

ENVIRONMENT HANDBOOK

APOKORONAS

2017

environment 1939@gmail.com

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ABOUT US

The Environmental Group is committed to finding practical solutions to the environmental challenges we face in the Apokoronas region. If you would like to participate and volunteer to help us change the environment for the better, your input would be most welcome. We publish a monthly Environment and Nature News highlighting environmental issues of local, national and international concern as well as a section on Apokoronas flora. If you would like to be on our mailing list for this publication, please contact us at:

environment1939@gmail.com

You can follow us on Facebook www.facebook.com/ApokoronasEG/

PURPOSE AND PRINCIPLES

The Group has no political affiliation. It is committed to working with the municipality of Apokoronas to improve the environmental wellbeing of the community and to promote best practice. The group will act according to democratic principles: accountability, transparency and equal treatment for all.

PROGRAMME

To assist in environmental initiatives.

To share knowledge and encourage education in areas of environmental concern and to participate in creating a clean, environmentally safe region.

To foster long-term relationships with the municipality and other environmental groups.

THIS HANDBOOK

This handbook will be continually updated as more information becomes available. If you have any comments or suggestions on how to improve the content or quality of the handbook or would like to help keep it updated please let us know at

environment1939@gmail.com

DISCLAIMER

Although the authors have taken all reasonable care in preparing this handbook, we make no warranty about the accuracy or completeness of its content and, to the maximum extent permitted, disclaim all liability arising from its use.

APOKORONAS

Apokoronas is a region of north-west Crete, in Chania Prefecture, to the east of Chania. The Apokoronas extends from the foothills of the White Mountains north to the coast, in a wide plain with rolling hills. To the east, Cape Drapanon rises above the plain and extends out into the Sea of Crete. The area is very green and fertile, unusual for rocky Crete. The Koiliaris River, known in antiquity as 'Pyknos', runs through the region. Robert Pashley suggested that the name 'Apokoronas' came from the ancient city of Ippokoronas or Ippokoronion, also cited by Strabo. This city may have been located near modern Nippos, or on the site of the Venetian fortress, Castel Apicorono, on an outcrop between Kalyves and Almyrida. The major towns of Apokoronas are Vamos, Armeni and Vrisses, with police, municipal and utility offices as well as tavernas and large churches; Kalyves, Almyrida and Georgioupolis are the largest beach resorts. Tourism and agriculture are the major local industries, with much construction and quarrying to satisfy the demands of many foreigners eager to buy or rent properties in what used to be beautiful and traditional villages. Gavalohori and Kokkino Horio are among the more popular villages for foreign buyers, with a large amount of building taking place. Many residents or workers in Chania also have homes in the area. Apokoronas is a province of Greece with its capital at VRYSSES. Prior to 2011, the area was divided into several municipalities within Chania prefecture. The accompanying map shows these now out-of-date municipalities, simply to help you see the extent of the new municipality of Apokoronas.



WASTE

‘The environment’ is a phrase which covers a multitude of topics.

In this section of the handbook we give you information regarding the disposal of waste and recyclable materials. Recycling is still in its infancy in Greece, but there are various education programmes for children and gradually even the older people are beginning to understand what is recyclable. There are directions on how to visit ΔΕΔΙΣΑ, the recycling and refuse plant on the Akrotiri (by appointment) at the end of this handbook.

The Apokoronas council (in May) is about to launch a new app for ipads/tablets and smartphones, enabling residents to contact the cleaning department directly and send photos of where rubbish has been dumped etc. This is the first council to do so.

In the meantime until the app is launched the numbers to ring are:

| | |
|------------------------------------|------------|
| Koukourakis Ioannis (Deputy Mayor) | 6944573801 |
| Kotsifakis Antonis (Deputy Mayor) | 6987065027 |
| Cleaning Service | 2825340522 |

A definition of WASTE can be made as follows: the stuff you throw away from your everyday household activities – food preparation, toilet bins, medical waste.

A definition of RECYCLABLES is more specific : wood, plastic, tin, cardboard, paper, glass, aluminium, car batteries, household batteries (torches, implements etc), light bulbs, small electrical appliances and garden waste.

Neither of these definitions is exhaustive, but should give you a clue what to do with your rubbish.

Refuse and recycling bins. – How to recognise which is which

Refuse bins are generally **GREEN** in colour, although some variants are still around, like galvanised steel bins with yellow, green or unpainted lids.

Recycling bins are generally **BLUE** and are there for cardboard, plastics, paper, tin and aluminium

Special recycling bins for **GLASS** are being distributed throughout the municipality. Currently they take two forms. The early ones are large steel ‘boxes’ with a small blue lid. The later ones are smaller, **YELLOW** igloo-style bins. In both cases the containers are hoisted above a lorry and a trapdoor opens in the bottom to empty the contents into the lorry. The containers are then lowered to their original position ready for use.

