Reinforcing Sustainable Development in Schools in Malta: A potential approach by the University of Malta to meet the country's sustainable development challenges

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Abstract

Various important historical documents have emerged which have left an impact on the world. One of these is Agenda 21, which is an important tool for policy-makers and environmental managers for bringing about Sustainable Development. For a long time it has been widely established that education plays a highly significant role in Sustainable Development, and inevitably this noteworthy discussion leads to school contexts. In this scenario, the validity of using Agenda 21 is highlighted and presented as a tool that can be used by environmental managers within the school whereby students from a very young age can start acting and promulgating Sustainable Development. With this in mind, Sustainable Development is expressed as four-pillared and intercultural management is viewed as an important field for social cohesion and justice, particularly within the school environment.

The study also provides a strategic intercultural and environmental management plan tailormade for a particular school in Malta. Both quantitative and qualitative research techniques were carried out to establish the context and to increase the success rate for this, long-term plan inculcating intercultural and environmental management practices. To reinforce Sustainable Development in schools, this study recommends among others, to enhance links between schools and the community, to form a database as reference and inclusion of interculture in the National Strategy for Sustainable Development in Malta. Considering the focus on innovative pedagogies and applied sustainable development, this paper will be useful for lecturers and teachers that intend to develop strategic sustainable development plans in their communities or institutions.

Introduction – the importance of Education for Sustainable Development

The initial document inspiring the work behind this paper is Agenda 21 which emerged from the United Nations Earth Summit of 1992. This non-binding document consists of a detailed action plan for sustainable development containing 115 programme areas. This document reiterates that efforts on multiple fronts are needed to create a more sustainable world. (UNCED (1992). Furthermore, chapter 36 'Promoting education, Public Awareness and Training' describes education as one of the fronts with high potential for advancing Sustainable Development efforts. Education for Sustainable Development was reinforced in 2002, at the World Summit on Sustainable Development (WSSD), when the decade 2005-2014 was declared to be the International Decade of Education for Sustainable Development (IDESD). A reaffirmation of the will of governments to work in favour of sustainable development (UN (2002). The civil society and the business world were also encouraged to carry out collaboration initiatives facing specific problems and lead to concrete results to improve the life conditions of the world's peoples.

Since the coining of the term 'Sustainable Development', it has been steadily integrated into policies, projects and phrases, at times attaching misconceptions to its real meaning. According to Lemonick (2009), the term sustainable is a 'simple' term with a high 'conceptual heft'. Nonetheless, environmental issues are being considered as part of development strategies and there is wide consensus that there can be no sustainable development for our planet without the eradication of poverty. Following this line of thought, "culture is not given enough space within development issues", and there is no "systematic attention to cultural and intercultural diversity at all intervention levels of development (social solidarity, effectual economy and environmental responsibility) without consideration of culture and interculture deprive humanity from peace, progress and social justice, without which no development can take place.

Interculture may be defined as "an eco-socio-cultural dynamic process aiming at promoting inter-ethnic harmony among people, becoming aware of our cultural and biological differences, deeply rooted in our social, economic and ecological practices" (Elame', 2004). Concern about emerging environmental issues is highly evident. Once cannot however dispute that intercultural issues are also on the rise and their effects are devastating. These issues have the potential to undermine global peace and security. This line of thought places interculturality solidly within discourse of Sustainable Development. Furthermore it gains strategic importance within the school context, a place where children from a very young age can understand and weave ties among diversity. The importance of Education for Intercultural Understanding and Dialogue gained worldwide impetus with the Copenhagen Conference held in October 2008, uniting more than 140 experts from all over the world. (UN, 2009). In his forward, Director General Koichiro Matsuura seeks to highlight the timely importance of focusing on the role of education in building intercultural dialogue and understanding in the current global environment.

It is vital therefore to find ways how to integrate Education for Sustainable Development and interculturality in current educational systems. This paper introduces how through its involvement with Ca' Foscari, the University of Malta has started to address this important challenge. This paper outlines the study undertaken in order to provide a tangible, tailor-

made environmental and intercultural plan for a secondary school. This is highly relevant as it provides a practical way how students at universities can pursue, apply and promulgate sustainability. Considering the focus on innovative pedagogies and applied sustainable development, this paper will be useful for lecturers and teachers that intend to develop strategic sustainable development plans in their communities or institutions. The paper concludes with an evaluation of the study's limitations together with recommendations as to how this innovative study can be further enhanced in order to achieve the goals of IDESD.

