



M. A. Akşit Koleksiyonundan/Collection

# Water

# 3

## Save the Water \*

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\* This is description of the Author's application.

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**NB:** This Article is the English version, not direct translation of the 2<sup>nd</sup> Article.

*If you are living in a city, at the apartment stage, the water cannot be so perceive the deficit and problems, if not any discontinuity, interruption, cut and such problems. As an interest be taken in notice, like a person likes pets, thus, not care, and not even touch them.*

*If you put some filter mechanism at home, the high flush, being slowing the flow, so, nearly 50% reduction at using the water. So, the economy be at such announcement.*

*The Author has been from child period growing House Plants, and also caring garden and pooling the rainwater, so, have some readings, so, his experience and thoughts are indicated at this Article, for discussion from experts, on these subjects.*

**E**ach person have some concept at water, and drinking fresh spring water is more preferred than bottled coca or so on. Tea is the commonest drink at Turkey, so, making a relation, a good tea is the key point.

So, the water protection, save and care, from wide perspective is outline at this Article. Not at hypothetical, applicative ones indicated.

### Outline

#### Saving the Water, Altering the Environment

**AIM:** Water is essential for living and for body structure. Thus water is going more scarcity, hard to get fresh water. Industrial discharge, and used water releasing makes the problems so amplified. Not after 40-50 years, after 10 years later on, water is so scare to find and used. The problem is not to find the water, rearrange the water usage, for the new coming conditions, weather. This Article about for making a short overview on water conserving, protection.

**Grounding Aspects:** Each knowledge from the Author experiences and ideas, so, indicated in this Article, for sharing them.

**Introduction:** The melting period of the fourth Ice Age, later the result, as the Sahara Desert is formed, this will be inevitable altering the environment, so be care on it, is obligatory.

**General Considerations:** Precautions is not so be a solution, thus, the differences, the variation, as occurred before, new structural change and rearranged about the situation, be in different perception is essential.

**Proceeding:** The forming of evaporation, later when in cold condition, not like rain, thus like being a discharge of a cup, so, the save and care of the water is not so easy. New structural configuration is required. The save and using of the water, as some application is so, a requirement.

**Conclusion:** The individual applications as at the rainwater, in outline. The Author is Medical Proficiency, thus, the indications ve discussed widely by other proficiencies.

**Key Words:** Water, save and care, the Environmental Diversity.

## Özet

### Su Koruma, Çevre Değişimi

**Amaç:** Su yaşam için, yerleşim için gerekli bir madde olup, vücudumuzun genel yapısı içindedir. Su, giderek daha azaldığı, temini açısından daha zorluklar ile karşılaşıldığı gözlenmektedir. Ayrıca endüstri ile kirlenmesi, atık sular ile de sorunların derinleşmesi de belirgindir. 30-40yıl sonra değil, 10 yıl sonra büyük eksiklik sorunu olacağı için, tedbirler şimdiden alınmalıdır. Bu tedbir yeni kaynak bulma ötesi, mevcut kaynakların yeni düzene göre yapılandırılmasıdır. Bu Makale buna kısa bir bakış yapmaktadır.

**Dayanaklar/Kaynaklar:** Tüm bilgiler, Yazarın kendi tecrübeleri temelinde, paylaşmak amacı ile belirtilmektedir.

**Giriş:** Dünyanın Dördüncü Buzul Çağının erimesi ile oluşan yapı, nasıl Sahra mümbit iken çölleşmesi oluşmuş ise, bunun giderek yayılması da kaçınılmazdır.

**Genel Yaklaşım:** Önlem, tedbir yaklaşımı çözüm olmayacak, çünkü değişim yaşandığına göre, değişime göre yapılanma gerekli, farklı algılar içinde bulunmalıyız.

**Başlıca boyutlar:** Sıcaklık ile oluşan su buharı, soğuk görünce birden kovadan su boşalması gibi olmaktadır, bu nedenle suyun korunması ve kullanılması yaklaşımlarında yeni yapılanma gerekir.

**Yaklaşım:** Su korunması, suyun kullanılması ve bazı uygulama yaklaşımları özet olarak sunulmaktadır.

**Sonuç:** Bireysel uygulamalar ile yağmur suyu ve suyun etkinliği açısından özet yaklaşımlar sunulmaktadır.

**Yorum:** Yazar Tıp Doktoru olması açısından, bu görüşlerin geniş kapsamlı olarak, uzmanlarca da ele alınması önemli görülmektedir.

