

PROGRAM NAME

ecoBUDGET® – integrated environmental and financial resource management for an ambitious municipality

PROGRAM GOALS:

With its history of environmental action and long-term objective to become “Fossil Fuel Free Växjö,” the Municipality of Växjö was interested in adopting a structured method of implementing its environmental goals and monitoring the impact of its environmental initiatives. For this reason, Växjö has introduced ecoBUDGET within the geographical area of the municipality and its municipal administration and systematically combined ecoBUDGET with its financial accounting system. The municipality completely synchronized the two management systems by 2004, the second year of ecoBUDGET implementation, by including environmental resources, indicators, and targets in its financial budget. Taking up the challenge of sustainability, Växjö has expanded its set of ecoBUDGET indicators to include social and economic aspects.

MUNICIPAL PROFILE:

The Municipality of Växjö is the capital city and administrative centre of Kronoberg County, which includes a total of eight municipalities. Växjö is governed by a 15-member Municipal Executive Committee, led by one mayor and two vice-mayors, who carry out the decisions voted on by a 61-member city council. The municipality has 6,500 employees in 10 departments and six municipal-owned companies. Since 2001, Växjö’s *ecoBUDGET* program has been coordinated by its municipal planning department.

ISSUE ADDRESSED:

Environmental management system, sustainability management system

SUMMARY OF THE PROGRAM:

In 2001 the Municipality of Växjö decided to implement the *ecoBUDGET* environmental management system within its geographical area in order to create a structured method of pursuing its ambitious carbon dioxide (CO₂) reduction targets, as well as implement and monitor the impact of its numerous environmental initiatives. An environmental management system designed specifically for local governments, *ecoBUDGET* enables municipalities



MUNICIPAL PROFILE

Population:

78,473 (2006)

Land area:

1,674 km²

Municipal budget:

SEK 2.9 billion

(USD 418,066,227) (2006)



Participants at final conference of the European *ecoBUDGET* project in Aalborg, June 2004
(Photo: Municipality of Växjö)

to plan, control, monitor, and report on the consumption of natural resources within their administrative boundaries by allocating physical indicators to short- and long-term environmental – and potentially social and economic – targets. A key success factor is mandatory, systematic involvement and decision-making by the highest municipal political board: the city council. Through the work of an *ecoBUDGET* Local Implementation Team (LIT) composed of municipal staff supported by outside experts, Växjö developed and adopted its first *ecoBUDGET* Master Budget in 2003. The following year the municipality worked towards the complete integration of *ecoBUDGET* with its municipal accounting system. Several years later, Växjö is continuously improving its *ecoBUDGET* system and is now expanding its existing set of environmental indicators to include measurable indicators of social and economic sustainability.

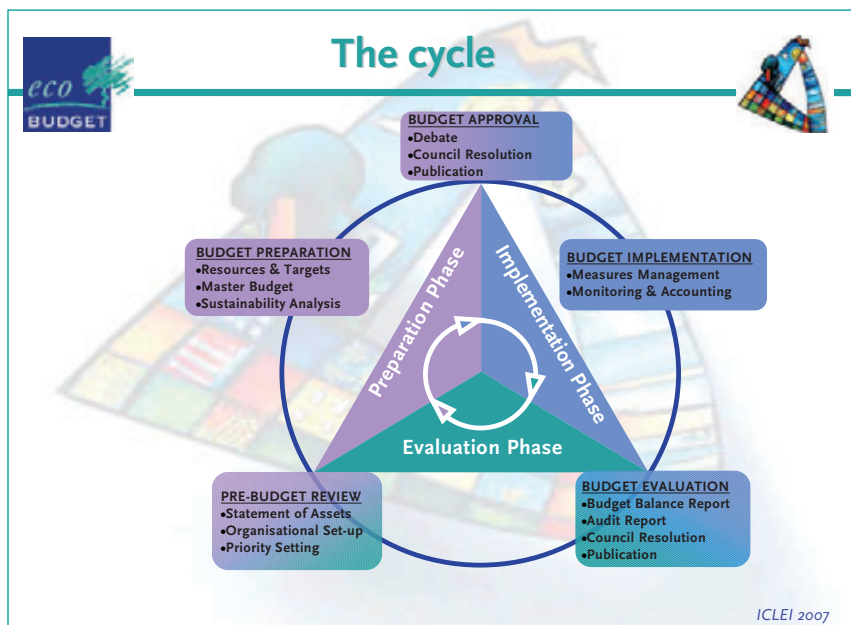
IMPORTANCE OF THE ISSUE:

