

APPLICATION

For the Establishment of the RCE Crete

AS A REGIONAL CENTRE OF EXPERTISE ON EDUCATION FOR SUSTAINABLE
DEVELOPMENT

FOR CONSIDERATION BY
THE UNU INSTITUTE OF ADVANCED STUDIES, THE SECRETARIAT OF THE
UBUNTU ALLIANCE

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2. Geographical scope- Regional characteristics

Crete is the biggest island in Greece and the second biggest, after Cyprus, in the East Mediterranean. It lies in the Southern Aegean Sea and at the crossroads of three continents Europe, Asia and Africa, covering an area of 8.336 sq.kms and 630.000 inhabitants. Crete is one of the 13 regions of Greece divided into four prefectures (Chania, Rethymnon, Heraclion and Lassithi) and 70 municipalities, each of which is consisted of various towns and villages. Three cities in the north coast alone constitute almost half of its population: namely, Heraclion (200.000), Chania (80.000) and Rethymnon (40.000).

Cretan History starts at 6000 BC, when the island was first inhabited. The best known period is the Bronze Age (2600-1100 BC), the period of the Minoan Civilization. The unique geographical position of Crete between the three continents has determined its historical course both throughout antiquity and in modern times. Crete is known for its fabulous natural beauty, diversity of landscape, 1040km-long coastline, mild climate and numerous cultural resources (Minoan palaces and other archaeological and historical monuments and sites) that constitute its principal tourist resources and economy along with agriculture. Indeed, Crete has experienced rapid tourism development since the mid-to late 1960s. Tourism has become a leading economic sector in the region, but has also caused certain negative economic, environmental and socio-cultural impacts and, currently, it appears to threaten the island's sustainability.

There are three higher education institutions in Crete, the University of Crete with Faculties in Heraclion and Rethymnon, the Technical University of Crete in the city of Chania and the Higher Technical Institution in the city of Heraclion.





3. Major sustainable development challenges of the region

It is widely recognized, as elsewhere, that people put enormous pressure on the natural environment with social, economic, cultural and of course environmental impacts. It is, thus, time to reflect on the ways we live: how much energy we waste, how much waste we produce, what kind of products we buy, how we run our business, how we choose to commute, how much water we use, etc. If we take all these at an individual level, they might make no sense, but if we think these types of behaviors collectively, their impact does make sense. In the region of Crete, there are a number of sustainable development challenges we must meet. The regional challenges prioritized here are identified through various sources, such as the policy documents of the General Secretariat of the Cretan Region, NGOs information sources, research reports, conferences, experiences held by our stakeholders and the media.

Stressed natural resources

The first challenge is reducing wasting of our natural resources, such as water, energy and solid waste. Crete is suffering from increasing drought conditions while balancing agriculture with tourism as main sources of income. During the peak tourist season in Crete, electricity and water sources are tapped beyond limits. Renewable energy sources (RES) are the sustainable key -- such as solar energy and wind energy alternatives. Excessive water extraction for agriculture and urban use along with water pollution and climate change will put much stress in the years to come. Also, waste recycling measures and the promotion and usage of biodegradable products are far from adequate and require urgent implementation. Greece is under obligation to reduce its dependence on climate-changing fossil fuels under the Kyoto Treaty protocol. The target set by the EU is to cover 20.1% of its electricity needs through such "gentle" forms of energy by 2010.

Crete currently leads all regions in Greece at 10% in RES electricity generation. However, the potential is much higher and Crete could also be a model for both renewable energy and organic farming practices, due to its geographic position and climate conditions.

A changing climate

Our second challenge is taking measures for climate change. Desertification has already made its appearance in Crete in the Asterousia Mountains, Lassithi (Ierapetra and Makrygialos) and Gavdos. 50% of land in Crete and 35% of land in Greece is at high risk of desertification, with dire consequences for the country's environmental, cultural, socio-economic and demographic development. This is the conclusion reached by a three-day scientific conference organized by the Agricultural University of Athens in Heraklion, Crete. The conference was part of the "Desire" scientific programme, comprising 28 research institutes and universities from around the world. East Crete is considered the area of Greece most at risk of desertification. There are two reasons for this: the warm climate with low rainfall and human intervention. Farmers may be the first to suffer from desertification, but they are also part of the problem.

