

## **The Eco-Municipality Model for Sustainable Community Change** ***A systems approach to creating sustainable communities***

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### **What is an “Eco-municipality”?**

An *eco-municipality* aspires to develop an ecologically, economically, and socially healthy community for the long term, using the Natural Step framework for sustainability as a guide, and a democratic, highly participative development process as the method. An eco-municipality becomes the driving force for involving citizens and sectors of the larger community in the change process toward becoming a sustainable community. An eco-municipality collaborates with other communities regionally, nationally, and internationally both to learn from others and assist others in their change processes. An *eco-region* consists of several eco-municipalities in the same region working together toward these objectives.

The concept originated in Sweden in 1983 with the founding of the first such community, Övertorneå. That pilot project in a northern rural town of 5,000 was such a success that it sparked what today has become a network of more than 70 eco-municipalities across Sweden, ranging from villages of 300-400 residents, to the capital city of Stockholm, with a population of several hundred thousand.

Now Sweden is in the process of sharing the eco-municipality concept with other parts of the world, such as the United States, Japan, Uganda, New Zealand, Estonia and Argentina. An internationally-funded demonstration project – Sustainable Robertsfors, led by Torbjörn Lahti – is in the third year of operation, to show how to implement the eco-municipality model in a five-year period. This model has been designed to be applicable to municipalities of any size in any location or country.

### **What is different about this model?**

Many communities in the United States and around the world have initiated and are carrying out sustainable development projects. Green building programs, affordable housing, open space preservation, recycling, climate change initiatives, and smart growth initiatives are just a few of these. While these initiatives have made progress toward sustainable goals, they largely are occurring on a project-by-project or issue-oriented basis. Frequently these efforts, as laudable as they are, are unconnected and unintegrated throughout municipal governments and the larger communities. In contrast to this “silo approach” to sustainable development, the eco-municipality model uses a *systems approach*. Key ingredients of this systems approach are widespread community awareness-raising and integrated municipal involvement, using a common “sustainability language” based upon the Natural Step framework. Using this common language brings about a shared understanding of what sustainability means

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<sup>1</sup> For more about the Natural Step, see <http://www.naturalstep.org/com/nyStart/> or <http://www.naturalstep.ca/>

and how to achieve this throughout all sectors of municipal government and the wider community. The likelihood of conflict and competition among resulting actions is therefore minimized, since all sectors are using same “sustainability playing rules.”

### **The Natural Step approach to sustainability**

The Natural Step approach to sustainability was developed by a group of international scientists in Sweden, led by pediatric cancer researcher Dr. Karl-Henrik Robèrt, during the late 1980s. The Natural Step approach involves the use of a clear framework of sustainability principles based upon science and natural law, coupled with a four-step strategic change process (see first sidebar). Businesses and communities around the world are using this approach to reorient their practices toward sustainable directions. The guiding objectives of the American Planning Association’s *Planning for Sustainability* policy are based upon The Natural Step framework (see second sidebar).

Comprised of a set of four guiding principles, the Natural Step framework describes how we can develop our individual lives, our society, and our economic enterprises in a way that restores and replenishes the Earth’s life supporting resources, rather than depleting or destroying them. In other words, these four principles provide a set of rules for how we can create both short-term and long-term prosperity and health or sustainability in our society.

These principles, based on natural science, can be interpreted more practically as guiding objectives for how we design, develop and manage our communities.

#### **The Natural Step system conditions for a sustainable society**

***In the sustainable society, nature is not subject to systematically increasing***

***1. ... concentrations of substances extracted from the Earth’s crust (such as heavy metals, fossil fuels, etc.)***

***2. ... concentrations of substances produced by society (such as plastics, toxic chemicals, etc.)***

***3. ... degradation by physical means (such as via erosion, or rapid depletion of unique ecosystems, etc.)***

***And in that society...***

***4. people are not subject to conditions that systematically undermine their capacity to meet their needs.***

And the third and final key tool that is used in developing an eco-municipality is the “Compass” method, comprised of four steps:

**1. Learn and understand the Earth’s game rules**

– i.e., The Natural Step Framework and what it means for meeting human needs within nature’s limits.

