



Congreso Nacional del Medio Ambiente
Cumbre del Desarrollo Sostenible

COMUNICACIÓN TÉCNICA

Dale un respiro a nuestro planeta

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RESUMEN:

Participantes: alumnos de ESO, Bachillerato, FP, 960 en 07-08. Duración y alcance: Desde 1996, 4000 alumnos, 100 profesores implicados. Temáticas: Desarrollo Sostenible: Gestión ecoeficiente de recursos, aspectos, impactos ambientales. Educación, sensibilización y responsabilidad. Objetivos(O),07-08:1.Incrementar participación alumnado en actividades ambientales.2.Reducir consumo productos limpieza, reactivos laboratorio.3.Disminuir generación de residuos.4.Reducir consumo de papel y aumentar el de papel reciclado.5.Aumentar eficiencia energética.6.Mejorar rendimiento ambiental de proveedores. Programa: Realización actividades ambientales: O1.Acciones de sensibilización:O2,3,4,6.Usos docente de plataforma pedagógica interactiva:O4.Mejora de eficiencia energética e instalaciones energías renovables:O5.Elaboración e implantación en proveedores de un programa ambiental en 2009:O6. Metodología: Sistema de Gestión Ambiental (SGA) y de Responsabilidad Social Agenda21ISO14001EMAS. Valoración: útil para 75% profesorado y 94% alumnado. Hábitos modificados: Mejor control en el encendido/apagado de luces y equipos. Sectorización. Ahorro en consumo de recursos. Almacenamiento y gestión adecuada de residuos, valorización creciente. Etiquetado de reactivos. Más orden y limpieza. Repercusiones: Participación en la Agenda 21 Escolar desde el curso 03-04. Ecoescuela desde 1998. Bandera Verde desde 2002. Comisión Ambiental desde 1996. Participación en Foros ambientales municipales, autonómicos y estatales. Intranet. Implantación y mantenimiento de SGA ISO14001-EMAS. Colaboradores: Ayuntamiento Vitoria, Diputación Foral Álava, Gobierno Vasco, Caja Vital Kutxa. Empresas: Ekonor, Elirecon, Eskor, Cederika, Eiki, Panreac, Giroa, Venticlima, Leia, Exercycle, Galemys, Ondoan, Preoca, Aenor. Asociaciones y sociedades públicas: Ecoembes, Hetel, Adeac-Ecoescuelas, Ihobe, Amvisa. Continuidad: Inclusión en proyecto curricular. Cada curso participamos en Agenda 21 Escolar y en red de Ecoescuelas. Nuestro SGA y el plan anual y estratégico. Materiales desarrollados: Página web sobre agua y ríos.Artículo para Jóvenes Reporteros de Ecoescuelas y autoevaluación anual.Diagnósticos ambientales municipales y del Centro.Compromisos escritos del alumnado.Diagnóstico del uso eficiente del agua.Declaraciones, programas ambientales y revisiones anuales.Auditorías internas y externas del SGA.33 conferencias sobre cambio climático, con 2000 asistentes y material de The Climate Project Spain (Al Gore).

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1.- DATOS GENERALES

Título del proyecto:

Dale un respiro a nuestro planeta

Descripción del proyecto:

Nuestro Sistema de Gestión Ambiental (SGA) y Responsabilidad Social Agenda21 ISO 14001 EMAS, promueve, dentro y fuera de Jesús Obrero, la sostenibilidad, desde el ejemplo, la participación y la transparencia.

Ubicación del proyecto

Ubicado en la ciudad de Vitoria-Gasteiz en un entorno urbano.

Descripción del centro

Jesús Obrero pertenece a la Fundación Benéfico Docente del mismo nombre, es un Centro de Enseñanza Secundaria Obligatoria y Formación Profesional, de inspiración cristiana, basado en los principios de la Pedagogía Ignaciana. Pretende la formación integral y la excelencia académica, humana, técnica y cristiana de sus alumnos/as, que les permita la continuación de estudios superiores o una inserción laboral cualificada.

Participantes (centro y cursos):

Centro: Instituto Politécnico Jesús Obrero, centro de Enseñanza Secundaria y Formación Profesional de Vitoria-Gasteiz.

Cursos: 1º, 2º, 3º y 4º de la ESO, 1º y 2º de Bachillerato y 1º de los Ciclos Formativos de Grado Superior de Formación Profesional de Química Ambiental y Análisis y Control, 2º de los Ciclos Formativos de Grado Superior de Formación Profesional de Análisis y Control y 1º de los Ciclos Formativos de Grado Medio de Formación Profesional de Productos Electrónicos y Equipos e instalaciones electrotécnicas.

Duración:

El proyecto se inicia en 1996, cuando formamos la Comisión Ambiental de Jesús Obrero. En 1998, nos convertimos en Ecoescuela y en 2002, obtenemos la Bandera Verde. Participamos en la Agenda 21 Local de Vitoria-Gasteiz desde su creación y en la Agenda 21 Escolar municipal también desde su inicio, en el curso 2003-04. En 2005, implantamos un Sistema de Gestión Ambiental ISO 14001:2004 y en 2006, nos inscribimos en el Registro Europeo EMAS.

Llevamos, por lo tanto, más de 10 años de proyecto.



Participantes:

Alumnos de ESO, Bachillerato, FP, 960 en 07-08.

Duración y alcance:

Desde 1996, 4000 alumnos, 100 profesores implicados.