Deforestation

Our third challenge is combating the gradual loss of forests. In Crete the mountainous regions with the worst overgrazing problem are the Asterousia Mountains, Mt Psiloritis and the Sfakia area. Forests in Crete are threatened not only by overgrazing but also by forest fires, whether deliberate or accidental. Deforested areas are at immediate risk of erosion and desertification, as they are mountainous regions with steep slopes and heavy rainfall easily washes away the soil when there are no tree roots to retain it. The problem of forest renewal and regeneration is an important one, especially considering that forests cover just 4.5% of Crete, a figure falling to a mere 2% in Heraclion Prefecture.

Threatened biodiversity

The fourth challenge is maintaining our biodiversity. Crete is one of the most important known nesting areas for the loggerhead sea turtle (*Caretta caretta*) in the Mediterranean. The nesting areas of Crete are now being included in the NATURA 2000 network of protected areas, but uncontrolled coastal development and human interference are exerting intense pressure on the nesting beaches of the island. Also, beach erosion due to uncontrolled over-development as well as pollution due to lack of infrastructure to cope with massive tourism every summer (up to over 3 times Crete's own population a year) along with sea turtles being killed by fishermen and caught in nets, has led to dwindling numbers of sea turtle nests on Crete. Crete is also the home to a particularly rich flora including 1893 documented plant species of which 159 are endemic to the island. 10% of Cretan plants are considered threatened and need protection. Conservation of the native plants of Crete with particular emphasis on threatened and endemic species, as well as species with economic and cultural value such as medicinal, aromatic, dye plants, plants used for handicrafts and construction, for environmental protection, etc. is at a critical point.

Alternative tourism development

The fifth challenge is to reduce unsustainable tourism development and introduce alternative tourism (ecotourism and agrotourism). Islands of the Mediterranean are currently exposed to a number of environmental threats associated with modern society, driven particularly by the boom in the tourist industry. Crete's sustainability will be seriously threatened and its irreplaceable natural and cultural resources and valuable tourist resources will be irreversibly damaged. Regional authorities and business circles are deeply concerned about the sustainability prospects of the island and about the particular role tourism can play.

Loss of indigenous knowledge

The sixth challenge is conserving and promoting indigenous knowledge which is an important and valuable input in the management of sustainable development and sustainable living. The Cretan population has lived in harmony with the environment and has utilized resources without impairing nature's capacity to regenerate them. Their ways of living were sustainable and indigenous knowledge shaped their values and attitudes which have guided their actions towards environment. In the region of Crete, indigenous knowledge about cultivated and wild species is rapidly being lost. In view of its potential value for sustainable development, it is necessary to preserve indigenous knowledge for the benefit of future generations.

Soil degradation and unsustainable farming

The seventh challenge is fighting the unsustainable farming practices to increase productivity which has caused severe impact on soil quality and increased number of cancer deaths in certain agricultural areas. Over-intensive use of land, over-pumping of groundwater, irrigation with water containing a high mineral salt, use of acidic chemical fertilizers have led to soil degradation and health. There are attempts to promote organic farming, but still unsustainable farming dominates.

4. Process of RCE development & identification of stakeholders

Although, there are local concerns on the above stated challenges the region of Crete faces, there appears to be little interaction and dialogue between local government, business sector, educational institutions and other social actors. There is thus need to bring together all these forces which can contribute to the creation of a sustainable society in the region. Indeed, the above key sustainability issues have prompted various people and local institutions to initiate discussions and take individual actions. The idea of the RCE Crete came out through various discussions among key stakeholders leading by the University of Crete in the course of the last two years.

The comments and suggestions received from the last year's evaluation prompted us to revise and enrich the present application. The history process has been updated as follows:

May 2007:

Discussions were held between Prof. Vassilios Makrakis, serving UNESCO at that time with IAU in Paris to get more feedback about RCEs.

June 2007:

The issue for the establishment of the RCE Crete was discussed with the General Secretariat of the Cretan Region. Crete is one of the 13 administrative regions or peripheries in Greece.

October-November 2007:

Discussions were held among interested staff at the University of Crete to initiate interest in establishing the RCE on ESD in the region of Crete and Professor V. Makrakis, UNESCO Chair was assigned to take initiatives.

February 2008:

Meetings were held among interested stakeholders to discuss issues pertaining to the mission, objectives and structure of the RCE Crete.

April–May 2008:

Further discussions were followed up by representatives of the core educational institutions with representatives from the business sectors and local self-governing authorities.

June-July 2008:

On the occasion of the UNU call to prepare application, the key partner institutions forward the first application.

October-November 2008:

Initiatives were taken by the University of Crete and the Regional In-service Teacher Training Center in consultation with other local partners to promote the idea of RCE Crete to new ESD stakeholders.

