

EID ToolBox Quick User Guide

Profitable Environmental Management (PREMA®) for Industrial Zones

Brief description of the tool

The PREMA® approach can be used to build the capacities of the management of industrial zones to improve eco-efficiency, occupational health and safety, and sustainable site management. This approach is designed for executive members of industrial associations or similar structures who are motivated and willing to improve conditions within an industrial zone, estate, cluster, or area. It is suitable for different contexts, from highly developed industrial parks to small industrial areas. Where illiterate artisans are involved, visualised checklists are available to support the identification of improvements.

In cases where industrial zone managers have a dual role in that they also own or manage an enterprise that operates within the zone, PREMA® for Companies can be integrated into the programme, which would consequently bring “triple win” improvements (economic, environmental, organisational) at the level of the enterprise as well as at the level of the industrial zone.

Aim of tool

PREMA® is used to build up a framework for managing an industrial zone in a sustainable way and to equip new or existing management structures with the perspective and know-how to develop cost-covering services (e.g. paid through fees that are asked of enterprises resident on the industrial zone) that result in:

- Achieving economic benefits (through improved resource efficiency and higher productivity)
- Reducing environmental impacts (through better use of natural resources and reduction and management of harmful emissions)
- Enhancing organisational capacities (improving the overall management of the zone).

Content of tool

Applying the Non Product Output (NPO) concept to the operation of an industrial zone. Participants learn how to identify material, energy, and water resources that are misused throughout the industrial area, which create unnecessary costs and waste (resulting in Non Product Output, NPO). Participants learn how to prepare a simple NPO flowchart that visualizes, in a structured way, the material flows and processes in the industrial zone, i.e. the raw materials (including harmful substances) purchased (based on rough estimates), the energy/electricity and water consumption related to processes taking place at the level of the industrial zone, etc. NPOs (e.g. solid waste in common dump sites, air emissions, waste water) are then defined in more detail.

Analysing the industrial zone’s existing management structure. The structure, operation, services, and funding of existing management structures are analysed in order to assess the existing capacities of the industrial zone management to implement change, elicit relevant inputs for establishing priorities for action, and determine ways for improvements to be effectively implemented.

Mapping the industrial zone to identify weak points, while building knowledge regarding environmental impact assessment. A site visit is conducted using a set of checklists designed to guide observations and data-collection, which also incorporate key aspects related to identifying environmental impact. These tools support participants in analyzing the industrial zone and mapping out the most important NPOs throughout the industrial zone. From this basis, material flows are analysed; the costs and environmental impacts of *not* making any change are examined; the causes for NPOs/weaknesses are identified; and then improvement measures are developed, implemented in the industrial zone, and assessed – setting the stage for a next cycle of learning and improvement.

Most important steps

This programme is comprised of interactive workshops for executive members of industrial associations or similar structures, conducted by qualified, authorised PREMA® trainers – interspersed with “networking meetings” (lasting ½ to 1 day) of the participants and invited guests, which provide a forum for peer consultancy, problem-solving, and general support for the change process.

Description of steps

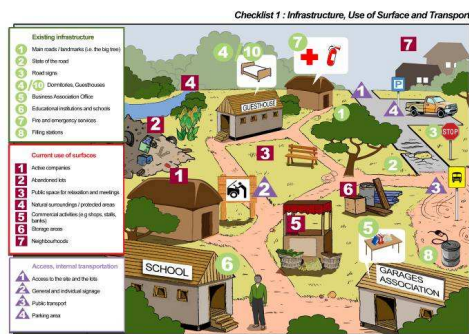
PREMA® engages a group of participants who undergo a complete programme together, typically spanning a 6-month period. By working within a group, participants benefit from each other’s experiences and problem-solving capabilities, and they can establish a network and relationships that strengthen future interactions. The overall PREMA® programmes is comprised of an initial workshop (3-4 days of training), followed by a set of network meetings, and a final ‘evaluation’ workshop – all aimed at transferring the theoretical, methodological, and practical know-how that can be used to improve the management of an industrial zone as well as resident enterprises.

