

Monitoring and Evaluation Cleaner Production Clubs Semarang



ASIE/2006/122-578

Improving the living and working conditions of people in and around
industrial clusters and zones

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gtz



Executive Summary

The EU funded Asia Pro Eco II Project “Improving the Living and Working Conditions of People in and around Industrial Clusters and Zones” was jointly executed by ProLH-GTZ, IVAM University of Amsterdam, University of Surabaya, BPPT, Environmental Protection Agency (BLH) of Central Java, and Central Java’s Cleaner Production Center (P3BD) over a period of two years from 2007-2008

Basis principle has been the establishment of Cleaner Production Clubs (a total of 7 clubs with 78 member companies both in Semarang and Surabaya) as self-organized round-tables to exchange ideas and experiences on Cleaner Production, environmental and non-competitive issues. Environmental impacts have been reduced by implementing Cleaner Production measures in the participating industries. During the short two-year period 55% of the companies confirmed that they gained economic benefit and a total 40% indicated that they reduced environmental pollution.

The aim of this monitoring and evaluation report was to explore companies’ opinion and experience related to the project’s impact that shall serve as well as a feedback for achievement of the project’s objectives and identify the approach for companies’ competitiveness development. The evaluation was related to Semarang’s Cleaner Production Clubs only namely 4 clubs with 41 companies. Project impact monitoring has identified the companies’ benefit and their idea to proceed in developing further activities, Cleaner Production tools and adjustment to be made concerning the companies needs. As their awareness raise that improving the environment also gain economical benefit for the companies. However, they mainly rely on externally driven activities by facilitators rather than internally expertise, so far.

Establishment and sustainability of the clubs is in threats as the companies have limited commitment and intention to continue. One reason might be that individual interest varies as a result of different kind of industries sectors involved in the clubs. Nonetheless one club, (GP Jamu) was very promising compared to the others although it can be argued that the organization has already an established structure. But this indicates that both a basic organizational structure is somehow a pre-requisite and same sector industries have an intention for more continuous information exchanges to tackle common issues of their businesses.

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1. Introduction

1.1 Background

The EU funded Asia Pro Eco Project “Improving the Living and Working Conditions of People in and around Industrial Clusters and Zones” has been initiated due to poor planning and resource management of industrial zones and clusters. The industrial growth has been accompanied by considerable exploitation of natural resources and high levels of urban and industrial environmental pollution. As a result of this unplanned expansion several industrial clusters of industries are located in and close to cities and villages impacting their neighbourhood.

In order to reduce environmental impacts the projects addressed the industries settle in these clusters and started the establishment of Cleaner Production Club (CPC) for implementing pilot measures. The driving force for the demonstration companies to participate in the project was mainly economical gains such as reduced resources consumption (energy, raw materials, water), improved product quality, reduced waste streams, and reduced waste treatment costs (if any). Within the clusters of industries CPCs were set up as a platform for industries to exchange ideas and experiences on cleaner production and environmental and other non-competitive issues and implement joint and/or individual measures.

Over a period of two years the project was jointly executed by ProLH-GTZ, IVAM University of Amsterdam, University of Surabaya, BPPT, Environmental Protection Agency (BLH) of Central Java, and Central Java’s Cleaner Production Center (P3BD). It was closed with dissemination seminars in Surabaya, Semarang, and Jakarta in December 2008.

1.2 Objectives

The objective of this monitoring was to provide the project team with documentation and reporting on the current situation of changes and improvement being implemented after the project phased out. Secondly it should be evaluate the project’s approach to improve the intervention impact on the field to use it as a learning process in developing Cleaner Production tools for having stronger future impact.

Furthermore, Cleaner Production is a methodology/philosophy which encourage amongst others business to search for environmental improvements that yield parallel economic benefits; the so-called ‘win-win-approach’. It focuses on business opportunities and allows companies to become more environmentally responsible and more profitable. It fosters innovation and therefore growth and competitiveness.

By collecting the companies’ perspective and opinion of Cleaner Production method on how the tools have being implemented and influence them in making decision for their companies as a beneficiary to proceed it as the project phasing out.