December 2008:

The UNU forwards the Ubuntu Committee of Peers comments and suggestions for the RCE Crete application and asks for re-submitting a revised application for the next year's selection. The suggestions were communicated and a new consultation process started.

January- April 2009:

Discussions and consultations were held among the key stakeholders based on the Ubuntu suggestions. Strategies were decided for upgrading the new application. More specifically, it was decided to approach one of the most important municipalities in the region, the Municipality of Rethymnon, to get involved in the RCE Crete and develop a project on "Creating a Sustainable City: A Master Plan to Move the City of Rethymnon Towards Sustainability". After consultations with the municipal authorities, the Municipal Council approved it. Consultations with the five Centers of Environmental Education that are spread across the region of Crete were also started and agreement was reached to be involved in the RCE Crete. To have access and involve local schools, as suggested by the Ubuntu Committee of Peers, the Regional Educational Authority for Primary and Secondary School Education was approached and agreed to be

involved. It is worth pointing out that the Prefectures that are part of the initial members also exercise power on local school education. In this context, the UNESCO ASPnet primary and secondary schools in the region of Crete (N=13) and the University of Crete affiliated schools for pre-service teachers' practicum (N=20) will participate in the ESD school-based activities planned.

May-June 2009:

Application has been revised accordingly and submitted.

July-August 2009:

Comments and suggestions of the draft application sent were received by the UNU/IAS secretariat and the RCE Graz-Styria. These have been highly acknowledged by the RCE Crete stakeholders and they were incorporated in the second draft application submitted on 8th of August.

September 2009

No further comments were received for the second draft and the final application supported by our partners' letters of commitment has been sent for the final evaluation.

5. Organizations involved and resources

The initial group of stakeholders who agreed to participate in the formation of the RCE Crete are representatives of the regional and local government, universities, chambers of commerce and industry, centres of environmental education, regional educational administrative directions, development and research organisations and media.

Educational institutions

Tertiary

University of Crete (UNESCO Chair ICT in ESD)

Sports Tourism Research Unit of the Technological Educational Institution (TEI) of Crete

Nonformal

Regional In-service Teacher Training Center of Crete (Under the Ministry of Education)

Vamos Centre of Environmental Education

Anogia Centre of Environmental education

Archanes Centre of Environmental Education

Neapolis Centre of Environmental Education

Ierapetra Centre of Environmental Education

Local schools

UNESCO Associated schools

University of Crete student-teachers practicum schools

Educational administration

Regional Educational Authority for Primary and Secondary School Education (Under the Ministry of Education)

Local and regional government

Prefecture of Rethymnon

Prefecture of Heraclion

Prefecture of Lassithi

Municipality of Rethymnon

Media and Business

Rethymnon Chamber of Commerce and Industry

There is a particular need for liaison with key media people (including journalists, editors, TV and producers) in spreading the ESD activities and messages and making the relevant linkages for the public. The media should be encouraged to sponsor some form of competition focused on raising awareness, with ESD issues-friendly prizes.

The RCE Crete will strengthen the existing collaborative networks and integrate them into the RCE Crete activities. This will have considerable impact on the sustainable development process in the region, saving resources and finance. We will provide an enabling environment for communication, collaboration and building dialogue among the stakeholders.

All participating organisations in the RCE Crete have their own funds and human resources. This is highly important for the viability of the RCE Crete and its smooth operation. However, the full realization of the centre's vision and objectives will require additional financial and human resources. To this end, the core members of the RCE Crete are committed to make all efforts for individual contribution and fund raising from external sources. The RCE Crete will also be eligible for funding from local and national governmental authorities.

6. Activities and achievements of the partners

The University of Crete and in particular the UNESCO Chair ICT in ESD has taken actions to infuse ESD in the Education Department study programme and introduce three stand-alone courses on ESD. A platform of WikiQuESD projects has been developed and qualitative methods (journals, focus interviews, participatory observation) were employed to reveal its effectiveness among pre-service teachers. This new Wiki collaborative learning platform allowed pre-service teachers to design and upload interactive ESD projects online through collecting, assessing and integrating digital material available in the Web. They could also brainstorm, share and discuss their project ideas, while the instructor could make comments and monitor the development process. These results imply that the learning power of the WikiQuESD and Wiki technology in general can transform teachers from software users to hypermedia authors. In collaboration with regional and local educational authorities, joined projects for applying these innovations in schools were agreed and started to be implemented. Three Ph.D. students were also accepted this academic year to deal with ESD theses. An evaluation study was also carried

of the educational impact of Recycling Programme in the Municipality of Chania, involving all primary schools in the municipality.