Temáticas:

Desarrollo Sostenible. Gestión ecoeficiente de recursos (materias primas (aceites, reactivos, productos de limpieza, papel, metales...) agua, energía, movilidad) y de aspectos (vertidos, residuos...). Impactos (Cambio Climático...). Educación, sensibilización y responsabilidad.

Objetivos generales (OG) del proyecto para el curso 2007-08:

- OG1: Incrementar la participación del alumnado en actividades ambientales organizadas por Jesús Obrero.
- OG 2: Reducir el consumo de productos de limpieza y reactivos de laboratorio.
- OG 3: Reducir la generación de residuos.
- OG 4: Reducir el consumo de papel/cartón y aumentar el consumo de papel reciclado.
- OG 5: Aumentar la eficiencia energética.
- OG 6: Mejorar el rendimiento ambiental de subcontratistas/proveedores.

Programa (acciones para cada OG) y metodología:

Programa:

Realización de actividades ambientales docentes: OG 1.
Acciones de sensibilización: OG 2,3,4 y 6.
Uso docente de la plataforma pedagógica interactiva: OG 4.
Desarrollo de nuestro proyecto para eficiencia energética y mejora de nuestra instalación solar: OG 5.
Elaboración por proveedores de su programa ambiental de Septiembre 2008 a Junio 2009: OG 6.

Metodología:

Sistema de Gestión Ambiental (SGA) Agenda 21 ISO 14001 EMAS.

Programa:

Realización actividades ambientales: O1. Acciones de sensibilización: O2,3,4,6. Uso docente de plataforma pedagógica interactiva: O4. Mejora de eficiencia energética e instalaciones energías renovables: O5. Elaboración e implantación en proveedores de un programa ambiental en 2009: O6.



Metodología:

Sistema de Gestión Ambiental (SGA) y de Responsabilidad Social Agenda21 ISO14001 EMAS.

Materiales desarrollados:

Página web sobre agua y ríos. Artículo para Jóvenes Reporteros de Ecoescuelas y autoevaluación anual. Diagnósticos ambientales municipales y del Centro. Compromisos escritos del alumnado. Diagnóstico del uso eficiente del agua. Declaraciones, programas ambientales y revisiones anuales. Auditorías internas y externas del SGA. 33 conferencias sobre cambio climático, con 2000 asistentes y material de The Climate Project Spain (Al Gore).

Valoración:

Útil para 75% profesorado y 94% alumnado.

Hábitos modificados:

Mejor control en el encendido/apagado de luces y equipos. Sectorización. Ahorro en consumo de recursos. Almacenamiento y gestión adecuada de residuos, valorización creciente. Etiquetado de reactivos. Más orden y limpieza.

Repercusiones:

Participación en la Agenda 21 Escolar desde el curso 03-04. Ecoescuela desde 1998. Bandera Verde desde 2002. Comisión Ambiental desde 1996. Participación en Foros ambientales municipales, autonómicos y estatales. Intranet. Implantación y mantenimiento de SGA ISO14001-EMAS.

Fuerza conductora/elementos positivos del proyecto:

Fuerza conductora:

El ejemplo de la Comisión Ambiental de Jesús Obrero, encarnando los principios de la sostenibilidad.

Elementos positivos:

La participación, desde el comienzo, del personal no docente.

La incorporación temprana de alumnado de FP y ESO al proyecto.

La implantación del Sistema de Gestión Ambiental Agenda21 ISO 14001 EMAS.

Principales dificultades halladas:

Escasa implicación inicial del Equipo Directivo en el proyecto y resistencia a la aceptación del mismo como una línea estratégica del Centro.

Poca participación activa de las familias del alumnado.

En sus inicios, hace más de 10 años, desconocimiento de las implicaciones profundas de la sostenibilidad en la comunidad educativa.



Continuidad:

Inclusión en proyecto curricular. Cada curso participamos en Agenda 21 Escolar y en red de Ecoescuelas. Nuestro SGA y el plan anual y estratégico.

Colaboradores:

Ayuntamiento Vitoria, Diputación Foral Álava, Gobierno Vasco, Caja Vital Kutxa. Empresas: Ekonor, Elirecon, Eskor, Cederika, Eiki, Panreac, Giroa, Venticlima, Leia, Exercycle, Galemys, Ondoan, Preoca, Aenor. Asociaciones y sociedades públicas: Ecoembes, Hetel, Adeac-Ecoescuelas, Ihobe, Amvisa.

2.- OTRAS CUESTIONES

¿Por qué elegisteis este proyecto?

La principal motivación fue la promoción de la sostenibilidad tanto en el propio centro educativo como en la ciudad donde se encuentra situado. Queríamos trabajar para sensibilizar y desarrollar hábitos personales y profesionales sostenibles.

¿Qué habéis aprendido con el proyecto?

- La importancia del trabajo en grupo y multidisciplinar, así como de las acciones locales para la promoción de la sostenibilidad.
- La necesidad de concienciar y sensibilizar para cambiar el hábito.
- A limitar el pensamiento antropocéntrico y potenciar el enfoque holístico, dándonos cuenta de que no somos ni el centro, ni los únicos que habitamos el planeta.
- Que los problemas ambientales son reales y que es preciso apreciar los recursos de que disponemos y enseñar a los más jóvenes desde la práctica docente a ser conscientes de su carácter limitado.
- La utilidad y funcionalidad de las acciones dinámicas e informales para promover estilos de vida sostenibles.
- Que todos y cada uno de nosotros debemos implicarnos en las iniciativas, dos siempre pueden más que uno.

