fence |  |
|  |  | m3  | m2  | m2 | m | TL |  |  |  |  |
|  | 100 | 100 | 163 | 163 | 46 | 1000 | 9780 | 2000 | 2000 | 13780 |
| Water transmission pipes, dripping pipes, vanes |  |  |  |  |  |  |  |  |  |  2500 |
| ***total*** |  |  |  |  |  |  |  |  |  | 16280 |

One pool TL cost is around 4,650 usd (16280/3,5 )

10 x 4650 = 46500 usd

**BUDGET**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No | Funding Method | Organization | Amount(USD) | Extra support\* |  | Contribution +Extra support\* |
| 1 | Cash from club |  |  |  |  |  |
| 2 | Cash from club |  |  |  |  |  |
| 3 | Abroad |  |  |  |  |  |
| 4 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Funding summary: |  |  |
| DDF Contribution: |  |  |
| Cash Contribution: |  |  |
| Non-Rotarian contribution to be matched by TRF: |  |  |
| Endowed/Term gift contributions: |  |  |
| Donor Advised Fund: |  |  |
| World Fund match maximum: |  |  |
| World Fund match (requested): |  |  |
| **Financing subtotal(matched contributions + World Fund):** |  |  |
| Non-Rotarian contributions with NO match from TRF: |  |  |
| **Total financing:** |  |  |
| Total budget: |  | 46500 |