**Anahtar Kelimeler:** Su, suyun korunma, Çevre Değişimi

## Introduction

Some concepts are taken in consideration of people, attention is mostly on media, as a terrified of the future compositions. Not even cared House Plants, all be as a cut and put on vase, so, loves roses, thus not the thorns.

Talking with the flowers, making a relation, empathy, and being notify what they needs, give it without any demands, as watering.

As Human being, water is essential for each living organism, less and over be so harm for life, balancing be by science, upon their demand.

Water is a respectful material, so, thankful to fresh and spring water, so rare and even be paid the fee. The standards are so figurative and must be registered.

In traditional way, each person as seen drink from same cup. When carefully examine the process, the cup one third washed by water and disregard, then save a mouth space and filled. The person just not drink, the water is flowing from cup to mouth, not such direct contact. At the second, the cup is also washed and later filled. As in soup drinking technique, the spoon only be flow to open mouth, not direct touch, the other side of the spoon for taken from the great soup beaker. As the citizen cannot know this and have no practice, they give a special cup to them.

As even at home, we try to save the water, because it is a worth, grateful one.

# Satisfactory Watering

For human thirsty is mostly the regulating of the demanding of water. For newborn infants, physiologically the breastfeeding be upon the gestational age configurate the mother's milk composition and wanting to feed, suck compromise the requirement.

For plants, the flower indicates, thus, by plant physiology specific knowledge gives us several clues. Cacti are not given water is wrong, not more water, and be well drained soil is needed. For Orchids, only watering the roots, thus not be stayed, just washing. Therefore perforated pot is essential.

As the most important one is the water quality, must be for plant usage, especially be designed for the genus, type of it.

## Methods of Watering

**Watering by canals, in the field:** Mostly used as old technique. In the field small canals are opened by a plan, thus the water being regulated by guideline. High amount of water is sending and like a pooling. Thus, it will washed to field, cleared the minerals, and water table is going to up and be drowned the roots, if not be at good regulations. This method will not be used, as the variation be essential and obligatory.

**Water table higher fields:** Mostly the ground is as solid, so, not allow the water to be at lower level, so, the water be at top. Later the dissolved materials remain there and be whitish sediment is encountered. So, drainage is essential, by opening some deep lines for flowing this and be lowered the water table of the soil. Deep holes be performed for aeration. Some trees can be crossed the soil layers. But the most important one is not give much water; drip method must be preferred.

**Raining method:** Most encountered one is by pump, raining with special apparatus is seen. Being on the same place will be dangerous, so, wheels for moving is the advanced ones. This is the pumping water is important. If it is field draining water, the high concentration mineral content be harm to the plants.

**Dripping method:** Dripping is first be needed a water storage. As indicated the collection of rainwater must be the first step to be performed. A line of small pipes be designed by inclination level of the area, the holes be at the plant. So by gravity the water is dripping to the plants. At the storage, the fertilizers be adding, water soluble ones, so low concentration, thus by continuous giving, a steady state supplying.

**Duration:** Watering be performed at night, after the sun set. Therefore, this reduces evaporation and being saving daily, rush hours. By dripping, only opening the regulation, mostly time scheduled.

**Natural Way, Raining:** Waiting the usual rain is the most encountered system. Thus directly be regulated according to the climate, whether. Good meteorological evaluation be required. Hour, by hour the information be taken, for the precautions, of course. If some rain will be not encountered, 1-2 times in a year watering be essential. Thus at the time of the harvesting the crop, collection of them, the rain can be destroy everything. So, protection of the production, covered by plastic cover be taken in notice. Praying for rain, mostly cultural method, thus this is essential for waiting and be patient for 2-5 days.

**Dry Farming:** The field be getting the water, and stayed not to be cultivated. Thus, if it is as same as after taken the crop, the water is not lowered, goes inside the ground, thus swept the

soil. So, the field be cultivated, lined according to the inclination, parallel to the level, so, can be collected the water. Thus, the more preferred one is plating special plants for this climate, as Aleo vera be an example. But some marketing be arranged for selling the harvest.

### Medium

**Coconut crushed shell:** In place of soil, coconut crushed shell be a perfect one for water protection and drainage. Can be used as a contributor of the soil, as humus. This is mostly be preferred as sera of tomatoes planting. The watering be controlled and fertilizer is continuously be given.

