



# **International Best Practice and Innovation: Strategically Harvesting Environmental Lessons from Abroad**

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**The views expressed in this article are those of the authors, and do not necessarily  
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## About the Authors

**Dale Medearis**, Office of International Affairs, coordinates the EPA's international urban environmental programs with particular emphasis on how U.S. cities and states can learn from OECD-member countries about sustainable land-use, urban watershed management, "green" buildings, brownfields, transportation and smart growth policies.

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# 1 Preface

This is a time of tension between the US and a number of allies over issues ranging from climate change and Kyoto Protocol, genetically modified crops and food chain security, or Iraq to the role of science in policy-making, the International Criminal Court, or the use of hormones in food. Progress is difficult on some of these issues, in spite of considerable efforts on both sides of the Atlantic.

"Policy learning", the exchange of experience about practical aspects of policy-making and implementation, provides a way out of gridlock. Whenever practitioners come together to tell their stories and listen to those of their counterparts from other nations, the focus shifts to actual decision-making challenges, and the most immediately beneficial ideas are selected for adaptation and possible adoption. The harvesting of policy solutions builds on positive and negative experiences and is based on evidence. This works best at state, regional and local levels, and with non-governmental actors in business, religious institutions, universities and such like, where results matter more than positions.

In processes of transnational policy learning, it is important to focus on the right examples, the useful lessons, which can be assured through appropriate scoping and facilitation techniques, and through a wise selection of participants, sources, and case studies. Ecologic has long had a strong role in drawing and disseminating policy lessons and managing policy learning processes, in a number of issue areas and constellations. In Germany, the Länder (states) act as laboratories for solution in policy instrument design and implementation, and provide a competitive setting for innovations in environmental policy. The Member States of the European Union build harmonizing policies on exchanges about problem definition and policy approaches, and policy learning plays an important part also in the implementation of European legislation.

Ecologic also facilitates the dissemination and diffusion of policy lessons across the Atlantic, with similar levels of development, administrative capacities, popular pressures to reform policies and protect the environment as a common heritage. We thus contribute to the improvement of transatlantic relations as well as environmental policy and the integration of environmental protection requirements into other policy areas.

We are grateful to Dale Medearis and Brian Swett for their commitment of international exchanges and their dedication to bring policy solutions to the broader attention. Their contribution is an eloquent plea for the recognition of similarities in environmental challenges and approaches to solving them. This paper on international best practices and innovation in environmental policy is a case for developing a strategic approach and possible an institutional framework for harvesting solutions and applying them wherever they may be beneficial. It is published on our web site in the hope that it may stimulate further fruitful dialogues and debates, and that it may encourage wider participation the contribution of fruitful ideas to solve problems we have in common.

R. Andreas Kraemer  
Director, Ecologic  
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## **2 Introduction**

As state and local governments in the U.S. respond to demanding and complex environmental challenges such as urban sprawl, non-point source pollution, brownfields, and degraded water infrastructure, environmental policies and best practices from overseas are serving as important models. The reasons are clear -- countries such as Germany, the Netherlands, Sweden, Denmark, and Australia have addressed similar environmental challenges by developing and implementing creative and often highly successful solutions. The policies of other Organization for Economic Cooperation and Development (OECD)-member countries have helped promote low-impact development to manage stormwater, constructed wetlands to treat wastewater, "green" buildings and renewable energy to address climate change and air pollution, and industrial ecology to support pollution prevention and brownfields revitalization.

In these countries, creative state and local governments have led the way in the development of these innovative policies and projects, which are environmentally sound and economically practical. As they plan new initiatives, projects, and policies, and seek new and different approaches to existing challenges, environmental officials and policy makers in states such as California, Connecticut, Florida, Illinois, Maryland, Massachusetts, Michigan, Minnesota, New Jersey, New York, Oregon, Rhode Island, Virginia, and Wisconsin, are looking across the Atlantic -- and often beyond -- to observe and integrate these international lessons learned. International state-to-state and peer-to-peer environmental partnerships are growing. Through these mechanisms for transferring lessons learned, U.S. states and cities are developing new, concrete ideas that produce projects and policies with environmental and economic benefits.

## **3 Adding a New Paradigm in International Environmental Activities**

The adaptation of international best practices and innovation in environmental policies represents an important and powerful paradigm shift -- from one of exporting environmental expertise and dollars, to one of importing best practices from around the globe. While the former is most often perceived as humanitarian aid and an overall cost to participating agencies, the latter results in concrete, domestic environmental, economic, and social benefits. The results thus far have been clear: small investments in this paradigm shift result in powerful returns -- an ever-present concern in today's era of tight fiscal budgets.