1.3 Methods

The monitoring and evaluation performed by a survey with semi-structured questionnaire which was derived on the basis of past achievements reported from the activities. Open questions were used to cross check and probing different information, which were collected from different sources (e.g. facilitator, team member project, partners, and project documentation).

The information was collected from companies’ representative who joined the project activities either fully or partially according to project indicators plans. They act as a key-informant for further analysis and measurements.

2. FINDINGS

2.1 Target groups

In the monitoring and evaluation activities, there were 19 companies' representatives involved in providing information and allocated their time for interviews, which averagely taking one hour of their time. In the beginning there were 35 companies selected from 41 companies in the project activities report in four cleaner production clubs had been establish. The interviews activities time were conducted during February – March 2009.

The 35 selected companies chosen from their previous active history during the project implementation where they're involve the project activities with enthusiasms and eagerly. Out of 16 companies had difficulties to allocate their time to do the interviews because of their daily task, scheduled appointment in their offices; employee quited from the company, not located in Semarang vicinity, and reluctance to have interviews. Due to limited time of the activities, the companies being interviewed were reduce to 19 companies who then were really open to share their information.

Through 19 informants they are representative of companies who joined the CPC from 4 different clubs. 7 of them are female and 12 were male. Averagely they are more than 30's years old and their position in the companies at least is supervisor and the highest is owner respectively general manager. So, their position is attributed at least in mid-management where decision making occurs and responsible to supervise several people under them.

Mainly their driving force to join the EU project was their curiosities to earn more experience, and it's for free. Some have the mandate from their superior to participate the trainings since their superior got the invitation. One company joined because the invitation came from Bappedal. Although most of them come with different interest in the beginning they still continued the program because of the "efficiency" topics which have win-win situation to the environment and their companies' economical benefits.

2.2 Field work

The appointments were set and adjust with the companies' availability to do an interview. The entire interview conducted in the companies' office to express and share their information (positive/negative) without any interference.

The questionnaire was built on project achievement goals and indicators with semi structured question with points of interest that fit monitoring and evaluation aims. Open ended question was chosen rather then yes/no answer. The survey was focusing on key informant that has been selected to those who joined the training and implemented it which wasn't a random sampling of impact monitoring for the whole projects objective.

2.3. Performance Measurements

2.3.1 Awareness

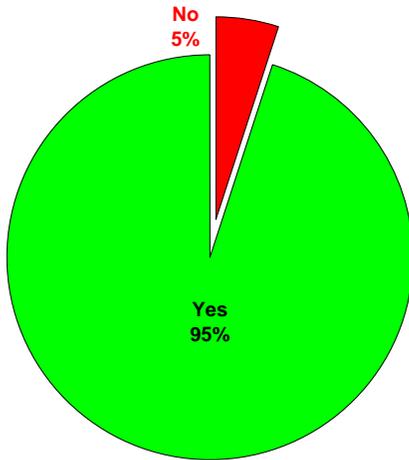
Awareness of participant in the EU APE project for environmental improvement in and around their industries has been raise individually to the participant. As an individual representative company joining the training has broaden their point of views to tackle environmental issue as economic potential rather than a cost for corporate financial burden.

Perspectives on participant are reflected by their positive expression to the questionnaire and their willingness to recommend the tools material of the concept to their business colleagues, partners, and associates outside their company. Respectively they will invite them if there are similar agenda of the training provide by GTZ in the future.

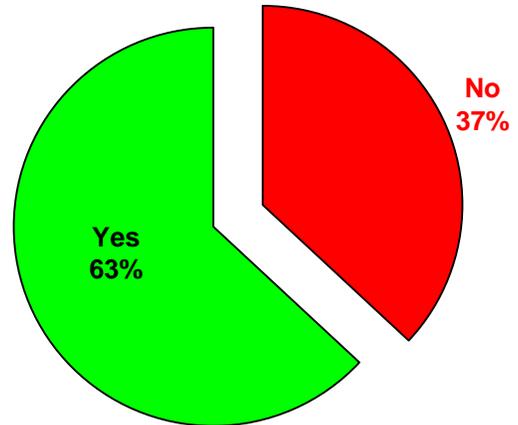
Nevertheless one industry expresses dissatisfaction of the training and would not recommend it. According to the opinion that the training was an extra burden to the company because s/he must allocated their time and energy to implement measures in the factory and continued by making changes

in the SOP (standard operational procedure) and also mentioned the reluctance of employees to changes.