There are also some recycling receptacles in various places for small electrical items (generally small bins coloured GREEN) and cardboard boxes in shops for light bulbs, including fluorescent tubes.

Not everywhere has blue bins but following a sustained campaign by the Apokoronas Environment Group the distribution has improved dramatically in the last 2 years. The Municipality is working hard to provide blue bins in many more villages.

What goes where?

GREEN BINS

Every village has these bins. Material put into these bins should ALWAYS, WITHOUT EXCEPTION be securely bagged up and tied, not just dumped loose. This kind of material is often unpleasant to handle. This is as good a place as any to emphasise that wherever possible, the lids of Green bins should be kept closed. This helps to prevent the scattering of the contents by cats and rats looking for a cheap meal. It also helps to prevent the spread of disease. Sadly, many bins have no lids – they are old and damaged, but WHEREVER POSSIBLE, **please close the lid when you deposit your rubbish.**

Much of ordinary household waste is compostable. Not always easy in this rocky terrain, but if you can't compost waste you may find someone who will take vegetable, fruit and other stuff left over to mash down and feed to their chickens. That is much better than just throwing it away and you may even get free eggs from time to time!

BLUE BINS

These bins take aluminium cans, tin cans, plastic bottles, cardboard and paper. Such items should be dumped in the bin **loose, not bagged up**. Cardboard boxes should be **'collapsed'** otherwise the bins soon get full.

DO NOT PUT GLASS in blue bins! As mentioned above, there are now steel boxes with blue lids and yellow igloo-style bins appearing throughout the municipality. In Apokoronas, we are lucky to have another outlet for glass waste - **the blown glass factory** at the entrance to Kokkino Horio (coming down the hill from Drapanos). Andreas Tzompanakis (the owner) is willing to take glass bottles, jars etc. The only thing we ask you to do with that is make sure what you dump goes **OVER the wall** surrounding the factory, and not on the grass verge outside. Andreas has put a notice on the gates asking people **not to put the bottles over the gate**. Please empty your bags/boxes of bottles and take the bags/boxes away with you back home or to the nearest BLUE Bin.

Any broken plate glass should be securely tied in protective cardboard and can be left **alongside** (not inside) the GREEN bins. If possible, for safe handling please mark the cardboard with the words ΣΠΑΣΜΕΝΟ ΓΥΑΛΙ (Broken glass).

ΔΕΔΙΣΑ is the regional waste authority and it runs the recycling plant and landfill sites on the Akrotiri. A visit there is time well-spent to discover just what they do and the extent to which recycling in this part of Crete has flourished. Visits are free of charge.

DIRECTIONS TO D.E.D.I.S.A. (RECYCLING DEPOT)

1. Drive to the roundabout where the road to the right leads in to Chania airport.
2. Turn left at this roundabout towards Profitis Ilias – Moni Agia Triada. (400 m)
3. At t-junction turn right onto road to Profitis Ilias (1.7 km)
4. At x-roads turn right onto road to Perivolitsa. (3.9 km)
5. Follow this road which at one point runs alongside the perimeter of the airport.
6. Turn left off this road in 1.5 km (small sign pointing to δεδισα)
D.E.D.I.S.A. will soon be found straight ahead of you

There are a few signs on posts towards the end of your journey, but they are quite small.

If at any time towards the end of your journey you are not sure if you are on the right track, just pull in and wait. In no time at all you will be sure to see a refuse collection vehicle – just follow it!

PLEASE BOOK YOUR VISIT AT LEAST ONE WEEK IN ADVANCE BY:

EMAIL: dedisa@dedisa.gr or TEL: 28210 88262

Types of waste

Garden Waste. Ordinary domestic garden waste should be bagged up and left **ALONGSIDE** the GREEN bins, **NOT** inside the bins please. This gets removed by a separate contractor.

Bulky items

Technically speaking, if you have bulky items of any kind, telephone 28253 40522 and ask to have them collected from your home or some other convenient location. Nowadays you may find a 'travelling' scrap metal lorry which will take your old fridge, freezer, electric fire, or whatever. This is a private venture, and nothing to do with the council and recycling. In reality however, there is a growing practice of leaving bulky items by the green or blue bins in the knowledge that a JCB and a lorry will come along and remove the stuff periodically. If you do that, **PLEASE** try to keep the area tidy and don't just chuck your rubbish anywhere in the near vicinity of the bins!

Batteries. Except for vehicle batteries (see below) ordinary small batteries can be put in the special containers which are becoming popular sights in shops,

supermarkets, town halls, banks and other indoor locations. They should NOT be put in any of the recycling bins.

Light bulbs. Like the batteries above, special containers are found in many locations (indoors) to take ordinary light bulbs or fluorescent strip lights. They should NOT be put in any of the recycling bins. Do not smash fluorescent light bulbs as they contain a tiny amount of mercury. If possible, dispose of them in the packaging in which the replacement is bought.