Malta as a background for implementing Education for Sustainable Development

Malta is considered as a Small Island Developing State due to its limitation of natural resources and size which contribute to economic, environment and social problems. For instance a high population density and the tourist industry create a burden on Malta's waste management efforts. The large influx of illegal migrants is also presenting great challenges to Malta. The quality of the limited water aquifers is undermined by bad agricultural practices whilst the 'Not in my back-yard' (NIMBY) Syndrome is rampant within Maltese society. In spite of Malta's climate, the island is still almost dependent on non-renewable energy resources. The economic growth may also be low compared to other European countries due to lack of diversification. In spite of this scenario, Malta's culture and heritage can, in no way, be described as limited or limiting. Malta's name is cognizant with the country's rich cultural background spanning 7,000 years.

It is in the school's best interests to adopt a strategy of intercultural eco-management. If we want our schools to help the young become conscious citizens, they cannot be just a learning space where students only acquire theoretical knowledge. The schools' organisation and standards of reference both on a teaching and administrative level should make of them a benchmark for environmental and intercultural governance. This absolutely highlights the importance of management plans that address the intercultural and environmental issues within the school. These could be integrated within the school's development programmes. A Senior Management Team member from each school needs to be professionally trained to become a competent intercultural and eco-manager in order to develop effective management plans which could eventually lead to our schools following the process of School Agenda 21.

This plan, if in place and managed well, provides the supportive infrastructure to two newly introduced cross-curricular themes of Education for Sustainable Development and Education for Diversity within the National Curriculum Framework in Malta, which was launched on 14th February of 2013 (Times of Malta, 2013). Albeit towards the end of the IDESD, this significant step has been met favourably by institutions such as the Centre for Environmental Education and Research (CEER). "CEER welcomes the proposal of Education for Sustainable Development as a cross curricular theme and hence one of the priorities of the curriculum."(CEER, 2012 p.6)..."A very positive step towards the formation of a citizenry which is aware and responsible towards the environment and is a fitting national contribution towards the UN Decade of Education for Sustainable Development" (CEER, 2012 p.7).

The Role of Higher Education

The University of Malta was involved in the setting up of an applied Master degree in Intercultural and Environmental Management of Schools, named the 3EMI. It was led by the University Cà Foscari of Venice and co-financed by the European Commission in the framework of the Lifelong Learning Programme (LLP). The project partners included the Youth Centre of Haskovo (BG), the University of Malta (MT), KCDKO - Administration and Management Centre of Krakow (PL), Centro de Formação dr. Rui Grácio (PT), Filocalia Foundation (RO), Çankırı National Education Directorate (TK). All these institutions are members of the consortium set up for the European project COMENIUS 3EMI.

The driving philosophy behind the project was the emerging importance in political, sociological, and educational discourse of natural environments, globalization, migration mobility, sustainable development and intercultural dialogue. The main principle was that school management has to be developed in order to be able to cope with the evolved and interconnected environmental and intercultural requirements. Additionally, students required exposure to this new dimension in order to effectively answer to the various challenges of interculturality and sustainable development throughout their lives. The main aim of the project was to improve environmental and intercultural management skills in principals and the school management team. The Master training programme (including e-learning and face-to-face stages) was designed and tested with a sample of about 150 school managers from Italy, Bulgaria, Malta, Portugal, Romania, Turkey.

The course was aimed at developing new breed of professionals, called intercultural ecomanagers of schools, able to project and develop interventions and policies on sustainable development in an intercultural perspective. In order to reach these objectives, the project proposed:

1. a training needs analysis of 700 school principals and executives from the different partner countries,

2. to develop a 1st Level Master course in Intercultural eco-management of schools,

3. to ensure an e-learning blended training course for at least 150 European school managers,

4. to help every participant in designing an intercultural eco-management action plan for their own school.