Has the participation in the activities been changing your perspective towards CP?



Has the participation in the activities been changing your company's perspective towards CP?



Although on an individual perspective of participant who joined the program the majority of participants have changed. Many of them mentioned the barrier to implement it through their company and felt that there wasn't any changes in their company perspective to improve base on their action plan from the training they received.

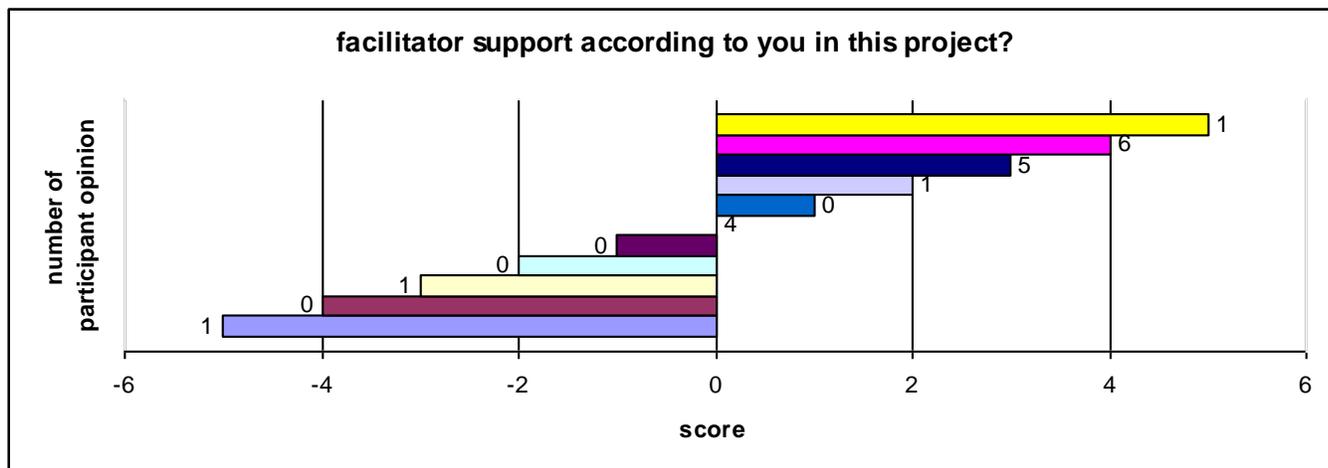
Companies, which have successfully implemented the program tools perceived it as a breakthrough chance to mobilize the companies for improvement and become more efficient as they face the future challenges. They claim employees feel more comfortable and have higher productive working environment in their companies.

Policy maker/owner in the companies was a driving force to changes in these issues. Related to that, some of the participants are facing big challenges if they were not receiving the support from their superior / management to initiate an action of changes. They express that the line of command was disconnected and powerless without their superior/management agreement to organize all of the employees in companies.

2.3.2 Implementation

Implementation of Cleaner Production as a method to have environmental and economical benefits was achieved by companies and is already included in the related technical reports. Positive result was gained by companies who have commitment and joined all the training sequences as planned. It is indicating that the project method effectiveness was relying on companies pro-active to implement it.

The facilitators (for technical advise) played a significant role in this matter, since they became the motivator and guidance for companies identified their "flow-chart" to improvement and resolve it as an action plan in their companies and make sure the "chart" planned to be implemented successfully by the companies.

