

Catalyzing Green Productivity for Sustainable development



<http://www.apo-tokyo.org/asset/images/Backdrop-gb2020.jpg>

The Perspective

Increasing concern for environment protection creates some consensus, regulations, policies and strategies that enforce companies to consider their impacts to the environment by enhancing their environmental performance. This response however leaves much to be desired in view of the fact that companies consider it as burdened costs without any gains. The concept of Green Productivity that offers simultaneous economic and environment gains stems from the 1992 Earth Summit and was picked up enthusiastically by the Asian Productivity Organization (APO) in 1996.

Green Productivity has attained importance due to the following reasons:

- Deteriorating global environment
- International environment treaties
- Environment and trade
- Need for Eco-labeling
- Resource scarcity
- Occupational and health hazards
- Focus on sustainable development

Concept of Green Productivity

Green Productivity (GP) is a dynamic strategy to harmonize economic growth and environmental protection for sustainable development that leads to

strategy to harmonize economic growth and environmental protection for sustainable development that leads to progressive improvement in the quality of human life. It is the combined application of appropriate productivity and environmental management tools, techniques and technologies that reduce the environmental impact of an organization's activities, products and services while enhancing profitability and competitive advantage.

Green Productivity's greatest attribute is its potential for integrating environmental protection into the operations of a business as a means of improving productivity. Green Productivity was conceived on the understanding that a healthy environment and a robust, competitive economy are mutually dependent. GP fosters "smart growth" by releasing the collective creative ingenuity of people. This is a move away from "mandate, regulate and litigate" to encouraging people to act responsibly and take control of their actions to improve the quality of their own lives and profit for it. Green Productivity recognizes that the environment and development are two sides of the same coin, with quality defined by your customer. Green Productivity brings together three elements seen as part of the triple

focus: the environment, represented by sustainable development, profitability, defined by factor inputs, and quality, voiced by the customer.

Benefits of GP to Business : Provides competitive advantage, increase in productivity, Increase in market share and profitability, less operational and environment compliance costs, Less generation of waste, Improved corporate image

Benefits of GP to Society : Cleaner environment, better quality of life, supply of goods and services in sustainable manner, shapes society's demand

GP framework

Green Productivity has an open framework to combine several of the existing, proven approaches to eco-efficiency, cleaner production, and pollution prevention, amongst others. The framework is based on two key components:

a set of tools used to rationalize the input-throughput-output focus, and a set of defined sustainable practices that will guide the practitioner in the integration of Green Productivity.

The emphasis of the framework however is not on terminology or systems. It is based on the strategy of sustainability through prosperity in economic development and environmental. Life cycle assessment is the basis for generating information on a product or service. Decisions are made on product design, manufacturing practices, purchasing policy, product distribution and management practices based on this information.

Product design must follow the principles of eco-design; thereby subscribing to the need to develop products that have a lower environmental burden. Having incorporated eco-design principles into product design, the first step is to examine the purchasing policy for inputs and where required modify it to ensure Green Purchasing. This is the thrust of innovation, where new wealth can be gained.

Apart from Green Purchasing, eco-design requires that environmental objectives be into the manufacturing operation, with no or minimum loss of product performance, useful life or functionality while reducing the generation of waste, reducing toxicity, and reducing energy requirements. Some of these are likely to extend the useful service life of the product. This will also ensure health and safety in the workplace as well as for consumers using the products. In using eco-design as the basis, product stewardship must be adopted in the distribution, use, and disposal of the outputs (products).

Green Productivity aims at Quality improvement, Productivity, Environment protection, Sustainable development. GP recognizes that the environment and development are two sides of the same coin, with quality defined by the customer. Green Productivity brings together three elements seen as part of the triple focus:

- the environment, represented by sustainable development,

- profitability, defined by factor inputs, and
- quality, voiced by the customer
- Precautionary Approach¹² on the shop floor.

Guiding principles of GP

The guiding principles of Green Productivity have been drawn from both productivity and environmental domains. The principles incorporated in its conceptual development lead to a more positive image become apparent as new business strategy is evolved. Many of the principles used to initiate Green Productivity are guiding environmental management and productivity improvement practices today. However, they are being implemented in a or segregated manner. Productivity improvements are managed by one department and the environment in another. In the development of Green Productivity, care was taken to select the relevant principles that were complementary in nature and that would strengthen the integration of environmental protection and productivity improvement.