**Planting in Water:** Water as in vase be used for planting, thus the oxygenation is essential. At pools, be remembered the bottom is not suitable for life. The water be turning, upside down. The aeration is mostly the top of the water, that contact to air, be coming down so, the best way of ventilation.

**Planting in sand as soil:** Sand is essential for each plant soil, thus be making drainage easily, If the sand is so small grain, not a drainable one. The roots be easily grown, so mostly preferred for plant, new implanting sticks.

**Keeping in the Air:** Some roots are area-roots, like Orchids, thus be humidification is essential. Washing and keeping the water drops be with them.

**Feeding:** NPK are the basic fertilizer. The amount, ratio is according to the demands, Root, leaves, and flower be as the challenging one. Trace elements, even be given, as a plant, be a life of a right. Sea molds are commonly used ones.

### Control

**Look the plant:** Look the flower, make empathy with the plant, if it indicates as okey, then this is the best for this pot. Each one is different, so requirement is differs.

**Insects:** Insects are a normal habitat, so can be noticed. Bot used poison, just be biological controlling is necessary. Soap, making foam and put in a plastic bag, for 1-2 days be satisfactory. Some bacteria's, Microbiomes, as yoghurt ones be mostly selling at market, thus, I cannot find in Eskişehir, thus be find at Datça. Datça products for export, Eskişehir for inland selling.

**Early collection:** Before maturation, like tomatoes be collected, as the taste will not be so good.

## Result

These indications are the applications, of the Author, not be related any references. Water is such a fact of practice, thus be given us lessons.

## Water Protection

As you are perceive the fact, water awakening the seed, like a stone hardness, conforming an new plant. If you put about a day for selection of the seed, floating be disregarded, at the bottom be planted. This makes as form 20% to nearly 80% implanting being success.

In living organism, water is the main structural material, so, the quality be so important about life and lifespan. What kind of water and how about the supportive at this water, for nutrition and for other perspectives be also in consideration.

When the water pipes, small ones, be under, below the roots, the decreasing of the temperature makes a positive for root making.

**Plate under the flowerpot:** When you put a plate under the pot, it is not for clear surface, thus be controlling the watering and be continuously supply of water. If the plate so fixed, the pot be filled with water and the plant be drowned.

**Special designed pots:** Some special pots have a close design; the openings be closed by the plate. For saving the water is perfect, thus for outside, the raining water be filled and the plant be drowned, so be careful about the pot.

**Comparing plastic and ceramic pots:** Old times the ceramic pots are preferred, for slight drainage of the water and makes more cooler. Thus today they are all covered and painted, so not any passing water, only be for the appearance is good.

**Water at the plate, pot in water:** Some plants are taken water from the plate, slow and desired be taken from the flower. Saint Paulita be one of the example.

**Perforated pots:** For orchids, the water be like washing not be stayed, so perforated pots is essential.

**Outline:** Several steps and methods for watering and using of water is indicated.

### Plastic Cover

Plastic is important for holding and saving the water and humification.

**Saving the evaporation by plastic cover:** Mostly used at home, for protection in any way.

**Protection from cold/hot, by plastic cover:** Sera mostly used for frost, thus, direct sun light may also cause harm, so filtering be an advantage, thus, ultraviolet can be filtered also, so considering this fact be also in consideration. Sun protection is differs also.

**Cover from Northern Wind:** Lime, and such trees, plants cannot be resist the Northern Wind, so, covering, be in a nylon, plastic shield for shelter be increasing to survive.

**Plastic layering below the soil:** Then covering about 20-50cm below the ground soil level, with plastic under-cover, can protect the water is not escaped. Thus be careful about the water drowning. The hottest whether the water be also evaporated, means soil be aerated, keeping the plant well. I use for my Bellis perennis, English Daisy, for protecting the hottest times.

## Deviation of the Environment

The climatic changes sure effects on the environment, so, the plants and other animals, feeding on plants be deviated, different kinds and genus be mostly encountered.

If the greening be essential concept, and water is obligatory vital, even for animal food, as also for Human being, care and serve the water is required. Rain and river as before plenty, now, restricted, tomorrow be not found. So, some reserved places and pools for collecting and using later be established. Not forgetting that, plants taken carbon-dioxide and water, making sugar and oxygen. So clearing the air.

Mostly trees in consideration, thus the plant covering, under the trees, forest is important. As in Pine Forests, the bottom be covered with spine of pine leaves, so easily be burned. Not letting to be any flower beneath. So, after a forest fire, it is called pine desert.