¿Qué valoración hacen los demás de este proyecto?

El 75% del profesorado y el 94% del alumnado encuestado consideran útil el Programa Agenda 21 Escolar desarrollado en el Centro.

¿Qué hábitos se han modificado?

- Mejor control en el encendido y apagado de luces y aparatos eléctricos.
- Sectorización de espacios.
- Ahorro de recursos (papel, agua, luz...)
- Almacenamiento selectivo de los residuos y gestión adecuada de los mismos.
- Valorización creciente de dichos residuos.
- Etiquetado de reactivos
- Mayor orden y limpieza en los laboratorios.



¿Qué repercusiones ha tenido?

- Participación en la Agenda 21 escolar desde sus inicios.
- Miembro de la red europea de Ecoescuelas.
- Posesión de la Bandera Verde desde 2002.
- Creación de la Comisión Ambiental.
- Participación en Foros ambientales organizados en la ciudad como espacio de reunión con el alumnado del resto de centros educativos de la ciudad implicados en esta iniciativa.
- Implantación de la intranet (mejora de la comunicación y ahorro de papel).
- Implantación y mantenimiento de los sistemas de gestión ambiental (ISO 14001:2004 y EMAS).

Objetivos no conseguidos

- Aumentar el uso de la energía solar fotovoltaica.
- La sensibilización y elaboración de un programa ambiental por parte de un grupo determinado de subcontratistas.
- Reducción en el consumo de reactivos de laboratorio y productos de limpieza.

Entidades o instituciones que han colaborado

- Ayuntamiento de Vitoria
- Diputación Foral de Álava
- Gobierno Vasco
- Caja Vital Kutxa
- Empresas gestoras de Residuos:
 - Ekonor, Elirecon, Eskor, Cederika, Eiki, Panreac
- Empresas mantenedoras de sistemas de energía:
 - Giroa, Venticlima
- Laboratorios:
 - Leia
- Consultoras y empresas del ámbito ambiental:
 - Galemys, Ondoan, Preoca, AENOR (Asociación española de Normalización).
- Asociaciones y sociedades públicas:
 - Ecoembes, Hetel, Adeac-Ecoescuelas (Asociación de educación ambiental y del consumidor), IHOBE (Sociedad Pública de Gestión Ambiental).

Alcance: número aproximado de personas a las que llegó el proyecto

Este proyecto se inició hace diez años y a lo largo de los mismos el número de personas implicadas ha ido creciendo, siendo más de 4000 alumnos/as de ESO, Bachilleratos y Ciclos Formativos y más de 100 profesores/as



¿Cómo continúa?

El proyecto se encuentra incluido dentro del programa curricular del Centro de los tres niveles que se imparten. Así mismo, para garantizar la continuidad de dicho proyecto somos participantes de la Agenda 21 escolar y de la red vasca de Ecoescuelas.

Por otra parte, el disponer de un sistema de gestión ambiental, ISO 14001:2004 y EMAS, así como el propio plan anual y estratégico, donde también se encuentra incluido el proyecto, garantiza dicha continuidad.

Materiales que se han desarrollado con motivo del proyecto

- Se está creando una página web sobre el tema del agua y los ríos dentro del foro joven: “ríos para vivirlos”.
- Participamos dentro del programa *Jóvenes Reporteros* de Ecoescuelas redactando un artículo periodístico acerca de temas ambientales.
- Realización de documentos de evaluación de Ecoescuelas.
- Dentro de la Agenda 21 escolar, de la que formamos parte, se realizan diagnósticos municipales y del propio Centro. Dentro de este último se pueden diferenciar el diagnóstico curricular, el de gestión y el de participación.
- Realización de compromisos escritos por parte de los alumnos participantes dentro de la actividad “analizar sin contaminar”.
- Por otra parte, se ha realizado un autodiagnóstico del agua (en colaboración con AMVISA (Aguas Municipales de Vitoria-Gasteiz)) para conocer el uso de este recurso por parte del Centro.
- Se realizan declaraciones y programas ambientales anuales, así como revisiones de los mismos por parte del equipo directivo.
- Así mismo, se llevan a cabo auditorías internas y externas de los sistemas de gestión ambiental ISO 14001:2004 y EMAS.
- Realización de conferencias sobre el cambio climático por parte del Coordinador de la Comisión Ambiental del Centro, con material proporcionado por *The Climate Project Spain* (organización en España de Al Gore).

EN INGLES

Title: Getting respite for our planet

Participants:

Students of secondary and high education and students of some courses of occupational training of our school Jesús Obrero in Vitoria-Gasteiz.

Group leaders:

The environmental committee.

Duration:

Since 1996.

This project initiated in 1996 when we formed the Environmental Committee in our secondary and occupational training school “Jesús Obrero”. We became an Eco-school



in 1998 and we obtained the green flag in 2002. Apart from that, we take part in both Local Agenda 21 and School Agenda 21 since they started in 2003. We also implanted the environmental management system: ISO 14001:2004 in 2005 and we registered in the European register EMAS in 2006.

So we have been in this project for 10 years.

Main themes:

Sustainable development. Ecoefficient resource management (raw material, water, energy, mobility...) and ecoefficient aspect management (spillage, waste...). Education, sensitization and responsibility.

Description of the project:

Our environmental management system and social responsibility promotes the sustainability from the example, participation and transparency, not only in the school, but also outside.

