

Executive Summary

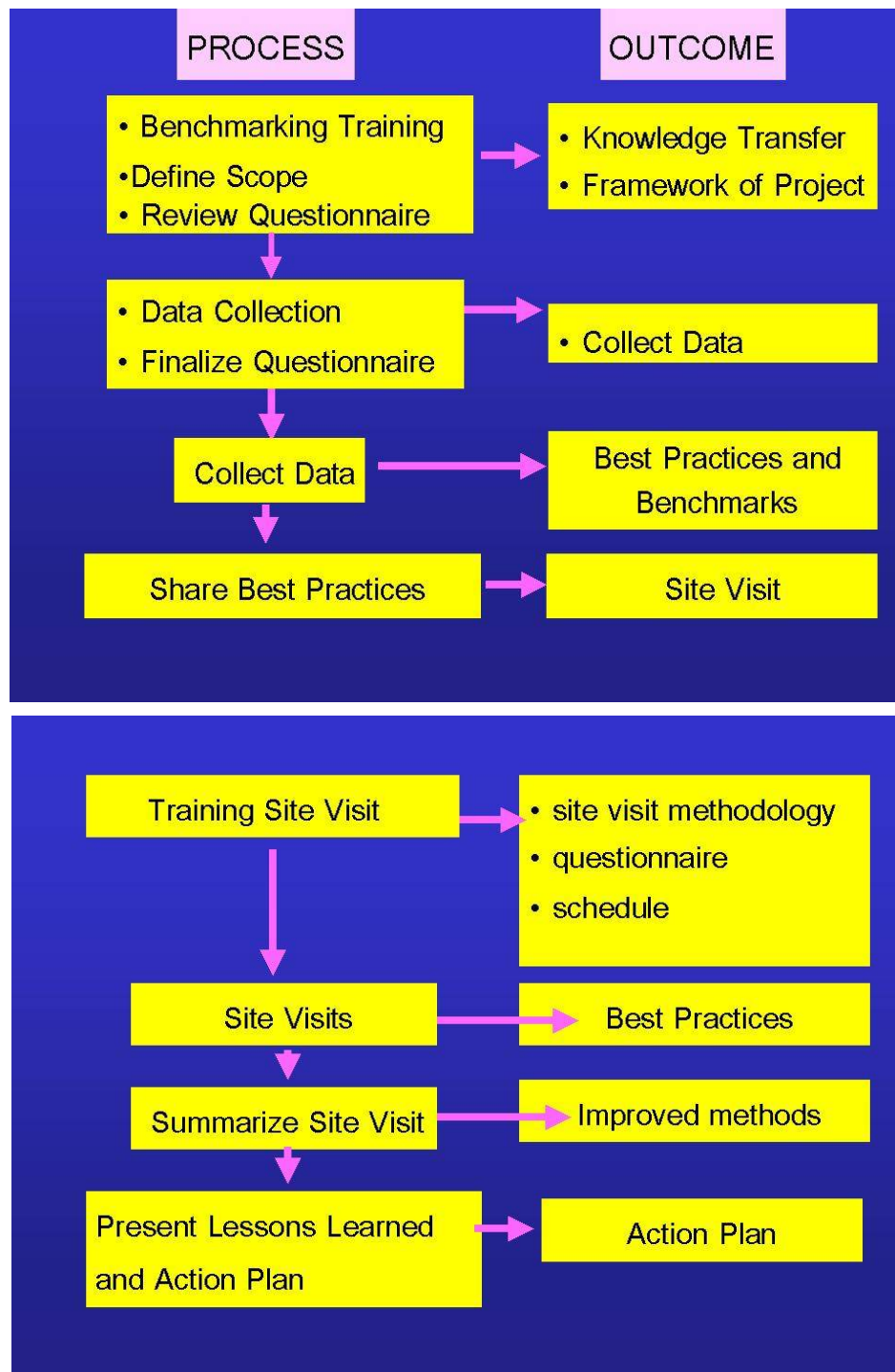
Benchmarking: Increasing Competitiveness and Efficiency in Business

Benchmarking is a performance measurement tool used together with improvement initiatives to compare operating performance and to identify best practices. When these best practices are identified their implementation can lead companies to have exceptional performance in all areas. These performance improvements will have a great effect on how a company is perceived by their customers and stakeholders.