The practice of Green Productivity is characterized by four distinguishing criteria.

· Integrated people-based approach: One of the strengths of Green Productivity is its worker involvement and team-based approach. Improved working environment, worker health and safety, non-discrimination and related social welfare issues increase trust between workers and management. This enables a methodical step-by-step approach for the generation of options and solutions. Thus all members in an organization can contribute to the Green Productivity process. The involvement of people also promotes trust, simplicity and accountability. It makes each person employed by your company a potential ambassador for your business.

· Productivity Improvement: The condition of continuous improvement achieved by

KAIZEN⁹ or by adopting the premise that underlies the PDCA (Plan, Do, Check and Act) cycle is aimed at ensuring productivity improvement. However, unlike classical productivity improvement programs, Green Productivity includes environmental improvement. This is a dynamic and iterative process.

Information-driven improvement: Documentation and reporting under Green Productivity is drawn from management systems that exist for quality and the environment (QMS and EMS respectively). The adage "What gets measured gets done" embodies one of the driving forces of Green Productivity. After establishing a Green Productivity program, performance of an organization would be continuously measured and evaluated using a set of defined GP performance indicators. The integration between what is conventionally termed productivity improvement concepts and environmental protection concepts is most evident here.

Environmental Compliance: Environmental protection traditionally positions compliance as the first step. Legal compliance is one of the most challenging tasks facing industry. The practice of Green Productivity assists through the use of tools and techniques for pollution prevention and source reduction. The more that you focus on greening innovation using Green Productivity, the greater the chance that you will move beyond the law, so that your customers benefit and you find new opportunities in a growing green global marketplace and profit accordingly. To achieve this integration, organizations may need to adopt innovative or advanced management systems. Adoption of green design, practices and green production strategies (whether for agricultural or industrial application) help to integrate productivity improvements with enhancements in performance. 'Advanced systems' do not necessarily mean cutting edge technology or capital intensive equipment, but it does mean a blend of technological and organizational changes within the company



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Implementing GP Program

A typical comprehensive green productivity program has three levels of implementation :

Management Systems and Programs, using ISO14001/ EMS, Total Productive Maintenance, Total Quality Management, Cost Benefit Analysis, Risk Management, Life Cycle Assessment, Flow Charts, Process Diagrams etc.

Green Productivity Techniques, using 3Rs, Housekeeping /5S, Resource Conservation, Product Improvement, Design for Environment, Corporate Environmental Reporting, Environmental Impact Assessment and Audit etc

Green Productivity Tools, using ECO-Mapping, Benchmarking, Control Charts and Check Lists etc.

pollution, change the characteristics of the incoming fuel that will eliminate the need for the scrubbers.

Conclusion

Green Productivity is an umbrella concept covering a hierarchy of improvement opportunities for your business to meet or exceed the needs and expectations of the marketplace. These ever-changing expectations are now embracing good environmental management as a customer demand alongside quality, supply, delivery, technology, health and safety, and cost. Green Productivity attempts to answer society's needs for a better quality of life by increasing through environmentally sound manufacturing practices and management activities. Green Productivity is not just an idea; it is a proven concept. GP offers tried and

tested methodologies to help you enhance profitability. This can enable your organization to achieve competitive advantage. GP demonstrates practical ways of reducing your impact on the environment, which can lead to cost savings and risk reduction providing competitive edge to the business. GP has already proven to be as effective in the board room as it is on the shop floor. It is possible to 'go green' and still run a successful business. In fact, your business can be more successful by 'going green'. If you don't do it voluntarily now, you might in the future have to play 'catch up' as compliance toughen.

- Dr. S K Gupta

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One key element of green productivity – which helps distinguish it from 'simple environmentalism' is the realization that it is necessary to move from attempting to clean up the damage created by a particular process (a so-called 'end of pipe' approach) to focus 'beginning of pipe' and 'all pipe' prevention. For example rather than focus on scrubbers at the top of the smokestack to prevent air



<https://www.uproperties.com/wp-content/uploads/2017/02/Sustainable-Banner.jpg>