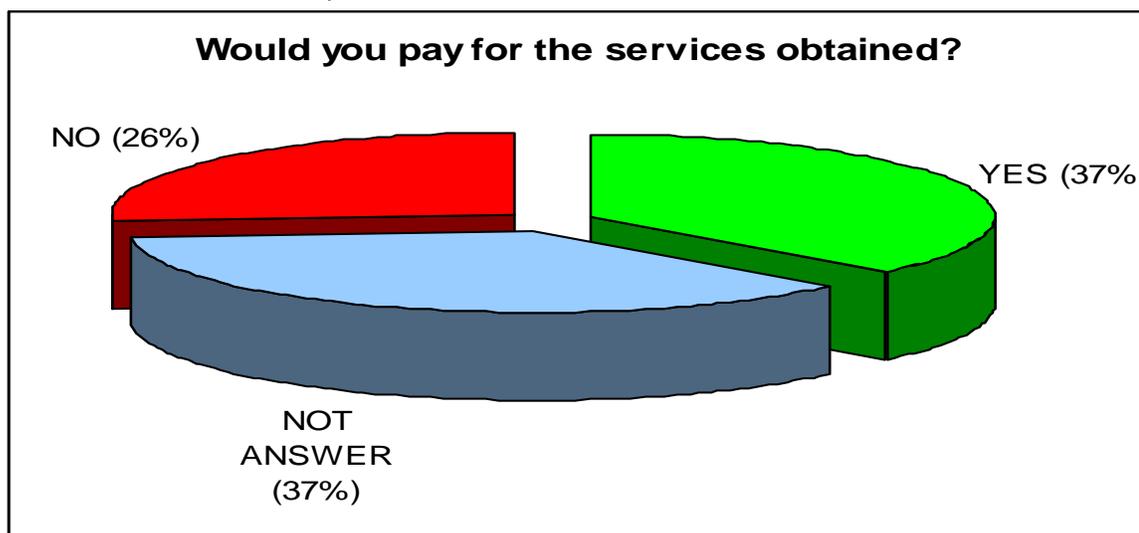


Facilitator made individual visits to the companies and discussed an issue more detailed with each of the companies. Effectiveness of this approach was to solve issues more practical and applicable rather theories presented during the training.

The facilitator's performance was evaluated by the companies reaction when questioned related to the facilitation services will be independent and they must support the cost and accommodation on it.

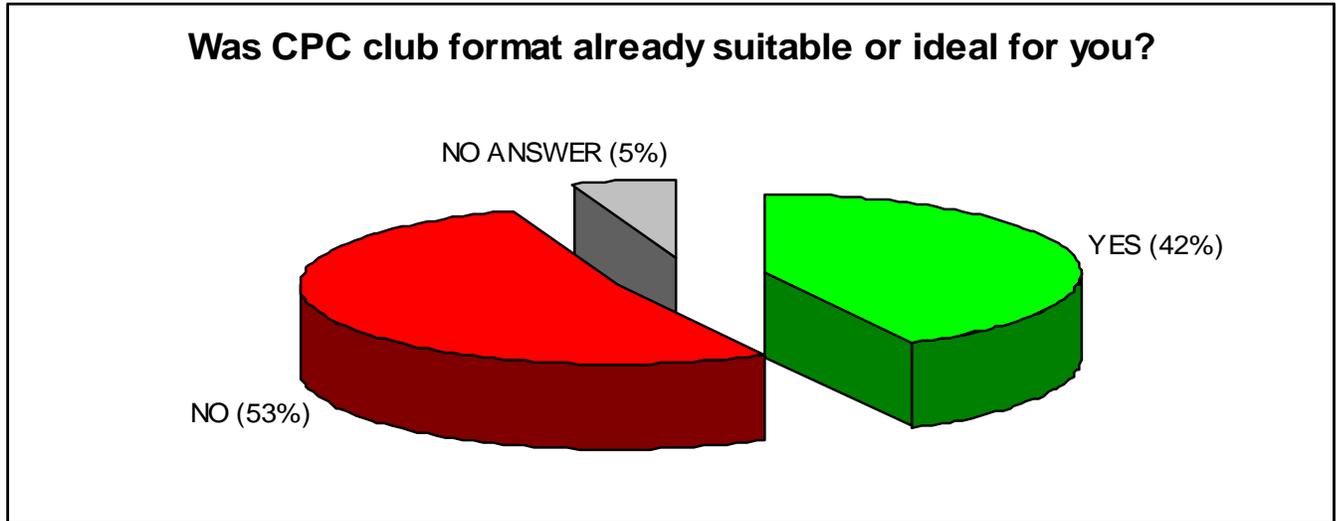
The answer to that question was distributed almost equally. Most of the companies are willing to contribute respectively pay for the services, which was indicating a satisfaction of the facilitator's services. Opposite to that was the reaction of companies who doesn't want to contribute/paid, because the facilitator has never visited Ungaran clubs and the facilitator unable to motivate the companies to implement the action planned from the trainings. Several choose not to answer because it's beyond their capacity to decide and it is an organization policy whether to pay or not. But personally participants who choose this answer were expressing that if they have the authority to that they will contribute since they realize the benefit from the trainings.