General objectives:

General objective 1: To increase the participation of the students in the environmental activities that the school organizes.

G. O. 2: To reduce the quantity of cleaning products as well as the laboratory products.

G. O. 3: To reduce the waste.

G. O. 4: To reduce the quantity of paper that we waste and to increase the percentage of recycling paper.

G. O. 5: To increase the energy efficiency.

G. O. 6: To improve the environmental performance of subcontractors and suppliers.

Programme, working methods and tools:

Programme

To carry out environmental activities in our school: G.O.1

Actions for making aware: G.O. 2, 3, 4 and 6

Educational use of the pedagogical platform: G.O. 4

To develop our project for the energy efficiency and to improve our solar installation: G.O. 5

Our suppliers will have to develop their environmental programme from September 2008 to June 2009: G.O. 6

Methods

Our working methods are based on the environmental management systems ISO 14001:2004 and EMAS as well as on Agenda 21.

Potential restraints encountered by the project team:

At the beginning the management team didn't involve so much in this project and they didn't want to accept it as a strategic line of the centre.

The participation of the families of the students was poor.

Besides, when we started, 10 years ago, there wasn't awareness of the deep involvement that the sustainability would have in the education.

Driving force elements encountered by the project team:

Driving force



The good example that the environmental committee of Jesus Obrero School is giving, following the sustainable principles.

Positive points:

The participation of the non educational staff from the beginning.

Students took part in the project very quickly.

The implantation of the environmental management systems: ISO 14001:2004 and EMAS, as well as the Agenda 21.

BASIC DETAILS

Where do you place the project?

It is located in the city of Vitoria-Gasteiz in an urban environment.

Description of the centre

Jesús Obrero belongs to the charitable and educational Foundation Jesús Obrero. Secondary education and occupational training is taught, based on the principles of the teaching of Saint Ignacio of Loyola. The objective of our centre is to give an integral, human, technical and Christian education to our pupils, so they can keep on with their higher studies or to go into the working world in a qualified way.

Why did you choose this Project?

The main motivation was the promotion of the sustainability both in the school and in the city where it is. We wanted to work to make people more aware and to develop some sustainable habits to minimize the main impacts of our activity in our own school as well as in the environment.

What have you learnt with this project?

- How important is to act in a local way to promote the sustainability.
- That is very necessary to make people more aware to change their habits.
- To limit the antropocentric thought and to promote the holistic approach, to realize that we are not the centre of the planet and that we are not the only ones who are in.
- That the environmental problems are real and that we have to appreciate the resources that we have. We have to teach especially the youngest people to be conscious of the limitation of these resources.
- The utility of the dinamic and informal actions to promote sustainable ways of life.
- That all of us have to involve in these kinds of initiatives, because two people can always do more than one.

How do other people think about this project?



The 75% of the teachers and the 94% of the pupils says that the programme of School Agenda 21 carried out in our school is pretty useful.

Which habits have you modified?

- A better control in the switch on and off of the lights and the electrical devices.
- Sectorized areas.
- Resources saving (paper, water, light...)
- Selective storage and suitable management of waste.
- To label chemical substances and products.
- Order and cleanliness in the laboratories.

What are the impacts or repercussions of your project?

- We are taking part in the School Agenda 21 since they started.
- We are members of the European net of Eco-schools.
- We have the green flat since 2002.
- Creation of the Environmental Committee.
- We are taking part in the environmental forums which are held in the city to meet pupils from all the schools that are taking part in those kinds of initiatives.
- Implantation of the "intranet system" (to improve the communication and the paper saving).
- Implantation and upkeeping of the environmental management systems (ISO 14001:2004 and EMAS)

Objectives that haven't been achieved

- To improve the use of the solar energy
- To make suppliers aware and to get the suppliers to develop their environmental programme.
- To reduce the quantity of cleaning products as well as the laboratory products.

Collaborating organizations

- Council of Vitoria-Gasteiz
- County council of Álava
- Basque government
- Vital bank
- Solicitors of waste:
 - Ekonor, Elirecon, Eskor, Cederika, Eiki and Panreac
- Companies for the maintenance of energy systems:
 - Giroa and Venticlima
- Laboratories:
 - Leia
- Consultancies and environmental companies:
 - Galemys, Ondoan, Preoca and AENOR (Spanish Association for Standardisation and Certification).
- Association and public societies:



- Hetel, Adeac-Eco-schools (Foundation for Environmental Education), IHOBE (Public Owned Environmental Management Company) and Ecoembes.

Number of people

This project started 10 years ago and the number of people who have taken part in have increased during those years. Students: more than 4000; teachers: more than 100.

Continuation

This project is included in the programme of the school and we are also taking part in the School Agenda 21 and in the European net of Eco-schools. So with all of these actions we can guarantee the continuity of this project.

On the other hand, this continuity can also guarantee with our environmental management systems (ISO 14001:2004 and EMAS) and with our annual and strategic plan.

Materials that have been carried out because of the project

- We are creating a website about the topic: water and rivers, for the young forum: "rivers for living".
- We are taking part in the Eco-schools programme: young journalists.
- We are writing evaluation documents for Eco-schools.
- We write both council diagnosis and our own diagnosis since we are members of the School Agenda 21.
- Students of some courses of vocational training did some agreements in the "analyze without polluting" activity.
- Self-diagnosis of the use of water to know how we use this resource in the school.
- We do environmental declarations and programmes every year, as well as we check them.
- Internal and external audits are carried out on the environmental management systems ISO 14001:2004 y EMAS.
- The coordinator of the environmental committee of our school is holding lectures about the climate change, since he was one of the 200 guests who took part in The First Spanish Meeting of leaders and experts on climate change which took place in Sevilla. So he uses the material that *The Climate Project Spain* (association of Al Gore in Spain) gave to him for his lectures.

