

Young Reporters for the Environment

present

YREBOOK 2010



Young Reporters
for the environment

About FEE

The Foundation for Environmental Education (FEE) is an international organisation that has been promoting environmental education for sustainable development since 1981. Through formal school education, training of staff and awareness raising, FEE programs involve people of all ages and nationalities.

They are called:

- > Blue Flag (www.blueflag.org)
- > Eco-Schools (www.eco-schools.org)
- > Young Reporters for the Environment (www.youngreporters.org)
- > Learning about Forests (www.leaf-international.org)
- > Green Key (www.green-key.org)

The programs are implemented and administered by national member organisations in 59 countries around the world.

About YRE

The FEE program Young Reporters for the Environment (YRE) is operating in 28 countries with more than 13,000 participants. The eight themes for investigation are agriculture, biodiversity, cities, climate change, coastline, energy, waste and water. Students research a local environmental issue that relates to one of those and inform their community through a journalistic piece. The goal is to engage the public in solving local environmental problems. All the articles and photos submitted by Young Reporters are available at www.youngreporters.org.

About YRE BOOK

The YRE Book is a collection of the best YRE production in the school year 2009/10. It contains international articles, photos and short news and illustrates the diversity of YRE investigation in participating countries. Awarded pieces were chosen by the international jury, which took place the 25th of May 2009 in Paris, and included:

- Mr. Bernard Combes - UNESCO
- Ms. Fabienne Pierre - UNEP
- Ms. Morgan Strecker - UNEP
- Mr. David Ainsworth - Convention on Biological Diversity
- Mr. Peter Herbert - Feet of Green
- Mr. Richard Hale - Feet of Green
- Mr. Thierry Lérévérend - FEE France Director
- Ms. Sarah Winterton - FEE representative for YRE

For more information on the YRE programme contact the International Coordinator at coordination@youngreporters.org.

This year, we are excited to present a new look for the YRE annual publication. This was an international cooperation work between France and Slovakia and we would like to thank the YRE coordination in Slovakia for their involvement in the layout of YRE Book 2010.

Celebrating success in 2010

We congratulate all participants in the YRE program for their fantastic submissions and efforts to raise awareness about an environmental issue in their community. Exactly 32 articles and 62 pictures were submitted to the YRE International Jury, which is an increase from last year. You can read the full submission at www.youngreporters.org.

The network is growing bigger with new countries joining the programme, and the International Jury therefore had a lot more material to review! We are glad then to see new countries participating to the jury such as Kazakhstan, Slovakia or Germany! Highlights of the 2010 International Jury: Turkey awarded for the best article about agriculture and GMO's. China has been awarded twice for the 1st and 3rd best photos. We can also congratulate Wales to be awarded twice for the best article in the Biodiversity and Climate Change/Energy award.

Every year, pupils from different countries are working on projects in both national and English language. This is a challenge for many young reporters who are learning English as an additional language and we applaud their efforts. Consequently, when the International Jury reviews the final submissions, they take other qualities of the project into consideration, such as, does the project draw from transdisciplinary knowledge, does it offer a new perspective, does it represent teamwork ?

With over 13,000 students from 28 countries participating in 2010, we believe that more young people are taking an interest in being an actor in the society and learning to make this link between local and global sustainable development issues. We encourage all participants to build on this interest, to educate in their own community, in a positive way. Through the YRE network, we can share knowledge and success stories, and, most importantly, inspire each other to go further.

We would like to thank the French Ministry of Ecology for its Financial support of the international YRE program as well as the members of the 2010 jury, who represent UNESCO, UNEP, Feet of Green, Convention on Biological Diversity, Foundation for Environmental Education (FEE) and FEEE France.

And to conclude, we would also like to thank all national operators, teachers and pupils, who after many years keep making the YRE program as a great network and great tool for schools.

We look forward to receiving great projects again this year.

Vincent Laurent, YRE International Coordinator

Editors note: Contents of the articles and photography comments are not subjects to corrections by the editors of this volume, as to keep authenticity of the youth's work. However, the extent of articles may be reduced due to publishing limits. Enjoy!

Portugal: Preserve today to enjoy tomorrow!

In March the Young Reporters for the Environment from Pico's Vocational School participated in the action and campaign "Clean up Portugal in one day", invited by the Mayor of Madalena do Pico.

It was a civic activity which, through the voluntary participation of individuals as well as private and public entities, claimed to encourage environmental education and to reflect on the garbage, waste, materials cycle and sustainable growth problem, by cleaning the Portuguese forest and taking all the garbage away from the green spaces.

Jessica Sousa and Rosália Rodrigues
Escola Profissional do Pico



Slovakia and Germany: Bilateral and CO2 free

Second school year of the program in Slovakia has successfully started with media and environmental workshop for almost 40 participants which hosted also the lecturers from Greenpeace Slovakia. With the professional support of Slovak Syndicate of Journalists students received the press cards and started to investigate the causes and solutions of local environmental problems all over the country.

In cooperation with German Young Reporters, Young Press Berlin and Unabhängige Institut für Umweltfragen they will design their own newspaperworking on

through the most modern CO2 free way of communication. Online.

Zuzana Límová, national coordinator

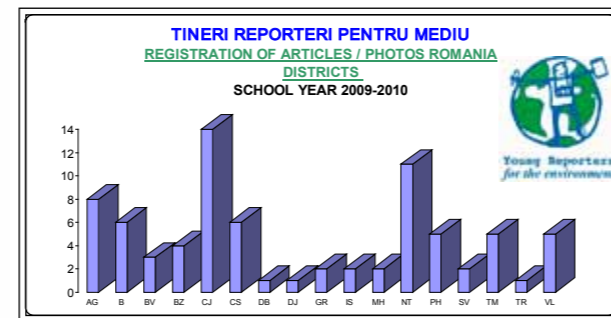


Romania: Active online

In this school year were included on the website www.youngreporters.org a number of 84 projects, of which 50 national and 34 international, Romania being placed 2nd in Europe, regarding the registration.

Of the 22 counties included in the program stands Iasi County, which has 23 active projects.

The themes addressed in the 78 articles and photos recorded on YRE site this year were: biodiversity, climate change, water pollution and waste.



Coordinating teachers: Sorina Victoria Grosu & Corina Arghira, Eco-School No. 11 Mihai Eminescu, Pitesti, Arges district.

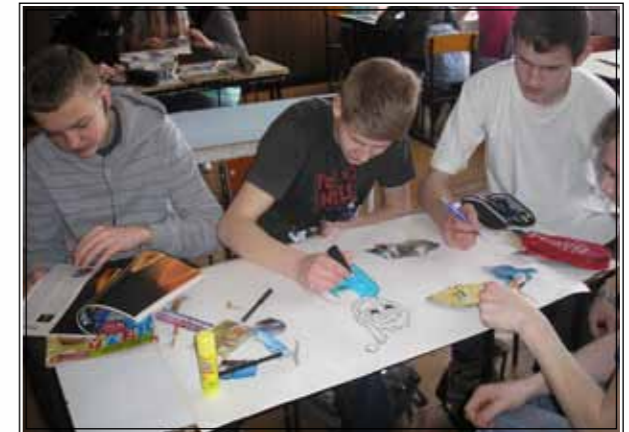
Simona Folea, national coordinator

Latvia: Water week at Rujiena School

To attract student's attention to water problems in the world and around us, World Water week was organized at our school from March 22-26. Thus teachers organized study work at the lessons using research work methods, group work, discussions, role plays, experiments etc.

What did we gain and learn? For example at the English and German lessons students extended their vocabulary connected with water in a foreign language and drew posters calling others to save water resources. At Social Science they students organized "Fish Carnival." What species did they make! And as the snow had not melted yet, it could be used at Chemistry and Physics - to state the snow density and to study how water melting temperature changes when sodium chloride is added to snow. The water topic was also studied in folk songs, phraseological expressions, Latvian folk tales and poetry.

Alina Deksne, Rujiena Secondary School



Wales: Students on BBC

Our National Jury selected three National winners to represent Wales and we are delighted that two of the schools also won the International Biodiversity and Energy categories. In July the schools attended a celebration event at the Royal Welsh Agricultural Show where the Minister for Environment, Sustainability and Housing presented the pupils with their certificates and a trophy for the overall Welsh winner. Three newspapers also published articles about the schools and the pupils were also interviewed by the BBC and appeared on TV. The classes involved will also be visiting the BBC studios as part of their prize.

YRE Wales

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Greece: YRE training seminar in Krestena

In December 2009, a three-day training seminar was organized at the Environmental Education Center of Krestena in cooperation with the Hellenic Society for the Protection of Nature. Fifty teachers from all around Greece, that implement with their school teams the YRE Programme, participated in this seminar.

Several subjects were discussed such as, journalistic techniques, the function of the website of the "Young Reporters for the Environment" and the educational projects and themes of the YRE network.

Christina Theodorika-Georgia Fermeli
Hellenic Society for the Protection of Nature

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Articles competition

It's like a Science Fiction Movie

So what is GMOs?

Genetically modified organism is an organism whose genetic material has been altered using genetic engineering. They use high technology to transfer a set of molecules from one organism into another to create a new organism.

As I said before, GMOs are used as a solution to hunger. However, we should ask ourselves: Are GMOs that much innocent? It can be dangerous for the environment, economy of a country and our health.

Natural effects

The world has countless species of plants. When you want to grow GMOs, you need wide plantation for one kind of plant. GMOs cause cross pollination with traditional organic plants. So the organic plant's genes change and it turns into a GMO. Cross pollination can occur at quite large distances. New genes may also be included in the offsprings of the traditional, organic crops miles away. This makes it difficult to distinguish which crop field is organic, and which is not, posing a problem to the proper labeling of non-GMO food products. So we can kill the world's diversity of natural vegetation.



Economic effects

Secondly, they also have economic effects. The nature can renew itself. I mean if a farmer wants to grow a watermelon, he doesn't need to buy new seedlings every year. He can use its seed again next year. On the other hand GMOs can not renew themselves as they have terminating genes so the farmer has to pay for the new seedlings every year. Because they can not use the seedlings two times.

Genetically modified foods are also sold

with herbicides and insecticides. So when we want to cultivate genetically modified foods, we need to buy special pesticides along with the genetically engineered seedlings to protect them. What's more high technology is used to take the genes from one organism and implant them into another. I mean its not as easy as it sounds. It's complicated like science fiction films. Nowadays production of GMOs are done by private sectors in the USA and in some developed countries who have patent. Those countries who want to grow GMOs have to pay big amount of money to grow. It means that those countries will be dependant on these countries to some extent. So new trade and tariff issues may arose between countries.

Health effects

Thirdly, the problems which we mentioned above are just the tip of an iceberg because GMOs' long term effects on health can be unforeseen. The risk and benefits of new technologies are only fully known after they have been in use for many years so we need too many years to see its results on health. For example when a patient who is cigarettes addicted is afflicted with his lung, we can say cigarettes' role in his illness after asking the patient how long he has been smoking and how often he smokes. Because he can tell when he started smoking and how often he smokes. But it's not same with GMOs as people can not say when they eat genetically modified food and how often they eat in a year.

