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The Great Lakes Environmental Finance Center (GLEFC) is one of six university-based, environmental finance centers established by the U.S. Environmental Protection Agency. The GLEFC's primary mission is to help state and local governments and private sector organizations devise effective financing strategies for environmental improvement projects. Cross-sector collaboration and strategic partnering activities are at the core of the center's two focused areas of activities: brownfield site cleanup and redevelopment and industrial pollution prevention financing.

Cross-sector Collaboration: The Great Lakes Environmental Finance Center

Colleges and universities have many valuable resources that prepare them to assume challenging new roles in economic and community development in today's ever-changing world. Staff of Cleveland State University's Maxine Goodman Levin College of Urban Affairs maintain an open mind toward new ways in which they can advance society's social and economic goals.

For one, the university's culture makes it receptive to diverse issues and ideas. This is a strength in bringing together stakeholders with differing interests to solve a common problem. A second strength is the wide range of technical skills and knowledge based on campus, a repository of skills that are valuable to more specialized external organizations attempting to solve complex community problems. Finally, the university world thirsts for new ideas, which causes its researchers to think beyond today to visualize what tomorrow may hold.

These three assets, coupled with a willingness to negotiate and collaborate with others, can open many doors for universities to increase their contribution to social and economic problem-solving.

Strategic partnering and collaboration have been inherent part of the college's organizational culture since its founding in 1977. For example, the college played a major role in the establishment of the Ohio Urban University Program (OUUP) in 1979, which now includes eight universities located in Ohio's major urban centers and which has gained national recognition. The OUUP's mission is to apply the resources of urban universities to urban problems and to propose solutions designed to enhance the vitality of Ohio's urban regions and distressed central cities.

On a national level, the Levin College works closely with universities affiliated with the Urban Affairs Association (UAA), is the international professional organization for urban scholars, researchers, and public service providers. UAA's membership attests to its collaborative nature; members come from colleges and universities as well as from the private and nonprofit sectors and all levels of government.

Many of the college's faculty and professional staff members hold leadership positions with eminent national professional associations and public policy institutes concerned with urban development. These contacts have allowed the college to build collaborative working relationships with practitioners and policymakers nationally and internationally. In addition to UAA, collaborators include the American Economic Development Council, American Planning Association, American Public Works Association, Lincoln Land Institute, National Association of Schools of Public Affairs and Administration, the National Council for Urban Economic Development, and the North-east-Midwest Institute. The college is also home to two nationally recognized journals, *Economic Development Quarterly* and *Public Works Management and Policy*.

The college's Great Lakes Environmental Finance Center (GLEFC) illustrates how a metropolitan university can use collaborative relationships with its peers, clients, and other stakeholders to contribute to effective real-world problem-solving. Collaborative strategies are especially important in the field of environmental policy, which is highly interdisciplinary in nature.

What is the Great Lakes Environmental Finance Center?

The Great Lakes Environmental Finance Center was established in May 1995 by the United States Environmental Protection Agency (USEPA). It is based within the Urban Center of Cleveland State University's Levin College of Urban Affairs and serves public and private sector clients in the six states included in USEPA's Region 5.

The Urban Center serves as the outreach and research arm of Levin College. The Center employs about 30 full-time professionals, actively involves the college's academic faculty and students in a wide variety of client problem-solving assignments, and provides an ongoing institutional base for existing and new initiatives started by the college. Ongoing funding from the Ohio Urban University Program makes it possible to seed the start-up and operation of the Urban Center's many programs and initiatives.

GLEFC is part of a national network of six environmental finance centers established by USEPA across the country. Each center contributes in specific ways to EPA's national mission of helping communities, states, and private organizations to acquire the financial resources required to achieve environmental compliance.

The Environmental Finance Center Network

USEPA envisioned a national network of environmental finance centers serving each of the federal government's ten regions. At present, the network comprises six centers. USEPA's Environmental Finance Program has helped establish the centers and works with them to set priorities and coordinate and plan work activities. The EPA provided seed funding in 1992 for the first center at the New Mexico Engineering Research Institute at the University of New Mexico (EPA Region 6). Soon thereafter centers were established at the University of Maryland (EPA Region 3) and the Maxwell School at Syracuse University (EPA Region 2). The center at California State University at Hayward (EPA Region 9) was established in 1994, and the last two centers were added in 1995, one at Cleveland State University (EPA Region 5) and one at Boise State University in an alliance with the University of Idaho and Idaho State University (EPA Region 10).