Vehicle batteries If you are having a vehicle battery replaced, the garage which does the job will take the old battery away for special disposal. If you do the job yourself, please ensure when you buy the new battery that the person selling it will accept the old one. If not, please try to find a friendly garage to take it.

Small Electrical Appliances (including computers, monitors etc) . Special bins (usually green) are kept for disposing of old, broken appliances. Many electrical shops and computer stores have these containers.

Example: Virus Computers (Kalyves), Minimarket (Kokkino Horio), Halkiadakis supermarket, Souda.

Larger Electrical items such as refrigerators, freezers etc, can be left at the Town Hall in Vrysses – please ask before you dump the items so that the officers in the building can ensure safe disposal.

Printer ink cartridges & Mobile Phones:

We have been unable to locate anyone who takes ink cartridges within the Apokoronas area. The nearest cartridge recycling is in Souda, at the Germanos store. If you find anyone in our area taking cartridges or mobile phones, please send details to environment1939@gmail.com

CLOTH AND CLOTHES

Technically speaking, these materials are also recyclable. However, unless you are really talking rags, a better use for any old but **serviceable** clothing is to contact the Social Services Department and speak to either Argyro or Niki (who speaks very good English. The telephone number is: 2825340328. They can arrange to collect and distribute items to the needy citizens of Apokoronas. A recent development in the Chania area has been the provision of large RED bins for used items of clothing.

There are two Apokoronas second hand clothes stores one in Nippos and one in Kalyves where clothes can be left for resale and any money will go towards buying food for the Social Supermarket.

For more details see the Social Supermarket Facebook page:

https://www.facebook.com/Social-supermarket-Κοινωνικο-Παντοπωλείο-Δήμου-Αποκορώνου-1604560716464761/?ref=aymt_homepage_panel

ABANDONED CARS AND MOTORCYCLES

First report the vehicle to the council 28253 40522. Give the location and the name of the owner if you know it. The council will then put a notice on it telling the owner to move it by a certain date. If it is not moved the council will remove it and charge the owner.

REPORTING ILLEGAL DUMPED RUBBISH

Rubbish that has been dumped by the side of the road or bins that have not been emptied please call Cleansing department- 2825340522

COUNTRYSIDE

FLORA AND FAUNA

The Environment & Nature news (ENN) which is circulated monthly by e-mail usually contains items of local interest regarding what is in bloom at the time, or animals/insects etc. seen. Contributions of articles, points of view, pictures etc are welcome and should be sent by e-mail to environment1939@gmail.com which is monitored daily. Requests for information or help can also be sent to the same address.

LEGAL ACCESS.

The situation is somewhat analogous to that in Scotland where there are no public rights of way but where people are allowed access on the understanding that they cause no damage, or do not deliberately enter places that are clearly fenced off and locked. This means that in the main, the agricultural tracks which abound in the area are open to the public. Even where a plegma 'gate' has been put across a track, provided it is not locked or so securely tied as to prevent easy access, then it is open to public use; with the proviso that such a 'gate' should be left as found (open or closed as the case may be). It should be noted that these tracks generally provide access to plots which are private and which should not be entered without the owner's permission.

OLD DONKEY TRACKS AND TRAILS

The situation here is unclear and it is quite likely that some of them will cross 'private' land. The municipality has access to some old (late 1960's to early 1970's) military maps on a scale of 1:5000 which show such trails. Technically the trails should be open but in practice they are often closed off by landowners. Tracking these down is time-consuming and costly and therefore not at the top of the municipality agenda.

ARGICULTURAL ANIMALS

Defined as sheep, goats, cows etc. There are definite disposal rules and methods, to meet sanitary requirements. Farmers can bury dead animals on their land in pits

with quick-lime. They should NOT be put in the normal waste bins (as happens in some of the villages). If one encounters dead sheep/goats etc. on the road, it is believed that the owners will collect them as it is in their own (financial) interest to do so.

DOMESTIC ANIMALS

Defined as cats, dogs etc., the situation is less clear. Normally it is the owner's responsibility to dispose of the animals in a responsible manner (not defined but doesn't mean putting them in waste bins for collection.) In case of any doubt, contact any vet. The vet will charge a fee. Not all dead domestic animals have 'owners' and in that case people are encouraged to remove them from the road and call the Municipality (call Manolis on 28253 40522) to arrange for collection. He is responsible for organising collection of bulky items.)

WATER

Water is one of the world's most precious resources and yet we are all very good at wasting it!