Barriers to companies who were unable to implement the action planned were not only related to facilitators' performance. Several arguments were given by the company representatives that there were no support from the management, reluctance to cooperate among colleagues in the companies, and no financial investment to improve.



2.3.3 Sustainability of the clubs

The current clubs that have been established are at risk to sustain. The companies responses indicate that they are not motivated to organize it and proceed forward. 53% express that they don't feel suitable with the current clubs, 42% comfortable with the current clubs. And 5% were not answering or abstain because he/s was joining partially in the club activities.



As Herbert G. Hicks¹ mention the reason people establishing an organization was 1) social reason as zoon politicon, and 2) material reason. As an individual itself the participant already represent a formal organization in their current companies which derive for material reason. And there were no force or incentive to sustain the clubs for their material reason: This will be valid in the future too from their point of view as an employee. Opposite to that was participant who as an owner eagerly wants to sustain or establish new clubs with colleagues. This participant was aiming for Small Medium Enterprise owner who was to busy by their daily task and miss the opportunity for improvement.

Example for organization establishment based on social reason was the organization among industries in the estates that were organized by the estates. Although it was established in order to become a forum for industries aspiration to transmit it to the estates to improve their services to the companies as their costumer. In many cases the organization has rigidity to work as it objectives as one of the participant mentioned.

Although industries feels the needs of the current clubs but it seems they're not eager to develop more, when there wasn't any organizer such as ProLH-GTZ to initiate the clubs organization. Expression of their limitations was based on the reasoning that they don't communicate and commitment enough to preserve the clubs. On the other hand they already had their burden in the company that eats up their time for daily obligation.

One clubs was established based on the same interest which is related to their business. It was GP Jamu Clubs which was established on the basis of a single industrial sector. Through, this organization the Jamu industries possesses an umbrella organization to tackle issues related to their industries such as quality standard, safety, hazardous material, human resource management, and government regulations. This organization was established for social and material reason of their members to sustain their business day by day.

¹ "The Management of Organizations" by Herbert G. Hicks. 1976. McGraw-Hill Inc.

3. CONCLUSIONS

Overall the project was successfully implemented and achieved positive result as it was being planned. As the project phasing out some identification being made in the current Cleaner Productions Clubs that has been established.