**2. See where we are**

Ask ourselves, “To what extent are we living within the boundaries defined by The Natural Step guiding principles or guiding objectives?”

**3. Take a bearing**

We envision the future we want – a future in which we can enjoy wellbeing without contributing to injustice or environmental problems.

**4. Find a smart route**

We make plans on the basis of the vision we have created, and take well-measured strides on the right road, which may be crooked, but which leads to the right goal.

**Guiding Objectives For A Sustainable Society, Based On The Natural Step Framework**

**Develop Policies And Practices That Ultimately:**

1. Reduce dependence upon fossil fuels, extracted underground metals and minerals.
2. Reduce dependence on chemicals and other manufactured substances that can accumulate in Nature.
3. Reduce dependence on activities that harm life-sustaining ecosystems.
4. Meet the hierarchy of present and future human needs fairly and efficiently.

*Objectives of American Planning Association’s Strategy for Planning for Sustainability, adopted April 2000.*

**Track record of success**

Communities ranging from small villages of 300 people to urban centers of over 700,000 have officially become eco-municipalities by adopting a common set of sustainability objectives as official municipal guiding policy and implementing these widely throughout their governments and larger communities. Over seventy municipalities in Sweden are official eco-municipalities and have formed a national association of eco-municipalities that assist each other and work to influence national policy. They have educated thousands of municipal employees and citizens about what sustainability means and why it is important so that they have the opportunity to contribute to the process.

In Swedish eco-municipalities community recycling rates have shot up, in some cases as high as 90 percent of all solid waste. Some of these municipalities have reduced fossil fuel use by 40 percent or more in just five years. One town of 5,000 inhabitants has been almost 100 percent free of fossil fuels for all of its municipal operations since 2001. Depressed communities have used this process to bring about economic and social revitalization in an ecological way. New democratic processes have focused on involving more citizens in municipal and civic affairs. The eco-municipalities demonstrate that the model can work in almost any community regardless of size, geography, or circumstances.

Canada has implemented a similar systems approach. Over the past three years, The Natural Step in Canada has pioneered award-winning work in sustainable communities with world-class results. The resort community of Whistler, British Columbia, recently was awarded first place in a United Nations endorsed international competition for its long-term comprehensive sustainability plan, “Whistler 2020”. The Natural Step Canada also has conducted community sustainability training and capacity building programs with a variety of other communities including Canmore, Wolfville, Halifax and Yukon, as well as with the Federation of Canadian Municipalities. The team has developed a range of tools and materials to build capacity in communities committed to long-term sustainability.

### **Who is involved?**

Modeled after the established Swedish eco-municipality effort, a strong and growing network of individuals and organizations supporting emerging eco-municipality efforts in the United States has formed the “North American Eco-Municipality Network” (the “Network”).

The Network includes academic institutions, nonprofit organizations at the local, state, national and international level, as well as local government representatives with a broad range of expertise to share with one another.

The Network includes representatives from SEkom (National Association of Swedish Eco-Municipalities), The Natural Step International, The Natural Step Canada, Tufts University, the Wisconsin Chapter of the American Planning Association, University of Wisconsin Extension, Sustain Dane, Alliance for Sustainability, University of Wisconsin – Superior, Sustainable Lawrence, Vandergrift Improvement Program, Sustainable Pittsburgh, Portsmouth (NH) Listens and Sustainable Sweden Association.

The North American Eco-Municipality Network was formed at a gathering of representatives from several organizations and emerging eco-municipalities in Madison, Wisconsin in June 2005 in order to support and connect communities that are interested in becoming sustainable using this model. The group has set up a listserv to exchange information and resources and has held teleconferences to discuss the further development of the Network, best practices and share updates about eco-municipality development.