Sequence of application to achieve tool’s goal

1. Introduction to the PREMA® approach and its key methodological elements (triple win, NPO, cycle of change) through a mix of presentation and hands-on exercises, in an interactive workshop designed according to experiential learning principles
2. Half-day visit to the site, in small groups, who identify improvement opportunities based on using checklists (comprised of clusters of questions) related to :
 - Checklist 1: Infrastructure, use of surface and transport
 - Checklist 2: Raw materials and solid waste
 - Checklist 3: Water and waste water/sanitation
 - Checklist 4: Energy, electricity

Checklist 5: Occupational health & safety and environmental impacts

The content of each checklist is visualised on one page using colourful graphics, which creates an easy-to-understand tool for (sometimes illiterate) artisans and entrepreneurs.



3. Step-by-step evaluation of the site visit following the “cycle of change”; under this framework, observations made during the site visit are analysed regarding their effects/impacts (economic, environmental, organisational, social, safety) and their respective causes. Easy-to-implement improvement measures are then developed and their possible costs and benefits are assessed as part of transforming improvements into services that could be offered on a cost-covering basis by the industrial zone to its members.
4. Development of an Action Plan, including objectives, indicators, activities, responsibilities, and deadlines, which is used as a framework for discussion and implementation with the management of the industrial zone, and follow-up consultancy to catalyse action and a culture of continuous improvement.
5. Participation in 1-2 “network meetings” facilitated by an external moderator where a counselling technique, Action Learning Set (ALS), is used to elaborate profitable, environmentally-sound solutions, and action strategies for problems that occur within the daily operations of the industrial zone.

Documentation of improvements in the form of a 1-page case study/success story that illustrates the problems and its consequences, the improvements undertaken (together with photos showing the *before/after* situation), and information regarding economic benefits, reduction of environmental impacts, and improvements in organisational capacities and occupational health and safety. Such case studies can be used for promotion, verification, and data-gathering vis-à-vis indicators/objectives.

Estimation of required resources

Time

Participation in:

- An initial 3-day training workshop (including site visit and step-by-step evaluation taken through to an Action Plan); in cases where PREMA® can simultaneously be applied at the company-level, an initial 4-day training workshop would be used
- On-site discussions with the industrial zone management, to support the change process
- 1-2 network meetings (lasting ½ to 1 day), offering problem-solving and peer consultancy

Participation in a final workshop (1-2 days) to evaluate the experience, showcase successes, and catalyse further action and a culture of continuous improvement

Funds

The industrial zone is expected to pay a training fee that allows the PREMA® programme to be run on a cost-covering basis. Improvement opportunities identified using the PREMA® approach involve no-cost or low-cost investments with payback periods typically in the range of 0 up to 18 months.

Expertise

The PREMA® programme is offered by local consultants trained on the PREMA® approach, who are members of PREMANet e.V., a non-profit association that represents the global network of licensed PREMA® trainers. Through a Cooperation Agreement signed with GTZ (which sponsored the development and extensive verification of the PREMA® training/consultancy approach in over 40 countries), PREMANet e.V. disseminates PREMA® methodologies, develops further applications and materials, and assures the quality of the training that is provided, including the licensing of competent trainers. See www.premanet.net for qualified PREMA® trainers in Asia (China, India, Indonesia, Sri Lanka, Thailand, Vietnam), Africa/Middle East (Algeria, Egypt, Ghana, Jordan, Morocco, Nigeria, Tunisia, Zimbabwe), South America (Bolivia, Brazil, Chile, Colombia, Costa Rica, Mexico, Peru, Uruguay, Venezuela), and Europe (Bulgaria, Croatia, Germany, Macedonia, Montenegro, Romania, Spain, Switzerland, UK)

Documentation

Training Manual: Profitable Environmental Management for Industrial Zones, developed by Kerstin Bark, Johanna Klein, Joyce Miller. Available to licensed PREMA® trainers/facilitators from www.premanet.net About 30 case studies that showcase improvements on industrial sites in Ghana (with a focus on car-repair activities and wood-processing) are available from Joyce.Miller@premanet.net

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