It can be classified in two different bases

- Clubs base on cluster locations
- Clubs base on industrial sectors

Strengths	Weakness
Clubs base on cluster locations	
<ul style="list-style-type: none"> • Technical material was given in a broad perspective • Discussion in the training in a broaden ways. • Focusing in Cleaner Production issues as their main reason in the clubs. • Have similar problems to tackle environmental issues in their neighbourhoods (e.g. flooding , roads) • Meetings could be held within their companies among each others or in the surroundings 	<ul style="list-style-type: none"> • Technical material unable to be specific for one industry nor sectors • Discussion unable to be specific in one type/kind of issues which then eat up the time allocated. • More time management to provide everyone to explain in their perspective understanding • Topic can be switch to irrelevant issues in their surroundings neighbourhoods (e.g. riots, local power) • Cleaner Productions topic was less attractive to industries any more as they had implemented them.
Clubs base on industrial sectors	
<ul style="list-style-type: none"> • Technical material can be specific in the similar languages. • Discussion can be specific in tackling certain issues. • Time management of the meetings more effective. • Environmental issues are able to develop more than Cleaner Production methods in the future. 	<ul style="list-style-type: none"> • Risk of sharing knowledge as they also competitor in the same business. • Discussion can be dead-end as they have similar perspectives. • Cleaner Production issues weren't the main topic to be discussed. • Have different perspective for their surroundings as the companies scattered.

4. RECOMMENDATIONS

It is mentioned above that both approaches of the clubs have been implemented. From the experience to reduce the weaknesses and maximize the strengths to combine the approach as CPCs based on industrial sectors at the beginning or linkage industries (e.g. F&B, herbal, pharmacy) of similar produce after several trainings and meetings. Companies with different backgrounds of sectors and manufactured with various line production can exchange their information and discuss issues with broad perspective and different point of views to solve the up-coming issues. Various resource persons with different technical background were expected to improve their knowledge by exchanges their experiences and handle novel issues in the future. It is advisable to have a focal point such as Semarang a city to reach within one hour travel distance. Consequently it isn't an issue for companies to allocate the meeting point as long as companies grasp the benefit from the meeting.

ANNEX

The following questionnaire was used for the monitoring and evaluation of the CPCs impact.

Questionnaire for Project Evaluation EU Asia Pro Eco

Company details		
Number of employee in the company		
Production line(s)		
Business to business		
Business to consumer		
Establishment of the company		
Introduction of the participant		
a	Interviewee's Name	
b	Age	
c	Position in the company	
d	How long does the interviewee work in the company	
e	When did the company join the EU Asia Pro Eco Program?	
f	How many trainings of CPC did you/colleagues attended	
g	Do you think the training was sufficient for future improvements in your company	positive +5+4+3+2+1+0-1-2-3-4-5 negative
h	What is positive related to the trainings	
i	What is negative	
j	Do you have enough time to apply the learning	
k	What shall be improved related to the training	
	Is the principle of clubs appropriate for you	positive +5+4+3+2+1+0-1-2-3-4-5 negative
	What is positive	
	What is negative	
	Would you prefer mixed industries in the CPC	
	Would you prefer a more sectoral approach (companies of the same sector)	
	What would you/your company do sustain the CPCs	

1	CPC		
2	Has the program been changing your perspective?	Yes	No (skip)
		Verymuch+5+4+3+2+1+0-1-2-3-4-5notat all	
	Has the program changed your company perspective?	Yes	No (skip)
	Could you explain the process of changes that you been thru? What has been changed/improved		
3	Is there any benefit from this program?	Yes	No (skip)
		Verymuch+5+4+3+2+1+0-1-2-3-4-5notat all	
	What was the biggest benefit for you, and your company had from this program?		
4	Will you recommend this program to your colleagues/business partners?	Yes	No (skip)
		Verymuch+5+4+3+2+1+0-1-2-3-4-5notat all	
	Could you explain what would you recommend to your colleagues/business partners in this program?		
5	For the program implementation that you joint, what kind of improvement are you expecting from the committee?		

CPC (*Cleaner Production Clubs*)

no	Question	Answer sheet	
1	What was your primary motivation when you join this program in the beginning?		
2	Was the CPC program like you expected?	Yes	No
		Verymuch+5+4+3+2+1+0-1-2-3-4-5notat all	
	In what way, please kindly explain		
3	What would you suggest from this program in the future?		
4	What will be the biggest challenge for your company in 2009?		
5	What kind of support this will be relevant for your company in 2009 and beyond?		
6	Was CPC club format already suitable or ideal for you?	Yes	No
	If not, what kind of CPC group format you would like to have?		
7	How was the facilitator support according to you in this project?		
	Give example of facilitator support in this program		