The Environmental Finance Centers' (EFC) central goal is to help public and private sector organizations improve the quality and performance of sustainable environmental management programs. Sustainable programs have the financial, technical, and institutional resources and capabilities to operate in compliance with environmental requirements. Basically, the EFCs provide financial training and education, technical assistance, and research services focused on the "how to pay" issues of environmental compliance. The EFCs' financial outreach services identify strategies to avoid costs (pollution prevention), lower and shift costs, and increase private sector investment in environmental facilities. Within this general framework, each of the centers

tackles the leading environmental finance issues relevant to its service region.

Each EFC has developed its own outreach strategy to identify public service needs and opportunities. In most cases, the centers collaborate with other universities, state and local governments, community groups, local economic development groups, and other resource organizations. Collaboration is also growing among the six existing EFCs, which meet several times each year to coordinate, share, and leverage their work efforts.

Great Lakes Environmental Finance Center Activities

The GLEFC's primary mission is to assist state and local governments and private sector organizations to devise effective financing strategies for environmental improvement projects. The center is accomplishing its mission by providing high-quality technical assistance and training to various clients. The public sector is the main audience for our services; however, much of the work also involves collaboration with banks, insurance companies, environmental consultants, and other private sector businesses serving the environmental industry. Collaboration is central to our success.

Within the university, GLEFC interacts with other programs in the Urban Center, such as the Economic Development Program and the Center's Public Finance Group. It also works with faculty members from the Levin College on specific projects, and it employs several graduate students, providing them with an opportunity to gain real-world professional experience in solving environmental financing problems.

During the first 18 months of operation, our attention has been focused on two distinct environmental priorities: (1) brownfield site cleanup and redevelopment; and (2) industrial pollution prevention financing. A description of these two efforts follows, with a special emphasis on cross-sector collaborations and strategic partnering activities.

Brownfield Cleanup and Redevelopment

A "brownfield" is a property with known or suspected environmental contamination problems. Earlier manufacturing operations caused these contamination problems in many cities across the country, and many brownfield sites were created by former defense facilities that dumped toxic chemicals. USEPA estimates that nearly 500,000 brownfield sites exist nationally, and their presence poses a threat to public

health and reduces the quality of the natural environment. Moreover, the idle sites reduce the competitiveness of inner-city real estate markets, and cause businesses and residents to relocate to suburban and exurban locations where clean land is more readily available.

Brownfield cleanup and redevelopment programs across the country are helping communities to overcome the major legal liability, financial, site cleanup, site assembly, and future use planning issues that hamper the productive reuse of these properties if left unsolved. Cities must tackle these site-specific issues, while also providing coordinated solutions to surrounding area public safety, traffic congestion, conflicting land use, and poor neighborhood image problems. This is a tall order for most cities concerned about regaining competitiveness for future economic and community development opportunities.

Cross-Sector Collaboration

The center works closely with various national and local resource groups in providing services to its clients. Many of the center's clients are a part of USEPA's National Brownfield Pilot City Program, which includes nearly 100 community-based projects across the country designed to promote the cleanup and reuse of contaminated sites. USEPA refers communities to GLEFC for assessment and service, and GLEFC uses the EFCs in Maryland, California, and New Mexico to undertake research and provide training that will help local communities become more successful in converting brownfields into usable and desirable real estate.

GLEFC has collaborated with the Urban Land Institute, the Lincoln Institute for Land Policy, and the National Council for Urban Economic Development in undertaking research and training for practitioners and policymakers working with brownfields. The center's staff has prepared articles for these organizations' professional journals, given presentations on brownfield finance and marketing at national and regional conferences, and advised their members on financing techniques and resources.

The center conducts research on issues considered important by community and state leaders. Its recent report on the supply and demand for brownfields in six Great Lakes cities (Cleveland, Indianapolis, Milwaukee, Minneapolis, Detroit, and Chicago) received considerable national attention from the media, government leaders, business groups, and others interested in how to market these sites once cleaned up. Several presentations have been made to national conferences and seminars at-

tended by practitioners and academic researchers. GLEFC is using the methodology developed in its research to assess real estate market conditions in those cities where it is currently doing strategy work.

GLEFC's Community Brownfield Financial Strategy Service

GLEFC has developed unique expertise in helping communities develop and implement cost-effective strategies to fund the cleanup and redevelopment of brownfields. In partnership with USEPA, the center created the Community Brownfield Financial Strategy Service, which uses advisory teams of national experts in brownfield remediation, finance, marketing, engineering, and economic development to help community officials devise financial and marketing strategies for specific sites. Work is underway in Elkhart, Indiana, Cleveland, Ohio, and several other Midwestern communities requesting the center's assistance with financial strategy development.