A workshop has been also planned for the coming September gathering together key university staff from Departments of Education across the country to discuss the issue of re-orienting teacher education to address sustainability. Applications were also submitted to the European Commission Programmes in cooperation with other European and Mediterranean universities on ESD issues and for the development of a Master Programme on ICT-enabled Education for Sustainable Development. One of the most promising ESD initiatives concern the infusion of ESD in the Student-Teachers Practicum at the 12 affiliated local schools. Themes such as “Water Wise Use”, “Let’s Deal with Waste” and “Using Educational Robotics to Raise Environmental Awareness and Action” have been implemented recently in the affiliated schools and educational multimedia lessons on these themes were developed by student-teachers. The experiences gained through these projects will be highly valuable to the RCE Crete projects planned.

Another institution under the framework of the University of Crete, is the Natural History Museum of Crete, which has been functioning and operating since 1980, being a pioneer institute at national and European level in the following activities: 1) Study and Management of the Natural Environment of Crete; 2) Public awareness, education and sensitisation of local people as well as the visitors of the area; 3) Link University activities with Cretan society; and 4) Set up a network of Ecological Museums in Greece and throughout the Eastern Mediterranean. Also, as stated by the Dean’s of the Faculty of Education, the University plans to develop a botanical garden.

The Sports Tourism Research Unit of the Technological Educational Institute of Crete has been involved in projects related to eco-tourism in the region of Crete. In cooperation with other organizations concerned have also organized relevant conferences and workshops. The Regional In-service Teacher Training Centre organizes training for hundreds of teachers every year. Within its training curriculum are courses dealing with Environmental Education. The Centre is closely affiliated with the University of Crete. An increasing number of primary and secondary schools are getting involved in various projects concerning ESD initiated both by the Regional Educational Authority, the UNESCO chair ICT in ESD at the University of Crete and the five Centers of Environmental Education (CEE).

The CEE are affiliated with many schools and teachers in their respecting geographical areas of Crete, involved in the design and production of educational and training materials; supporting ESD school-based projects in the region, using experiential learning approaches; taking actions for the formation and coordination of thematic EE networks at a national and international level and promotion of research in the field of Environmental Education; train and support school teachers to infuse ESD in their teaching methods and lessons and produce teaching materials related to local ESD themes. It is estimated that more than 10000 pupils and hundreds of teachers have visited the Centers of Environmental Education. The staff comprises educators from both the primary and the secondary levels of education. In general, the aim of the CEE is to sensitize and educate pupils, students, educators and other social groups in environmental matters/concerns of local or global importance. The Centers of EE are cooperating with the University of Crete, the Regional Educational Authority, the Ministry of Education, EE officers,

local governments, NGOs, local associations and other entities. These Centers will bring to the RCE Crete, not only a wealth of experiences and know-how, but will also be involved in almost all the school-based ESD activities planned by the RCE Crete.

The University of Crete through the UNESCO Chair ICT in ESD and the Centers of Environmental Education are also in close cooperation with the 13 primary and secondary schools participating in the UNESCO Associate School Project Network (ASPnet). These schools are involved in various ESD themes of local concern such as water, waste and energy. Their participation in the RCE Crete will strengthen their activities and provide a good resource for the RCE projects. Similarly, the Department of Primary Education at the University of Crete has a network of 20 schools in which pre-service students are doing their practicum. These schools will provide a good resource for the RCE Crete ESD activities and develop “models” or “good examples” in the field of school-based ESD.

The General Prefecture of Crete in collaboration with the local self-governing bodies (municipalities and prefectures) has promoted a number of projects aiming to advance sustainability in the region of Crete. Of particular importance in the project ENVIREG (Environmental Protection), MED ENERGY (Alternative Energy Promotion), LADD (Local Democracy and Decentralization), ECO – OVERTURE MED (Recycling of Paper), MED POLIS (Environment and Local Development). Other projects related to sustainable development initiated by prefectures and chambers of commerce are “Go Digital” aiming to tackle the digital divide, “Agrotourism”, especially targeting the promotion of local traditional goods and the support of women and young entrepreneurs. The Municipality of Rethymnon with more than 40000 inhabitants has taken steps to integrate sustainability issues, by appointing a special working group on this matter. The City of Rethymnon Council expressed great concern to embark on the path towards developing a sustainable city and is committed to showing leadership, vision and working collectively within the RCE Crete framework.