If you see a water leak in your area, please report it to the council (phone Nikos Lagarakis, 28253 40208)

Water Conservation in the home – a few tips:

Leaving a tap running while you are cleaning your teeth, or washing fruit and vegetables can waste about nine litres of water a minute. Instead of letting water and money go down the drain, here are some ways to cut down on wastage:

- save the cold water that comes through before a tap runs hot, and use it to water plants
- keep a jug of water in the fridge instead of waiting for the tap to run cold
- turn off the taps when you're brushing your teeth or shaving
- wash fruit and vegetables in a washing-up bowl full of water instead of under a running tap

Flush less water down the toilet

Toilet flushing accounts for about a third of household water usage. You probably flush away as much water in a day as you drink in a whole month. There are easy ways to reduce this:

- install a water saving bag (or even a brick!) in the cistern of a higher flush toilet - this reduces the water used with each flush
- when buying a new toilet, choose a water-saving, low-flush or dual-flush version

- fit a variable flushing device to existing higher flush toilets - this will give you a choice of flush volumes to help save water

Take shorter showers

A quick shower can use much less water than a bath. However, not all showers are water efficient. High volume power showers can use more water than a bath in less than five minutes.

To save water, you could use a shower timer to reduce your time in the shower. One minute off your shower time, for a family of four would save 12,000 litres of water a year.

Fit a flow regulator or aerated shower head. Fitting a water flow regulator to your shower head reduces the amount of water used by about 30 per cent. This will not reduce the performance of your shower.

Use water-efficient appliances – washing machines, dishwashers

The amount of water consumed by dishwashers and washing machines varies greatly.

All new dishwashers and washing machines have a European (EU) energy label, which tells you how efficient the appliance is at using water and energy. The letter **A** is most efficient and the letter **G** is least efficient, so choosing carefully can save you money, water and energy. You could also:

- look for a washing machine that uses less than 50 litres per wash
- look for a dishwasher that uses less than 15 litres per wash
- try to use appliances only when they're full - half-load cycles **use much more than half the** energy and water of a full load

Fix dripping taps and leaks

A dripping tap can waste up to 15 litres of water a day. Water leaks mean you're paying for water you haven't used. They can also cause a lot of damage to your property and possibly to neighbouring properties.

These simple plumbing jobs can save a lot of water without being expensive:

- fix dripping taps or overflows; a new washer costs just a few eurocents and can be fitted in minutes
- install a leak detector to warn you about leaks anywhere in your house

WATER RESOURCES

In the last 4 years the Municipality has improved its water storage and distribution network while acknowledging that there is still more to be done. Work is on-going.

BEACHES

The municipality makes recommendations to various ministries in Athens each year as to which beaches should be awarded a Blue Flag. Their recommendations are examined and the beaches are inspected. Only those passing the inspection are awarded the flag. The municipality is establishing a Beach Committee to oversee all aspects of the beaches (late 2013 information). The responsibility of sampling and analyzing the water quality falls to a private laboratory in Rethymno. Generally the water quality has been declared very good in the past.

Here is more information on the background to the Blue Flag scheme.

(information provided by kind permission of FEE Denmark)

HISTORY

The concept of the Blue Flag was born in France. In 1985, French coastal municipalities were awarded with the Blue Flag for complying with sewage treatment and bathing water quality criteria.

In 1987, the "European Year of the Environment", the Foundation for Environmental Education in Europe (FEEE) presented the French concept to the European Commission, and the Blue Flag Programme was launched as one of the year's community activities.

In addition to sewage treatment and bathing water quality, criteria for obtaining a Blue Flag on a European level included other areas of environmental management, such as waste management and coastal planning and protection. Marinas were also made eligible for the award.

In 1987 the Blue Flag was awarded to 244 beaches and 208 marinas in ten European countries.

In 2001 FEE became a global organisation and changed its name from FEEE to FEE (Foundation for Environmental Education). Since then, many organisations and authorities outside Europe wishing for cooperation on spreading the Blue Flag Programme have made applications to FEE.

With the expansion of the program, the criteria have become more rigorous and unified. As of 2006 an international set of criteria is being used with some variation within to reflect the specific environmental conditions of certain regions

BEACH CRITERIA

To date, there are 3009 beaches and 639 marinas awarded the Blue Flag worldwide.

ENVIRONMENTAL EDUCATION AND INFORMATION

Information about the Blue Flag requirements must be displayed.

Environmental education activities must be offered and promoted to beach users.

Information about bathing water quality must be displayed.

Information relating to local eco-systems and environmental phenomena must be a code of conduct that reflects appropriate laws governing the use of the beach and surrounding areas must be displayed.

WATER QUALITY

The beach must fully comply with the water quality sampling and frequency requirements.

The beach must fully comply with the standards and requirements for water quality analysis.

No industrial, waste-water or sewage-related discharges should affect the beach area.

The beach must comply with the Blue Flag requirements for the microbiological parameter faecal coli bacteria (E.coli) and intestinal enterococci/streptococci.

The beach must comply with the Blue Flag requirements for physical and chemical parameters.