For example, GLEFC is helping city officials in Elkhart to prepare redevelopment strategies for two sites located in the downtown area: the Wilt's Supermarket site and the East Bank site. GLEFC organized an expert advisory team comprised of a banker, an industrial real estate developer, and an economic developer to advise the city on how to finance and market the two properties. The team also provided guidance on how to structure an effective overall approach to addressing brownfields in redevelopment.

The first site is a former 40,000-square-foot supermarket, built in the 1950s on an illegal dump site. The property was abandoned 8-10 years ago, but has contamination problems caused by the earlier dump and leaking electrical transformers used at one time in the building. The site is located in an established commercial area adjacent to downtown. Because of its convenient location, the city expressed an interest in exploring feasible future uses of the property, once cleanup is completed. GLEFC helped to identify the candidate's future retail uses, and how the city could best invest its limited public funds to stimulate future private investment in the project.

The second site, occupied by several former industrial plants that were abandoned and torn down about 15 years ago, is located on the Elkhart River and is a part of downtown Elkhart. The site has excellent advantages for recreational use, given its location near the scenic river and its nearness to the central business district. Contamination problems have been partially identified, but more detailed investigation will be required. GLEFC designed strategies that the city could follow to fund the cleanup and redevelopment of the site as a mixed-use commercial and recreation area, and

also advised the city on how to invest public funds to make the project attractive to private developers and investors.

The actual site visit took two days to complete. Participants from the city of Elkhart included the mayor, the director and assistant director of the Department for Planning and Development, the director and assistant director of the Department of Public Works, the assistant director of the Department of Community Development, and the controller. The experts included a banker, an economic development specialist, and an industrial real-estate developer. Two other GLEFC staff members participated as process facilitators. Because of Elkhart's nearness to the University of Notre Dame in South Bend, two environmental engineering faculty members from that university were included on the Local Resource Committee to assist with project implementation.

A project report was prepared and delivered to the city, which is working on the implementation of GLEFC's recommendations. GLEFC will remain available to the city of Elkhart for further consultation as needed.

This project is typical of the technical assistance offered by GLEFC to public and private sector clients. The use of highly skilled technical advisors ensures that high-quality redevelopment ideas are generated during the site visit, and the center's follow-up is helpful in keeping project implementation on track.

Industrial Pollution Prevention

The GLEFC received a two-year grant from the USEPA's Division of Pollution Prevention to identify barriers to pollution prevention financing and recommend ways to stimulate more pollution prevention activities by integrating it with community-based economic development. Specifically, the objectives of the grant were:

- Identify the barriers to small-business lending in general and environmentally-sensitive businesses in particular, as well as to understand the changes in capital markets affecting small-business lending;
- Inventory existing financing programs for pollution prevention;
- Assess small-business financing needs for pollution prevention;
- Conduct two demonstration projects in Cleveland and San Francisco that integrate pollution prevention activities with local economic development organizations, small business development, and industrial technology extension activities. Financial strategies are an important component in the demonstration projects.

First Year's Major Findings

Two major findings evolved by the end of the project's first year. First, we developed new knowledge on existing pollution control and pollution prevention financing programs across the country. Selected environmental financing programs for pollution control and prevention were reviewed, including public funding programs such as loans, grants, and tax incentives, public-private partnership programs consisting of loan guarantees and portfolio loan insurance programs (such as the Capital Access Program); private nonprofit funds developed mainly by community development organizations; and private financing.

Second, we found that several of the existing pollution prevention financing programs, even including those that offer loans at very favorable interest rates, experience low demand, with the result that the number of loans made has been smaller than expected. Several factors contribute to the observed low demand, including low program visibility, bureaucratic administration, small businesses' fear of exposing their environmental problems, lack of clarity about the benefits of pollution prevention, the difference between pollution control and prevention, and emphasis on short-term operating and financial horizons by small businesses.

The fact that many states have developed low-cost financing programs for pollution prevention suggests that many parties erroneously believe that lack of financing is a main barrier to adopting more pollution prevention technology. Our findings at midpoint in the project suggest that financing might not be the main barrier and that a new strategy is needed to increase small business pollution prevention activities, a strategy that calls for cross-sector collaboration.