Benchmarking can have an impact on crisis management, training, workplace health and safety, and customer service. It helps to prevent complacency within a company because it is a continuous process of searching, learning, adapting and implementing best practices. In addition, Benchmarking a company's environmental program against that of another company or organization is a very effective means of assuring it is on track toward environmental excellence. It provides environmental managers a unique opportunity to share successes and failures and to learn from other businesses' innovative ideas.

Type of Benchmarking	Advantages	Disadvantages
Internal	<ul style="list-style-type: none">-continuously make comparisons within the company-ease of implementation-low requirements in regard to resources and time	<ul style="list-style-type: none">-targeted only to internal standards
Competitive	<ul style="list-style-type: none">-make comparisons with main competitors- a third party ensures that each company receives benefits	<ul style="list-style-type: none">-difficult to obtain information- comparison with competitors may not point to best practices
Functional	<ul style="list-style-type: none">-compares specific functions with best in industry and best in class	<ul style="list-style-type: none">-may target only a small aspect of the industrial process
Generic	<ul style="list-style-type: none">-applies to all functions of business operations and encourages the continuous effort of comparing functions and processes with those of best in class	

TBCSD companies have used a combination of various benchmarking methods to develop action plans for implementing best practices. Most business processes have been found to be common throughout industry. For example; a paper mill and a food production company may have the same issues with electricity use and the same requirements for staff training regarding environmental issues. These processes, albeit from different industries, are all common and can be benchmarked very effectively. Using differing methods of benchmarking makes sure the best results possible are achieved.



Phase 1

In close collaboration with the Thailand Productivity Institute, TBCSD organized training for members' representatives in benchmarking in 2001. Member companies work together to develop a questionnaire that will help their businesses to analyze the use of electricity, and water used, as well as the amount of waste produced. Based on analysis of the questionnaire, best practices are determined. The best practice organization then presents their knowledge to the other organizations, and those businesses determine a set of questions to be asked to the best practice organization. A detailed site visit is undertaken in each of the three areas, providing many chances for questions, and the opportunity to learn from each other. Finally, each company summarizes their learning experiences from the visits and is provided with a chance to develop an action plan to implement best practices within their own company.

Several companies indicated they had made significant reductions in energy consumption and costs by simply raising the awareness of employees to the costs or by providing basic training on how to reduce the use of these resources. Other companies closely monitored their electricity and water usage to find areas of over use or waste and made changes accordingly in their practices to save on costs. A coordinator in charge of environment and safety undertook this monitoring. With one employee specifically trained and responsible for continually pin pointing areas of inefficiency, improvements in production, energy and water use, as well as employee safety were constantly able to be made. This improved monitoring allowed for more specific reporting in the budget of environmental costs and Key Performance Indicators. Changes were also made regarding safety within the companies. This would be important to prevent, for example, a fire, which would lead to equipment loss, production down time and clean up costs. In the past two years representatives from eleven companies were trained in with this methodology.

Companies Involved in Benchmarking Project

Phase 1, 2001	Phase 2, 2002
Amway (Thailand) Co., Ltd.	Bangchak Petroleum Public Company Limited
Electricity Generating Authority of Thailand (Bangpakong)	Electricity Generating Authority of Thailand (Si Nakarin Dam)
Haad Thip Public Company Limited	Electricity Generating Public Company Limited (Khanom)
PTT Exploration and Production PCL	PTT Public Company Limited (Gas Separation Plant in Khanom)
PTT Public Company Limited	Union Textile Industries Public Company Limited
Thai Farmers bank Public Company Limited	