The Municipality of Växjö has a long history of environmental action. In the 1970s the municipality began to restore its significantly polluted lakes. In the 1990s Växjö began measuring its carbon dioxide emissions in order to create an emissions reduction plan. In 1996 the municipality adopted the vision of a “Fossil Fuel Free Växjö” and set a goal of reducing CO₂ emissions within its geographical area by 50% by

2010, compared to 1993 levels. That same year, Växjö created its Local Agenda 21 strategy, which focused on six areas: CO₂ emissions reduction, caring for Växjö’s water, increasing biodiversity, sustainable housing, the sustainable development of business, and democracy and learning for sustainable development. Though the plan included many ideas for action, it included only a few measurable targets for reaching the city’s environmental goals.

DESCRIPTION OF THE PROGRAM:

ecoBUDGET is an environmental management system designed uniquely with and for local governments. It allows municipalities to manage natural resources as efficiently as they manage financial resources. The traditional accounting system is complemented by an environmental accounting system, in which physical environmental quantities are measured instead of money. *ecoBUDGET* aims to plan, control, monitor, report on, and evaluate the consumption of natural resources (such as climate stability, air quality, land, water, raw materials, and biodiversity) for issues of significant priority within the geographical area of the municipality. The ultimate aim is to keep environmental spending within the limits set in an environmental “Master Budget.” The Master Budget allocates physical indicators to short- and long-term environmental – and potentially social – targets oriented to the sustainable management of environmental resources. Approved by the municipal council, the targets become politically binding for the entire organization. Political decision-makers and senior urban managers are involved systematically in the *ecoBUDGET* cycle, allowing political steering of the use of environmental resources. Approved by the municipal council, the targets become politically binding for the entire organization. Political decision-makers and senior urban managers are involved systematically in the *ecoBUDGET* cycle, allowing political steering of the use of environmental resources.



The *ecoBUDGET* cycle

The *ecoBUDGET* cycle mirrors the three phases of the municipal financial budgeting cycle including budget planning (i.e. the preparation of an environmental budget), budget spending (i.e. the implementation of planned measures to meet the budget), and budget balancing (i.e. balancing the annual environmental accounts).

At the end of the financial period a Budget Balance is prepared that shows to what degree the previous year's Master Budget was met. A complementary set of indicators graphically displays progress towards the municipality's short- and long-term targets. Two other documents, the Statement of Environmental Assets and the Sustainability Analysis, supplement the municipality's snapshot of its level of sustainability. Although the Municipality of Växjö created its Local Agenda 21 strategy in 1996, the plan did not include measurable targets for all of the city's environmental goals. In 2001, a Växjö city councillor suggested that the municipality adopt an environmental management system in order to provide a more structured method of addressing environmental issues and monitoring environmental initiatives. The city council instructed its staff to identify a system that would fit Växjö's needs. A member of ICLEI, the city soon found out about *ecoBUDGET* and determined it would be a perfect fit. With technical assistance from ICLEI,

Växjö began its implementation of *ecoBUDGET* in 2001 by creating a Local Project Team consisting of five staff from the Planning Department. Additionally, a Local Implementation Team of 15 cross-departmental representatives was formed to discuss targets and indicators. Other experts were approached to discuss specific targets and areas. Several public meetings were held to invite citizens to suggest indicators, measures, and environmental initiatives to be included in the Master Budget. After receiving public and expert input the LIT drafted the Master Budget (which included the draft targets and indicators) and presented it to the city's political boards for their feedback and then sent the Master Budget to the city council.