3.- ELEMENTOS GRÁFICOS QUE SE APORTAN

Foto 1: Día de San Alberto. Celebración de talleres ambientales con los alumnos de 2º de ESO. 15/11/07.



Foto 2: Cartel de la IX edición de los talleres ambientales en Centros Cívicos de la ciudad. Organizados por Jesús Obrero con la colaboración de otras instituciones. (Febrero y marzo 2008).

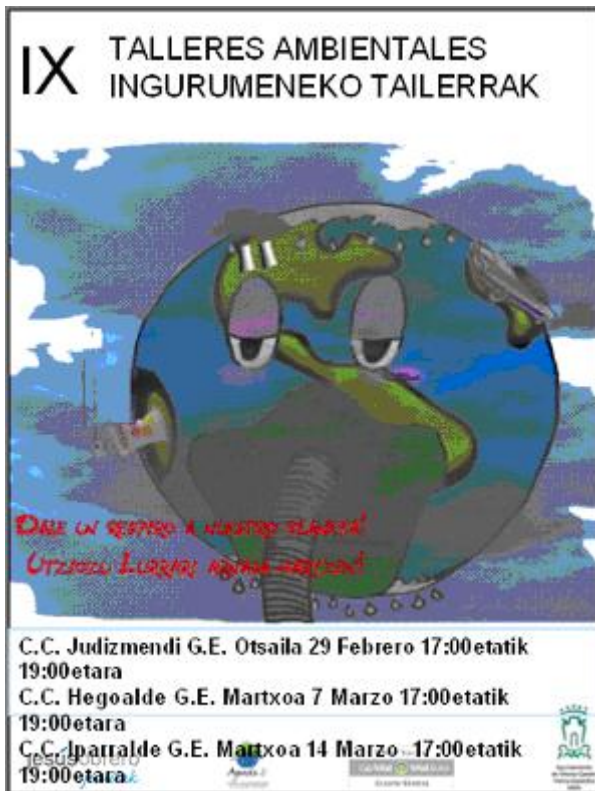


Foto 3: Clasificación de residuos.



Foto 4: Proyecto Eko - spinning.

Diseño y fabricación de una bicicleta estática que aprovecha la energía mecánica generada por el esfuerzo del usuario/a, transformándola en energía eléctrica almacenable, exportable a otros equipos y/o capaz de alimentar a la bicicleta y a su equipo de audio y vídeo. Alumnos del Ciclo de Sistemas de Regulación y Control y del de Desarrollo de Productos Electrónicos. Finalización en el año 2007.

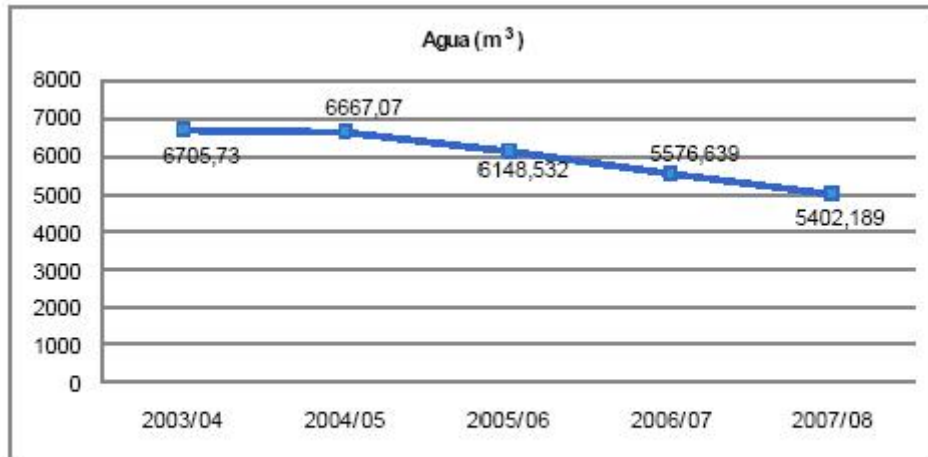


Foto 5:

Charla sobre el cambio climático en Jesús Obrero. Basada en los materiales entregados en el I Encuentro Español de Líderes en Cambio Climático, organizado por The Climate Project Spain. Impartida por Eduardo Ochoa (Coordinador de la Comisión Ambiental). 24/01/08.

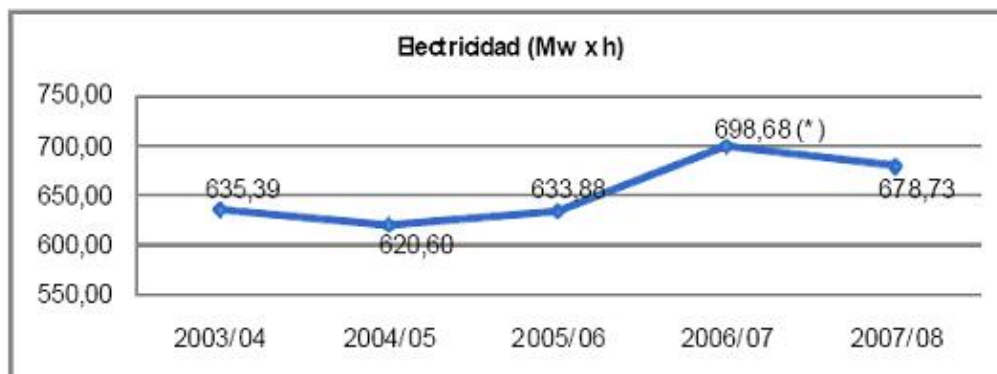


Gráfica 1:
Evolución del consumo medio de agua en los últimos 5 años.