## **4 Why We Can Learn From Abroad**

There are three primary factors why U.S. states and cities can and do adapt lessons learned from innovative environmental policies in European Union (EU) and OECD-member countries: 1) similar socio-economic profiles; 2) similar environmental, economic, and social pressures to develop sustainable policies; and, 3) more environmentally efficient use of resources in certain areas in many of these countries. While there are lessons to be learned from all parts of the world, for these reasons, OECD-member countries offer particularly fertile ground for harvesting lessons learned.

In many EU and OECD-member countries, it is common to find highly developed economies, democratic political structures, informed citizens, and strong environmental institutions with comparable environmental standards. Thus, while there are certainly different environmental legal regimes across these countries, best practices and innovation in planning and development policy, new technologies, voluntary approaches, and pilot projects are often highly transferable.

In addition to the relative ease of transferring and applying lessons learned, these countries face environmental and economic challenges similar to those in the United States. Dense populations and resource and land constraints have compelled countries like Germany, Japan, the Netherlands and Denmark to develop urban policies characterized by emphasis on low-impact development and integrated land-use and transportation planning. The same land-use and urban environmental policies are reflected in these countries' creative brown-fields redevelopment, renewable energy, and industrial ecology programs. For example, it is now national policy in Germany to support reductions in urban land consumption from a national rate of 129 hectares per day to 30 hectares by 2020.<sup>1</sup>

Given certain social, political, and environmental pressures, many OECD-member countries are known for their environmental efficiency in particular areas including transportation, economic and business practices, and resource use. For example, roughly 10-20% of urban trips in Western Europe are on public transit, while only 2% of urban trips are in the United States.<sup>2</sup> The Netherlands, a nation with 15 million people living in the same amount of space as New Jersey, has a per capita rate of municipal waste recycling approximately fifty percent higher than that in the United States.<sup>3</sup> Water use per capita in the United States is nearly double the OECD average and more than seven times higher than that in Denmark and the United Kingdom.<sup>4</sup> Lessons learned from more environmentally efficient countries can help U.S. environmental policy-makers adopt policies and practices that will help reduce stresses on their own environments.

## **5 Examples of International Innovation for Harvesting Lessons Learned**

Now more than ever, U.S. states and communities are poised to import innovative environmental lessons from other countries in order to address the most pressing environmental challenges in the U.S.

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<sup>1</sup> The German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, *Common Ground*, Berlin, Germany, March, 2001, page 4.

<sup>2</sup> Transportation Research Board, *Making Transit Work: Insight from Western Europe, Canada, and the United States (Special Report 257)* (Washington, DC: National Academy Press, 2001), p. 28.

<sup>3</sup> Organization for Economic Cooperation and Development "OECD Environmental Indicators: Towards Sustainable Development, Paris, 2001, page 38.

<sup>4</sup> Organization for Economic Cooperation and Development "OECD Environmental Indicators: Towards Sustainable Development, Paris, 2001, page 121.

## 5.1 Brownfields

Brownfields redevelopment in the United States is frequently suppressed because of a lack of environmental restrictions on urban and suburban sprawl development, creating an uneven playing field between greenfields and brownfields. In many European countries, a variety of policy tools to address sprawl development and promote brownfields revitalization have been successfully developed and applied. In the Netherlands, national spatial planning policies, such as the "ABC Policy," integrate land-use and transportation planning and have been successful at restraining sprawl and promoting compact urban form. This has inspired transportation and housing planning in cities such as Groningen, where approximately 50 percent of inner-city travel is by bicycle.<sup>5</sup> Brownfields development in Europe has also been strengthened by the inclusion of international design competitions which often foster creation of "green" buildings, redeveloped open-spaces and landscapes, and preservation of historic structures and buildings.

## 5.2 Air

The cache of innovative smart growth policy tools common in many OECD-member countries also has preserved open space, supported urban forests, and created greenbelts around many cities -- especially in Europe. Greenspace planning in Stuttgart, Germany, and in Stockholm, Sweden, is linked into sophisticated networks of "green" air corridors designed to mitigate the negative effects of urban heat islands and to reduce air pollutants. In 2001, to address urban heat island effects, the metropolitan government of Tokyo enacted a law requiring all new or reconstructed buildings, public and private, located on plots of 1,000 square meters or more, to plant "green" rooftops on at least 20 percent of their roof space.<sup>6</sup> Air pollution in Europe is also being addressed through devoting significant resources to public transportation. In France and England, nearly 40 to 60 percent of spending for transportation is devoted to passenger railroads and mass transit systems.<sup>7</sup>

## 5.3 Water

EU-member and OECD-member countries also have demonstrated innovation in the realm of watershed management and water infrastructure. In the 1950s, twenty years before the U.S., Germany was beginning to research the treatment and cost efficiencies of constructed wetlands and demonstrate how constructed wetlands could serve as a viable alternative to conventional water treatment processes. Moreover, UV treatment of drinking water, rather than chlorine, is commonly applied in France and Germany. Australia is a global leader in

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<sup>5</sup> Beatley, Timothy. *Green Urbanism: Learning From European Cities*, Island Press, 2000, page 167.