The 3 EMI project was held inside a virtual campus to give attendants (school managers and teachers with work-related duties) the chance to overcome disadvantages due to time limits, distance or disability. The virtual campus specially created for the 3 EMI project used the Moodle software for the online display of the learning activities. In addition to the main online learning environment provided for the masters there were a number of face to face meetings with respective national and international tutors in order to ensure better understanding of concepts. This satisfied the more informal side of the course and resulted in a blended type of learning which is innovative and very effective. Students were actively tutored to create research which could be applied to the context of their school systems in

order to produce tangible improvements. The research and plans produced in this paper are, in fact a direct result of this Master programme.

Research Methodology

In order to provide an intercultural and environmental plan for the school, research methodology techniques were used to collect data and establish the current intercultural and environmental situation within the school, since this is highly significant for the success rate of the plan. Participant Observation was primarily used from the months of February till June 2010. The information obtained with this technique related to what is currently happening in the school and main events in the school calendar falling within the period of study including Prize Day and Parents' Day were analyzed. Speeches and in-house circulars also had their content analyzed, together with informal interviews with school stakeholders such as members of SMT, teachers, students and ancillary (cleaning) staff. The use of this method was very appropriate since it gave an excellent insight into the school's running and established the context for the strategic plan.

Time of study	Research	Activities carried out	Objectives
Technique			
	Surname Study	Consultation with School Registers from	To determine if there are any changes in
Sequential		previous years (1982 till 2009)	culture based on foreign students'
time of study.			surnames and if there are any emerging
App. Two			trends along the years.
months per	Participant	Analysis of events including Prize Day,	To determine the current situation as
technique Observation		Parents' Day, SDP Day;	regards environment and interculture.
	observation	Analysis of discourse during meetings;	What importance, if any, are these
		Analysis of circulars and internal memos	aspects given?
	Informal	Discussions with:	To find out policies that outline
	Interviews	SMT Member	management techniques and if these are
		Ancillary (Cleaning) Staff	sustainable
		Teachers in staffrooms and special	What type of products are used for
		rooms; Home Economics teachers,	cleaning and the practices used during
		Science teachers.	their work as regards waste management
			and use of resources
			To get information about levels of
			awareness and participation in school
			practices.
	Questionnaires to	Pilot study with one class, then real study	To obtain insight into students' lifestyles
	students	with 254 students responding to the	and attitudes and to determine how they
	students	survey	react to situations related to intercultural
			eco-management.
	Questionnaires to	Pilot study with five teachers, then real	To obtain insight into teachers' lifestyles
	teachers	study with 62 teachers, for which 48	and attitudes and to determine how they
	icachers	questionnaires were returned to trainee.	react to situations related to intercultural
V			eco-management.

Table 1: Research Methodology Plan

In order to reinforce the research method, two sets of questionnaires were also formulated, primarily used in a pilot study, edited and then given to students and teachers. This quantitative method gave further insight into the way these stakeholders think, which are the most important issues that need to be addressed and furthermore how would they react to future actions or proposals. With all this data in hand, the trainee could execute the project and provide the strategic plan which is tailor-made for the school under study.

The school lacks organized documentation as regards different cultures. There is space for representation from different cultures and minority groups but there are no cross-cultural strategies observed. In conjunction with participant observation, a student survey was conducted and analysed using SPSS version 14.0. Out of 581 available students, a total of 254 students participated, giving a 95% confidence level and 4.5 confidence interval.

To review the teachers' opinions as regards the school's environment and interculture, a survey was administered to teachers. 4 teachers outrightly refused to fill in the questionnaire when they were approached by the trainee and 10 questionnaires were not returned. The survey finally yielded 48 replies, 31 females and 16 males.

Stakeholder type	Number of questionnaire respondents
Students	254
Teachers	48

 Table 2: Questionnaire Respondents

Data Collection and Analysis

The school under study, made up of 5 distinct blocks, is centrally located in one of Malta's heavily urbanised areas, which often means heavy congestion at all times of the day. Parking space is often a problem in the school, so much so that cars are often parked too close to the main waste separation site or may obstacle paths to the different blocks. Its strategic location makes it important as an examination centre, premises for setting of national evening courses and for foreign students to learn English. Although, this is important as the building is being utilised throughout the whole day and year, there could be an element of neglect by external users, particularly since they are not taken on board on issues of sustainability within the school premises. The distinct blocks present a problem of lack of communication and exchange between staff members who may only meet each other during infrequent meetings.