At the findings at Ephesus Ruins, the first ancient ages, the pollen at the stool examination mostly oak, later it is turned to pine pollens. The differences, the Ephesus port is clear, later be filled with sand, so the function was gone. Oak is the primary tree, now it is pine. The climatic changes differs. Oak forest have under forest plants.

**Soil Layering:** Because the water is clearing the soil, thus 1 cm be nearly 100 years to confirmation, swept, so the layering must be dynamic important. Saving the soil also protecting the water at the ground, and be mostly dry farming method is applied.

When cultivating, the soil be digging for plowing, parallel to the slopes, and best for water holding.

**Winter water collection:** When snow is melting, the cumulation of water be holder by special dams, for water collection.

**Forbidden to Enter the Forest Warning:** The warning of not to enter the forests, forbidden be not as a saving the forest form Human being. Forest fire, not by camping, thus, they have special area. The common fires by intended to burn the forests.

**Discharged water:** The discharged water form houses, mostly be like fertilizer, so, be filtering and oxygenated and used for plant watering. Not be for using and of course not drinking water. The detergents, and also the plastic materials are dissolved so, not be making harm, so suing for watering the plants have not side effects.

**Industrial wastewater:** ISO/TSE-14000 rules for industry of cleaning the water, be used again and again, be for environmental usage.

**Micro-flora:** In Turkey, the toilet discharge, mostly contains yoghurt bacteria, Microbiomes, so not petrifying ones. Thus, be oxygenation is needed. In still water collection, like dam water, the motionless water be under is anaerobic, and not let any life below. If the water is making upside down and adding the microbiomes, so the flora is establishing, fishes can be lived.

**Dams:** Dams for electric generation and also for watering the fields is at perfect solution. Thus, the soil collection, filled the dam area, lessened the collection of water, and the anaerobic condition, not allowed for fish and other living organisms.

**Collection of sand at rivers:** Rivers mostly bring sands, so, clearing the sands prime important, be closed the flow of the water and stuck the canals.

**Using surface water:** The river water, if not polluted form industrial and home discharged water, can be used for using, even for drinking. The filtration and preparation must be done professionally and nearly each day 4 times analysis be performed.

**Punctuate the soil, for water be perforated below:** Making holes at the field, as 1-2 meters long. A stick, mostly by metal one, be try to break the layer of the soil. Be aware of collection of water on the ground.

**Pool making at the top of hills:** In Central Asia, in Anatolia, most hills top is like table, so be making a pool on top of them, with plastic cover, saving the water on top. At night pump can be used for water support, thus less energy consumption. The top being also for cultivation of fish, especially goldfish, and Nephelium for flowering, business can be done. At rice plantation in China, Cystocarp kind of fishes is also put there and later be for protein supply.

**Cistern:** For rainwater collection, some reservoirs are performed called cistern, thus, they are mainly for drinking water. As possible they can made, as they are covered, have a doom, so, evaporation be controlled.

**Using rainwater at Home:** Each home has a roof and for protection of rain and snow. So the water is drained by the system, thus, it is let to outside, the road. If there will be a well like pool, it can be collected. The preserving material be plastic, not be a cement. The amount be arranged according to the geological place of home. Being a pool, for goldfish, Nephelium be grown. For home use, special cleaning and filtering mechanism be used, even for using purpose.

## Result

After the Fourth Geological Icy Age, the duration being passed about 25,000 years. The climate is continuously warming, as 2-6 degrees be near aspect. The melting of glacial, ice, confirms opening of Gibraltar and the Mediterranean be as lakes, filled over 260 meters of sea water. Dardanelles, Bosphorus is opens and Black Sea is give way.

Homo sapiens, sapiens from Africa to the World separated, immigrated.

At nearby years, the 4-6 degrees increase at sea, changing the genus of fishes, balloon fish and Lionfish to the Northern parts in Mediterranean.

Increasing the evaporation, and the cold effects as not a rain, like flushing of water from cup, so, great floods and the water flows and carries the soil. Raining is mostly a terrible and dangerous so, controlling is essential, not classical system is satisfactory.

The fields be taken as geological system, like a farm system. The rain and water and soil drainage be configurated, according to geological positioning.

The environmental climatic changing is obvious, so, not only take precautions is satisfactory, but complete diversity on agriculture is also obligatory. As an example of Sahara Desert, the fact is coming.