<sup>6</sup> "Tokyo Gives Thumbs-Up to Green Rooftop Metropolis," Asahi News Service, January 9, 2001 and Brooks, James. "'Heat Island' Tokyo Is in Global Warming's Vanguard," *New York Times*, August 12, 2002.

<sup>7</sup> Nivola, Pietro. *Laws of the Landscape: How Policies Shape Cities in Europe and America*. Brookings Institute Press, Page 29.

total asset based management in water infrastructure, and has developed several ambitious, state-level water demand management policies and programs. In 2000, the state of New South Wales cancelled plans for a major dam and instead set legally binding requirements and operating licenses for Sydney Water to reduce water demand by 35 percent from 1991 levels by 2011.<sup>8</sup>

#### 5.4 Success Stories – States

A number of U.S. states are increasingly looking overseas for creative solutions to some of their most pressing environmental, economic, and social challenges. In June 2002, Maryland and the German state of Schleswig-Holstein established a state-to-state environmental partnership with an agreement to work collaboratively on exchanging information, data, and technical experts on the subjects of smart growth, green buildings, and renewable energy. Already, this partnership is bearing fruit -- Maryland is now pursuing the development of two wind farms. This current relationship builds on Maryland's successful history of adapting best practices from abroad. In a letter to Senator Barbara Mikulski in 1999 about Maryland's benefits from the Environmental Transatlantic Exchange Program focused on regional responses to the issue of sustainable development, Jane Nishida, then Secretary of Maryland's Department of Environment wrote: "We are writing to draw your attention to the success of an international environmental exchange program that includes several participants from the state of Maryland...As members of the Maryland delegation to this exchange, we have witnessed first hand how valuable such cross-fertilization is to our efforts to promote "smart growth" in our own state as well as the other participating states (New Jersey and Minnesota) and abroad."<sup>9</sup>

As a result of several peer-to-peer technical exchanges among brownfields and state planners in New Jersey and Germany, New Jersey's state plan for brownfields redevelopment has been directly modeled after regional land-use planning used in the Ruhr Valley. Moreover, New Jersey's pollution prevention efforts have drawn directly from the model of the Dutch "covenants." In 1995, shortly after two trips to the Netherlands by New Jersey government, business, and NGO representatives, then- Governor Christine Todd Whitman formed the Green and Gold Task Force to explore how the Dutch model could be applied in the state.<sup>10</sup> Continuing this strong relationship, New Jersey and the Netherlands in 1998

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<sup>8</sup> White, S.B. (2001) Demand Management and Integrated Resource Planning in Australia presented at Efficient Use and Management of Water for Urban Supply. 21-23 May 2001, Madrid: [http://www.isf.uts.edu.au/publications/SW\\_2001%20doc.pdf](http://www.isf.uts.edu.au/publications/SW_2001%20doc.pdf) and Nature Conservation Council of New South Wales, Australia: <http://www.nccnsw.org.au/member/ggw/projects/GreenIssues/wc.html>

<sup>9</sup> Letter to Senator Barbara Mikulski from Jane Nishida, Secretary of Maryland Department of the Environment, Jay Sherman, Chesapeake Bay Foundation, and Bill Struever, President of Struever Bros. Eccles & Rouse, January 29, 1999.

<sup>10</sup> Case Study: New Jersey: Learning from the Dutch Model, Resource Renewal Institute: [www.rri.org/envatlas/nam/usa/nj/nj-index.html](http://www.rri.org/envatlas/nam/usa/nj/nj-index.html).

signed a landmark agreement to work collaboratively on regional solutions to climate change.<sup>11</sup>

## 5.5 Success Stories – Regional and Local Level

At the regional and local level, adaptation of innovative practices from abroad is equally evident. The Northern Virginia Regional Commission and the Verband Region Stuttgart initiated the first international region-to-region partnership in February 1999. As a direct result of their international partnership and exchange with the Verband Region in Stuttgart, Germany, the Virginia State Legislature passed a bill in Spring 2002 initiating a GIS project for the purpose of sharing air flow mapping and health data. Northern Virginia Regional Commission Executive Director G. Mark Gibb wrote EPA: "This is just one of many useful ideas that are being discussed and implemented in Northern Virginia as a result of our eight-day trip in the summer of 2000. Other localities are implementing rooftop gardens, car sharing, new traffic calming techniques, open space planning, and town modeling as a result of our trip and information exchange. I think it is important to know that our international partnership is paying back with both interest and dividends."<sup>12</sup>