On March 27, 2003 Växjö's first Master Budget was unanimously approved by city council. It included long-term targets set for 2010. Växjö's Master Budget includes the following environmental resources: climate stability, high environmental consciousness, fresh air, fresh water, good built environment, and high biodiversity.

At the end of the first budget cycle the budget balance was prepared by the LIT and presented to the city council. The budget balance summarizes the achievements during the budget year and the results are displayed with clear graphics that show the degree of progress towards meeting the targets:

smiling, indifferent, or sad faces. Växjö's first budget balance showed that approximately one-third of the indicators were on or above target, another third were moving in the right direction but had not reached the short-term target, and the final third were going in the wrong direction or progress could not be gauged because there was no suitable indicator. During the city council meeting the political opposition urged the governing party to improve the results of the budget balance if Växjö was to be considered a "green" municipality. This challenge marked the first step in Växjö's process to revise its Local Agenda 21 strategy by adopting measurable targets to meet the city's sustainability goals. *ecoBUDGET* has been completely integrated into Växjö's municipal financial accounting system. Discussions about the city's monetary budget and *ecoBUDGET* take place during the same meetings and appear in the same financial documents. Each municipal board and company prepares its own internal budget and action plan based on the municipality's Master Budget. While the city's financial system has three quarters (and consequently three reporting periods), the challenge of gathering sufficient data on a tertiary basis means that *ecoBUDGET* has only two reporting periods: a mid-year review (in August) and an end-of-year review. During the mid-year review an evaluation of actions that have been undertaken is conducted and additional actions that are needed are identified. All municipal boards and companies analyse their action plans and send their report to the city's finance department. In May 2006, Växjö's municipal councillors decided to replace the city's Local Agenda 21 strategy and environmental policy with a new Environmental Programme for the City of Växjö that would include only measurable, long-term targets. The Environmental Programme covers three areas: Living Life (focused on consumption and waste issues), Our Nature (focused on water and conservation issues), and Fossil Fuel Free Växjö (focused on transportation and energy

issues). *ecoBUDGET* is used to ensure that the goals of the Environmental Programme are achieved because they are monitored and reviewed in the budget process via the environmental asset indicators and efficiency indicators in the annual accounts.

The *ecoBUDGET* system is continuously being developed and improved by the municipality. In 2007 the municipality is planning to broaden its *ecoBUDGET* system by including additional sustainability indicators such as gender equality, public health, children's issues, etc.

PROGRAM RESULTS:

The City of Växjö has achieved the implementation of a systematic method of addressing environmental issues and monitoring the impact of its environmental initiatives.

As well, the complete integration of the monetary and environmental budgets has given environmental issues and initiatives a higher status and resulted in greater environmental awareness among municipal councillors. Because councillors are updated on progress towards meeting environmental targets more frequently, they are more aware of the effectiveness of different initiatives. Another benefit is that the municipality's Finance and Planning departments have become more closely integrated through their work on *ecoBUDGET*. Staff in both departments know each other better and are more aware of each other's work, thereby greatly enhancing co-operation between the two departments.

As a result, Växjö is able to generate and implement innovative projects such as the construction of highly energy efficient buildings within the Sustainable Energy Systems in Advanced Cities project to implement their *ecoBUDGET* and meet their ambitious targets. Växjö has received international recognition for its efforts including the Sustainable Energy Europe Award 2007.

LESSONS LEARNED:

The Municipality of Växjö learned that *ecoBUDGET* is a flexible, straightforward system that is easy for municipal politicians to use and understand. The *ecoBUDGET* terminology is familiar to municipal politicians and it helps councillors to prioritize environmental issues. As well, *ecoBUDGET* can be tailored to the specific needs and circumstances of each municipality. As with all new instruments, Växjö found that the initial implementation of *ecoBUDGET* was resource-intensive. It also took time for staff to understand that *ecoBUDGET* could provide a new and more efficient structure for their work.

Support from senior staff and elected officials was crucial to the effective implementation of *ecoBUDGET*. In Växjö the focal point for *ecoBUDGET* is housed within the city's Office of the Executive Committee, giving *ecoBUDGET* greater prominence.