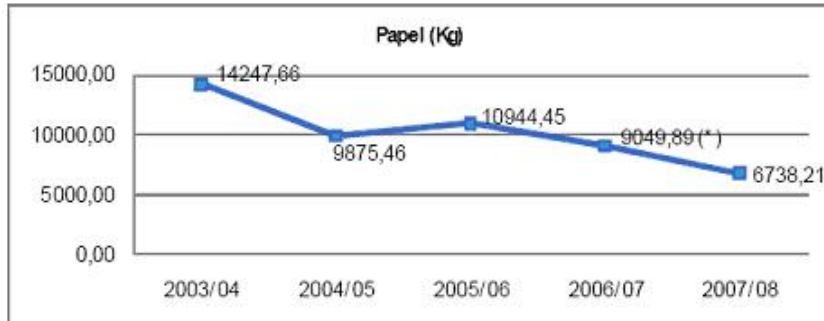
El intervalo de medición de cada curso es del 1 de septiembre al 31 de agosto del año siguiente.

Gráfico 2:
Histórico del consumo de electricidad.



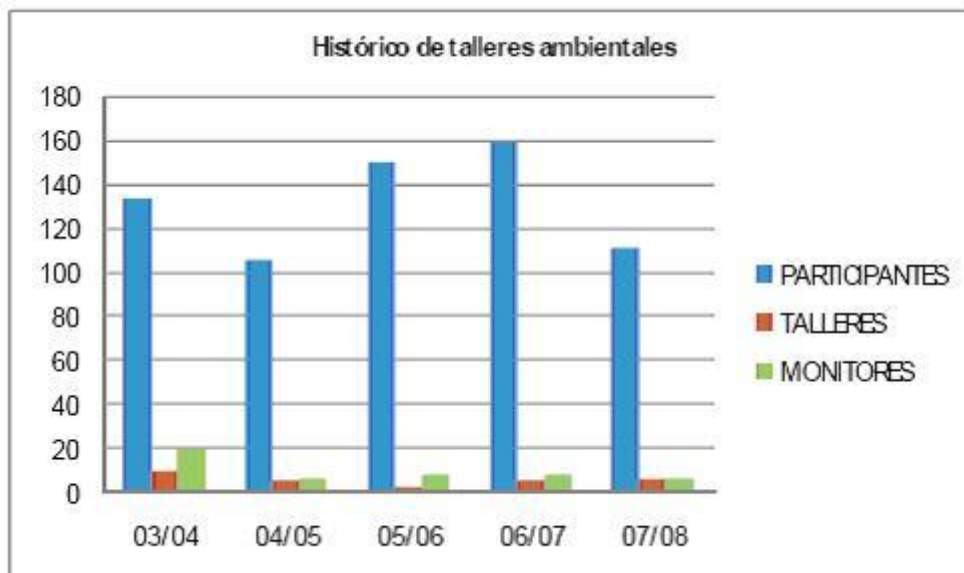
El intervalo de medición de cada curso es de 1 de setiembre al 31 de agosto del año siguiente.
(*) Dato revisado al elaborar la Declaración Ambiental del 2008.

Gráfico 3:
Histórico del consumo de papel.



El intervalo de medición de cada curso es del 1 de septiembre al 31 de agosto del año siguiente.
(*) Dato revisado al elaborar la Declaración Ambiental del 2008

Gráfico 4:
Histórico de participación en talleres ambientales organizados en Centros Cívicos.



GRAPHIC ELEMENTS

Photo 1: Saint Alberto's day. Celebration of environmental workshops. 15/11/07.

Photo 2: Poster of the 9th edition of the environmental workshops held by Jesús Obrero in the social centres of the city. (February and March 2008).

Photo 3: Wastes classification.

Photo 4: Eko – spinning project. Design and manufacture of a static bicycle that takes advantage of the mechanical energy generated by the effort of the user, transforming in storable, exportable electric power to other equipments and capable of supplying the bicycle and its equipment of audio and video. It was finished in 2007.



Photo 5: Lecture on the climate change in Jesús Obrero school. The coordinator of the environmental committee of our school (Eduardo Ochoa de Aspuru) is holding lectures about the climate change, since he was one of the 200 guests who took part in The First Spanish Meeting of leaders and experts on climate change which took place in Sevilla. 24/01/08.

Graphic 1: Average consumption of water in the last 5 years.

Graphic 2: Consumption of electricity.

Graphic 3: Consumption of paper.

Graphic 4: Participation in environmental workshops organized in social centres.

4.- DOCUMENTOS

This is our school



Instituto Politécnico Jesús Obrero (Vitoria – Gasteiz, Spain)



ANALIZE WITHOUT POLLUTING

We held this activity in October for the students of the following vocational training courses: Analysis and Control and Environmental Chemistry.