## An Example, Application

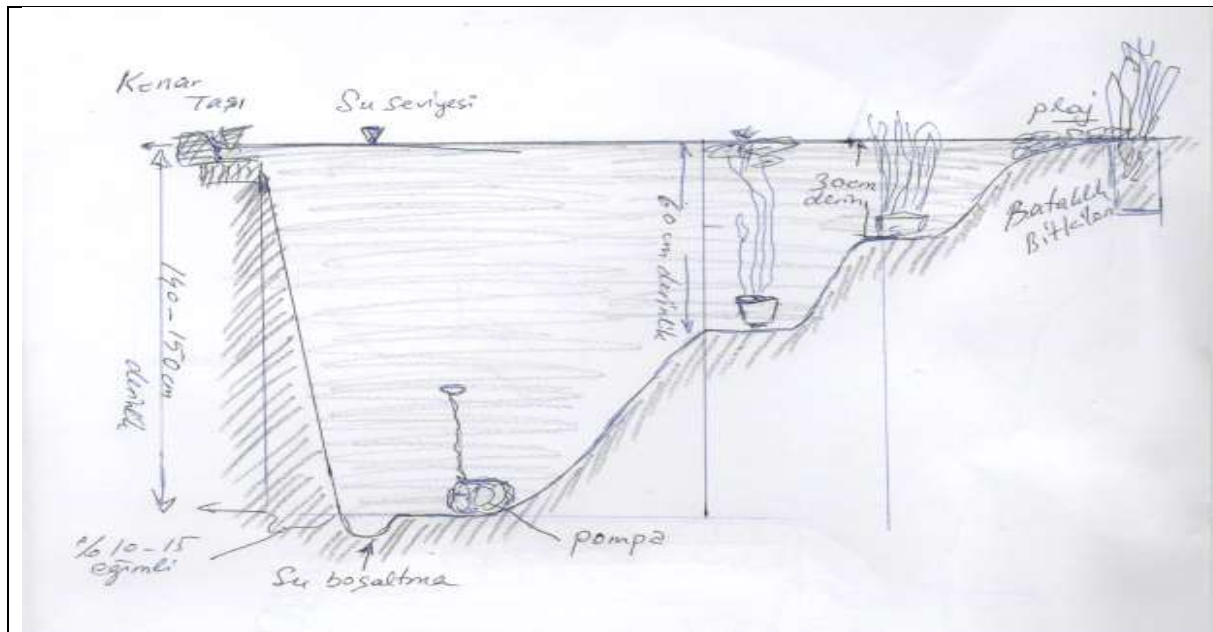
This is the plastic covered pool, as an example of the performing a pool.

Some important facts at the accomplishment:

- 1) **Deep:** Deepness be according to desired plant, fish, or others.
  - a. **Deepest Part; 140cm:** Not more than 140cm, for protection of drowning, and for cleaning and other perspectives.
  - b. **Discharge Point:** For discharge point, there must be place to put the output.
  - c. **General, deepness for plants:** Mostly 60cm deep, for Nephelium plants, within pots.
  - d. **Shallow Plant deepness:** Some other plants requires swallow water, 30cm is enough.
  - e. **Water Level:** The water level be protected from stones, so, not be affected by waves, thus, the plastic cover is not seen by sun, so be protected, and covered by stones.
- 2) **Inclination:** The wall of the pool, not be 90degrees, be about 12-15 degrees inclination, so not be flowing downwards. Thus the water pressure be as a serving, but precautions is essential.
- 3) **Coverage:** The plastic be hard one, be resisted the water and pressure, be a solid one, the glue be not time disturbed it. Below the plastic a fine sand can be used, for protection.
- 4) **Area for swamp plants:** When the rainwater is much more, the overflow of water to a place, under a plastic cover, so swamp plants be planting there.