ENVIRONMENTAL MANAGEMENT

The local authority/beach operator should establish a beach management committee.

The local authority/beach operator must comply with all regulations affecting the location and operation of the beach.

The beach must be clean.

Algae vegetation or natural debris should be left on the beach.

Waste disposal bins/containers must be available at the beach in adequate numbers and they must be regularly maintained.

Facilities for the separation of recyclable waste materials should be available at the beach.

An adequate number of toilet or restroom facilities must be provided.

The toilet or restroom facilities must be kept clean.

The toilet or restroom facilities must have controlled sewage disposal.

There should be no unauthorised camping, driving or dumping of waste on the beach.

Access to the beach by dogs and other domestic animals must be strictly controlled.

All buildings and beach equipment must be properly maintained.

Coral reefs in the vicinity of the beach must be monitored.

A sustainable means of transportation should be promoted in the beach area.

SAFETY AND SERVICES

An adequate number of lifeguards and/or lifesaving equipment must be available at the beach.

First aid equipment must be available on the beach.

Emergency plans to cope with pollution risks must be in place.

There must be management of beach users and events to prevent conflicts and accidents.

There must be safety measures in place to protect beach users. displayed.

A map of the beach indicating different facilities must be displayed.

- A supply of drinking water should be available at the beach.
- At least one Blue Flag beach in each municipality must have wheelchair and accessibility features.
- Wheelchair access and accessibility features must be in place for at least one Blue Flag beach in each municipality.

ENERGY

There is much talk these days about Climate Change, Greenhouse Gases, alternative energy resources etc. Not to mention the cost of energy to the householder. This is a complex subject so we confine ourselves in this handbook to giving you a few

TIPS TO REDUCE YOUR ENERGY CONSUMPTION

LOWER THE THERMOSTAT

The biggest energy expense during winter months can be attributed to the heating of the house. You do not have to keep the thermostat on high at all times to feel warm and comfortable. Setting the thermostat at around 20°C will save you a considerable amount of money. Wear warm clothing indoors, such as sweaters and socks. This will negate the effect of the lowered thermostat.

REDUCE WATER USAGE

Reduce the time you spend in the shower. Use low flow taps and shower heads to reduce water wastage. When you brush your teeth or wash the dishes, make a point of turning the tap off.

UNPLUG APPLIANCES WHEN NOT IN USE

Appliances that are turned off but left plugged in consume energy in the form of standby power. Unplug appliances such as televisions or stereos, or use power strips to turn them off completely. Unplug all chargers that are not in use. Whilst this advice applies to older equipment, we are advised that the latest equipment uses very little energy in standby. Indeed in some instances it is essential to leave it in standby otherwise it will 'lose its memory' (cheaper TV decoders for example). It is up to you to achieve the right balance, depending on the age and quality of your appliances.

CAUTION: We live in an area prone to electrical storms, power outages and periods when the voltage is lower but not off altogether. The following article may be of interest: <http://www.satcure.co.uk/tech/lightning.htm>

LOWER TEMPERATURE ON WATER HEATER

Lowering the temperature setting on the water heater saves you money and energy and also reduces the possibility of getting scalded by hot water. Avoid using warm water when washing dishes.

USE SCREEN OR CURTAINS TO IMPROVE INTERIOR COMFORT LEVELS

You can use screens and curtains very effectively during hot and cold weather. In winter, open the curtains during the day, to maximize the flow of sunlight, and close the curtains at night to lock in the heat. During summer, close the curtains during the warmer part of the day and open them at night to let in cool air.

WASH CLOTHES IN COLD WATER

Washing clothes in cold water can save you a sizable amount of energy, while giving you the same results as with the use of hot water.

MINIMIZE USE OF THE SPIN DRYER IN WARM WEATHER

In summer, hang dry clothes outdoors. This will reduce the need for the spin dryer, and let you save on energy as well.

REPLACE ALL GLOBE LIGHTS

Globe lights are highly inefficient means of lighting your home. Replace all these lights with low energy lighting to save more than half of the energy costs related to lighting.

CHECK BOILER AND VENTS

To maximize boiler efficiency, check the filter regularly and have it cleaned or replaced, as required. Ensure that the vents in your home are clean, so that you are assured of efficient heating or cooling.

INSULATE YOUR HOME

Make sure you have adequate insulation in your exterior walls and basements. Some older homes did not originally have insulation in their walls. If you can't remove your wall covering (drywall, plaster, etc.), consider having a contractor spray expanding foam insulation into the walls through a small opening. Spray foam can also be utilized in underneath pier-and-beam homes.

INSTALL SOLAR WATER HEATER

If you have electric water heating, you could save a significant amount on your water heating costs by installing solar panels and a water heater on your roof. Solar water heating is very efficient, and may be able to assist in offsetting your water heating costs.