The new genes that are put in food are resistant to certain antibiotics. If we eat them our body become immune to antibiotics. In case of an illness, the antibiotic which we need to use in order to recover may not make use of our illness.

Allergies may become more intense and also new allergy types may develop. For instance, we are allergic to fish but although we like strawberry, we suffer from allergy when we eat it. How can we know that its because of a strawberry which has fish genes in it. If it's not said, we can't understand this.

As for GMOS' place in the world and in Turkey

This technology known as recombinant DNA technology was planed to used in medicines and vaccinations first but the fields related to health are monitored strictly. As an alternative they have found a field which is again related to health but not monitored seriously; 'food.'

Today in 25 countries GMOs are 54,6 % of these is in the USA , 8,1 % of these is in Argentina , 11,5 % of these is in Brasil, 3,8 % is in India, 3,5 % of these is in China.



As we know that the most common GMOs are corn and soyabean. Because they have wide area of usage, they are used in chocolates and in most of the things which we buy from supermarkets. It's illegal to grow GMOS in Turkey but the foods which are imported to Turkey are not monitored strictly.



What should be done to prevent it?

Although GMOs are said to be advantages, its ill-effects can not be ignored. At first it was introduced as a solution to hunger. But today insufficiency of food product is not the main problem; imbalanced food distribution is the main problem. If the community keeps using up all the sources

and the population increases steadily, hunger will not be the only problem. There will also shortage in energy and clean water resources.

As one of the Chinese proverbs says: if you want to feed a man one day, give him a fish, but if you want to feed him for a life long, teach him how to fish. GMOs are only temporary solution. Because Turkey is a really lucky country in terms of diversity of its natural vegetation. So we should learn how to keep, maintain and use our natural sources.



If Turkish public don't want to import and eat GMOs, the government should make some regulations in health department. He should keep monitoring serious and strict. And also we, consumers need to eat the vegetables in season. Because they are fresh and organic in season.

Briefly, While the experts can not say definite things about GMOs' long term effects on our body, how it happens that we can support them. To us, it's risky, anyway. Life is too good to die early! We wish everybody organic and healthy life.

Izmir Saint Joseph French High School, Turkey



Pembrey Country Park:

Can conservation and tourism co-exist?

The inspiration for our report was public reaction to plans for a student music festival at Pembrey Country Park in June 2010. We decided to investigate if tourism and leisure can be developed without harming the natural environment. Apart from doing desk-based research, the team interviewed some expert witnesses: Gavin Hall, the Senior Ranger: Isobel Macho, an Engineer working on the Carmarthenshire Shoreline Management Plan and Ian Forshew and Ben Davies, directors of 2 businesses involved in the tourism development.

The Park and its history

Pembrey Country Park is a nature reserve with 8 miles of beach edged with sand dunes. It is situated in Carmarthenshire, on the west coast of Wales. It is important that the park is managed so there is a balance between conservation and leisure. It already has a dry ski-slope, golf course, restaurants and an adventure playground. A new woodland attraction called Go Ape is due to open on March 26th 2010. Pembrey is one of the most popular visitor attractions in Wales, because it's a beautiful environment with lots of variety. Histori-



cally, the land was used for a munitions factory (1880s - 1965), an RAF base and grazing land. In the 1970s, the park was bought by the local council from the Ministry of Defence and decontaminated. It opened as Pembrey Country Park in the 1980s.

The Park and its ecology

Pembrey is home to many rare plants found nowhere else in Wales. It has many species of birds such as the goshawk, kingfisher, crossbills, warblers and sparrowhawks. There are 31 species of butterfly, including the Grizzled Skipper, which has only 3 colonies in Wales. Habitats here are among the most important in Europe.

Gavin Hall, Senior Ranger, told us that the beach, called Cefn Sidan, is a Site of Special Scientific Interest because it attracts huge numbers of wading birds. It is nationally important for oyster-catchers and internationally important for sanderlings. These birds are not affected by tourism and leisure because they arrive in winter for feeding. The dune system is also an SSSI.

The main threat is sea buckthorn, which was introduced to the park in the 1930s to stabilise the dunes and protect saplings for a pine forest plantation. It grows so fast it crowds out smaller native plants and also changes soil chemistry by fixing nitrogen. The Rangers are clearing buckthorn by cutting it back and letting cattle graze on it, to avoid chemical controls.

Other human influences have come from beach cleaning by machines which gained the Blue Flag awards but swept up seaweed which was a nutrient and helped to trap sand to start new dunes. The Rangers now hand-pick the litter.

The edge of the forest along the beach is dying off because of weevil infestation and salt damage. But the dying trees attract beetles and woodpeckers who feed on them. A few years ago, the council were worried about motor-bike scramblers on the beach, so they fenced off the dunes. But they noticed that rare flowers

like Sand Catchfly seeded in the tracks. This showed us that tourism need not do damage to the environment and sometimes, conservation strategies and cleaning up have been more harmful. In some cases, adding facilities for visitors has been very good, such as making the wooden paths over the dunes to encourage visitors not to ramble over the dunes.

Isobel Macho of Carmarthenshire County Council told us that the whole dune system is eroding naturally because of rising sea levels and increased storms. There is a strategy to protect the coastal defences, but a managed retreat is the most viable option.



Leisure and tourism development

Tourism is important locally and globally. It brings about £300 million into Carmarthenshire and creates about 5500 jobs directly. Most of these are in small service businesses offering accommodation and catering, but also transport and recreation. It is very important to replace the jobs lost from industry. We asked 2 businesses how they try to cut down environmental damage. Ben Davies, a Director of the new Go Ape in the Park, told us that they put their new attraction away from habitats (e.g. nesting woodpeckers) and take care to protect the trees. The company have built bat boxes in the old war-time bunkers. They encourage visitors not to use bottled water by having lots of taps. Ian Forshew, from the company running Beach Break Live, the music festival, said that they are limiting the stages, camp site and food areas to grass areas and fencing off the dunes and woods.

They have plans for 24-hour litter picking and noise control. They are reducing the carbon footprint of events by buying food and drinks from local suppliers, and encouraging visitors to use buses and car-sharing. Like Go Ape, he recognises that events won't be allowed if they damage the environment.

There is no choice

Gavin Hall gave us a clear message that conservation must live alongside tourism and leisure. The local economy needs money and jobs. If visitors don't come to the Country Park, there will be very little money for conservation and the park won't be able to cover its costs. Without an increase in visitor numbers, the Park is at risk of being sold off to a private owner. This could mean more development and less access for local people. As long as the leisure side is managed properly, there is no reason for big risks to the environment.

Glan-y-Môr School, Wales



Where are the wild vegetables scattered over the hills?

Every weekend dad, mom and I would like to climb Wushan Mountain located in the southwest of West Lake. In this blooming season of spring, green trees send out new shoots, and peach blossoms and cherry blossoms are competing in splendor, and everywhere it gives forth breath of spring.

I see thick plants growing on Wushan Mountain everywhere. Their leaves are as wide and big as my little hand, and it seems to be much more sturdy than many other wild flowers and weeds. I lean over to smell, its odor seems a little strange. Dad says that they are invasive plants called *Ageratum conyzoides*. The whole hillside is covered with *Ageratum conyzoides* and another kind of unknown weed with purple flowers. There are also *Bidens frondosa* and *Setaria palmifolia* which are "foreign invaders" too.

Mom tells me that long ago when spring was coming Wushan Mountain was all covered with *Kalimeris indica*, shepherd's purse and other wild vegetables as well as dandelion flowers, which are "indigenous" residents of Hangzhou, but now they have been squeezed out by these alien plants.

Information shows that there are more than 60 kinds of alien invasive plants in Hangzhou, the most notorious ones among them are ragweed, water hyacinth, *Solidago canadensis*, *Phytolacca americana*, etc... Many of these alien plants come across oceans from America, Southeast Asia to Hangzhou. Each of them lords it over an area and severely occupies homes of local plants, and some of them even bring harm to human health.

An example of these is water hyacinth, its

Ageratum conyzoides of Wushan Mountain



Ageratum conyzoides of Sanjiang estuary, Jiande

hometown is in Brazil, with a scientific name of *Eichhomia crassipes*. The species of water hyacinth grow up floating in water with very quick reproduction, and often cover the entire surface of the water so that other aquatic plants can not conduct photosynthesis, and aquatic animals can not get sufficient oxygen and food which may cause death. In this way, the ecological balance is damaged and the aquatic ecological system will deteriorate quickly. In addition, water hyacinth can also block waterways and affect the security of flood and shipping. Last summer, I participated in a scientific investigation organized by Hangzhou Children's Academy of Sciences. In Sanjiang Estuary of Qiantang River I took a picture of water hyacinth that has almost covered the whole surface of the river, which was really shocking.

Another "intruder" *Solidago canadensis* was introduced as ornamental plants, and now when fall is near, it can be seen everywhere in fields and behind houses which creates a spectacular view. Local plants collapse without a fight, and more than 30 kinds of local native plant species have already been eliminated by it.

Now with more frequent global exchanges, the opportunities for invasion of alien species have also increased. Instead of spending a lot of manpower and material resources to eliminate them so why not take preventive measures early?

Liu Jian-kuan
Hangzhou shidai primary school, China

Gradual disappearance of natural microflora and microfauna

Have you ever wondered the great vital importance of the edge, that green strip of land which is daily threatened? Of course, the cause of this disaster is modern man and modern methods of farming. Now, unlike the past, the ways used to exploit and cultivate the land have become more violent and demanding towards the nature.

As a result of these human behaviors there is a constant and everyday risk of a forthcoming extinction for a large part of the microflora and microfauna, the same time that some other living organisms have already extinct without us knowing.

This is a phenomenon that occurs more often in the cultivated land, on the edges and the dry walls. These crops constitute housing for various species of microfauna as earthworms, silkworms and insects such as grasshoppers. Apart from the microfauna, there also grows a wide variety of wild plants.

To continue, surely you have noticed the existence of living organisms such as butterflies, snails and spiders on the green strip of land separating the crop from the idle land. According to the scientists, this strip of life is the edge. Also, right after the edges and the uncultivated land, there is a part of land with trees called dry wall. Usually, there are many reptile animals like snakes and lizards. However, modern farmers think of these microorganisms as a threat and most times use extreme ways for their expulsion. Underlying cause of this misbehavior is the need of the farmers to keep up with the pace including agro-economy.

Due to that, and because of the over-population and consumerism, farmers need to produce more and more agricultural products in order to cover the excessive demands for consuming. To cope with this, farmers tend to use enormous quantities of pesticides and herbicides which cause irreparable harm to the microflora and microfauna. Also, although man is an integral part of the environment, he ceases to respect it and becomes increasingly aggressive towards nature. Instead of utilizing the environment up to its own limits, he utilizes it up to his.

In addition, we need to note that the explosion of enormous amounts of waste to nature is responsible for the contamination of some organisms which are workers of the ecosystem. Furthermore, we could also say that the negligence and ignorance of people often lead to phenomena such as conflagrations, resulting to the loss of large forest areas and the living organisms within them. An indirect influence on the problem is also the acid rain which is caused by the contamination of air, and when it reaches the earth has devastating effects.