The project's second-year activities, now under way, focus on two demonstration projects, one in Cleveland and one in San Francisco. They emphasize interaction with economic development organizations, industry technology assistance organizations, state environmental and development departments, banks, the Small Business Administration, utility companies, and industry representatives. Each demonstration project will enlist the participation of these organizations in building a more effective regional network to identify and undertake pollution prevention projects that enhance environmental quality and urban economic development. In Cleveland, an initial meeting took place in which many participants expressed willingness to work with us to develop a strategic plan to encourage more pollution prevention. In San Francisco, the demonstration project is in its initial planning phase.

The expected outcome of the second-year work is to create and document two regional networks (in Cleveland and San Francisco) that will increase the number of pollution prevention projects by smaller firms. The Cleveland demonstration project will focus on traditional manufacturing, such as metal finishing industries. The San Francisco project will emphasize high-tech industries, such as electronic components manufacturing in the San Francisco Bay region. The primary focus will be helping industrial users of pollution prevention technology to increase applications of these products and processes.

Cross-Sector Collaborations are Central to the Project

The project's success depends on cross-sector collaboration in these two regions. Interaction and collaboration are needed to design a regional plan and begin its implementation phase. In Cleveland, the GLEFC works closely with the following organizations:

- CAMP, Inc., which is a prominent nonprofit technical assistance organization for small and medium-size manufacturing businesses. Our contact is mainly with CAMP's environmental services group;
- The local Small Business Development Council (SBDC), which provides managerial, marketing, and financial assistance to small companies. The SBDC can gear its financial assistance to the estimated costs and benefits of pollution prevention activities, including calculation of their internal rates of return. Companies will undertake pollution prevention activities only if they are economically beneficial;
- Gas and electric utility companies, through their economic development and industrial marketing departments;
- The Greater Cleveland Growth Association, the largest (16,000 members) local chamber of commerce in the country. Involved in our project are the department of economic development, the loan administration program, and COSE, the Council of Smaller Enterprises, which is the country's largest organization for small businesses providing them with group health insurance, workers' compensation, pension plans, and lobbying at the state and national levels;
- State agencies, including the Ohio Department of Development and the Ohio Department of Environmental Protection, through their units that jointly administer the Ohio Pollution Prevention loan

program, one of the largest, low-interest loan programs in the country dedicated to pollution prevention;

- The Small Business Administration, the office in charge of northern Ohio's 28 counties;
- Trade Associations. At the time of writing we are working with two trade associations whose members might be chosen for targeted planning for pollution prevention: the printing industry and the metal finishing sector;
- Industry representatives. Two business owners attended our initial meeting, both with strong interest in pollution prevention, representing the metal finishing and dry cleaning industries. Both individuals undertook pollution prevention projects in their businesses and would like to promote more pollution prevention in their industries; and
- Local neighborhood-level economic development organizations. Representatives from two organizations located in the city of Cleveland and from a neighborhood umbrella organization participated in the meeting, raising the issue of whether a strategic plan for promoting pollution prevention should target certain industries or certain neighborhoods.

Collaborative partnerships involving the university and local environmental, business, and economic development organizations facilitated by GLEFC have been instrumental in breaking through traditional organizational and disciplinary roadblocks preventing stakeholders from working together. This is essential if the two regions developing pollution prevention strategies are to succeed. The university offers a neutral ground for melding different interests into an integrated plan for increasing the demand for and use of pollution prevention technology by local industry. GLEFC's university base has proven advantageous in this respect.

Faculty and Student Involvement

Faculty members are involved project-by-project in the center's activities, an involvement that has been very helpful in our work with brownfield site cleanup and redevelopment. Some faculty members have been working in the center for three years, which is valuable to them academically. We currently finance faculty involvement through buy-out of courses and overload payment.

Graduate students work on assigned projects under faculty or professional

staff supervision 20 hours per week during the regular school year, and, often 40 hours per week during the summer. Students are generally funded by specific project-related revenues and are encouraged to prepare term papers and theses on topics related to their work. Further, two professional staff working on GLEFC projects are graduates of the college's master's program and previously worked with us as research assistants.

What Would We Do Differently?

The Environmental Finance Centers were created by the U.S. Environmental Protection Agency. If we had it to do over again, we would suggest three changes in how the EFCs initially developed and how they evolved over time. First, it would have been helpful if state governments had played some role in the original planning and development of the centers, which would have ensured the reliance of state environmental regulatory agencies on the centers as technical assistance resources. The connection would also have helped to foster stronger financial and regulatory ties between the states and the USEPA. The building of working relationships with state governments in the Great Lakes region has been more difficult because of this lack of early involvement.