Results

Participation was low, so much so that only 30.7% think that participating in school activities is important. Furthermore, only 36.6% of the respondents know whether the school takes part in environmental initiatives, and 39.8% agree that the students are involved in thinking up ways how to help the school's environment. 68.9% do not know the meaning of the term sustainable development and 83.1% have never heard of School Agenda 21. 43.7% strongly agree that there is more to be done as regards the school's environment. 43.3% are unsure whether the current system of waste separation is effective, implying that there is a serious lack of communication and information being channeled to the students as stakeholders. The subject of differences in culture has come up during school subjects for 68.5% of the survey respondents. This was mainly due to languages, History, PSD, Geography, Social Studies and Religion. Analysis of data collection has shown that links between the school and parents as well as the community need to be properly established. Students are not pro-active and there is not enough awareness and/or information about current projects is not being properly disseminated. On a positive note, there is agreement that the school attempts to involve all students in the school, whatever their culture is and that there is a good introductory procedure when there are new entrants. Exactly, 54.2% of teacher respondents have dealt with the subject of differences in culture in their lessons. Out of these, 15.4% of teachers involved more than 15 lessons on this theme. 50% of respondents strongly agree that the school attempts to involve all students in the school, whatever their culture is. Only 16.7% strongly agree that there is a good introductory procedure where there are new students in the school. In the light of all this, it can be stated that with the school's high ethnic capital, it has very valid potential to cross-culturalisation, which however needs to be specifically addressed by cross-cultural management.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	26	54.2	54.2	54.2
	No	21	43.8	43.8	97.9
	Not sure	1	2.1	2.1	100.0
	Total	48	100.0	100.0	

Table 3: Teachers' reply to the question: Have you ever dealt with the subject of differences in culture in any of your lessons at school?

54.2% of teachers have discussed sustainable development with their students but only 8.3% have heard of School Agenda 21. 29.2% strongly agree that there is more to be done as regards the school's environment, whereas 62.5% agree. 66.7% are aware of intercultural/ environmental activities occurring in the school and 56.3% are willing to participate in a system of car pooling/ sharing and a car free day. 25% are willing to voluntarily participate in teams to discuss how interculturality and the environment at school can be improved.

			D	Valid	Cumulative
		Frequency	Percent	Percent	Percent
Valid	Yes	26	54.2	54.2	54.2
	No	18	37.5	37.5	91.7
	Not sure	4	8.3	8.3	100.0
	Total	48	100.0	100.0	

 Table 4: Teachers' reply to the question: Have you ever discussed sustainable development with your students?

			-	Valid	Cumulative
		Frequency	Percent	Percent	Percent
Valid	Yes	4	8.3	8.3	8.3
	No	37	77.1	77.1	85.4
	Not sure	7	14.6	14.6	100.0
	Total	48	100.0	100.0	

Table 5: Teachers' reply to the question: Have you ever heard of School Agenda 21?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	27	56.3	56.3	56.3
	No	13	27.1	27.1	83.3
	Not sure	8	16.7	16.7	100.0
	Total	48	100.0	100.0	

Table 6: Teachers' reply to the question: Are you willing to participate in a system of car pooling/sharing and a car free day?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	25.0	25.0	25.0
	No	13	27.1	27.1	52.1
	Not sure	23	47.9	47.9	100.0
	Total	48	100.0	100.0	

Table 7: Teachers' reply to the question: Are you willing to participate in a team to discuss ways hot interculturality and the environment at school can be improved? (voluntary activity, weekly during mid-day break)

5.5% of students strongly agree that their parents are involved in thinking up ways how to help the school's environment, whereas 53.5% of parents attend Parents' day, school meetings, school activities etc. 10.4% of teacher survey respondents strongly agree that there is a good link between the parents and the school, implying that this is a serious limitation.

16.7% of teacher respondents and 10.2% of student respondents think that there is a good link between the school and the local community, thereby showing another serious limitation.