Naturally, all the above have negative impacts to the environment and the man himself who becomes a victim of his own actions.

However, there is still the time to react. It would be useful if every government could adopt laws to ban the use of toxic substances and to impose the upgrading of the farm equipment, such as the use of special filters in factories and agricultural machinery. Another way to solve this problem is the strictly controlled subsidy of economic fund to the farmers as a way to encourage and help them use traditional organic farming methods. Of great help could also be the organization of educational programs and the promoting of various environmental organizations.

As we have mentioned, the green world is being destroyed and responsible for that is the man himself. Maybe, if we could view differently concepts like the edge and the dry stone, which are full of life, we will understand that the nature can coexist even under adverse conditions. Maybe the edge and the dry stone is the nature's answer to modern man who intervenes in it and strives to extinguish it, the same time when nature falls back. This is a response reaction to the rape nature is being subjected to so that the edge stops meaning the nature of the margin. The edge is just a sign for the rebirth of nature. What are you going to do about it?

Maria Makripodi, Sofia Mirthianou, Anna Dai, Gianna Mathioudaki, Giorgia Metaxaki, Maria Papadaki
Lyceum of Perama, Rethymno, Crete, Greece

The bees are scratching their heads

The first time we heard about the Imgiebah beehives we all thought that it was something interesting, although none of us knew exactly what they were. On this field trip to this beautiful valley of Imgiebah, besides learning a lot about biodiversity, we also had a glimpse of our past, as these stone beehives certainly caught our eye.

Our imagination started to run wild and we wanted to delve more and discover the origin and the function of these beehives. Researching about the beehives led us to explore the work of bees throughout the ages and how present day conditions are threatening bees worldwide.

The stone beehives in this picturesque valley in the limits of Mellieha village are quite a rare site as these beehives are entirely built out of stone. The area for building these beehives was chosen with care, so that it is sheltered from the wind and excessive sunshine. They were always built facing South so that the light of the rising sun will encourage the bees to go out early to collect the nectar. The chosen area was usually a cave or a cavity in a rock and a stone wall with holes in it was built on the outside of this cave. The holes were dug in rows on top of each other, rectangular on the outside and narrowing further as they get deeper into the wall. A small shelf was built inside, underneath the apertures so that the bees could rest when they arrive laden with nectar and before they start on a new journey. Big pottery jars were placed inside this cave so that the bees work in this honey factory. The name of the place where these beehives are built is Imgiebah, derived from the word migbha which means beehive.

The major role of bees in an ecosystem is as pollinator of flowering plants. Their main job is to continue the reproduction and survival of plants and other organisms in the food chain. If honey bees are gone, nearly all food items eaten by birds, animals and humans will be affected. Every plant or tree that has a blossom needs to be pollinated before it bears fruit. For example, a single flower on the cucumber vine needs about thirty visits from a honey bee

before that flower will turn into a cucumber. In Malta bees that produce honey feed mostly on wild thyme that grows on garigue.



However it is not all a bed of roses for bees. The primary threat to the world's biodiversity is loss of habitat as this alters or completely destroys the conditions needed for plants and animals to survive. Habitat destruction comes in different forms, deforestation is of a major concern, and land converted to agriculture is another factor which alters the habitat for these organisms. Urban development which leads to different forms of pollution ranging from greenhouse gases to the generation of toxic waste makes the bees scratch their head with worry.

Global Warming is the buzz word that is affecting our buzzing friends. Due to global warming there has been an increase in pathogens, viruses and fungi that have a damaging effect on bees. The changes in temperatures also affect bee population as the seasons are becoming more inconsistent. This affects the landscape of the honey bee's territory, changing the bee's usual life patterns.

It is not all dark clouds because there are people who care about bees as if they were a part of their extended family. We interviewed a present day beekeeper, Mr. Frankie Borg, who uses modern wooden structures for his bees in the vicinity of the stone beehives. This hobby was passed on through generations and he remembers his uncle using clay pots which he sometimes kept in the old beehives. Frankie ex-

plained how he rears his bees and how the harvesting of honey is a yearly event he looks forward to. His concluding statement was: "My bees collect their nectar mostly from carob trees and I include this information on the label of honey jars I produce. Many customers specifically look out for honey that is produced from the nectar bees collect from the carob tree."

We are not going to rest on our laurels; in fact, we have written to the local council of Mellieha to take concrete action and save these beehives and the bees that live in the area. One of the suggestions is to include these hives as part of a heritage trail where people of all ages can have a window on our past, enjoy these unique structures and also discover the art of honey making through the ages.

*Kristina Catania, Elena Gauci, David Pace
San Anton School, Imsellie, Malta*



Pine trees or magnolias?!

Planted seventy years ago, today they live only in the memories of Tivat's inhabitants that used to walk along that side of the street during the hot summer days. High "as the sky", with the thick needles, they created shade full of pine and sea scent. Proud, green pine trees...

And then, one day, someone decided to remove the old Market place and in the large plot build the gray stone building - the Shopping centre! Because it is the best for all inhabitants and the tourist in our small coastal town!?!

The Pine trees witnessed all the building works: tons of steel and rock were piled in the geometric shapes of building blocks, apartments, business areas... One wall made of blue glass, the whole building wrapped in gray marble, the square skewed a bit to the left, a bit to the right!?! And when it all ended, when it seemed that the thick, green trees will still make shade and protect the tired visitors of the Shopping centre - they cut down the Pine trees! The „Gray home“, as inhabitants call the new building, was basking in the Sun while the resin was dropping from the thick tree



The last remains of the pine trees are covered by sand

stumps. And then, the machines removed the last remains of the proud green pine trees.

The magnolias will be planted instead; they say Tivat is the town of magnolias, so there should be more of them.

The spring arrived, Sun is already shining... the bare street keeps the memory of its green friends and waits... until magnolias grow up...

*Kristina Lazarevic, Secondary school
„Mladost“, Tivat, Montenegro*

The monster of Naqbi water spring

When taking the bus No. 3 in Fez and when leaving the bus at the last station at the region of Naqbi Water Spring, you will be surprised to see a dark and black smoke covering the sky. Such pollution is from the industrial units producing pottery articles. According to the declaration of an officer of the Office of the Handicraft Industrial Association, there are 64 industrial units in Fez.

Naqbi water spring under the mercy of the pottery manufacturing units

Each industrial unit is using between 2 to 5 conventional furnaces to produce pottery articles in temperatures attaining 1400 centigrade. Such furnaces are using woods, olive dregs, used tires, painting and industrial wastes.

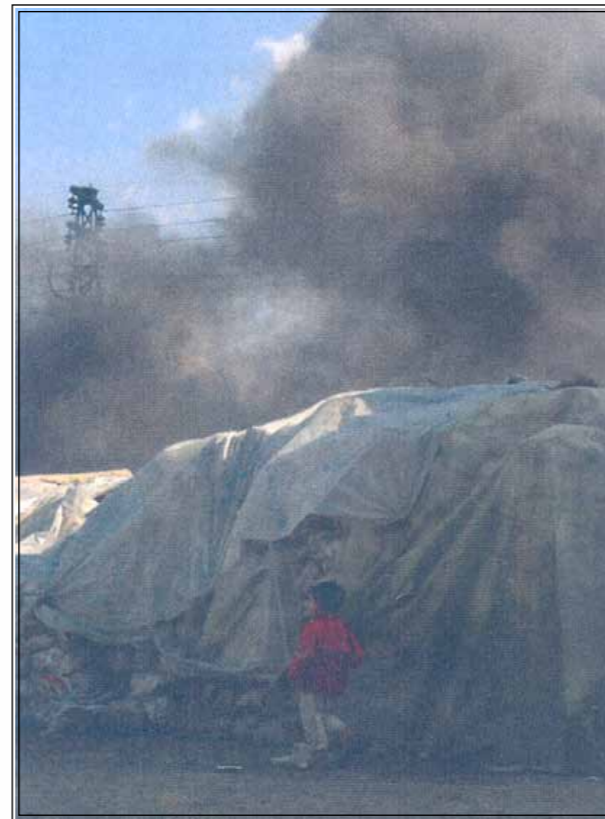
During the burning process, black and toxic smokes are covering the region of Naqbi water spring spread by the winds polluting the environment. The region of Naqbi is always "bombarded" with the pollution caused by the pottery furnaces.



The bad effects of the pottery furnaces on health

"We are bored with this smoke and pollution. Our clothes are no longer clean, our children always ill. What a life is this," these words are those of an old woman aged 60 years living near the pottery industrial units. To have more and accurate information, the young reporters of Abdellah Chefchaouni Senior High School paid a visit to the chief doctor of the local hospital who said: "The smoke is very dangerous for the health of the peoples nearby. We discover 80 cases of tuberculosis every month caused by the pollution of the region and bad airing of the houses. We have

also noticed that young people aged between 15 and 35 years old suffer from asthma and pulmonary infections. Children also suffer from breathing difficulties..." People working in these furnaces and pottery manufacturing units are all most suffering from breathing difficulties, allergy and skin burnings.



Unsuccessful alternatives

According to the declaration of the secretary general of the District of Jnane El Ward: "As the complains of the inhabitants grow, the local authorities proposed to change the traditional furnaces with those using gas.", but the owners of the pottery manufacturing units did not accept the proposal because of the expensive cost price of the modern furnaces using gas compared to those using woods, olive dregs, used tires, painting and industrial wastes.

As we were unable to meet the president of the industrial unit "Art-Naji" who is holding at the same time the position of chairman of the industrial chamber of Fez, one of the employees of the said the industria unit informed us that: "Art-Naji" concluded an agreement with the Italian company "Fi-cola" for the use of electric furnaces, but the new experience failed due

to the expensive cost of electricity and lack of sufficient production both in quality and quantity. Using Electric and gas furnaces to reduce pollution is very difficult as the cost price of gas and electricity is very expensive and that most of the manufacturing units are small entities and that large part of them have no official existence. The Electric furnaces prices vary from MAD 180'000 for the furnaces made in Turkey to MAD 300'000 for those made in Italy."

The secretary general of the district of Jnane El Ward added that: "Pottery manufacturing units are the main polluters in this region. The local authorities have decided move and transfer the pottery manufacturing units to "Ben Jlik" in the region of Sidi Harazem, what the owners refuse as the new region is very far and tourist will no longer visit their workshops and buy

The Citadel

It is situated at the edge of the sea, connecting the south and east sector of the fortification. Since the Venetian period it served for the protection of the city. Saturated with blood and hate, it stood proudly throughout the time to protect against all that came and will come, but at the end its broken peaces were spread trough the depths of the sea.

It is believed that the Citadel was build during the Ottoman Empire, but it was reconstructed after the Venetian time. It was demolished in an earthquake in 17th century, as well as during the battles between Venetians and Ottomans. After they took over the city, the Venetians reconstructed Citadel and enlarged it. Several decades later, after the second catastrophic earthquake in 1979, the former jewel of the city turned into the ruins.

The Citadel protected us from the enemies before, but after numerous years of neglect, today we are enemies to the Citadel. Within its walls, the Citadel kept heroes and warriors before, today it only keeps garbage and empty bottles. Due to our neglect, the Citadel became our enemy, and now its walls are threatening to fall down on the promenade along the sea.