A second recommendation would be that the USEPA allow the centers to give greater attention to research on complex funding policy issues related to environmental projects. Research is a major strength of universities, but, at present, the centers are not supposed to use their funding for research projects. We believe that our EFC and others could have a larger impact on environmental policy decisions if research were encouraged. The technical assistance and training we provide is valuable to our clients, but it would be more valuable if we were permitted to use a portion of EPA funds for state and local policy research.

Third, many of the EFCs exist as separate entities on their respective campuses. Even though our EFC is an integral part of the College of Urban Affairs, it is not as well connected to other environmental, business, and technology activities in the university. Over time, the EFC will become a greater vehicle for involving and supporting both faculty and student activities on campus. If we had the opportunity to do it over, we would embrace the larger campus with this opportunity at the outset and not limit ourselves to the host college.

Lessons Learned

The three changes suggested above and our experience to date point to the underlying lessons learned:

- The design of centers such as the GLEFC should reflect the larger university setting, and should identify appropriate vehicles to encourage cooperation with related campus activities. It is very important that centers have an institutional base to nurture and guide them. The GLEFC, however, as a part of the Levin College of Urban Affairs and its Urban Center, provides a supportive environment to develop and grow through local, regional, and national partnerships. The college's long-standing tradition of interdisciplinary problem-solving and interinstitutional cooperation and the Urban Center's diverse policy interests and expertise are major sources of strength and advantage to the GLEFC;
- Centers should reflect the basic strengths of the university, one of which is clearly research capabilities;
- The process by which new university-based initiatives is born is important. Because of public universities' connection to state government, it is essential that state government play some role in the development process;
- USEPA's Environmental Finance Centers Program was crafted from the beginning to use universities as delivery agents for the centers' services and activities, a design that has made it easier for the six existing centers to work cooperatively in solving environmental finance problems. The six centers work mostly independently, serving their local regions; however, each shares its special expertise and assists in the other centers' projects when needed. The centers also collaborate when applying for large national grants, so that proposals are submitted by a network of financial centers and not by just one. Usually these proposals will designate one center to be the network's lead center for the proposal;
- GLEFC follows an organizational strategy based upon "strategic focusing," which ensures that the center is capable of tackling specialized problems. The evolution of strategic niches in the brown-fields and in pollution prevention areas allowed the center to rise quickly as a recognized national problem-solving resource; and
- GLEFC is prepared to engage in partnerships with a wide cross-section of organizations, including its funding sources, clients,

other universities, national associations, and other groups with interests in environmental problem solving.

Conclusions

GLEFC is still a young organization, which suggests that it has much to learn in the future if it is to have the long-term positive impact it desires. Because GLEFC is well-integrated within the university's institutional base, its chances of successful development are increased—often specialized university centers are on their own and receive little institutional connection or support. GLEFC is different in the sense that it has effective working relationships with the College of Urban Affairs that allow it to help advance academic research and train graduate students. The collaborative culture of the Levin College and its Urban Center is a real strength in the GLEFC's work with other influential stakeholders in the academic and practitioner worlds in making a difference in brownfield redevelopment and pollution prevention. We would like to pass along to others five early lessons learned from our experience to date:

- USEPA's Environmental Finance Centers Program was crafted from the beginning to use universities as the delivery agents for the centers' services and activities. This design has made it much easier for the six existing centers to work cooperatively in solving environmental finance problems. The universities involved in USEPA's program negotiate with the EPA about annual work plan priorities and service activities responding to these priorities. So far this process has worked remarkably well;
- The Levin College's long-standing tradition of interdisciplinary problem-solving and interinstitutional cooperation provides a supportive environment in which GLEFC can develop and grow through local, regional, and national partnerships;
- The Urban Center's diverse policy interests and resident expertise are a major source of strength and advantage to the GLEFC. Ties to the Urban Center's economic development, public finance, and neighborhood development initiatives have been very beneficial;
- GLEFC has followed an organizational strategy based upon "strategic focusing," which ensures that the center is capable of tackling specialized problems. The evolution of strategic niches in brownfields and pollution prevention has allowed the center to rise quickly as a recognized national problem-solving resource;
- Finally, GLEFC is prepared to engage in partnerships with a wide

cross-section of organizations, including its funding sources, clients, other universities, national associations, and other groups with interests in environmental problem-solving.

Based on our experience with the GLEFC and other activities in the Urban Center, we believe that the model described here is effective and offers the potential for making positive contributions to serious problems in communities across America. A center such as ours serves as a catalyst to help solve problems that cannot be solved by the public or private sectors alone.

Suggested Readings

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