				Valid	Cumulative
		Frequency	Percent	Percent	Percent
Valid	Yes	136	53.5	53.5	53.5
	No	2	.8	.8	54.3
	Not always	116	45.7	45.7	100.0
	Total	254	100.0	100.0	

 Table 8: Students' reply to the question: Do your parents attend Parents' Day, school meetings, school activities?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	26	10.2	10.2	10.2
	Agree	71	28.0	28.0	38.2
	Unsure	107	42.1	42.1	80.3
	Disagree	39	15.4	15.4	95.7
	Strongly Disagree	11	4.3	4.3	100.0
	Total	254	100.0	100.0	

 Table 9: Students' reply to the question: There is a good link between the school and the local community, e.g. local council, other companies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	8	16.7	16.7	16.7
	Agree	15	31.3	31.3	47.9
	Unsure	20	41.7	41.7	89.6
	Disagree	4	8.3	8.3	97.9
	Strongly disagree	1	2.1	2.1	100.0
	Total	48	100.0	100.0	

Table 10: Teachers' reply to the same question: There is a good link between the school and the local community, e.g. local council, other companies.

The school aims to foster social responsibility by organizing certain events aptly shown in the annual school magazine *Il-Malju* (2010, 24-50), for example: career visits, sporting events, a visit to the House of Representatives and l-'Arka' Trade Fair shop. However these events are sporadic and not fixed dates on the school calendar. Social aspects such as smoking and alcohol were the focus of workshops and talks on a form level. The intangible cultural heritage is also given importance in the annual Prize Day musical. A number of competitions

and/ or exhibitions are also presented to celebrate art in its variety of formats. This positive aspect is undermined by the lack of communication within and beyond the school. A number of teachers are sometimes unaware of what goes on and the school website is not regularly updated.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	32	66.7	66.7	66.7
	No	4	8.3	8.3	75.0
	Not sure	12	25.0	25.0	100.0
	Total	48	100.0	100.0	

Table 11: Teachers' reply to the question: Do you know whether the school takes part in intercultural/environmental activities?

An analysis of the School Development Plan (SDP) document shows several aims high on the sustainability ranking list such as linking with other schools within the college and stimulating awareness of a safe school environment. Unfortunately, during the study period, these aims were not met, possibly due to no specific actions pertaining to them within the plan. Although it is a starting point, the school's SDP is limited and does not address all the challenges which need to be faced by a modern school housing global citizens.

There are no internal communications of sustainability reporting or actions to be taken as regards sustainable mobility. Similarly, there is no intercultural communication plan, mediation plan or intercultural management plan. Green Procurement is often exercised but these activities are not communicated to the rest of the school and as a result they cannot serve as a positive example to the rest. Although teachers often forward a list of items which they require, there is no effective participatory budgeting.

The Intercultural and Environmental Management Plan for a School in Malta

The contextualization carried out has shown that there are no environmental and intercultural management instruments being used. There are some attempts at environmental measures but these are sporadic and not consistent. To address this lacuna, a strategic plan which introduces intercultural and environmental management instruments was formulated. As final products these management tools should raise awareness of all stakeholders involved and offer them participatory opportunities; constantly and effectively communicate with all actors; stimulate sustainable practices by taking environmentally sound cost-effective and socially responsible decisions that also celebrate culture in its tangible and intangible form of all the cultures present in the school; regularly monitor the actions undertaken and link to the external community and also informally and formally guide students into a sustainable lifestyle which will be second nature to them.

Following a feasibility study, it was concluded that due to a number of constraints, the plan is feasible over a number of years. For this reason, the plan will last 5 years. Some projects, depending on the priority can start at the beginning of the first year, second year etc. These

priorities could be determined by using SWOT analysis (Poggipollini, P. 2010:10). Funding might be problematic, hence the school might wish to organise some fund-raising activities. The project is also feasible only if there is a good means of communication between stakeholders, so this should be the primary action within the plan. The contextualised plans produced in this study include: Green Procurement Plan, Waste Management Plan Sustainable Mobility Plan, Sustainabilty Reporting and a Cross-Cultural Communication Plan, a Cross-Cultural Mediation Plan and an Intercultural Management Plan. One example of a plan is found in Appendix 1 of this paper.