The initiative for the reconstruction of the

their products, in addition to the fact that they have not sufficient money to rebuild their units and restart their activities."

Waiting for the hope to come

While the owners of the manufacturing units refuse to adopt furnaces causing less pollution, and the populations are still complaining, will the competent authorities enforce the decision taken to transfer the pottery manufacturing units outside the city or let the situation going from worse to worst?

Soumya Chakir, Saida Hmichou, Anas Seddiki, Omar Dehmane, Mohamed Yakoubi Abdellah Chefchaouni Senior High School Delegation of Fez Regional Academie of Fez-Boulmane, Turkey



Citadel started during the 80s when the Insitute for urbanism from Herceg Novi prepared the draft programme for the reconstruction of Citadel and Old Town. However this program was never carried out. Today, this subject is rarely mentioned, as it seems like no one cares any more.

Why do we turn our backs to our friends? Aren't we aware that we are hurting ourselves as well? All I can do for my friend is to be its friend. Maybe it is not late to turn around and help our friend who stood there for centuries and scarified for our city. Maybe it is finally time to start doing something nice in return.

And just as the famous Sophocles said: "Life is meaningless without a friend", we should do something now while it is not too late...

Masa Laban and Ana Krivokapic, Gymnasium "Ivan Goran Kovacic", Herceg Novi, Montenegro



Wind: coal of the future?

Wind turbines are modern adaptation of the classically renowned wind mills used for centuries in Holland to produce bread to sustain the nation. This has now been reformed to apply to the current situation with countries trying to partly sustain its energy resources using wind energy. Wind farms are currently used across Wales as an alternate energy source to reduce the use of fossil fuel; which not only helps the environment, but as fossil fuel reserves are running scarce and dramatically increasing in price, now is the time for wind power to come of age. The sooner we realise this, the sooner we can develop the idea into a fully functioning, efficient way of generating the nation's power. In our area, Tonyrefail and the surrounding villages, we have twenty turbines at the site in Taff Ely. These wind turbines produce energy for four thousand, five hundred homes. The site is approximately a mile from our school; although we cannot hear the turbines, they are clearly visible. Pupils have visited the wind turbines and agree that even when standing directly beneath the turbines, "the sound is almost nonexistent and should not produce an audible problem to even the closest houses". We asked people to state their opinions on the matter of wind farms and we received mixed responses. The responses included: "They are a landmark to our local area.", "It's nice to see that we are playing a part in contributing to our nations renewable energy supply." and "Providing renewable energy is important and I am glad they are there.". These pupils all gave relatively positive responses.

However, when we questioned older members of the school and local community, we received very much different views. A local member of the environment group, Miss Gail Evans used to be an active supporter of the wind farms. She says that if the wind farms were directly helping the local people she would still support the initiative but she feels that the local area has been taken advantage of. She quotes: "Coal mining once scarred our local community and now the inefficient and unsightly wind farms do the same."



Science of wind farms

Wales is a windy country and many of the hills and the mountains are severely exposed to strong winds from the south-west. This makes it an ideal country for the production of energy through wind turbines because at least 40% of all wind in Europe flows over the U.K. Considering that we are a small region of Europe, that is an extremely large amount of wind that could be used as a beneficiary method of producing energy. Another advantage is that wind energy is green energy and does not produce any harmful gases such as carbon dioxide, carbon monoxide or any other pollutants; it is also renewable which means that it can be used repeatedly without any damage to the environment. However, a disadvantage is that it can only be used in wind exposed locations. Although this is not a problem for Wales itself, for some countries it is simply not viable for the mass use of wind farms to generate electricity. Wales has a very long coast line and the westerly winds make it an excellent place to develop wind energy. Wales could be the spearhead in developing the use of renewable energy. Wales is a relatively small country so we don't need a great deal of energy, therefore it should not be that much difficulty in generating the vast majority of our energy from renewable resources. As we have a very large coastline, we could harvest this quality and use it to generate energy from sources such as tidal power and hydroelectric power alongside wind energy. This benefits Wales not only economically and environmentally, but we could also use this to raise awareness about renewable energy and how, with further development, it can work. By doing this it

would challenge other countries to keep up with the small countries who are trying to make a difference and then consequently, by more green energy being produced, the whole world can benefit. Another significant advantage is that after the initial costs of constructing the wind turbines, the fuel to power the turbines is completely free as it is in the natural form of wind, which is everywhere. This shows that no matter how small a contribution, if we all do our environmental responsibility, it all adds up and it could make a difference. To quote an environmentalist named Phoebe: "No one can do everything, but everybody can do something."



Facts and figures

Wind turbines generate electricity by large blades that move in the wind which turns a gear mechanism which is attached to a generator. The generator then makes the energy which is sent to the national grid. Although larger turbines are more efficient, they also have a much more significant visual impact. A single 1MW turbine operating at a 45% production rate would generate about 3.9 million kW of electricity per year. This would be enough to meet the average needs of about five hundred households a year. Traditional sources of energy such as coal have been used up and the search and development of new cleaner sources of energy has brought investors flocking to windy Wales.

Future plans and opinions

There is now a proposal to build a further eleven wind turbines at Fford Y Nest and Pant Y Wal. These wind turbines, if they are built, will engulf the countryside surrounding Gilfach Goch. Residents are very concerned about both the visual and audible impact on the environment, wildlife and the resulting effect it will have on their community. This is an extremely important issue that is dividing the country. Although wind power seems an excellent, environmentally friendly method of generating energy for our future, you also have to consider the damaging impact it has on the communities and the wildlife of Wales. To quote Bob Dylan: "The answer is blowing in the wind."

Jason Elward and Nathan Ivey, Wales

Solar systems: Earth's shield to climate change

Case study: Solar heating systems - a local research

Mutation of the earth's axis, sun spots activity, cosmic radiation, changes in the interior of the earth and human activity are according to scientists the main factors of climate changes. The only way to minimize the expansion of this phenomenon is to diminish the use of polluting energy resources like fossils. This means that we have to use alternative sources of energy like wind energy, solar energy, wave en-

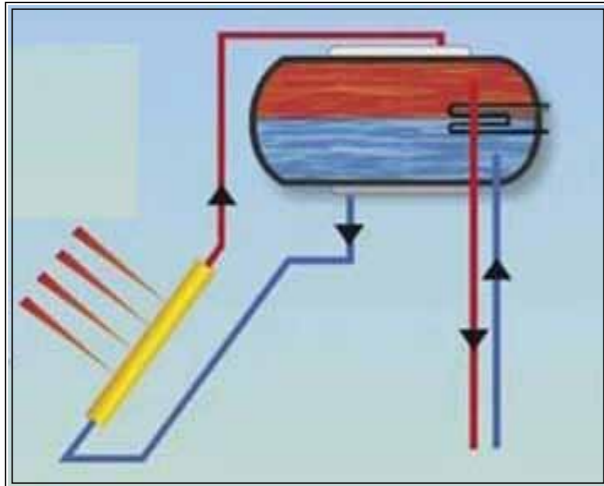
ergy, geothermic etc to fill the energy gap by not using fossils.

In Greece and especially in our region Kyparissia, the sunny days are more than 280 days per year. So solar energy seems to be the most appropriate renewable energy source we can use.

Therefore, we discussed the issue of solar systems with the other members of the environmental Comenius project "Eco



Intelligence in Action”, the program we are currently running in our school, and we wondered how much and how efficiently we actually use solar energy systems?

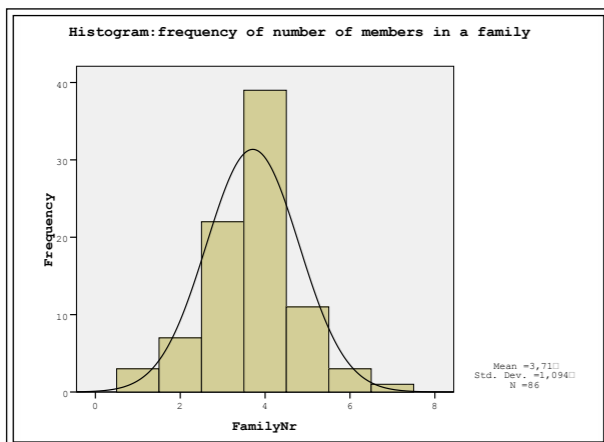


The solar heater (SH) is an energetic solar system that warms water using solar radiation.

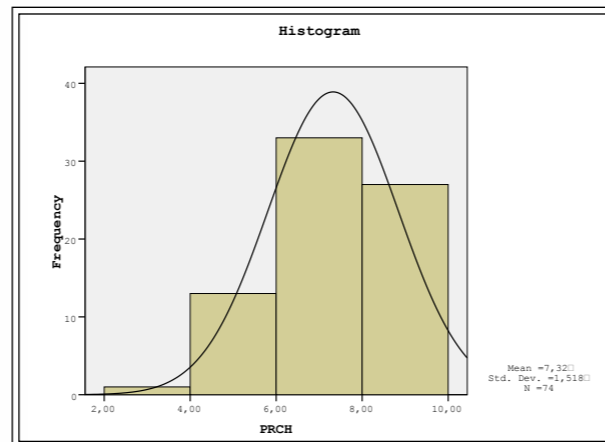
Our research: From discussions we made with our parents and citizens of Kyparissia we noticed that even though the use of solar heater is frequent, its maintenance is not that frequent. In order to see whether such a supposition is true we designed a questionnaire to examine:

- How well we know our Solar Heater(SH)
- How well we maintain the whole system of the SH and
- Ways to motivate the citizens of Kyparissia to maintain their SH in order to increase the systems efficiency especially during winter when sunshine days are fewer and the sun is low.

We used a questionnaire and collected data from December 2009 to January 2010. The sample of our research consisted of 96 citizens of Kyparissia. They represented almost 400 inhabitants since the average number of the members in each family is 3,7 as we can see the graph.



50% of them are parents of students participating in our environmental program. Testing the variables of the questionnaire for normality using SPSS software we found that almost all of them were following quite well the normal distribution. Analyzing the data, we found that 77% of the families have installed a SH. In order to estimate how good was their choice to install the proper type of SH, we created the variable PRCH including in it the data we had about the type of the solar heater(opened-closed type), its capability to work simultaneously with electric power and the central heating system of the house and the position of the water tank. We found that the mean value of the PRCH variable was only 7,32 out of 10. As reason for this result we considered to be the higher cost of the best SH type (closed type, triple action functionality, vertical position of the boiler) in relation with the open type SH.



To investigate how well citizens know their SH and how well they maintain it, we grouped the questions of the questionnaire creating two variables the knowledgegrouped and the maintaingrouped.