7. RCE Crete vision and objectives

The vision of the RCE Crete is to tackle the problems identified in the key ESD challenges in the region and contribute to the promotion of Education for Sustainable Development both locally, regionally and globally. The RCE’s ultimate vision is to engage all Cretans in lifelong learning and effective change of sustainable ways of being, living, working and acting. It is envisioned that the RCE Crete will serve as an example of good practice to other regions facing similar sustainability challenges and issues and contribute to the goals set by the UN Decade of Education for Sustainable Development.

Short-term objectives

- Develop a web-based platform for promoting dialogue among the key regional stakeholders involved and others interested to turn Crete into a sustainable region.
- Develop a Master Action Plan to move the City of Rethymnon towards Sustainability and produce a Toolkit for Local Government and Business to help them integrate sustainability into their policies and practices.

- Develop a blended training system to enhance a cascade type of teacher professional development on ESD regional issues.
- Bring about interregional and global collaboration with other RCEs, developing joint projects, research and mechanisms for sharing and disseminating accumulated knowledge, experiences, expertise and examples of good practices in ESD.

Long-term objectives

- Raise public awareness and action about the key sustainability issues in the region, especially as it concerns threatened biodiversity, sustainable agriculture, desertification, and traditional knowledge for a sustainable way of life in the region.
- Gradually expand short-term sustainability activities to broader areas such as other cities/communities, schools and higher education institutions, business and households.

8. Governance and management structure

The RCE Crete adopts a functional and effective governing and decision-making structure comprised of a Board of Governors, a Steering Committee and a Strategic Planning Group. The Board of Governors will include a President, two Vice Presidents, a General Secretary, a Treasurer and five members. The members of the Board of Governors will be nominated and elected by the members of the Steering Committee. They will come from the University of Crete with three members as the leading Institution, two members coming from the Centres of Environmental Education, one member from the Regional In-service Teacher Training Centre, one member from the Technological Educational Institution and three members from the local government, educational administration and business stakeholders. The Steering Committee will have a representative from each core member organisation (University of Crete, the Sports and Tourism Research Unit of the Technological Educational Institution of Crete, the Regional In-service Teacher Training Center of Crete, the Regional Educational Authority, the UNESCO ASP-net schools in the region of Crete, the four prefectures of Crete, the five Centers of Environmental Education, the Municipality of Rethymnon, the Rethymnon Chamber of Commerce).

The Strategic Planning Group will be formed by the leaders of ESD projects under implementation. All the members of the three governing and management bodies will work voluntarily, unless they are engaged in project works. A supportive secretariat will be employed to facilitate administrative work and communication. Upon official establishment of the RCE Crete, a Charter will be issued through consultation of all founding members, according to the State Laws and Regulations, and submitted to the Juristically Authorities for approval and registration. All members of the three governing bodies will gather and hold discussions each month during the initial stage and subsequently at least four times a year in order to draft policies, plans, projects and budgets, as well as monitor and evaluate the progress of the RCE Crete activities.

9. A portfolio of RCE Crete projects (2010 – 2014)

The above listed objectives will be achieved through a comprehensive approach based on collaboration among stakeholders and other RCEs facing similar challenges and focusing on transformative learning and behavioral change. Learning-based change for sustainability is development of awareness, knowledge and meaning construction, values, skills, attitudes, critical reflection and empowerment to changed behavior, thinking, living and acting. A critical outcome of ESD in that way is the ongoing capacity of citizens, local government, organizations, community groups, the business sector, and education institutions to effectively respond to regional sustainability challenges.

The overriding goal is to deliver learning and behavior change for sustainability within the first five years of the RCE Crete, that coincide with the second half of the UN DESD, through those organizations and sectors of society that have the capacity to pick up quickly on the vision of sustainability and to lead personal and community change. In the longer course, the goal is to engage many further organizations and sectors to sequentially build “whole-school/community” learning and behavior change. In this context, the following projects have been identified and agreed upon, following the Ubuntu suggestions. The first four projects are considered as our flagship projects since they will help build the foundation to spread ESD activities to wider areas, sectors and public.

Project No 1 & Title	A Master Action Plan to Move Rethymnon Towards a Sustainable City	
<i>Leading stakeholder (s)</i>	University of Crete & Municipality of Rethymnon	
<i>Other stakeholders</i>	All plus others from the wider community	Start: 04/10 End: 10/10
<p>Objectives Develop a Master Action Plan that will help transform the City of Rethymnon into a model government agency that is clean, healthy, resource-efficient, and environmentally conscientious.</p> <p>Description and partners' roles Integrating environmental, social, cultural and economic sustainable practices into City policies, procedures, operations, and practices. A participatory action-based approach in the form of a Sustainability Summit organized by the University of Crete and the Municipality of Rethymnon will be held over two days with a representative number of people from community, businesses and local prefecture, focusing on the collective challenges and opportunities everyone faces in progressing Rethymnon as a Sustainable City. The workshop will use a learning spiral process where all participants will be encouraged to share their views on the needs and constraints to progress Rethymnon towards a Sustainable City. In this context, the RCE Crete will seek cooperation and take advantage of the experiences of other RCEs in this field. The RCE Graz-Styria has already expressed interest to cooperate with RCE Crete in this project, which is highly welcomed.</p>		