Conclusion

Environmental management and Intercultural management plans are non-existent in the school under study. Though one cannot generalise, through one of the author's experience as a peripatetic teacher around schools in Malta, this was highly characteristic up to some years ago in the majority of schools. Through courses such as the 3 EMI discussed in this paper, this lacuna can be addressed through the provision of holistic plans and other similar projects that can emerge. In view of the Maltese context within a global dimension, it is wise to include aspects of interculturality within the educational platform of the school. The initial auditing of the school context and interviewing the stakeholders prove essential for gaining insight into the school's needs thereby allowing for the appropriate adjustment of the management plans according to their needs. In this case, the relative sample of stakeholders involved was quite small. More effective stakeholder involvement could have been achieved through a longer timescale.

The study performed can be supplemented with other proposals to face the challenge of Sustainable Development in schools. Different forms of support would need to follow, namely, financial aid, expert assistance, guidelines on effecting management plans and staff development training. This would boost the quality of education within our schools to a higher sustainable level. There should be linking with international entities for teachers and students. There is also a missing link between schools and the local community. This needs to be addressed as it is believed that local governance strategic plans from the local councils should be given more importance and be seen as management tools that can be applied to most localities and with some changes, to schools.

A database with experiences and active discussions can be set up, whose aim is to build a bank of good practices to which other schools can refer. This is useful in avoiding Fragmentation. Bad practices need not be repeated by other schools as this could lead to wasting time, a precious resource that sustainability can ill-afford. Positive practices can be emulated and improved thereby ensuring more successes and eventually more encouragement and support for sustainable development projects. This database may also contain statistics, trends, and winners of awards from any programmes currently taking place at our schools, thereby raising awareness and increasing ownership.

Future research in the area should focus on the development of a set of sustainability indicators for Malta's schools. These indicators should eventually be used in other pilot studies to gauge their applicability and effectiveness within our schools. The effectiveness of such tools to promote ESD and for student empowerment should also be studied in order to render ESD in schools more effective.

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Biographical Note:

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Appendix 1: Strategic Intercultural and Environmental Management Plan Example

* Green Procurement Plan - GPP

Objectives:

- I. to foster a school-wide culture of environmental responsibility and awareness
- II. to educate the school community and external stakeholders with which we come in contact
- III. to minimise the effect on the environment by minimising packaging and choosing environment-friendly products.

Actions:

- External speakers are invited to train teachers and students
- Students, teachers, ancillary staff and clerks are asked for ways to minimise the human damaging effect in their particular environment. A flyer could be produced with the resulting ideas which can lead to a code for the school.
- Proper market research including life cycle of product, environmental certification (EMAS, UNI EN ISO 14001) (Chiellino G. 2010:4) and means of disposal when purchasing new products. Purchases higher than €500 can be approved by the GPwt. Following the school review by trainee, the school lavatories need to be changed. This can be integrated in the GPP.
- Responsible e-recycling of high-tech products.
- Re-use both sides of paper when printing.
- Maximise energy efficiency by using energy-saving bulbs, solar water heaters and solar panels.
- Green actions are to be communicated to all stakeholders.
- School members to participate in a local green cause.

Implementation:

To ensure effective running of the plan key stakeholders are defined for each action

Evaluation:

Log of different activities which fall under Green Procurement by GPwt. Monitoring of electricity bills before and after the plan. Each class is to keep a register with positive GP practices. At the end of each term these are collected and the best practices can be awarded.

The Green Procurement code established within this plan can be used whenever items need to be purchased. There can be a repeat of the items discussed in the fifth meeting in other meetings according to the need. A final analysis and reporting stage is done at the end of the scholastic year to determine the success rate of the plan. The results of the plan are disseminated to all other stakeholders. Improvement plans for the subsequent year can then also be discussed, together with funds voted for other units of solar water heaters and photovoltaic cells.

Estimate of costs for the yearly project:

Item	Estimated Cost
Energy-saving bulbs	€500
Solar water heaters (1 unit)	€1000
Photo-voltaic cells (1 unit)	€5000
Lavatories for 1 block, including tiles, fittings and installation	€5000
Training	€200
Expert consultation	€1000
Works done	€1000
Incentives for best practices	€300
Project Management costs - telephone bills, energy consumption,	€200
stationery.	
TOTAL	€14,200