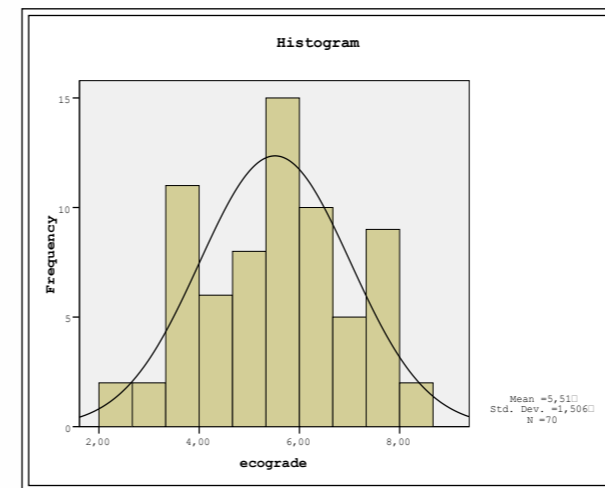
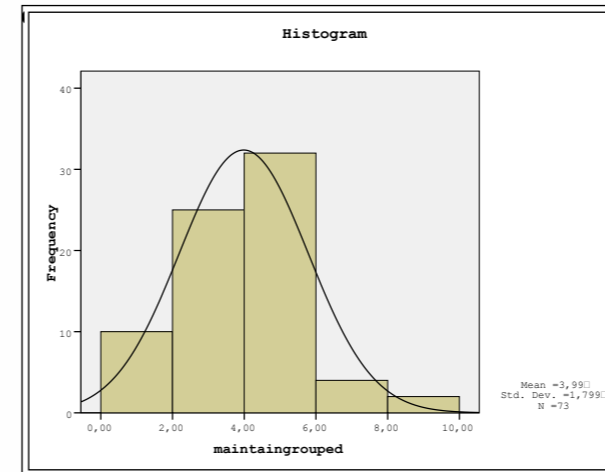
We found that the mean value of the knowledgegrouped variable was pretty low since it was just above 5/10. In many subjects related to their knowledge about their SH, like whether the SH is equipped with anodium (Mg) the mean of the corresponding variable was only 2,3.

Table 1: The use of anodium

N	Valid	71
	Missing	25
Mean		,23
Median		,00
Mode		0
Std. Deviation		,421
Variance		,177

Such a result indicates not only the lack in knowledge but also predicts the probability of a similar behavior in the maintenance of their SH. Our prediction was verified when we analyzed the data for the maintaingrouped variable. As we can see both from the graph and the mean of the variable (mean=3,99) their performance was very low to support the claim of the good preservation of their SH. Almost 30% of them declared that they had never cleaned the collectors of the SH.

Summing up all the data we had, we



created a variable (ecograde) representing the total so called ecological behavior of our sample in relation to the best possible efficiency of the SH. The mean value of ecograde is 5,5/10. Evaluating this behavior of the sample we can say that although almost 80% of them have chosen to use the SH only half of them know their SH well enough or maintain it properly.

Conclusions: Renewable energy sources are proposed by scientists to be the solution to reverse the effects of the climate changes phenomenon. This solution can work only if renewable energy systems work efficiently enough to produce the maximum amount of energy. Our experience from the use of Solar Heaters in Kyparissia region shows that this is not the real case. Although we use renewable energy systems we do not maintain them well enough. Thus, their efficiency is below their maximum capacity and we do not gain the benefits we could:

- in the financial domain (we spend more electricity than we need to warm the water),
- in increasing the life of our SH system (bad maintenance of our system leads to its destruction) and
- in restricting the CO2 emissions to the atmosphere.

Of course we need to further inform the citizens of Kyparissia so that they will change the way they use and maintain their SH and therefore raise their ecological behavior to a higher level.

Arida Dioni, Antonopoulou Paraskevi Varelas Peter, Georgiadi Eleni, Dionysopoulou Athanasia, Drimis Giannis
Geniko Lykeio of Kyparissia, Greece

Saving energy from the kitchen

The girl who we discussed today named Xiao Guo, and she was in grade 2 in a high school, the same as me. She studied and made a kind of heat pump whose source was the low class heat energy of the smoke ventilated from exhaust hood in the kitchen in 3 years, and she applied and obtained the patent in such a field.

When we talked about her research, we must take care more about her studying experience first. She found that very much

hot water was needed for showering or washing every day, and the air conditioner heated the air around its machine outdoors in summer, so she wanted to invent a kind of new instrument which can produce hot water and realize air conditioning at the same time. She knew the instrument called heat pump after she learned the relative acknowledge about heat pump in the middle school, and she excited for her creative idea. But soon she disappointed after sev-



eral months' market investigating and surveying, she found the heat pump with source from air had been sold and it was not a kind of new technology at all. Facing to fail idea, she also obtained more knowledge about heat pump, which was, the performance of the heat pump was relative with the air temperature outdoors, that meant the performance of the heat pump was very low in winter for low air temperature, so she thought to seek a kind of high temperature source to solve the low performance question of the heat pump.

She excited again when she saw the smoke or steam exhausted from the hood in the kitchen managed by her father in a fire department, and she realized they could be used as the heat source of the heat pump. She told me that in a dining hall that very much hot water was needed for washing vegetable, dishes, hands or anything else, and it was heated by electric, that meant, it needed very much electric energy every day. The exhausting smoke or steam of the kitchen was a kind of very good source. The source of the popular heat pump heater was air outdoors. She pointed the instrument that made by herself and said: I made the evaporator according to the shape and size of the exhausting hood, and I put the U-shaped copper coils behind the ventilating grill in the hood, that means, the evaporator and the exhausting hood were integrated together. After the evaporator, compressor, condenser and expansion valve were installed, I test the leakage of the system with N₂, and soap bubbles, which means, no gas could be leaked form the system, after all, safety is the first we should take care.

I interested about her invent principle and function. I realized that the air temper-

ature in the kitchen was higher than that of the outdoors, and the gas temperature flowed from the hood was higher than that of the air in the kitchen. Whatever experiment or theory, a conclusion has been drawn that higher evaporating temperature lead to higher performance, so higher performance could be obtained in her system. The results of her experiments performance were 6.22,6.08, 6.64 and 6.49 when noodles, vegetable, rice or meatballs were treated respectively, otherwise, the performance of the popular heat pump heater was about 2 in the same conditions. Of course, the instrument Xiao Guo made was a kind of high efficiency heater.

When she saw I didn't understand the concept "COP" well, she explained: COP equals 6 means 1kWh Electric energy can take 5 kWh Electric energy from low class source, and we can obtain 6times of energy compared with the electric heater. The heat pump heater she invented could use the exhausting energy to improve the evaporating temperature of the heat pump, so the COP was improved, meanwhile, it could reduce the degree of air pollution leading by the exhausted smoke or steam from the kitchen.

When the interviewing was over, she told me full of confidence: we could contribute to saving energy, and the patent isn't far away from our high school student, and my new target of next step is promotion and applying my technology.

"I adore and praise you!" I can't help expressing my blessing and envying. Yes, we high school students can also do something to realize low carbon life, and that is the pride and acknowledgement of our high school students.

Yu QingXi Guo
Tianjin XinHua High School, Tianjin, China



From windmill to wind turbines

Coming with the wind...

A glance at the services of wind to mankind and the environment in the area where we live.

Wind Energy

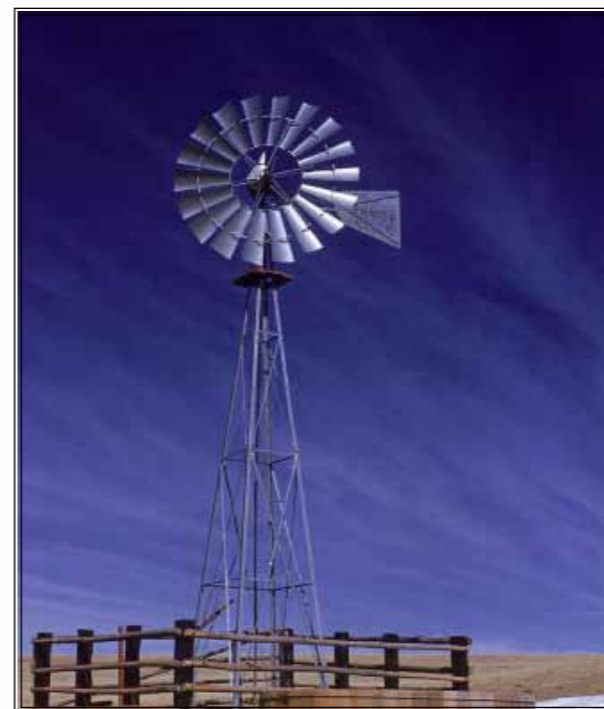
According to Greek mythology, Aeolus was the god of wind and so governed it as he wished (picture 1). He kept the winds imprisoned in sacks and only freed them at the command of Zeus.



Aeolus, the god of wind.

Windmill

In Asia (Mesopotamia and China) the use of windmill began from the 700 B.C. and has continued up to the present. In Greece the first windmill was drawn by Herona during the 1st century.



Metallic windmill



European windmill



Parts of the windmill

The water-pumping windmill was a metallic construction with two to four blades. Nowadays, approximately 1000 metallic windmills function in Crete in the Lasithi area.

Going through history we can see not only cultures and civilizations but also great winds crossing over Naxos, the biggest island of the Cyclades. There are records stating that windmills exist on the island since the 13th century and were brought there by the Venetians during the Venetian invasion on Greece. Up to the 15th century around 80 windmills existed in the hills and mountains of Naxos. Today

the few remaining or reconstructed windmills seem to be lofty witnesses of the past and great monumental artifacts of our cultural heredity.



Traditional reconstructed windmill in Apiranthos Naxos

Wind turbine

The wind turbine generator is a modern system used for harnessing the wind power, which changes the energy of wind into electric energy. It functions individually or in groups composing wind farms.



Koronos: Aesthetic problems in the natural landscape. Wind park verses gravel pit.

The past meets the present – Wind farm in Koronos Naxos, next to a traditional windmill >

Thoughts and conclusions

Following the traces from the windmill to the wind turbine we can say that wind energy: a) is revealed and provided freely by nature, b) is friendly to the environment c) has served man kind since the antiquity.

Furthermore the appliances of use and exploitation of this energy: a) Are controlled and do not include dangers; b) Don't harm mankind or any other living organism (According to research the birds that is said, are harmed by turbines, actually familiarize with them learning eventually to avoid them); c) Have no effect on the agricultural and stock-raising activities; d) Create certain aesthetic problems in the natural landscape, which are not as intense as the effect that regular agricultural activities or excavations have on the environment.

Besides the advantages that were reported above concerning the harnessing of wind energy, sometimes we can see some unpleasant connotations. Under the pretext "I protect the environment" certain people take advantage of the situation and gain a lot of money against the common good. To avoid this, the government has to be very careful in following all the demanding legal procedure of studies and area validations that are necessary for the construction of wind farms.

We come to the conclusion that wind energy has brought us "a wind of change" in the energy and environmental issue at the same time creating the conditions for economic growth of regions with high wind potential as well as the guarantee of a viable future for us, the younger.

*Manolis Karabinis, Andrianna Pittara, Giannis Protonotarios
2nd High School of Naxos, Greece*



We are not indifferent to nature

Annotation: Young reporters for environment and students from Gymnasium of M. M. Hodza in Liptovsky Mikulas mapped the different waste, which could be found near dam Liptovska Mara. It was on April 12, 2010 and students wanted to get the litter away and eliminate the illegal dumps.