More Specific examples of changes made through the benchmarking process can be seen in the example of the Haad Thip Public Company Limited which has a contract to produce and distribute Coca-Cola Products to fourteen provinces in Southern Thailand. The company policy is to manufacture a high quality product and provide excellent service. They want their staff and consumers to show environmental responsibility and as a company they endeavor to meet or exceed the requirements of all laws and regulations. Their goal is to use resources efficiently and to continue to search for ways to improve both their quality and service. The company inventoried its impacts on the environment, both direct and indirect. Direct impacts were found to be the use of large amounts of water, which is needed for cleaning bottles, machines, and factories. Indirect impacts were shown to come from the use of energy, and electricity and gasoline consumption. There was also the use of cooling solution in refrigeration systems and paper usage. The company implemented several changes throughout the process to reduce both types of impacts. They installed equipment and machinery that allowed them to save on water usage and they used the benchmarking technique to pinpoint key areas in which practices could be changed and water could be saved. In some parts of the process water recycling could be put into use. Packaging types were also examined to see if changes might lead to savings in water use. Within the company a campaign was held to save water and to reduce wastewater volume and to reduce the amount of electricity used. Within offices, more care was taken to use recycled paper and a program was set up to sell used paper to be recycled. The second part of the project focused on public education, so that consumers will be informed about glass recycling. A billboard advertising campaign was used to spread the message of recycling. A campaign for cleaning Ko Samui was undertaken with the residents of the island. The company also initiated activities in schools to raise the environmental awareness of school children. The benchmarking process allowed this company to make savings and use their water resources more efficiently. It also further improved their image in the eyes of the public.

Phase 2

The objective of the benchmarking Phase II in 2002 was to strengthen the knowledge of TBCSD members on environmental benchmarking and that members would be able to use the good and best practices that they learned to apply them towards improving environmental management.

The implementation of the project took five meetings. The first meeting had the purpose of initiating benchmarking training. The scope of the project was defined and the questionnaire was reviewed for the site visit companies. The framework and the scope of the work were related to an environmental management system.

The Environmental Management System (ISO 14001) is widely recognized as one of the most important environmental tools. It establishes a coordinated framework of controls to manage environmental protection within businesses and organizations. As a formal and logical basis for environmental management it is based on the cyclical process of plan, implement, check and review. Implementation of ISO 14001 means business must make commitments to legal compliance, pollution prevention, and continual improvements. The problem solving identification tools and methods allows



workforce personnel to track down and evaluate the processes and procedures used to manage environmental issues. ISO 14001 incorporates the environment into everyday business operations, so that environmental stewardship becomes an integral part of the daily responsibility of employees.

A second meeting was held, so that participants could brainstorm and finalize the questionnaire. They also finalized their data collection methods. The questionnaire focused on policy and planning, environmental problems, objectives and goals, action plans, organization structure, responsibility for each sub section, training and capacity building, communication, information transfer and public relations, monitoring, internal auditing, and a review by executive and top management. The objective of the questionnaire was to aid in collecting data from the organization and to assess the strengths and weaknesses of each company.

During the third meeting best practice information was exchanged and the results were shared from the questionnaire analysis and assessment of indicators and practices in each organization. Next, the participants reviewed the site visit organizations and prepared the questionnaire for the sites with the best practices. Initially, participants visited Bangchak Petroleum and had a chance to review their environmental management system. An emphasis was placed on the means of assessing the environmental problems experienced by the company, with relation to the action plan and its objectives and goals, and training and capacity building. The second site to be visited was the Amway (Thailand) Company Ltd. The participants learned about their training activities, which were determined to be the best in class.

The results of both visits were that participants learned of the best practices that were undertaken at both companies and were able to adapt what they learned into their environmental action plan. During the fifth meeting the environmental management plan of each organization was presented,

analyzed and summarized. Three participating companies applied the best practices into their annual environmental improvement plans. The PTT Gas Separation Plant, Khanom divided its action plan into two phases. The first was a short-term plan in which they set up a plan for an internal audit and a monitoring team. The second phase was a long-term plan to improve the training system by “training the trainer” and improving their environmental protection and impact prevention plan. Union Textile Industries implemented an environmental improvement plan, which they also divided into three phases. The first phase was to identify environmental problems by reviewing the assessment criteria, and identifying the risks of environmental problems covering every position and activity. The second phase was the environmental pre-assessment audit. They set up an audit team to review the methodology of the environmental pre-assessment and to list environmental problems. The third phase was to set up an annual training plan by reviewing training strategies and assessing skills and capacities of employees. They also wanted to set up a database system. The third company was the Bangchak Petroleum. They set up a plan for changing training steps and methodologies. They also invited their staff to participate in the assessment of training requirements. In addition, they set the training course focus on the trainees. They also wished to undertake capacity building on training skills. These environmental action plans were the final phase of the benchmarking project and were only the first step in what now must be a continuous search to make improvements within the companies.