The objective was to make the students aware of the negative influence that their activities in the school, as well as the ones they will carry out in their future jobs, has for the environment. So, the activity was based on the sustainable development and on the 3 R's principle. Apart from doing the theoretical part, the students of the 3 groups, which took part in, made and agreement to try to reach through the year. All of the agreements were different; however, the idea of reducing the quantity of chemical wastes was in all of them.

We are very sorry because we don't have any photo of this activity!

SAINT ALBERTO'S DAY

Every year we hold Saint Alberto's day (November 15th) since he is the patron of the chemists. Because of this, the environmental committee and the instructors (students of some vocational training courses) organize some environmental activities for students of secondary education. We try to teach them the significance of reducing, reusing and recycling for living in a sustainable way and less consumer. At the same time we try to spend a very nice time!



We enjoyed a lot!

HOLDING THE BASQUE'S DAY

December 3rd:

There were many activities in our school to promote the Basque language and apart from that, as we wanted to promote the knowledge and respect for the environment too, we suggested the snakes and ladder game to achieve that purpose.

That is, we made some environmental and cultural questions (in Basque) for the students to practice the language out of the classes and to learn some new things about the environment and how we can cause less damage to the Earth. All of this playing at that game!



We spent such a nice day!

CENTRE OF CLASSIFICATION OF CONTAINERS IN MENDIGORRITXU

The students of the first vocational training course of Environmental Chemistry were to visit that centre where they could see the different parts of that process.



Here we are, in the place where all the containers are taking, before the classification.



Some other places have been visited for other students, such as: the wind farm in Elguea or the plant to make drinkable water in Araka.

SELF-DIAGNOSIS OF THE USE OF WATER!

We have recently taken part in a programme to carry out a self-diagnosis of the use of water. So, we could know how we use this resource.

We have almost obtained the highest qualification which means an efficient use of water. For the time being, our use of water is moderately high efficient so there are still things to do.

We have thrifty elements such as timer taps or fluxor systems (which means a great volume of water to save). Their maintenance is also very efficient. Besides, we organize sensitization activities to use the water efficiently, although maybe, we have to improve this kind of activities to achieve a higher efficient use of water.

THE CLIMATE PROJECT SPAIN

On January 24th there was a lecture on the climate change in Jesús Obrero school. The lecturer was one of our teachers and coordinator of the environmental committee, Eduardo Ochoa. He was one of the 200 hundred guests who took part in The first Spanish Meeting of leaders and experts on climate change which took place in Sevilla, in October. All the people who attended that meeting made the agreement of holding, at least, ten more lectures about the climate change to spread what they were taught there. So, it was Eduardo's first time!! However, it was a very interesting and pleasant lecture.

We hope there will be more people in the next one!! If you're interested in coming to one of this lecture, get in touch with Eduardo, he has held more, in different places of the Basque Country!!



Cheer up!!!!



ENVIRONMENTAL WORKSHOPS

We are holding environmental workshops in some civic centres of our city. This is our ninth year!!! And this is the poster of this year.

Our slogan has been the same of this project!!!

We have already held these workshops in two civic centres, so there is only one civic centre left to hold in and we will do it next Friday!!

We try to promote a sustainable way of living, we mean, we try to teach how important is to reuse daily objects and to reduce the consumption because we can get things with daily objects without buying them. For promoting that, we organize these environmental workshops such as:

- Maraca (with containers of yogurt)
- Balls for juggling
- A parrot with pieces of cardboard (to decorate)
- A game to identify wastes...

ESTRUCTURA FICHA COMÚN PROYECTOS

Ficha de la web que todos rellenan

Título del proyecto

Participantes (centro y cursos)

Nº de alumnos implicados en el proyecto:

Duración:

Temática principal/es: 20-30 palabras

Descripción del proyecto: 20-30 palabras

Objetivos generales: 30-50 palabras

Programa y metodología: 30-50 palabras

Principales dificultades halladas: 30-50 palabras

Fuerza conductora/elementos positivos del proyecto: 30-50 palabras

Texto libre (no incluir libro)

Además de los campos obligatorios de la web, pediremos a los centros que nos rellenen en español estos campos:

Datos básicos

Ubicación del proyecto (localidad, entorno natural al que se refiere)

Descripción del centro (4 líneas)

¿Por qué elegisteis este proyecto? (¿Cuál ha sido la principal motivación?) (se podría unir a la fuerza motivadora de la ficha-web)



¿Qué habéis aprendido con el proyecto? (¿Qué os ha aportado? ¿Cómo lo valoráis los que lo habéis realizado?)

¿Qué valoración hacen los demás de este proyecto? (otras clases del centro, otros colegios, los periódicos de la comunidad...)

¿Qué hábitos se han modificado?

¿Qué repercusiones ha tenido? (resultados)

Objetivos no conseguidos

Entidades o instituciones que han colaborado

Alcance: número aproximado de personas a las que llegó el proyecto

¿Cómo continúa? (¿Qué continuidad tiene o qué otras acciones han quedado pendientes??)

Materiales que se han desarrollado con motivo del proyecto (folleto, página web, carteles...).

Elementos gráficos que se aportan

Por favor, comprobad que la definición de la foto sea alta (300 dpi, tamaño DINA5). Mínimo cuatro elementos gráficos, máximo 10.

Fotos: numeradas (Foto1, Foto2, Foto3)

Texto pies de foto, siguiendo la numeración de las fotografías aportadas.

Otros elementos gráficos: nombrados como Tabla o Esquema y su número (Tabla1, Tabla2, Tabla3... Esquema1, Esquema2, Esquema3...)