The key words: Liptovska Mara, pollution, Prosiecka Cove, removing rubbish, originators of pollution, laboratory research, the future plans

Liptovska Mara and its maintenance

We have studied the pollution of Liptovska Mara banks and thus we have helped to improve the situation. Liptovska Mara is an artificial reservoir in central Liptov Region. It is named after one of the flooded villages. It was completed in 1975 and it burried more than 10 villages. The total working area the dam's surface is about 2 160 ha. At present Liptovska Mara dam is of primer importance for the region, because of the River Vah regulation, production of electric energy, fishing and mainly tourism. About 26 000 people visit Liptovska Mara every year and they contribute to its pollution. Fishing farmer, Mr Tibor Ilavsky, said that more than 1000 sacks of waste are collected every year. People's awareness towards the environment has improved dramatically in comparison with the past few years. The positive message is that the owners of boarding houses nearby care for cleanness of the banks.

Our help to nature

Slovak Fishing Association has helped to organize the school event in Prosiecka Cove. This event was aimed at removing waste. Seven reporters for environment, seventeen volunteers and the local television Liptov participated in this event. We collected 120 sacks of waste within three hours. These sacks were taken to the dump in Partizanska Lupca. The content of the illegal dumps was separated for paper, glass, plastic and other rubbish. Apart from municipal waste that villagers take to the dump, they also take building material,

mostly glass and plastic bottles, toiletry items, food leftovers, camping chairs, inflatable boat, baby car seats and couches.



There are seven young reporters for environment and seventeen volunteers in the photo. The whole group are situated in Prosiecka Cove. There are sacks of rubbish from banks in front of us. The amount of sacks signalize the enormous pollution of banks.

How can we solve this problem?

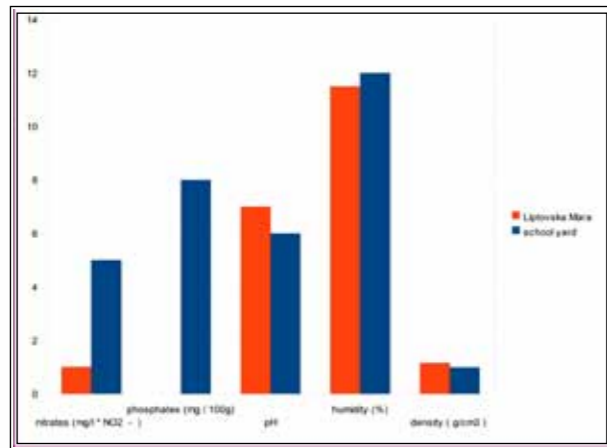
The originators of this pollution are tourists, inhabitants of near villages and accidental passersby. The problems coming out from tourism should be solved by businessmen and institutions profiting from tourism. One of possible solution could be setting up the fund which would finance events focused on cleaning of neglected areas. Local self-governments are to sort out pollution caused by villagers. A possible solution for the future is a large capacity container. The country itself is responsible for waste which is thrown by accidental passersby and it should equip rest areas with litter bins.

Analysis of the soil and water in Prosiecka Cove

We took the soil sample which is constantly flooded throughout the year. We have found out that pH values range from 6.5 to 7.0 which means that the soil is mildly sour. The soil humidity reaches 11, 5% and the value reveals that soil is relatively heavy. The content of nitrites and nitrates is 1mg/l * NO₂ -, phosphates and ammonium cations were not found in the soil. These results are better than results measured from school yard's samples (see the



Graph 1.). These conclusions were caused by the fact that the soil was gained from the area, which is not damaged. Self-cleaning abilities of water and rainy weather also had positive effects. The analysis would not come off so well if the samples were taken in summer months.



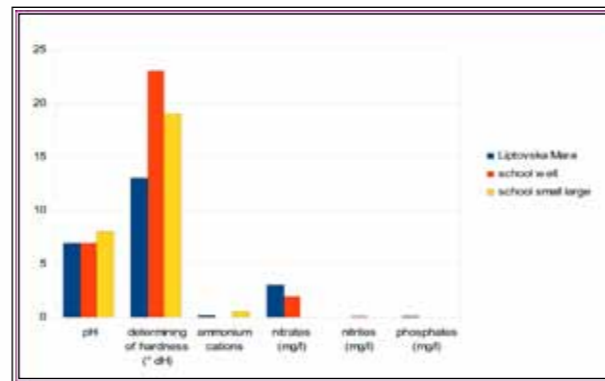
Graph 1.: Analysis of the soil

We compared the water from Liptovska Mara Dam with the water from our school yard, where is a small lake and a well. It was surprising that the water from small lake was the worst. It was alkaline (pH=8,0) and it contained the most ammonium cations. The water from Liptovska Mara was medium hard. The water from Dam and the small lake contained phosphates. These agents are dangerous, because they are products of washing powder, and they are localized in waste water. Only the water from well contained nitrites, but nitrates were localized in the water from the Dam as well. These agents are carcinogenic and would cause danger for people's health in a high concentration.

Trash

Throughout history man has built a lot of castles, cathedrals, houses, bridges, roads for a number of reasons, but today, more than ever, this construction fever seems to have driven our society out of control. And sometimes, man dreams too high, and invests in great buildings, without foreseeing possible dangers. And, the one that suffers most is the environment which ends up supporting, innocently, monstrous and cement made pieces of what we can call trash.

In our town there is a block of flats that



Graph 2.: Analysis of the water

Future visions

We plan to continue in these activities intensively. We want to continue removing illegal dumps with the help of more students. We will not finish with the research of the soil and water and we will work upon it throughout the year. Since the public is not sufficiently informed, we will familiarize them with the pollution of Liptovska Mara Dam via the public presentation and giving out informative leaflets.

*Antónia Hollá, Veronika Kašáková, Nikola Pažitná
Gymnasium of M. M. Hodža, Liptovský Mikuláš, Slovakia*



Benedita, Portugal

shows exactly this. Its construction dates back to some decades ago but since then no one has ever lived there. It is obvious that an abandoned building like that is a big problem for the population. Although a fence has been built all around the building intruders always find a way to get in. As it has no doors it is dangerous to go there but still many young people use it as a hidden place for dubious activities.

It seems that it is difficult to find a solution to this situation. It has become an environmental problem as well because grass grows everywhere around the building and it doesn't dignify our town in any way. As long as the situation doesn't change the population will continue to live with this huge environmental threat.

It is obvious that as the years go by the abandoned building gets more and more evident. These buildings end up being occupied and attended by people, mainly teens, has places where it is possible to do some activities seen as immoral or undesirable by the neighbourhood.



Life after us

Environmental problems such as pollution are very critical now. We've noticed its effect on the example of wasteland near school 15 in Shakhtinsk town. This wasteland is situated between a school, kindergarten, tire shop, abandoned building and block of flats. All around the territory of wasteland you can see a lot of rubbish. The ground is covered with salt caused by snow-melt waters. Also there are a great deal of open wells that can be a reason for traumas. It all causes different troubles: people are disgusted by the place; it can injure psychic health. After asking several people we've made a conclusion that people

Most of the population, has we know, feels bothered, not only for the building itself, but for the activities practiced inside it. So, some of the locals from Benedita think that the building should be prostrated, because it gives a bad environment to the region, and has no interest or utility at the moment. The opinion of "beneditenses" about the fact that the building is attended by a lot of people is also consensual, "it has no hygiene or conditions from any kind to be attended by anyone", and they also say this place has been used by addicts and skaters.

With the intention of changing the "life cycle" of the unfinished building, a fence has been built around it. Unfortunately, this wasn't the best solution to the problem, because the people who usually attend it have no problem in putting down the fence, and pass again to the inside of the building. With this, the situation hasn't changed. One still needs to bear in mind that this building has been abandoned for about 20 years.

It is necessary to do something to finish with this "trash" in our society, but no one seems to have the needed determination, to put an end to this scenario. And, as long as the situation doesn't change, the one that continues to be prejudiced is the environment.

*Bernardo Vinagre, Inês Tinta, Margarida Silva
Externato Cooperativo da Benedita, Portugal*

ple living around are afraid of going through the wasteland when it's dark.

But you still can find some pleasant things in here. For example, we were really surprised to find a meadow with small yellow flowers among rubbish and dry grass. And we also met a wagtail sitting on the electric line and heard a voice of gull somewhere far away.

This small pieces of life shows the power of nature, striking for survival. It will always find a way of existing. And our task is to help it, not to test it.

This is our opinion...

*Regina Urvacheva, Dmitriy Kudinov
School 5, Karaganda, Kazakhstan*

Tourist attraction or a froggy graveyard?

Chadwick Lakes, or 'Wied Qlejgha', is a reservoir situated in Mtarfa, Malta. It is dry for most of the year, especially in the summer. However, when winter approaches and a number of heavy rainstorms hit Mtarfa, Chadwick Lakes immediately fills up with the rainwater gathering up from nearby fields. Chadwick Lakes is home to many organisms: trees, plants, birds, insects, mice, frogs et cetera. It would be a shame to see Chadwick Lakes demolished and built as apartments.



Chadwick Lakes

Chadwick Lakes is also nice to go for a walk, especially since there is flat road. In the cold seasons, Chadwick Lakes is almost paradise; the calm sound of water gushing behind the trees, algae flowers floating on the water, birds twittering and gliding from one tree to another, evergreen conifers standing tall and proud giving shelter from the rain to anyone. In the spring, the passages are surrounded by wild yellow flowers and dormant trees which begin to grow little pink flowers to cover their naked branches from the winter, white and orange butterflies flutter about on every flower petal and explore every bend between the little shrubs.

"Oh, what a lovely sight it is! Perfect for family outings or for a romantic afternoon with one's love!" you might say. 'Wied il-Qlejgha' is nice but everything has a bad side. Lately, I paid a visit to Chadwick Lakes and I was disgusted and shocked at the devastation of the place. The reservoir was completely covered with algae and there were plastic bottles and beer cans floating on the green water. Many mem-

bers of my family, who went with me to Chadwick Lakes, also noticed several ill-fated dead frogs floating on the surface with their bellies propped up and their legs drooping in the dirty water.



The Maltese Painted Frog - a Maltese endemic specie

How can there be so many dead frogs?" I began to question myself. A couple of moments later, I found my answer. On the way up, back to the car, my family and I noticed a farmer working in his field. He was putting chemical fertilisers on his germinating crops in the soil. And that was when I realized what was happening. Farmers were applying chemical fertilisers or pesticides to their fields and when it rained, the chemicals would dissolve with the rainwater. Then, the polluted rainwater would skim down to the reservoir, where frogs lived and drank from the poison and ultimately died. This does not apply only for frogs, but also for local and foreign birds (such as 'il-Gojjin', 'il-Verdun' and the Maltese Falcon) and also for insects which were common but now are rarely seen in Malta like the dragonfly.

