

# The natural step report essay



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The Natural Step for Business written by Brian Nattrass and Mary Altomare describes a process called The Natural Step that was developed in Sweden in the late 1980's by a cancer researcher named Karl-Henrik Robert. The process helps businesses by providing them with a structure to follow that will guarantee their sustainability.

Sustainability means giving back to the earth what you take. Following this process business may even reach restorative state, giving back to the earth more than what you take. The book highlights four crucial conditions that businesses must follow on the road to sustainability: “ In the sustainable society, nature is not subject to systematically increasing concentrations of substances extracted from the earth's crust; concentrations of substances produced by society; or degradation by physical means and in that society human needs are met worldwide.” The authors argue that a major flaw with the industrial revolution is its linear design rather than a cyclical one like nature. Industries use up resources then discard the waste.

Nature does not waste because everything follows a cycle that returns all resources back to the environment. The authors urge businesses to act now before the problem becomes irreparable. Two ethical assumptions pointed out in The Natural Step framework follow: “ destroying the future capacity of the Earth to support life is fundamentally wrong” and “ humanity cannot tolerate continual degradation of the environment”. Scientific principles are used to back up and create a better understanding of the values The Natural Step embraces.

The first scientific principle is “ Matter and energy cannot be created or destroyed (according to the first law of thermodynamics and the principle of matter conservation)”. This means that energy never increases or decreases when it transforms into different types of energy. Furthermore matter doesn’t disappear it just changes it’s state. If you’ve ever boiled a couple cups water on a stove to make ramen noodle soup, but then got distracted and forgot about the boiling water, you would notice that some or all of the water disappeared. In fact the water didn’t disappear it just changed form into steam. This is an example of the first scientific principle.

The second scientific principle is “ Matter and energy tend to disperse (according to the second law of thermodynamics)”. Even though according to the first scientific principle energy does not disappear, it does become less useful as it changes form. This is because the energy spreads out and is no longer consolidated. The third scientific principle is “ Material quality can be characterized by the concentration, purity, and structure of matter”. This means, as noted previously, that as material disperses it loses its value and usefulness because value of material and energy come from its cohesiveness.

When the energy or material is used it is broken up and no longer of use. The last principle is “ The net increase in material quality on earth is produced by sun-driven process”. This means that even though material, as stated in the first scientific principle, does not increase or decrease; energy does increase. The sun provides us with more energy everyday. This is evident in plants that use photosynthesis.

The previous conditions and scientific principles lay the groundwork for the Natural step and give organizations an understanding of how sustainability works. This book includes case study's of four companies: IKEA, Scandic Hotels, Interface, and Collins Pine Company, whose goals include sustainability. This helps business's understand how they can follow in these companies footsteps and what challenges they might face and how to deal with them. IKEA was founded by Ingvar Kamprad in Sweden and is the first company to adopt The Natural Step process. Ingvar Kamprad is a man that never liked waste but what really lead the company on the road to sustainability is the bad publicity that erupted over IKEA in the 1980's and early 1990's. The formaldehyde levels of some of IKEA's product exceeded the legal limit in Denmark.

IKEA was sued and fined. What's more the company received negative publicity for this on Danish television. Sales in Denmark took a temporary dip by twenty percent. In Germany, IKEA's largest market, the company was attacked for its use of PVC and packaging waste.

Environmental criticisms were even launched against its catalog but the straw that broke the camels back was when IKEA had to recall a product called the " Billy bookshelf" because its high formaldehyde emissions were exposed by an investigative journalist report and spread to media organizations around the world. This cost the company tens of millions of dollars and from then on Kamprad new that his company would have to be friendlier to the environment if it was to survive. In addition to the scientific principles and the four system conditions IKEA defined eight key concepts to put into practice that include switching to renewable materials and energy,

being efficient, and reusing resources. Once these concepts were defined the company had to train its employees. IKEA thought that the education it provided alone would cause workers to act. They learned that they would have to get more involved to make a change in their employees.

They made adjustments to their plan by providing follow-up education seminars to all employees; providing progress reports of the companies ambition to be sustainable; and increased training for specialists, environmental coordinators, and suppliers. Another problem that arose is when IKEA planned to create a special line of environmentally safe products. Midway through this process IKEA realized to be truly environmentally conscious they would have to adapt all of their products to make them non-intrusive on the environment. One line of environmentally safe products would not do much to help the environment and would be more expensive possibly drawing more attention to the cheaper yet bad-for-the-environment products. For a company that sells a lot of manufactured products the road to sustainability is long and bumpy, but IKEA approached it in steps.