CHAPTER 3: START ACTING NOW!!

STEP ONE. I CAN DO SOMETHING

We believe that the small things are quite important, although sometimes we think that they are pretty known, we have to keep on remembering them, because never is enough. So, one of the most important thing is to reduce the consumption!

- We have to teach the people since they are very young how important is to reuse things which we are used to throwing away. We don't need to buy everything, we can look for something that we have at home or in the school (and we don't use anymore) and thinking about a new function for it. Maybe we can avoid buying new things which will turn into future wastes.

We organize amusing workshops to communicate these ideas as well as to give some examples and take part in.

- Reduce the quantity of paper we waste, it's too much!!!
It's quite simple: we only have to print if it's essential, we can also print for both faces and in a draft way. Besides, nowadays most of the information can be stored and sent by means of computers.



- In our school there are some vocational training courses in which some chemical substances are used. As they are dangerous for the environment and unhealthy, it's quite important to reduce its consumption as far as possible. So, we try to prepare reagents for big groups instead of preparing for few people because you always have to prepare a bit more quantity just in case; but if you do it for more people the quantity that you will lose it will be less than if you prepare each reagent for few people.

On the other hand, it's really important to do a well management of the chemical wastes, so we have different containers for each type of waste, we mean: one for acids, one for solvents, another one for bases and the last one for salts. After that, an authorized solicitor takes charge of them.

- **CONSUMPTION OF WATER!**

Everybody knows that water is a scarce resource so we have to take into account that, and try to save water. We have recently finished our self-diagnosis of the use of water. We have almost obtained the highest qualification which means an efficient use of water. For the time being, our use of water is moderately high efficient so there are still things to do.

We organize sensitization activities to use the water efficiently; we have thrifty elements such as timer taps or fluxor systems (which means a great volume of water to save). Sometimes we don't know how to use properly some of those thrifty elements (we have to use in the right way to fulfil their functions: save water!!) so we will put posters showing how to use them correctly (for example in the cisterns with discharge interruption you have to push a second time to stop the flow of water!!!)

The group of environmental instructors. Jesús Obrero school. Vitoria-Gasteiz.

STEP TWO: THINK ABOUT FRIENDS

We believe that education is one of the most important things to change the way of life that we currently have. But education means young people since they are the future, so, we need to stress the importance of the education of the young people to improve the respect for the environment.

Because of that, we think that the environmental workshops that we hold are pretty useful to achieve this goal. We hold these kinds of workshops in the school as well as in the social centres of our city. These last ones have a very important role since all the citizens can take part in. We hold them with the help of the city council and as we want everybody to heard about it, we usually organize a press conference.

It's a simple way to spend a good time but at the same time to instil a new way of life into the youngest people. What it means respect for the environment, respect for the others and a new culture less consumer. We have to realize it's not necessary to consume so much and to generate so many wastes. Throw away the throw-away culture!!

Environmental instructors. Jesús Obrero school (Vitoria-Gasteiz, Spain)



STEP THREE: LOOK FOR “PEOPLE WITH POWER”

Our school take part in the school agenda 21 of our city council because we believe that one person can do many things but if that person join to another one, they will be able to do many more things.

In that agenda all the schools which are taking part in, work with the city council to improve the sustainable development and the high quality education in their own school and in their environment.

As well, in that agenda there is a main topic which we especially discuss each year. During the last three years these has been the main topics:

- energy
- mobility
- wastes

We (the students of all of these schools) have made some agreements and we have also made some proposals to the city council, in some of them they gave us an answer.

Here you are some of these agreements:

- Ours:
 - Do not waste so much hot water.
 - Unplug the electrical devices if you are no going to use them during a long period.
 - Use low consumption lights.
 - Use the public transport as much as possible instead of the private car.
 - Share your car and use all the seats.
 - Make our friends and family aware of the great importance of walking or cycling.
 - Respect the vehicles, the citizens, the traffic lights and the road signs.
 - Use recycling paper.
 - Reuse as far as possible
 - Use things with more than only one use (for example, gasses instead of plastics ones)
 - Buy things without wrapper.
 - Respect the timetables for leaving the rubbish.
 - Buy only what you need.
 - Buy ecological products.

- Some of the ones we proposed to the city council:
 - Adjust the streetlights switch on and switch off.
 - Place more solar panels and subsidize people and companies to place them.
 - Use renewable energies in public buildings.
 - Make people aware of how important is to save energy and water.
 - Reduce the price of the electrical appliances class A.



- Place posters to remember that lights have to be switched off if you don't need them.
- The city council has a sustainable mobility plan in which they try to eliminate the black points. So we ask them to have more control, more zebra crossings, to enlarge the bike lines, to restrict the speed of the cars, to build more bike parks, to improve the frequency of the buses and their routes and all it's around the public transport.
- Buy only recycling paper.
- Let people know the costs of the management of the wastes.
- Empty the bins more often.
- Give out containers to separate the wastes at home.
- Let people know the places of the collection of the special wastes.
- Place different parts in each litter bin, for paper and for plastic.
- Motivate for reducing, reusing and recycling.
- Motivate for using *the only glass* system in pubs.

They were already working in some of these proposals before we told them; however, some of them were new or they were displayed with another point of view so they promised they will take into account.

Apart from these ones, we told the city council some other ones and they didn't tell us anything about them, so we hope in a near future we will have an answer.

Students of Jesús Obrero school (Vitoria-Gasteiz, Spain)