What if we can use organic fertilisers and pesticides for fields, such as manure, instead of chemicals? This will do no harm for any organism. While using organic farming, a form of recycling is being done by not applying chemicals. For example, manure from cows or other farm animals is usually wasted, but if it is sold for a reasonable price: farmers will not use chemicals; the soil will become more fertile; micro organisms (saprophytic bacteria and fungi) can grow; countrymen who take care of

these animals will get profit out of them; and maybe animal farms will begin to appear more.



Polluted water in Chadwick Lake

Another example of organic fertilisers can be the adding of compost. And with this there is no need to pay. The government can organise a route for a garbage truck where only organic material are picked up. Afterwards, the organic material may be given to Maltese farmers, where they can dump it into their soil and leave it there to decompose and decay. The latter can be beneficial for the soil and crops, for micro organisms and as well for the farmer. Organic Farming can be conducted by: using manure as fertilisers; hand-weeding; using mulch as fertilisers; using solarization (this is done when spreading transparent plastic across the ground in periods of hot weather for about five weeks to make seeds germinate quicker); and various other ways.

Water in our world

Look at these two pictures of flowers, what do you see? Well I see in the first picture that there are some very healthy beautiful yellow flowers. In the second picture I see some lifeless, boring dead flowers. What makes these flowers so different and unique? These plants both had sunlight and soil but only one had water, can you guess which one it was? My guess would be the first picture because water makes things alive, healthy and beautiful. You can see in the second picture that the flowers have had no water because they possess not one of those qualities.

No I'm not here to talk to you about flowers and how great they are, I'm here to

talk to you about water and what it does for us. Water does lots of things for our body; without it we would be dead. Water helps remove toxins from your body from the air you breathe, the food you eat and the hygiene products you use. Water also carries oxygen to your cells and helps regulate your body temperature. You need a certain level of water in your body's to keep healthy so you should drink six to eight glasses of water a day.



Different species at Chadwick Lakes

Back to Chadwick Lakes; while visiting this valley, we also noticed that some trees had fallen in the water because the soil underneath them gave way and collapsed. These trees then died since they could not have carried out photosynthesis to feed under the water, under the algae. Of course, this is no one's fault and so I am not pointing my finger at anyone.

Rebekah Camilleri
St Monica School Gzira, Malta

At this point, I insist that something should be done about this. As I pointed out earlier, the valley of Chadwick Lakes is lovely, however its inhabitants are suffering. All this suffering for animals is caused by human interference. Therefore with this argument, I intend to set up awareness for the local, Maltese, or foreign organisms which live in Chadwick Lakes!

Now what else do we use water for? You could give me the gr.2 answer and say "cooking, cleaning, brushing your teeth or having showers", but did you know that paper is made up of 60% water and steel is made up of 40% water? So when you recycle paper and steel you're not just saving



trees your saving water. We also use water to water crops for food and for transportation.

'Drip drop drip drop' that sound gets annoying after awhile. Well that is the sound of our precious water being wasted, thrown down the drain. How do we waste water you ask? Well there's house hold ways to waste water like taking long showers or leaving the tap running when you are not using it, which you can fix by having shorter showers or turning of the tap. Then there's outdoor ways to waste water by watering your lawn or garden every day when you could water it every other day.



What would happen if the world ran out of water? Well the only way the world is able to sustain life is because of water. Water is the earth's blood line and it brings life to the planet. With out water the earth would not be able to support life.

It is for those reasons that lots of local people in Guelph are conserving water by personally switching their old plumbing to knew plumbing that allows them to use rain water for showers, baths etc. The city of Guelph has programs like The Toilet Rebate program, which lets you trade your water sucking toilets for new 4.8 or 6 liters

The (not so) drinkable water

In Romania there is a major issue related to water use in the fight against pollution. Channels, rivers or artificial lakes, all representing potential sources of drinking water, are , unfortunately, being heavily polluted in many ways.

As we know, water is a symbol of life, indispensable for human body. Due to it being contained in the body in a high percentage, water is of paramount importance for body health, more precisely to nutrient



per flush models that save water. Guelph is striving to meet their goal, which is to reduce the daily water use by 15% by 2015 and 20% by 2025 even as the population grows.

Guelph is also offering a rebate on a rain water harvesting system. The city will give a \$2,000 rebate to the purchase and installation of the rain water harvesting system. The system is designed to collect rain water or melted snow and store it in a basin that could be under ground or above ground. "Some systems can hold up to 2,500 liters of water, which can be used for anything that doesn't involve drinking water (e.g. watering lawns or flushing toilets)," says Wayne Galliher, who is the water conservation project manager. Galliher also says : "The basins can help a family of three save 69,000 liters of water a year and it will save home owners money on water bills." The project will also help Guelph conserve their ground water supply and help the city reach their goal of reducing there water use by 8.7 million liters by 2019.

So now you have the "scoop" on water, so don't waste it, conserve it and we will have a happy, healthy planet.

Kira Jones, Guelph, Canada

uptake, body temperature control, waste disposal or for converting food into energy. Therefore, in order to demonstrate the inadequate drinking water treatment in Turda town, we have conducted a project aiming to identify causes and effects of polluting water sources.

The followed objectives were:

- stating, by close observation, the degree of pollution of drinking water;
- the possibility to obtain experimental results within our school;
- using the information for publish-

ing articles in professional journals or for presentation in scientific sessions;

- finding an alternative method to obtain drinking water in the school community or for household purposes.

The experiment

Our group has taken five samples of water, frequently used by locals. The presence of microorganisms and sediments was observed and analyzed in our school laboratories. The amount of organic and inorganic impurities was measured with a water filtration device based on electrolysis, provided by a company specialized in water purification, in Cluj-Napoca.



Surface waters must undergo appropriate treatment before being used. The aim is to remove suspensions and possible dissolved impurities. The first sample selected for analysis in the laboratory consists of tap water collected from the Aries river, which is used as a main source by the population. The presence of gray-green deposits has been detected. In recent decades, the consumption of carbonated mineral water, spring water, soft drinks etc has increased massively, replacing tap water use.

We selected two of the most popular brands of bottled water consumed in our country: Dorna and Borsec. After the electrolysis process, the first tested item showed brown-green sediments and the color became dark brown. The other one formed green-yellow fluff-like residues.

Underground waters are often likely to be used as direct sources of drinking water without any prior treatment. So, the next sample is Baisoara's spring water located in a touristic area near Turda. Following the analysis of the second container, frog wool was predominately identified microscopically, as well as green algae.

The last sample that was examined contained the purified water provided from the company mentioned above. We observed that the sediments in the five cases were registered in limits. In the tap water we identified chlorine with a concentration of 270 mg / l compared to 250 mg / l limit allowed and a population of enteroviruses and viral population; it explains outbreaks of respiratory diseases, eye infections and diarrhea in children from kindergarten and primary schools (according to the statistics of the Institute of Hygiene, Cluj).

Solutions and conclusions

It is necessary to rehabilitate water pipes in the entire city. To avoid any kind of disease, we must pay attention to the organoleptic properties of water, related to color, taste or smell. The solution which we have thought about related to these issues is purchasing ceramic filters, both in institutions and in households. They operate in five stages retaining rust, sand, chemicals (herbicides, pesticides), Giardia cysts, taste and potential odor, the final stage being the UV treatment that eliminates potential remaining microorganisms.

Related to Turda's hydrographic network, the quality of water is not up to European standards. Thus, inadequate quality water cannot be consumed or used by the population and in economical system. For these reasons, a major problem, both locally and globally, is the fight against water pollution.

Colegiul National Pedagogic "Gh. Lazar", Cluj-Napoca, Cluj, Romania



Photography
competition



The struggle between green and white

While mankind is intoxicated at the convenience of plastic products have brought, the "white pollution" is attacking the earth overwhelmingly. Studies have shown that white pollutants are difficult to degrade, and they will make a large number of soil environments and air quality deteriorated, thus threatening the lives of creatures. The lonely green in the picture is standing firmly and proudly among the widely spread plastic wastes. We have no idea of how many green seeds are swallowed by these white monsters, nor how long will the green stay?

Yu Manting, Central Primary School at Jiangtang Town, Jinhua City, Zhejiang Province



China



The Pollution of Mother River

(previous page)

Have you ever seen the river is so clean, just like a mirror; have you ever seen the ships sail over the river frequently; have you ever seen the calm people stay beside the river serenely. Nowadays, the water level of the mother river raise fiercely, the water quality is so feculent. The garbage is drifting from the up-river. It gets a serious pollution. The mother river which is full of garbage, just likes an old woman in the evening of life. She sighs heavily and groans in the beautiful southern city in China. However, should we examine our own conscience.

Lin Zhiyu, Honghulu primary school in Jinhua, Zhejiang Province

Field Full of Hope (above)

Located by Qiongyang River and blessed with fertile soil, my hometown, Congcan, lies in Tongnan County, Chongqing Municipality. In recent years, people in my hometown have been vigorously developing modern agriculture. A rape base with a scale of more than 300,000 mu (50,000 acres) has been set up, making the landscape of my hometown as beautiful as a garden. Thus it attracts a large number of tourists, bringing golden hope for my fellow countrymen.

Liang Yuxiao, Baxian Middle School, Chongqing

Dried-up Reservoir (below)

Dried mud, cracked earth, eyes a pale yellow. All of this, you can think of where Wang was once a clear water once the supply of water reservoirs so many people do? Water is the source of life, We must be rational use of every drop of water, Treasure to save every drop of water.

Wang Wentao, Kunming Railway No. 5 Middle School, Yunnan Province



Canada

Sea Blush on a Spring Afternoon

(below)

A patch of fantastic Sea Blush blossoms atop a boulder in a small patch of trees less than two meters away from a thriving Garry Oak meadow. In the background, there is an Indian Plum.

Garry Oak ecosystems are extremely endangered and they appear only on Southern Vancouver Island and on the Gulf Islands.

In the picture above, the Sea Blush depend on all the plants around them to survive. This photo was taken on an island in the Winchelsea Islands that very few people ever go to and thus the meadow was completely undisturbed.

If a Garry Oak meadow is trampled, many of the flowers such as Sea Blush and Camas will die. If you look closely, you will see the purple hue of a Camas flower towards the back of the Sea Blush. This picture shows the biodiversity of the Gulf Islands which is threatened by development.



Greece



We never know the worth of water till the well is dry

Without a doubt, water is the most vital element for life on Earth and the most significant legacy for the next generations.. We must TAKE ACTION. What is more needed is just a more careful management of our rubbish, a more parsimonious use of water, awareness and will-ness! Even one more litre clear water is a great success and a swallow of life!

The beauty of nature in dawn

Spring morning, somewhere in nature, colors, aromas, tastes, sensations. With the emergence of the sun, its rays warm the earth and all the nature is preparing again for its course. After a quiet night when everything is quiet and peaceful, life awakens. One can slowly begin to hear harmonic sounds and the landscape fills with color and energy. A daisy opens its petals slowly after her night resting. It turns towards the sun looking for the source of life. Dewdrops on the green leaves reflect the sunlight filling the landscape with color. A life - the snail - finds refuge on the flower of another short-lived life, the daisy -both of them lives of Mother Nature resisting to death, breathing the morning dew and insisting to live and regenerate... We can only discover such beautiful images in places where there is no human intervention and destructive exploitation. Man has no right to destroy the beauty and the balance given to us so generously by nature.