Implementing *ecoBUDGET* also means that environmental and sustainability issues are discussed more frequently since the city council reviews both the mid-year and end-of-year accounts, which are also presented to the public.

In Växjö the implementation of *ecoBUDGET* has led to greater municipal cross-departmental contact and networking. Staff from different departments assist each other with the development of their respective workplans by sharing their experiences and insight. As a result, Växjö's environmental and sustainability work has become more structured, cross-cutting, and performance and target oriented.

KEY REPLICATION ASPECTS:

The experiences of Växjö and other cities that have implemented *ecoBUDGET* have shown that *ecoBUDGET* can be readily applied to a range of local governments. The instrument is applicable in various world regions, in large cities and small towns, and developed and developing countries, regardless of political persuasion. *ecoBUDGET* supports local governments in meeting their ambitious environmental and sustainability targets as well as fulfilling their legal obligations and voluntary commitments.

STAFF:

Several people in different departments are involved with the management of the *ecoBUDGET* system. Since the methodology is now completely integrated into the administration, it is not considered an extra burden on staff.

BUDGET AND FINANCING:

Växjö financed its *ecoBUDGET* development work through a three-year European Union (EU)-supported pilot project called European *ecoBUDGET*. Then for another three years the work was financed through other development projects such as the EU-funded *ecoBUDGET*-Asia pilot project, the Managing

RESOURCE	Indicators	Unit of Measure	Baseline Value	Value 2003	Short term target (2003)	Mid-term target	Short-term target evaluation	Comments
CLIMATE STABILITY	Carbon dioxide emissions from the geographical area	kg CO ₂ /inh/year	4632 (1993)	3335	3335	2316 (2010)		National data is one year late.
	Distance to Mid-term target		0%	36%	56%	100%		
	Carbon dioxide emissions from transports and services in the own organisation	tonnes CO ₂ /year	4705 (1999)	4697	4697	2797 (2010)		National data is one year late.
	Distance to Mid-term target		0%	-1%	0%	100%		
	Oil for heating in the own organisation	m ³	764 (1999)	422	422	105 (2010)		National data is one year late.
	Distance to Mid-term target		0%	51%	52%	100%		
GOOD BUILT ENVIRONMENT (waste)	Household waste for deposit and incineration	kg/inh/year	239 (2000)	230	243	158 (2005)		Changed circumstances regarding the planned biogasplant makes it difficult to reach the long-term target
	Distance to Mid-term target		0%	4%	-5%	100%		
	Biological treatment of household waste	kg/inh/year	1 (2000)	1	1	78 (2005)		Changed circumstances regarding the planned biogasplant makes it difficult to reach the long-term target
	Distance to Mid-term target		0%	0%	0%	100%		
GOOD BUILT ENVIRONMENT (GREEN)	Trees in the streets	No.	3183 (1997)	4023	4023	5400 (2010)		
	Distance to Mid-term target		0%	38%	38%	100%		

Växjö 2003 Budget Balance

Urban Europe 25 project, Integration and Development of Environmental Management Systems (IDEMS), and Success for Sustainable Energy Systems in Advanced Cities (SESAC), among others. In 2007 Växjö councillors gave the city's Planning Department funds corresponding to 50% of a full-time position, thus demonstrating their commitment to *ecoBUDGET*. All *ecoBUDGET* work in other municipal departments and companies is unfinanced because, since the inception of *ecoBUDGET* in Växjö, the administration has stated that environmental work in general and *ecoBUDGET* work in particular should be performed within the given financial constraints.

KEY CONTACTS:

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Environmental Programme



City of Växjö

2006-05-18

Växjö's Environmental Programme

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Acknowledgements

- > Kathleen Ryan, researcher and writer.
- > Special thanks to Holger Robrecht and Andrea Burzacchini from ICLEI's Sustainability Management team for their assistance.

Date Written

- > September 2007

ICLEI-Local Governments for Sustainability is an international association of local governments implementing sustainable development. ICLEI's mission is to build and serve a worldwide movement of local governments to achieve tangible improvements in global sustainability with special focus on environmental conditions through cumulative local actions.

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