Deliverables	Milestones and expected results
Master Action Plan Report	Master action plan is ready and disseminated in print and electronic form (m10/2010). It is well-received by the local community.
Assumptions & Risks	Indicators of progress
Active involvement of key people representing all major sectors of the local community.	Endorsement of the Master Action Plan by the City Council and put in action.

Project No 2 & Title	Creating a Sustainable Community: A Toolkit for Local Government and Business	
<i>Leading stakeholder (s)</i>	University of Crete and Prefectures	
<i>Other stakeholders</i>	Municipalities, Centers of Environmental Education	10/10 - 03/11
<p>Objectives The purpose of this toolkit is to provide ideas and descriptions of specific actions that a local government in the region of Crete can take to transform itself into a model of sustainable practices.</p> <p>Description and partners' roles Individuals and groups across Crete are calling upon local governments to enact policies and take actions that are aligned with the principles and concepts of sustainability. This Toolkit will be an extension of the Project No 1, addressing sustainable approaches to energy, waste and water management, building, transportation, purchasing etc. The various local government functions and strategies included in the toolkit will be viewed through a systemic approach, involving key experts in the field representing various local administrative bodies in the region (prefectures, municipal governments, higher education management, school boards and directions etc). A three day workshop will be organized and chaired by the University of Crete and the four prefectures in the region of Crete are developing and implementing sustainable practices.</p> <p>Advice and exchange of experiences in this project will be sought by other RCEs, such as the RCE Graz-Styria and the global sustainability movement, in general.</p>		
Deliverable	Milestones and expected results	
Toolkit	Toolkit is available in print and electronic form (m3/2011). Local government organizations, educational institutions, private business and commerce organizations include sustainability measures in their decision-making and practices.	

Assumptions & Risks	Indicators of progress
Potential lack of interest for active participation will be tackled through proper awareness campaign.	Number of municipalities, higher education institutions, school directions and business taken decisions to integrate sustainability into their policies and practices.

Project No 3 & Title	A Participatory Action Research Programme of Community Learning and Action for Sustainable Living	
<i>Leading stakeholder</i>	University of Crete	
<i>Other stakeholders</i>	Technology Higher Education Institution; Prefectures; Chambers of Commerce; Municipalities; Centers for Environmental Education	06/10 - 05/12
<p>Objectives The overall aim is to design, develop and assess a method that would create effective community action for sustainable living. Among the specific objectives are: to build the knowledge, capacity and commitment among participants to increase sustainable living, especially after the project is complete</p> <p>Description and partners' roles The RCE Crete regards the link of academic institutions and society of critical importance in building 'Sustainable Communities'. If we are to build a sustainable society, change needs to happen in the places where we live and work – our communities, and in the way we live our lives, alongside change at wider levels. Community engagement and development is a key way of working with individuals, groups and local institutions to create and sustain this change. The project will be based on ideas from the theories and principles of behaviour change for sustainability, community development, action research and action learning. It will involve two community groups from every prefecture to be consisted of about 50 participants each (8 groups x 50= 400). A sustainable community is expected to address local to global links, equity and inclusion, present and future needs – all set within the context or boundary of environmental limits. The University of Crete will lead the research in cooperation with the Technology Higher Institution (e.g., design the study; data assessment). The prefectures and the Chamber of Commerce together with the local municipalities will contribute in selecting the community groups, provide their locations for the research, provide resources for data collection, and develop ESD resource centers in their organizations utilizing the action research participants involved.</p>		
Deliverables	Milestones and expected results	
Research report	Report ready and disseminated in print and electronic form (m5/2012).	

Assumptions & risks	Indicators of progress
Cooperation and commitment of participants.	Number of participants and those ready to function as multipliers in their communities.

Project No 4 & Title	Develop and Implement a Blended Training System for Preparing the ESD School Resource Teacher	
<i>Leading stakeholder (s)</i>	University of Crete & the Centers of Environmental Education	
<i>Other stakeholders</i>	Regional In-service Teacher Training Center, Regional Educational Authority	03/10 - 02/12

Objectives

Develop and implement the concept of “ESD School Resource Teacher” through a blended training system.