The first step is to make products that are: lead free, cadmium free, no PCP's, no AZO-dyestuffs, formaldehyde limitations, and no PVC. The second step aims to make the manufacturing of the product less harmful to the environment. This means no chlorine bleach and no organic solvents can be used when making a product, heavy metal residue is decreased, and the PH must be between 4.5 and 7.

5. The third step looks at the entire life of the product and how to eliminate its negative effect on the environment. This concentrated mostly on the

reduction of emissions and what to do with the product once its usefulness is up. The fourth step seeks to change raw materials that are used in making a product to organically grown materials. IKEA has learned that it must integrate its environmental philosophy into all areas of its business.

This is why it works with others to adapt its product so that they are sustainable, making sure that the forest which provides seventy-five percent of IKEA's raw materials is sustainable, working with suppliers to become sustainable, minimizing transportation by encouraging telecommuting and looking for environmentally friendly ways to transport goods, and making stores environmentally friendly. Another company Nattross and Altomare looked at in their study of The Natural Step was Scandic Hotels. The event that propelled the Scandinavian hospitality company to move towards sustainability was a recession in the early 1990's. The company was on the verge of bankruptcy and needed to a way to restructure its business to save on costs. The Swedish word " omtanke" describes the core value of the company. It means expressed concern and consideration.

The company extends this value to all of its stakeholders including employees, customers, the community, and environment. To put this value in place the CEO of Scandic, Nilsson, started by contacting environmental organizations to learn more and see if it was possible to change the company. Nilsson realized that it was a long-term goal to become sustainable but that they must act now. He decided that first the company must educate all of its workers on the issue, then support its employees by giving them the tools to make good decisions and take action, next was to follow-up on the employees and see what actions were being taken so they

could perfect the system, and finally to establish minimum environmental standards. Scandic provided their employees with a structure by coming up with specific actions for employees to take.

Scandic believes that by following these courses of action they will improve their standing in the community and eliminate waste therefore decreasing costs and making the company more competitive. Like IKEA, Scandic realizes that their care for the environment must be integrated into every part of their business and their courses of action reflect that. Interface, a carpet tile manufacturer described in chapter six, wants not only to become environmentally sustainable but financially sustainable, and socially sustainable. They believe that these three things are bound together and work hand in hand.

Ray Anderson decided in the 1980's to become a leader in the carpet industry even though it was a relatively new company in a market with large competitors. By 1994 Anderson realized that to achieve this long-term goal they must eliminate waste and protect nature's resources. This is when the company came up with a new long-term goal that would co-exist with the previous goal. " Become the world's first truly sustainable company and the world's first restorative company as well.

" In addition to following The Natural Step, Interface also uses two other programs called QUEST and PLETSUS. QUEST stands for " Quality Utilizing Employee Suggestions and Teamwork". QUEST is a program that measured the environmental progress of the company. PLETSUS stands for " Practices Leading to Sustainability".

It's basically a suggestion box that provides ideas on how to improve the companies standing with the environment. Like the previous companies described, Interface integrates its environmental practices into all of its business operations and understands that education and training of its employees is crucial to obtaining its goals. The company developed seven fronts that include elimination of waste, renewable energy, using efficient transportation, and closing the loop to make the business cyclical like nature rather than linear. Interface expresses these fronts to all of its employees and provides incentives for following them. Fifteen percent of an employee's bonus is conditioned on the company meeting its environmental goals for the year.

The last case study was done on Collins Pine Company, the oldest company of the bunch, founded in 1855. The company is in the timber industry and since it was established the company understood that it must use sustainable forestry methods if it was to continue to be profitable. The core principle of the company is similar to the previous three companies and includes: continuous improvement with respect to the environment, social responsibility, and the nurturing employees to take action. President and CEO of the company, Jim Quinn, first heard about The Natural Step in 1992. He was so excited about it he flew to Sweden to educate himself more on the program. After his trip he immediately developed a program to start training employees on The Natural Step.

Collins Pine adapted the natural step to its company and came up with its own goals. They include: Elimination of waste to landfills, Maximization of renewable energy, Provision of community support, and education and



inspiration of employees. The company then began to adapt its operation systems to reflect its goals. This meant the evaluation of products to ensure their sustainability, measuring their environmental impact, creating environmental standards, and support of its partners in sustainability. The company encouraged recycling among its employees and put in bailers to recycle cardboard, started a water conservation program, and adopted a highway where they were responsible for cleaning up litter.

The book describes five things common in all four companies in their effort to become sustainable: Knowledge and education of employees on their environmental impact, setting goals, measuring goals, creating environmental standards, and integrating these to all parts of the company. These things are crucial for companies to understand if they want sustainability to be in their future.