Numerous municipalities are also adapting innovative programs and practices from overseas. Portland, Oregon is adapting climate protection strategies from Stockholm, Sweden and Copenhagen, Denmark. Car sharing programs in Seattle, Chicago, Denver, New York, Washington, Portland, and Boston are being inspired by Germany and Switzerland. Brownfields redevelopment in Lawrence, Massachusetts and Bridgeport, Connecticut has followed the UK "Groundwork" model, and the 197-a plan for waterfront revitalization and brownfields redevelopment in New York City's Greenpoint/Williamsburg neighborhood has drawn from Duisburg, Germany. Cape Charles, Virginia's concepts of ecological industrial parks are taken from Kalundborg, Denmark, and "green" rooftops in Chicago emanated straight from its sister-city, Hamburg, Germany. The Cape Charles Industrial Park also exemplifies the international investment and business ramifications of such efforts: two of the park's major residents are a German wind energy turbine manufacturer and a Swiss photovoltaic firm. These examples of state, region, and city international collaboration and harvesting of lessons learned are but a sampling of the multitude of success stories from across the country. The conclusion of all these stories is the same: a small investment in learning from and adapting international best practices pays back many fold -- environmentally, economically, and socially.

## 6 Tools and Resources to Harvest Innovation

Financial and logistical support from a growing number of national and even local community foundations is available to states and cities that are endeavoring to reach out and learn internationally. State and local governments who have successfully adapted international

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<sup>11</sup> Ibid

<sup>12</sup> Letter to Dale Medearis, EPA from G. Mark Gibb, Executive Director, Northern Virginia Regional Commission, April 3, 2002.



lessons have found it easiest to justify spending taxpayer dollars for international projects that clearly demonstrated domestic benefits. National and community foundations also have found it easiest to justify working in an international context when there are clear domestic benefits. EPA's own experiences have supported this: for nearly every dollar spent by EPA in support of international lessons learned, approximately three dollars from private foundations, state or national governmental agencies, and even international organizations was leveraged. Even private corporations, such as the energy, waste, and water services company Suez, recognize the importance of learning from the policies of other countries and facilitate trips to sites of best practices for state and municipal officials. Global NGOs, such as the International Council for Local Environmental Initiatives<sup>13</sup>, and international governmental organizations, such as the European Commission's LIFE-Environment program<sup>14</sup> and UN-Habitat's Best Practices Database<sup>15</sup>, have extensive libraries of case studies and other information available to local authorities eager to look globally for best practices and successful innovation.

U.S. EPA and the Ministry of the Environment of Ontario, Canada are also each working to facilitate the harvesting of international lessons learned in best practices and innovation by federal, state, regional, and local officials. U.S. EPA is currently exploring how to best promote and support strategically harvesting international lessons learned across all levels of government. The U.S. EPA's National Center for Environmental Innovation website now contains an international innovation section that outlines various mechanisms for learning from abroad and provides a variety of information sources and success stories.<sup>16</sup> The Ontario Ministry of the Environment's Research and Best Practices Section is undertaking a similar effort to identify, track and analyze the domestic applicability of international best practices, initially focusing on the areas of voluntary environmental initiatives, incentive programs, reporting and monitoring, and place-based planning. The Ministry is dedicating FOUR full-time staff to this effort, a clear indication of the profound potential and benefit seen in harvesting international lessons learned. Hopefully the success of these efforts will lead to similar initiatives in other provinces, states, regions, and federal agencies.

## **7 Next Steps – A New Generation of Harvesting**

The universe of issues for harvesting environmental best practices and innovation is practically endless. The next generation of harvesting international innovation could start with analysis of emissions trading, tax incentives, standards setting (especially drinking water standards), forestry management, corporate environmental stewardship, or comparative risk. Successful harvesting of the international library of innovation simply requires matching domestic needs with the appropriate global leaders and innovators in that area.

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<sup>13</sup> <http://www.iclei.org/>

<sup>14</sup> <http://europa.eu.int/comm/environment/life/home.htm>

<sup>15</sup> <http://www.bestpractices.org/>

<sup>16</sup> <http://www.epa.gov/innovation/links/international.htm>

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## 8 Conclusion

The prevailing paradigm on international environmental activities is undoubtedly shifting. The tremendous benefits of importing lessons learned in best practices from around the globe are undeniable. The United States does not have a monopoly on solutions to environmental problems, and it is beneficial to all parties to share successes. As states like Maryland, New Jersey, and others have demonstrated, looking overseas for innovation will invariably be rewarded with new approaches and policies to environmental protection that are cost-effective, practical and sustainable. To reiterate the words of Northern Virginia Regional Commission Executive Director G. Mark Gibb, sharing and harvesting lessons learned in best practices abroad pays back "with both interest and dividends."<sup>17</sup>

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<sup>17</sup> Letter to Dale Medearis, EPA from G. Mark Gibb, Executive Director, Northern Virginia Regional Commission, April 3, 2002.