Description and partners’ roles

ESD School Resource Teachers are ordinary teachers, who besides their teaching duties, they can play a leading role in establishing “teacher learning communities on ESD” in their own schools, working either on a volunteer basis or as part of their teaching duties. A combination of constructivist and active learning methods will be adopted to develop a web-based training system that can be combined with face-to-face training interventions. Trainees will be encouraged to integrate themes dealing with “Sustainable Development”, especially those related to the local society, environment and culture. A training syllabus amounted to 120 training hours will be developed with the collaboration of the five Centers of Environmental Education based on the following four core modules planned by the UNESCO Chair ICT in ESD at the University of Crete.

- Learning multimedia authoring tools
- Creating futures for a sustainable society
- Selecting sustainable futures
- Developing interdisciplinary and cross-curricular thematic lesson plans for sustainable futures supported by ICT.

This process will be facilitated by the Regional In-service Teacher Training Centre and the Regional Educational Authority for Primary and Secondary School education.

Deliverables	Milestones and expected results
A web-based blended training system	A web-based blended learning and capacity building system to promote ESD in the region is made available (m2/2012). A first cohort of “ESD School Resource Teachers” amounted to 100 are trained to function as facilitators or multipliers.

Assumptions & risks	Indicators of progress
Possible lack of interest among teachers will be tackled by proper incentives.	Number of ESD School Resource Teachers trained and volume of training covered.

Project No 5 & Title	Case Studies on School-based ESD Activities	
<i>Leading stakeholder</i>	University of Crete	
<i>Other stakeholders</i>	UNESCO ASP-net Schools, Student-Teachers Practicum Schools, Centers of Environmental Education, Regional Educational Authority, Regional Center for Teacher In-Service Training	01/10 - 12/14
<p>Objectives Design and develop case studies on ESD regionally challenging themes on selected primary and secondary schools to provide a foundation for addressing these themes across all schools in the region.</p> <p>Description and partners' roles The ESD themes concern water, waste, energy, threatened species, local knowledge, gender equality, green purchasing, social inclusion, sustainable farming, desertification and deforestation. These themes reflect the major challenges that the region of Crete faces. Projects will be developed using the WikiQuESD platform developed by the UNESCO Chair at the University of Crete, involving student-teachers and teachers from the affiliated to the University of Crete schools for practicum and the regional network of the UNESCO ASPnet schools. These case studies will function as models and resources for spreading the innovation to primary and secondary schools across the region of Crete through the Regional Educational Authority, the Centers of Environmental Education and the Regional Center for In-service Teacher Training.</p>		
Deliverables	Milestones and expected results	
WikiQuESD projects	ESD projects developed will be available online through the RCE Crete Web-portal (continually through year 2010 to 2012 and beyond).	
Assumptions & risks	Indicators of progress	
Possible lack of interest among teachers and student-teachers will be tackled by various incentives such as issuing certificates, publicity and prizes.	Number of schools, teachers and student teachers involved. Number of WikiQuESD projects developed. The educational value of the projects.	

Project No 6 & Title	Creating the RCE Crete Web-portal	
<i>Leading stakeholder</i>	University of Crete	
<i>Other stakeholders</i>	Contributions by all partners for collecting information and dissemination	01/10 -03/10
<p>Objectives Develop the RCE Crete official Web-portal to co-ordinate and ensure the effective diffusion of its results beyond those who are immediately involved.</p> <p>Description and partners' roles A group of experts in the field of ICT and web-based learning systems development will be formed in collaboration with the University of Crete and the Technological Education Institute of Crete to work on the development of the RCE Crete web-portal, which will also integrate the web-based system for capacity building in the field of ESD. Learning objects developed in similar projects by the two partners will be reused here, saving costs, time and serve sustainability practices.</p>		
Deliverables	Milestones and expected results	
Web-portal	The Web-portal is ready (m3/2010) serving as the main dissemination tool.	
Assumptions & risks	Indicators of progress	
The Web-portal is maintained by the University of Crete.	Access to the Web-portal. Use as a dissemination and management/coordination tool.	