INSTALL DOUBLE INSULATED WINDOWS AND DOORS

It may be worth looking into replacing your older single-pane windows with efficient double-pane windows. Low-e coatings reduce solar gain if you have excess heating of the home by the sun.

REPLACE YOUR OLD WATER HEATER

If your water heater is 10 years old or older, consider replacing it with a new water heater. Today's water heaters have better insulating properties.

REPLACE YOUR OLD APPLIANCES

Many appliances, such as your refrigerator, washing machine, and dishwasher, are now much more energy efficient than they were 10 years ago. Look for the Energy designation: A+ are the most efficient appliances. Replacing these old appliances could save you 50% or more of the energy used to run the old appliance.

SHADE YOUR AIR CONDITIONING UNIT

If you rely on your air conditioner to keep your home cool and comfortable when the temperature outside is hot, you can help your outside AC compressor by providing shading from the hot midday and afternoon sun. Consider planting a tall-growing bush by the outside AC unit where the sun hits. Be sure to allow space between the bush and the AC unit for air circulation and to service the unit.

REPLACE YOUR AIR CONDITIONING SYSTEM

If you have an air conditioning system that is 10 years old or older, consider replacing it with a newer, more efficient unit. If you can't afford to replace both the inside and the

outside unit, consider replacing at least the outside unit, the compressor, which accounts for the bulk of the cooling costs. New compressor units will remove heat more efficiently than your older unit. Where systems have a heat setting, if you buy the correct type they are extremely efficient – the best will give you 3.5kiloWatts (kW) of heat for every 1kW of electricity. That is more than 300% more efficient than ANY other form of heater!

REDUCE AIR-CONDITIONER USAGE

In the summer, air conditioning can cause considerable expense and energy wastage. Try to avoid using the air conditioner exclusively. Try out other means of cooling down, such as a fan. Use cross ventilation to promote the flow of air in your home. Planting trees in the vicinity of your home can also help reduce heat buildup indoors.

INSTALL CEILING FANS

Consider making use of ceiling fans in your rooms, particularly your bedrooms and living room. Ceiling fans move the air and make you feel several degrees cooler, which allows you to turn up your thermostat. They can also be reversed in the wintertime to move warmer air near the ceiling downwards.

ENVIRONMENTAL EDUCATION

KEFALAS ENVIRONMENT CENTRE

This centre is unique in western Crete and provides a home for environmental studies and exploration for school children in the Apokoronas. The building was refurbished with European Community funds and is currently staffed by four enthusiastic professionals in environmental study. The funding for the maintenance of the building and staff is generously provided by the Apokoronas Municipality.

Thanks to the current economic climate, the centre seems to be in constant jeopardy of closing due to lack of funding for teachers by the Education Ministry in Athens.

RENEWABLE AND SUSTAINABLE ENERGY SYSTEMS LABORATORY (RESEL) - UNIVERSITY OF CHANIA

The Renewable and Sustainable Energy Systems Laboratory (ReSEL) covers a wide range of knowledge subjects in the fields of Applied Research and Technology Development for RES and RUE, Energy Planning and Sustainable Energy Management. Over the last few years ReSEL has developed research and project activities with an emphasis on critical insular issues. More specifically, ReSEL expertise focuses on:

Sustainable Energy Systems: Environmental Impact Assessment of Energy Systems, Renewables and environment, Renewables' project appraisal under uncertainty, Sustainable energy development, Analysis of the renewable energy sectors

Management of Renewable Energy and Energy Saving Systems: Regional/local energy planning, Sustainable management of natural sources, Technology Transfer, Life Cycle Assessment, Technical / Economic / Environmental Assessment

Biofuels: Exploitation of agrofood residues, Production of liquid biofuels, Biofuel heating of Buildings, Assessment of the technical and economically available potential

Sustainable Building and RES Integration: Building Integrated PVs, Phase Changing Materials, Design of active solar cooling systems, Technical and economic assessment

ReSEL's multidisciplinary team of specialised scientists and researchers possesses extensive experience and knowledge in the Renewable and Sustainable Energy field. The laboratory's projects are supported by the appropriate high-end facilities and technology tools. In addition, its members have developed expertise and accumulated a highly competent know-how in managing EU-funded projects (Intelligent Energy, Interreg, COST, etc.) and national contracts.

ENVIRONMENT SUSTAINABILITY ACADEMY – Drapanos

The European Sustainability Academy (ESA) Drapanos, Crete opened its doors in March 2012

About ESA

The European Sustainability Academy (ESA) operates from a beautiful, ecologically designed and constructed building located in a stunning ancient olive grove in Drapanos. Built in Forestry Stewardship Council (FSC) certified timber frame, straw-bales walls and handmade, sun-dried adobe bricks (mud bricks); the ESA building has been created as a globally unique, international management teaching and research centre. ESA provides training and development programmes for business managers, owners and leaders to learn about sustainable business and Corporate Social Responsibility (CSR).

