

The ECOPROFIT approach as a tool for GREENING THE PHILIPPINES





GREENING The Philippine Industries with the ECOPROFIT Approach



A regional partnership, capacity building and training programme approach for the industries within the Region Central Luzon in the Philippines

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ECOPROFIT – a tool for environmental management



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Ecocity Graz



- 1988/89 Smog
- 1991 Analysis and first "programme framework"
- 1992 UNCED-conference in Rio de Janeiro Agenda 21
- 1995 Programme "Ecocity 2000 Local Agenda 21" passed by the city council

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Ecocity 2000 – goals (1995)

Factor	Sustainability parameter	Goal by 2000
Air	Emission of SO2, CO, dust Emission of Nox, VOC	-30% -60%
Noise	Streets with more than 65 dB	-10%
Energy	CO2-emissions Energy consumption Proportion of renewable energy sources	-20% -7% 25%
Traffic	Private traffic Public traffic (km)	-2% +10%
Waste	Residual waste, Industrial waste Hazardous waste	-30% -30% -50%
Water	Drinking water	-5%
Soil	Built up surface	Balance
Nature	Additional protected areas Additional natural monuments	50 ha 7

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Ecocity 2000 – the projects



око<mark>drive</mark>



- Cleaner Production for the local industry
- Biodiesel for the public buses

 Contracting to reduce the energy consumption of public buildings, industry, and private buildings

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Aim of approach

The overall aim in brief is to

- Increase the efficiency of the companies by reducing demand of raw and auxiliary materials
- Minimize the environmental impacts by
 - adopting preventive environmental production leading to cleaner production & service providing
- More motivated employees and more attractive work
- Costs & environmental benefit at the same time
- Sustainable growth, social progress and environmental protection parallel in companies work processes.

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Quelle: K. Woltron, 2001

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Structure of the Programme

The programme approach consists of :

- Workshops and Seminars Cleaner Production & Service tools
 Interactive Exercises
 - □Topic description
 - □Learning with fun
 - □Performing in with and in front of experts
 - □Conducting the same at their end
 - □Homework Preparation of an Environmental Report as a main tool
- Individual consulting through company visits
- Training Onsite Training, Individual company training
- Technical assistance (Internal & External)
- Facilitating Technology supplies (If required)
- Certification for ongoing ecological and economical performance



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Workshops

Base Programme

- Cleaner production and waste minimisation, input/ output analysis,
- Setting up An Environmental Team and Corp. Responsib.Policy.
- Energy: Conservation and Renewable Energy.
- Mass Flow Analysis, Energy Analysis
- Waste Management (waste logistics and waste separation)
- Innovation and Creative Techniques
- Local and European environmental Laws and regulations
- Ecological Purchasing & Hazardous waste handling, Supply chain management.
- Standards (ISO, EMAS, others), Controlling, and Indicator sets.
- Technical Input for priority areas by practical Input: Demonstrate up to date Technologies and best practices for selected Priority Areas.



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Workshops

Club Programme

- Cleaner Production, Waste Minimization, Input Output Analysis and Data Collection.
- Tools for efficient CP & Environment management From Cleaner Production to EMS according to ISO 14001, Emergency preparedness and response, FMEA, Failure Mode and effect analysis,
- Effective communication as quality criteria
- Material flow Management starting with Water management, project management
- Renewables & energy management part I
- Logistics & re-logistics,
- Corporate social & sustainable responsibility
- Life Cycle Thinking, Eco Design
- Project Management, Efficiency enhancement
- Sustainable Entrepreneurship
- Knowledgemanagement
- Environmental marketing, and much more !



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Interactive Exercises





Steps

Topic description

Learning with fun, getting in touch

Performing with experts

Self conducting at companies end





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In-house Training & Onsite Training









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KNOW-HOW TRANSFER

Bringing latest technologies for efficiency and Sustainability enhancement to the industries.







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Technical Assistance: Internal & External





Results of this Cleaner Production Practice and Service approach in ECOPROFIT Gurgaon, India As a tool of the EINS strategy



A success story of business response to Sustainability



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A program for **2007** is under preparation.

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Process: 36 pieces of mirror are placed on a standard brick for convex process in an oven.

Measure: Number of pieces increased from 36 to 39 per slot. Size of brick altered within the possible regime to occupy more pieces thus saving energy on one hand and enhancing productivity on the other.



After [



Savings/a:	3.000 €
Cost:	480 €
ROI:	6,25

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 Process: Operation of motors/fans in cooling towers

 Situation: Loss of energy due to continuous operation of system

 Measure: Temperature control in cooling towers by installing sensors

 Savings/a:
 2.400 €

 Cost:
 390 €

 ROI:
 6,15

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Process: Heating of zinc slabs and maintaining them in liquid state for dye casting purposes.