Project No 7 & Title	Sustainable Tourism in the Region of Crete	
<i>Leading stakeholder</i>	Sports and Tourism Research Unit, TEI	
<i>Other stakeholders</i>	University of Crete, Chambers of Commerce, National Tourist Organization, Regional Association of Tourist Business Sector	09/10 - 08/12
<p>Objectives Measure attitudes and current actions towards sustainable tourism through the development and validation of relevant measurement scales.</p> <p>Description and partners' roles Developing and testing innovative scales and frameworks that reflect the paradigm shift towards sustainability may help elevate the discourse on any domain of sustainable development, such as tourism. In this context, research will be directed towards the identification and promotion of nature-conserving tourists. Data will be collected through a semi-structured questionnaire delivered to hotel managerial personnel and public. A conference on Sustainable Tourism in Crete will also be organized by the Sports and Tourism Unit at the Technological Educational Institution of Crete. The National and Regional organization for tourism along with the local Chambers of Commerce will be instrumental in the dissemination of results to interest groups and join efforts to develop</p>		

action plans on the basis of the research results.	
Deliverables	Milestones and expected results
Research report and a Conference on sustainable tourism	Research available and disseminated (m8/20120). Decision-making bodies and interest groups show increased concern on the issue.
Assumptions & risks	Indicators of progress
Active involvement of the partner organizations in this activity is needed.	The issue of alternative tourism and eco-tourism is widely disseminated by the media and the organized conference.

Project No 8 & Title	Cataloguing Indigenous Knowledge that Empowers Sustainability	
<i>Leading stakeholder</i>	University of Crete	
<i>Other stakeholders</i>	All plus cultural and development associations	04/11 - 03/14
<p>Objectives The research aim is to initiate a long-term effort to promote and utilize indigenous knowledge for social, economic, cultural and educational development in the region of Crete.</p> <p>Description and partners' roles To overcome the critical situation of the loss of local knowledge, we will engage teachers, students, parents and the public in ongoing collaborative fieldwork in the local area. This collaborative research process organized by all concerned stakeholders will involve about 100 local cultural and development associations across the region of Crete.</p> <p>Local cultural and development associations are NGOs which have been spread in the 1970s functioning and operating in almost every community. These NGOs represent a popular citizen movement which aims to revitalize local culture and environment, but also in recent times it has been involved in raising local economy through the establishment of small cooperatives led mostly by women. These cooperatives deal mostly with developing and promoting traditional products, using local knowledge that reflects sustainable ways of farming, production and packaging.</p> <p>Activities will be conducted on inter-disciplinary research of indigenous/local knowledge systems and on the transfer of indigenous knowledge and innovations from one area to another. Potential areas for indigenous knowledge pertaining to sustainability may include:</p> <ul style="list-style-type: none"> • Agriculture and horticulture • Astronomy • Conflict management and resolution • Forestry • Human health, traditional medicines and healing • Knowledge of animals, fish and ecological systems 		

- Sustainable use of natural resources and the environment
- Traditional classification systems for living and other resources
- Learning systems and oral traditions
- Spirituality
- Symbols
- Traditional arts and culture

Cooperation will be sought with the UNU-IAS Centre of Traditional Knowledge at Charles Darwin University in Australia in the context of this project.

Deliverables	Milestones and expected results
Report on local knowledge addressing sustainability	Report ready and disseminated in print and electronic form (m3/2014). Awareness is raised on the value of local knowledge on promoting sustainable ways of life.
Assumptions & risks	Indicators of progress
Cooperation with cultural associations is needed.	Number of cultural associations and informants involved in data collection.

10. Planning a Monitoring System

As a management tool, monitoring should be organized at each level of management and directly linked to annual plans and the log-frame described above. It should be noted that the monitoring and evaluation plan should not be seen in a rigid way. Project leaders will prepare annual work plans. The work plans should describe in detail the delivery of inputs, the activities to be conducted and the expected results. They should clearly indicate schedules and the persons responsible for providing the inputs and producing results. The work plans should be used as the basis for monitoring the progress of program/project implementation. It is worth pointing that the monitoring actions must be undertaken throughout the lifetime of the project. An internal evaluation committee will be formed to follow-up and assess progress. Also, a monitoring and evaluation matrix will be developed as a tool of identifying and documenting additional information. It will provide detailed information about how the project objectives, outputs and activities will be monitored and evaluated.

11. Financial Resources

The RCE Crete consists of partners that have their own budgets and human resources and there is agreement to contribute in order to carry out successfully the objectives set. The fact that the four governing authorities (prefectures) are part of the RCE Crete network is very promising in terms of bringing internal and external resources to RCE Crete. The Chambers of Commerce and Industry, which represent the private business sector in the region, with their corporate social responsibility programs will also highly facilitate the provision of the necessary resources. There are also opportunities to get financial support from special governmental sectors, which have special funds for such a type of institutions. The Greek state has set up concrete programmes under the framework of “Green Development” that the RCE Crete can have access.

12. Supporting letters (followed through a separate file)