The building, which includes a seminar hall and dining room both of which seat 50 people, has been designed by Chania architects Antonia Diamantaki and Zeta Chrissafakis and built by local builder Antonis Nikoloudakis. ESA is located in a rural area which is off-grid, therefore, all energy requirements are supplied from the Cretan sunshine which is converted to energy through photovoltaic. The energy system has been designed and installed by Kostas Rovlias from Chania. For more details about the ESA building please see www.EuroSustainability.org.

In addition to the commercial objectives of business management training, ESA operates as a social enterprise which means that the building will also be made available to the community for meetings and events including art and music functions. The seminar hall will be offered to the village to use for free as a cinema, especially for the young local people.

The Uniqueness of ESA Drapanos

There are many learning centres for CSR and sustainable business in the world, but very few are truly sustainable in every way. The few centres around the world that are holistically sustainable will be collaborators with ESA in the development of teaching and research around sustainable business.

RECENT ACTIVITY: 2017: Sharon Jackson who is the head of the Academy sent the Apokoronas Environment Group a brief update in early May 2017.

“ ESA is extremely active on all fronts locally and internationally and winning global awards for our work at ESA! I was in India in Feb and will be back in Dubai in 2 weeks’ time with our ESA partners there. We have several publications about ESA (as an example of biophilia), locally we have weekly events for tourists and we are soon welcoming a group from a Texas University for seminars.

You can follow us on Facebook

<https://www.facebook.com/European.Sustainability.Academy>

for more general updates

FOUNDATION FOR ENVIRONMENTAL EDUCATION

The Foundation for Environmental Education (FEE) is a non-government, non-profit organisation promoting sustainable development through environmental education. FEE is an international umbrella organisation with one national member organisation per country representing FEE on the national level and in charge of implementing FEE programmes nationally. FEE currently has 74 member organisations in 64 countries worldwide.

BOOKS

CRETAN LOCAL BOOKS

Apokoronas walks

by Geoff Needle

More Crete Walks in the Apokoronas

Geoff Needle wrote the books with the main purpose of getting more people out into some of the beautiful parts of the region in order for them to better appreciate how nice it is when you get away from the towns and villages.

The books are currently available locally at:

The Bookworm Bookshop, Vamos

The Peartree Minimarket, Almyrida

The Notos Bookshop, Chania

The Mediterraneo Bookshop, Chania

They also appear at local tabletop sales. They are available for purchase on the Amazon website where most are now getting sold and which has a number of favourable reviews. If the books were to be purchased in bulk direct from the book distributor then there would be a good profit for the seller as the author only gets a small fraction of the cost.

INTERNATIONAL BOOKS

The Rough Guide to the Energy Crisis

by David Buchan

The Rough Guide to Green Living

by Duncan Clark

Sustainable Energy without the Hot Air

by David McKay

Ten Technologies to Save the World

by Chris Goodall

How Bad are Bananas? The Carbon Footprint of Everything

by Mike Berners

POEM

RECYCLING AND ALL THAT

Reproduced with kind permission from the author, Linda M Hughes, Brigham, Cumbria

Our newspaper on Saturdays is very, very keen
On aspects of recycling and all things Cool and Green;
It urges us on every hand to save and to conserve,
Reduce our carbon footprint – or we'll get what we deserve.
The newspaper I'm thinking of – and yours might be the same –
Should take some of its own advice and share a bit of blame.

No less than eighteen supplements – that's really not a few.
I'll try to tell you what they are – you tell me if it's true:
A supplement on *Cruising*, a *Pensions* explanation;
A *Bedding Booklet*, *TV Guide* for every mortal station,
There's *Sport* and *Golf* and *Money*; a *Motoring* review;
Then *Travelling* and *Holidays* – a *Weekend* paper too.
There's *Property* and *Arts & Books*, a glossy *Magazine*.
Advice on one's *Upholstery* and neatly tucked between
Is yet another *DVD* – away it will be cast!
And oh – I nearly missed it out-
The Newspaper at last.*

Three supplements will go next door
And three of them we'll read.
And all the rest go in the bin.
We really do not need
To chop down all these forests,
And mangle up the trees
To propagate such rubbish
And I wish they'd stop it – please!