Situation: Loss of heat in the process Measure: Installation of heat jackets to save heat loss and subsequent power saving

Savings/a:	3.800 €
Cost:	480 €
ROI:	7,9



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Knowledge management, Know How transfer and common trainings with sharing of experiences on energy efficiency for interested club companies through one other club company as one example for a Sustainable Business Strategy.

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ECOPROFIT PAYS BACK

Gurgaon / India: Economic effects of IMPLEMENTED MEASURES summer 2002 till summer 2005:



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Sustainability-

Leaders 135.9%

Socialty



Sustainability-

Laggards 83.3%

Sustainability at work:

Is a business strategy, which integrates economic, ecological, and societal criteria in an optimized way and by doing so creates competetive advantages

= econcomic success with values (W. Autischer)

Quelle: K. Woltron, 2001

Ecology

Economy

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This approach involves management and employees & at the same time to over think their processes, products and services.

Result are solutions for cost reduction through more efficient production & service implemented by highly motivated teamwork.

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Through improved efficiency, health & safety. The companies become more attractive for new employees!

Activities to a more positive image of companies in society and in the region.

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Regional influence & effects of ECOPROFIT



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Regional influence & effects of ECOPROFIT



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ASIA PROPERTURE

Site Security

Eco-Efficiency

Competitivness towards business response to Sustainability

Cost-Efficiency

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Workflow Year 1 +2 Documents Time Description Applicant and partners EU . preparation Proposal Pre kick-off meeting, projec schedules and project handbook, project Project Handbool coordination in Brussels coordination report. + memorandum of Applicant and partners EU + partner Asia Kick-off meeting, proje understanding preparation schedules and project handbook coordination in Philippines project coordination Setting-up the base for the lippine ECOPROFT Consulting Phase 1 Month 2-4 Applicant and partners EU, partner Asia + associates and elevant stakeholder to announce and promote the idea of ECOPROFIT the ECOPROFIT approach and to establish co-operations promotion with local institutions WS Experts with an appropriate educational background (chemists, physicists, engineers etc.) will be recruited to Year 1 become trained as ECOPROFIT consultants Selection of local experts for training The set-up includes the provision of adequate facilities and equipment as well as management support. The physical nd organisational base for the Consulting Center should be Local organisation/ set up in a way that it can be sustained beyond the duration Structure of of the Asia Pro Eco II funded project Consulting Center Elaboration of questionnaire to pre-evaluate interested companies from the list, which has been developed from the Identification of Short description regional partner. A meeting with the managers of the companies for 1st of selected consolidated preliminary list will be held to explain base programme companies the details of the project. An initial on-site review of these companies will be executed by a representative of the Consortium. Consequently the companies to take part in the project will be selected. Preparation of Training material raining Material in in appropriate appropriate language language will be the project showcase, support the project Project Website and Phase 0 Month 1-9 management and communication and provide backup Distance Training instruments for distance training to support the training of Backup ECOPROFIT consultants PROFIT Cons Phase 2 At the ECOPROFIT Academy consultants and local Month 4-6 authority representatives of the two partner cities/regions Training weeks for are trained on the ECOPROFIT method. The graduates selected Asian acquire the necessary qualifications and authorisation to Draft practical consultants in manage ECOPROFIT projects according to official implementation Austria incl.site visit guidelines concept Evaluation of To practice the acquired knowledge the participants are practical asked for the formulation of a concrete implementation implementation concept for ECOPROFIT concept Final formulation and tailoring of 1st base programme Final formulation of Final WS ogether with the trained ECOPROFIT consultants ECOPROFIT base Programme programme Eco-Profit Start up with 10-12 Companies of the two partner regions; Will be also on-the-job training for the new trained ECOPROFIT consultants; Introduction by Applicant; WS on Cleaner Production and Phase 3 in Phil WS Working Month 7-9 waste minimation, input/output analysis, data collection; WS on Environmental team, policy development, motivation of employees, WS on Material Flow Analysis Papers, WS Reports Workshops 1-4 Potential Analysis and waste management, WS on Energy analysis Company visits Initial company First Status Audit reports assessment Creation of environmental team Data collection Environmental Report Philippines

THE GREEN PHILIPPINES APPROACH 2006-2009

- Promotion of EP
- Selection of trainees for capacity building
- Selection of industries from representative sectors
- Preparation of tools & materials
- Train the trainees
- Start of first ECOPROFIT base programme



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EUROPEAID CO-OPERATION OFFICE

European Union

THE GREEN PHILIPPINES APPROACH

- ECOPROFIT base programme
- individual consulting & workshops
- certification
- 2nd ECOPROFIT base programme parallel ECOPROFIT club programme
 individual consulting &
- workshops
- certification

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