- 5) **Pool side:** Even some rats and other rodents be falling to the pool, they have some place for pool side, to get out. May be hard to climb the stones around the pool.
- 6) **Compared with concrete Pool:** Concrete pools, hard to make, expensive, be permanent, and not be so deep, and addition to at winter the ice be damaged it. About 25cm ice is covered the pool.
- 7) **Stone lining around the pool:** Walking around the pool be done, so the rocks, the stones around the pool be at 2 steps, one be below the water level. Control must be done, before filing the pool.
- 8) **Pomp for exchange the Water:** For water discharge, and making the water upside down, mixing, a water pump be let to stay at the bottom.
- 9) **Mostly 2 pool be essential:** According to inclination, two or three pools be essential. They have contact, by overflow, so, when a problem be in one, the other be used in place.
- 10) **Fountain:** For water oxygenation and for looking it is a good apparatus.
- 11) **The Water inside:** The water inside the pool is so important, it must be primary rainwater. Thus flood water be also taken, but be care to get rid of the sand. For protection of insects, mosquito preferably, fish and some salt be put in it. Table slat as 300g/meter square is satisfactory.

#### General Cut View of the Pool



**Graphic/Picture 1:** Inclination, deep, and difference depth, pool side, swamp are, stones.

- 12) **Ammonium:** Balancing the ammonium and types as nitrite and nitride, be important. So nearly 15 days required this balancing. So, afterwards, fish can be put in it. High ammonium kills every living organism, including plants. Not let decaying at the deep surge.
- 13) **Flora of the Water:** The microbial flora is important, be mostly Streptococcus and yoghurt kind of bacteria and even molds be as Saccorimices cervices and if not the petrification is obvious.
  - a. **Micro-flora:** The water layers contains different kinds of flora, even the temperature is not same, so layering is considered.
  - b. **Mucilage:** This is a king of microflora, such not Mikrobiyom, making some fibers, making a combination.



- 14) **Oxygenation:** Oxygen is obligatory essential for living organisms, anaerobic ones not enough for live. Air bubbles are not satisfactory, thus, the make a current, form to bottom be leads satisfactory oxygenation. Upside down therefore particularly important.
- 15) **Shadowing:** For reducing the evaporation, 1) Trees can be planted near the pool, 2) The pool not being at circle and big, so long constructed, as plastic sheet can be used, 3) A picnic area, for sightseeing and be a place of camping, 4) Plastic covering can be also used, mostly people seated, 5) For swimming it is not suitable, 6) Thus for plantation, Nephelium and 7) Pond fishes as goldfish be even good source of income.

### Application of the Thesis



**Graphic/Pictures 2:** Application Pool

- 16) **Ice Cracking Warning:** At winter, the ice be as 25-30cm thickness, so assuming to be walking on, thus, if cracks, the person be inside and the ice covered up, so, warning about not to walk and information be given.
- 17) **Putrefaction, Smell:** The odor, be an indication of the healthiness, bad, putrefied means no oxygen, high ammonium values. Adding apple cider, sour and yoghurt be directly changed it, returns to normal.

**OUTLINE:** Most ideas be on eyes, not seen and applied one be acceptable. In general, the information is not be tolerable one. Therefore this is the real, applied pool, so, the concrete pool be only for stationary and permanent, this can be established in everywhere.

### Suitable Places, Nearby



**Graphic/Pictures 3:** The hills nearby the Author Home in Eskişehir.

**Reasoning,** Not constructed a pool, thus be a collection area for rainwater. The nature be in combination about the surroundings, a kind of storage, that can be used for watering. As the top of the hill pools, can be notice at Italy Farms, as at night pumping with water, form flood collections dams. Morning be for water usage.

The hill looking to the South is one of the best places, looking the city be good sightseeing.

The rainwater as flowing like a flood, be collected, and pumped to the pool.

Thus, here given two examples near the House of the Author.

## Erosion

Raining must be watering and over one be down the ground making the water table. Thus if the ground is hard to pass, and heavy rain with slopes, the soil is washing within downwards.

The trees, thus be not so effective, and the ground grass and under bush plants, not at the pine forests, so easily being washed.

Protection from erosion is the first degree of taken care, even at the slight gradients.

## Erosion Fact



**Graphic/Picture 4:** Near the Authors Home, the erosion evidence

## Information

Author is Medical Doctor, Pediatrician, so, the Agriculture knowledge not as university education. From childhood, up to now, nearly 70-110 flowerpots are as Home Flowers at several genus. Nearly at 25 years planted garden flowers, and be on knowledge taken, nearly 38 Plant Books in English, about 4 in Turkish. The kind of flowers are the main subject of them.

Not any insecticide using to kill the insects, biological control are the main objective ones. Thus not found at Eskişehir, thus be at Datça, buying form there.

## Reference

- 1) Nash, H, Everhart, R. E. The Pond Doctor; Planning and maintaining a Healthy Water Garden. Sterling Pub. New York, 1995.