In some years the beauty of nature will be seen only in old photographs

I can see in the photograph that my mother took, in January 1978, the view from the balcony of our house then, and I feel nostalgia for things that I can no longer see, smell or feel. My mother came out on her balcony then and smelled wild flowers that were a few meters away. She saw the sea, the cactus, the small lodge. She saw people swimming and walking on the hill across. She saw the sky and the horizon. From the same balcony, I can only see ugly cement buildings and parked cars. I smell the car gas fumes. Now the only people that could be seen is our neighbor putting up her laundry. My sky is a narrow blue band. Why didn't I get the chance to enjoy all that beauty? Who is responsible for taking all that away from us the children?

Mihalis Rotas, 2nd High school of Naxos





Malta



The Maltese Islands... laden with history, nature, and... what's that in the background? (below)

A picturesque example of the Maltese environment, with historical churches, grassland, rolling hills and – wait – what's that in the background? Yes, that's right. It's a quarry. The delicate beauty of the countryside left by a terrible sore. The situation is becoming ever more serious; planning permission is being given for construction of houses, hotels and, of course, quarries. A quarry is the gravest offence that one can commit against land; as good land which may be suitable for the cultivation of crops is scraped away to reveal stone, which is then used to develop more land, in an endless (and cruel) cycle. After they are depleted, these quarries are usually abandoned; posing a potential danger, depriving nearby animal populations of their habitat, and ruining the look of the area in general. It is a great pity that these quarries are not usually restored to their former glory. Are we going to continue denying the consequences to our actions; or shall we finally change our habits?

Luke Scicluna, The Archbishop's Seminary, Rabat, Malta



Clouds come and go but clay slopes may be lost forever (above)

In the area of Imgiebah there is a series of high cliffs with clay slopes underneath receding gradually to the coast. This remote area remained a pristine area for generations, until off-roading became a craze. For years landrovers and scramblers had a field day over the clay slopes. Erosion set in and as clay became compacted, vegetation could not grow. This speeded up the loss of clay to the coast below. However, awareness to save the clay slopes is now in full swing as all form of off-roading is now banned. The cliffs are now smiling over the clay slopes as they can now breathe freely as no more scrambling will take place.

Nicholas Attard, San Anton School - Imselliet

The Gateway to the Future of The Natural World... our world (previous page)

The opinion of most people living in the Maltese Islands today is that the environment is their rubbish tip. Around this structure, you can see a not-so-attractive assortment of rubble, plastic appliances, pipes, and wires, directly underneath a sign that says "Keep everywhere clean".

Is this some sort of sick joke? If this is what we have reduced ourselves to, what will we do next? How about burning down Buskett (Malta's only woodland) and turning it into a landfill? Or maybe killing off every single bird that flies our way? The state of the Maltese countryside is a disgrace; and the people are doing nothing about it. The future looms ahead – will we avert course, or will we perish?

*Luke Scicluna
Archbishop's Seminary School,
Tal-Virtu, Rabat*

Montenegro



Make a wish, save the planet

Jovana Miljanic, Gymnasium „Slobodan Skerovic“, Podgorica

Sleeping beauty

Danijela Despotovic, Gymnasium „Slobodan Skerovic“, Podgorica





Nice blue Adriatic

Danica Nikic, Gymnasium "Niko Rolović", Bar



Romania

Degradation triptic (above right)

Photograph depicting the two banks of the river Aries, one dominated by industrial scenery and one standing as a proof of our ignorance towards nature: litter. In the forefront we have the consequences of human intervention in nature: waste thoughtlessly scattered on the ground. The centre of the photo is focused on the river itself, the color of the water clearly indicating its level of pollution. On the other river bank, industrialization of the area can be observed, ill-fitting the natural riverside scenery. *Grup Scolar Protectia Mediului, Cluj- Napoca, Cluj*

Creating new forms of relief (middle)

Everytime we hear the word 'ecology' we only think about the old and dusty 'save the planet', each of us making another sense, but not the real sense of the saying. The city is located an average level in what concerns the green spaces, together with the planting of new sources of oxygen or recycling. It is well-known the fact that Teleorman is a poor county with a forest area of only five percent of its total, but the attentions were directed towards expanding the forest.

Colegiul National AL. I. GHICA, Alexandria, Teleorman



Eco castle (below)

Waste, and how we choose to handle it, affects our world's environment. One man's trash is another man's treasure! Don't throw away anything that can be recycled! Kids recycle! *School no 3, Piatra Neamt town, Neamt district*

Slovakia

The flight of a wild duck (next page)

In life we get only one chance to spend some time, and if we miss it we may lose a unique experience. Nature gives us the feeling of freedom, a sense that we can fly, and that's why we should protect it. We should give future generations a chance to spend a moment of pure joy of freedom, of nature, which is our source of life.

Katarína Kordíková, Gymnasium of A. Kmeť, Banská Štiavnica

The children separate too (above)

In the world, which we are living today, we face more and more waste. And the worst thing, in the nature too. Most of the waste is produced by young people and therefore, we decided to start teaching the kids. In the picture we can see small Kristínka, who already knows that paper belongs in the blue container. Even she still attends the kindergarten.

Veronika Hašulová, Gymnasium in Snina



Future holiday (middle)

The student in the picture has shown to tourists what the holiday at Liptovska Mara Dam would look like in the future if they will not change their behaviour. Syringes and needles have been found in the illegal dumps which was even more shocking. This threat will also come true in the case if students and volunteers stop collecting rubbish annually. The rubbish can spread various illnesses, infections and parasites and if we let it be the way as it is it could be a serious threat to animals and people. A part from this, the decrease of the amount of tourists could cause higher unemployment. It would have a negative impact on the society and also on the reputation of Liptov Region as an attractive tourist destination.

Martin Barbier, Antónia Hollá, Veronika Kašáková, Gymnasium of M. M. Hodža, Liptovský Mikuláš



The highest peak (below)

The highest point of Banská Štiavnica – the peak Sitno. The moment, when soft blanket of clouds sits quietly on the landscape and the only thing left are the



sun-rays filling the infinite sky, is like when you close your eyes after a very long and busy day. You will not see the river full of contaminated waste from industrial activity, grubbed forests and disappearance of rainforests, dumps full of dangerous waste and killing of endangered animals.

As we do, nature also needs to relax and gather new strength. Give it a chance, that we can take a look over the landscape without the clouds, and feel not the sadness, that we are losing something we can not live without...

Katarína Kordíková, Gymnasium of A. Kmeť, Banská Štiavnica



Latvia



The rough winter changes human's daily routine.

It defines particular geographic landscape, fauna and human lifestyle and rhythm – agricultural specialization, building construction and heating, human garment and agenda



Life in winter

Rough winter has come to Latvia again and it bothers animals' surviving circumstances. Animals have to move to the household yards to search for food. The biggest trouble winters with deep cause for deers.

Lelde Meirane, Virbu primary school, Ezere, Saldus district



Portugal

The ideal interaction

(above)

The Ribeira D'Ilhas beach presents itself as a place of perfect harmony between Nature and Men's wellbeing. In this area, several subsistence activities are developed, such as fishing, leisure, surf and scientific investigation on bio and geodiversity. Thus, we can observe the interaction between systems like the Hydrosphere, Geosphere, Biosphere and Atmosphere, in an unusual way. We have decided to show this image with the aim of raising awareness on this place that provides for such a balance between the Earth and Men, because "the one who knows likes it and protects it".

Colégio Miramar



The beauty and the beast

(middle)

The ability to collect light and the fact that they possess crosiers able to control excessive water loss, allows Fetuses to survive in hostile environments. They are able to live under other plants without damaging them or, as is the case, to live in mineralized substratum. A clean environment is not the one which is cleaned by us humans but the one with which we interfere the less!

Externato Cooperativo da Benedita



Nature in harmony

(below)

The Ribeira D' Ilhas beach is a natural sanctuary in what regards geo and biodiversity. Although it is highly visited, it is not polluted. An evidence of this perfect harmony is the existence of lichens. These ancient living beings prove that a symbiosis between antagonist species (algae and fungi) is possible. Algae provide food to the fungi and these make water available for the algae. Ecosystems live not only from productive beings. By producing food, these are the basis for raising biodiversity, which, in this example, is characterized by the mushroom.

Colégio Miramar



Is the cleaning of beaches in the summer still necessary?

Thirty 15-years-old pupils who attend the High School called Saint Stanislas in Nantes decided to investigate, since they take part in the competition entitled "Young reporters for the environment". They were divided into groups of three and worked on projects such as: "oil slicks", "is man the only polluter of beaches?", "le pavillon bleu" which is the label given to clean beaches. A day-collecting was organised to compare the weight and the quantity of waste on the beaches. There was a similar project fifteen years ago, which enabled us to compare the two situations.



France

Turkey

The lost underwater

(right)

The Grouper's are one of the endangered species living in Turkey. The reasons for the decrease in the number of these rare animals are global climate change, over fishing, bad environmental conditions, water pollution and so on. This photo was taken 40 meters under the water in Kaş, Turkey which has magnificent underwater views. We wonder if we will be able to take the same photo ten years later?

Bengü Büyükkayacı, Odtu High School



Holding the future in our hands

(left)

You may know acorns as food source for squirrels or you may have noticed, Scrat, a squirrel from the movie Ice Age, was running after an acorn seed for 3 movies. We, humankind, as a result of what we have been doing to our planet, make Scrat run after one tiny acorn seed. In this photo we are actually holding the future in our hands don't you think?

Odtu High School

Morocco



Together for a safe environment

Protection of the environment is the responsibility of all generations.

Karima Elamiri, Chaimae Saadni, Raouiya Khouyi Al Mansour Eddahbi, Tangier

Kazakhstan

Black and white

It's not a photomontage. Far away of water gull is found side by side with city inhabitants. Why is it here? May be it is easier to find some food at the city dumps. What have made them come to the city?

Dmitriy Kudinov Karaganda



Green meadows

Aja Aghnaj, Hicham Manal, Rajae Akesbi Moussa Ibn Noussair, Rabat



Tree of this age

Trees are known to be green and flowery, but in recent times people discovered a new variety of trees. The new variety may be called black plastic bags trees.

Soulaimane Mzabi Al Mansour Eddahbi, Tangier

Tit behind the window

Great tit is not rare for our city. It moves nearer to humans' houses as it's easier to find food here. People, feed birds in winter! They need our support!

Regina Uroacheva
School 5
Karaganda, Kazakhstan



Trust

Homeless lady dogs behaves themselves very calm not to reveal their babies. They silently look in your eyes and go away.

Regina Uroacheva
School 5
Karaganda, Kazakhstan

Kulanotpes

This photo has been done in summer 2009 near Donskoy village in Karaganda region. The first name of the village was Kulanotpes. It was called in honor of the river which banks it stands on. The river was so large that a drove of horses couldn't swim across. Since a long time this river has been helping people from the village. But now it is getting more and more narrow-width. And in spite of that it is still a home for a many animals and plants. And it's so beautiful in the sunset time.
Sabina Saparova, School 101,
Karaganda city, Kazakhstan



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