**There was also a Gardening Supplement but I couldn't fit it in – and that makes 18.*

USEFUL PHONE NUMBERS

| | |
|--|-------------|
| Vrysses town hall 40309 ** | 28253 |
| Helen Papadogianni (English/Greek liaison) | 6944 131268 |
| Social Services (Argyro and Niki) | 28253 40328 |
| Street lights (Contact village representatives (see below)) | |
| Water board, Burst pipes etc. (Nikos Lagarakis) | 28253 40208 |

KEP OFFICES (CITIZEN'S ADVICE)

| | |
|---------------|-------------|
| Asi Gonia | 28313 40320 |
| Fres | 28253 40700 |
| Georgioupolis | 28253 40720 |
| Kalyves | 28253 40504 |
| Vamos | 28253 40204 |
| Vrysses | 28253 40308 |
| Kryoneridas | 28253 40309 |
| Armenoi | 28250 83157 |

** In case of problems locating who you want at Vrysses Town Hall (no switchboard), ring the VRYSSES KEP number (28253 40308 or 40311) and they should be able to give you a number to contact who you need.

FOR LOCAL ISSUES SUCH AS BROKEN STREET LIGHTS PLEASE CONTACT THE VILLAGE REPRESENTATIVES:

Alikambos / Αλικάμπος

Ioannis Stathakis

6938539983

Armeni / Αρμένιοι

Styliani Rokaki-Kaloudi

6972086254

Georgios Pripakis

Asi Gonia / Αση Γωνιά

Ioannis Glenzakis

6979728586

Georgios Meledakis

Georgios Sbirakis

Embrosneros/Εμπρόσνερος

Iosif Giannarakis

6949917254

Manousos Thimakis

Christos Kourgianidakis

| | |
|---|------------|
| Filaki / Φυλακή Eleni Papadaki Georgios Makridakis Eustratios Gounakis | 6976553809 |
| Fres / Φρές Manolia Zoulaki | 6976437616 |
| Emmanouil Karapendalakis Stefanos Tripalitakis | |
| Karres / Καρρές Dimitrios Kavgiotakis | 6976174092 |
| Kaina / Κάινα Ioannis Sergakis | 6977681815 |
| Kalamitsi Alexandrou / Καλαμίτσι Αλεξάνδρου Anastasios Mylonakis | 6774423515 |
| Kalamitsi Amigdali/Exopoli Georgos Doulihanakis Antonios Kakaxilakis Antonios Peroulakis | 6984267650 |
| Kastellos / Κάστελλος Nikolaos Vernadakis | 6975865966 |
| Kefalas / Κεφαλάς Nikos Lionakis Dyonisos Theodorakis Petros Tzeiranakis | 6974433596 |
| Kokkino Chorio / Κόκκινο Χωριό Michalis Vogiatzakis | 6946032105 |
| Kournas / Κουρνάς Maria Tsilidaki Emmanouil Tzapakis Ioannis Thimakis | 6947334722 |
| Macheri / Μαχαιροί Konstantinos Psegianakis | 6944606099 |
| Maza / Μάζα Georgios Palioudakis | 6979983994 |
| Melidoni / Μελιδόνι | |

| | |
|---|------------|
| Andreas Kakourakis | 6947073248 |
| Neo Chorio / Νέο Χωριό Georgios Vryonakis Christos Linarakis Georgios Zymvragoudakis | 6974144499 |
| Nippos / Νίππος Georgia Kotsifaki-Lagoudaki | 6974088397 |
| Paidochori / Παιδοχώρι Iosif Marakoudakis | 6947407138 |
| Pemonia / Πεμόνια Maria Vatsaki | 6972609723 |
| Plaka/Kambia/Almiryda Nikitas Paizis Konstantinos Zorbas Nikolaos Harokopakis | 6944857509 |
| Ramni / Ραμνή Ioannis Matsamakis | 6956036545 |
| Sellia / Σελλιά Georgios Sapounakis | 6977309537 |
| Stylos / Στύλος Spyridon Kokologiannis Emmanouil Pissadakis | 6977415599 |
| Tzitzifes / Τζιτζιφές Evangelos Voloudakis | 6977971367 |
| Vafes / Βαφές Antonios Tzankarakis | 6976791989 |
| Vamos / Βάμος Michalis Bolonakis Ioannis Georgilakis Antonios Revelakis | 6977805549 |
| Vrysses / Βρύσσες Nikiforos Broudakis Ioannis Kondarakis ioannis Braoudakis | 6984018222 |
| Xirosterni / Ξηροστέρνι Georgios Daskalakis | 2825022853 |

EMERGENCY NUMBERS

POLICE

| | |
|---|-------------|
| Police 24-hour Emergency Number (in English, French, Greek) | 112 |
| Police Emergency Number | 100 |
| Vamos Police station | 28250 22218 |

COAST GUARD

108

TOURIST POLICE

| | |
|--------|-------------|
| Chania | 28210 53333 |
|--------|-------------|

FIRE

| | |
|------------------------|-----|
| Fire Brigade | 199 |
| Forest Fire Department | 191 |

THIS IS THE FINAL PAGE OF THE HANDBOOK. If you have any questions, suggestions, notice any incorrect or out-of-date information please let the Apokoronas Environment Group know and send the details to us at environment1939@gmail.com

Thank you.