

**SUPPORT FOR SMALL MUNICIPALITIES IN THE
CZECH REPUBLIC**

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ABSTRACT

SUPPORT FOR SMALL MUNICIPALITIES IN THE CZECH REPUBLIC by Francis Conway and Patrick Boxall, The Urban Institute, September 1994 (Project 6283/96)

Following the collapse of the communist regime in 1989, the new leadership of the Czech Republic took immediate steps to strengthen local self-government. Within a year of the approval of the Communities Act of 1990, the residents of over 1,800 communities had elected to reclaim the right to form their own municipality. By 1993, there were nearly 6,200 municipalities in the Czech Republic. Over 90% of the jurisdictions have fewer than 2,000 inhabitants. This report looks at the needs of these small municipalities, specifically in terms of investments in basic infrastructure. The report recommends a possible strategy of assistance that would be consistent with the broader USAID efforts to establish a viable local government finance system in the country.

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EXECUTIVE SUMMARY

Background

Following the collapse of the communist regime in 1989, the new leadership of the Czech Republic took immediate steps to strengthen local self-government. Within a year of the approval of the Communities Act of 1990, the residents of over 1,800 communities had elected to reclaim the right to form their own municipality. By 1993, there were nearly 6,200 municipalities in the Czech Republic. Over 90% of the jurisdictions have fewer than 2,000 inhabitants. This report looks specifically at the needs of these small municipalities.

All municipalities in the Czech Republic, regardless of size, have the same powers of self-government, including an elected council (which selects a mayor from among its members) and independent control of their own budget. They retain the basic structure and attributes that grew out of the early history of towns and villages in Bohemia, Silesia and Moravia, as ratified in law by an Imperial Decree of 1848:

- A belief in the autonomous management of local affairs by the residents of the immediate community, as summarized by the concept of *samosprava*.
- A shared responsibility for the local administration of state functions as summarized by the concept of *statnisprava*.
- Extensive communal ownership of properties of diverse types.
- Large numbers of municipalities with the great majority having jurisdiction over small geographical areas composed of one or two cadastral units.

As part of the measures approved since 1989, the state has returned properties nationalized in 1949 to the communities and has given the municipalities a share of national tax revenues to finance their activities. Municipalities are employing their new powers and resources in the context of an evolving market economy by pursuing strategies to expand local jobs and tax revenues. This is a new outward looking form of self-government, which traditionally had focused internally on serving the needs of the existing residents of the community. The new strategy reaches out to attract new residents and new opportunities. It strives to create strength through alliances with other municipalities. Small municipalities are very active participants in this new competitive atmosphere.

These new realities will lead to changes in the structure and functions of municipalities. No-one seems to know what changes will occur or when. In this uncertain process the smaller municipalities may play a role that is far more important than their size would suggest. There are over 5,500 communities of under 2,000 inhabitants with locally elected leaders who once again exercise considerable local autonomy. These thousands of municipalities are becoming incubators of new ideas and new directions. Given the traditional values of the Czech Republic, it is clear that these local initiatives will help shape the future of local self-government in the country.

Summary of Findings and Recommendations

Within the context of renewed local autonomy, infrastructure investment has emerged as a major priority for small municipalities. Many small municipalities have plans to improve their infrastructure, in fact *every*

community visited for this research had such plans. Water and waste-water improvements are by far the most common, but small municipalities also plan investments in solid-waste disposal and heating fuel conversion.

Demand for infrastructure investment in small municipalities is in part a product of the existing level of service in those communities. Aggregate national data show that small municipalities on average are not served as well by various types of infrastructure as larger communities. Small municipalities have a disproportionate share of the population not served by infrastructure, such as water and waste water systems. The systems they do have do not serve their clientele fully or adequately.

For many small communities long-term viability hinges on maintaining (or increasing) the resident population, and several local officials interviewed for the current research identified a clear link between infrastructure investment and the prospects for achieving this goal. In the towns and villages surrounding Prague, most small jurisdictions are planning to invest in water and waste water facilities to attract new, higher-income residents who presumably own businesses and will generate new tax revenues.

Small municipalities have a greater per capita budget surplus than larger communities, but this does not necessarily translate into sufficient borrowing capacity to finance infrastructure improvements. Alone, small municipalities lack the economies of scale that bring down the per capita costs of infrastructure improvements. In the face of considerable barriers to development, small municipalities have begun to form strategic alliances. Municipal associations have become a widespread phenomenon in the Czech Republic, and an important mechanism for small municipalities. A 1993 survey identified 96 associations, incorporating an estimated 20 percent of all municipalities. Seventy percent of participating municipalities have populations less than 1,000. Most of these organizations involve either a mix of mid-sized and small municipalities, or just small municipalities.

The focus of broader USAID efforts on establishing a viable finance system primarily for larger Czech municipalities suggests that the proposed assistance should look at the infrastructure financing needs of small local jurisdictions. If the small municipalities want to seek loans, they must look and act like larger jurisdictions. They will have to package their individual projects. They will have to present joint proposals that can address the technical and financial criteria of the national programs. Fortunately, the small municipalities already are coming together in strategic alliances. The proposed assistance program might work with these existing alliances in two broad areas:

- General infrastructure investment analysis and planning
- Strategies and techniques for creating viable alliances.

If successful, this program might help expand the financing available for water, waste water and other basic infrastructure in the smaller municipalities of the Czech Republic. These are the areas of greatest need at present.

Study Approach

This document reports on research undertaken in the Czech Republic during June, 1994. It is intended as an exploratory investigation of infrastructure needs in small Czech municipalities, with the goal of providing an overall context for an assistance program specifically targeting these municipalities. A majority of the information employed in the report comes from discussions with interested Czech parties, including: representatives of public and private institutions at the national level, members and representatives of municipal associations, and, most

importantly, mayors of small municipalities themselves. In total, the authors met with mayors of 17 municipalities. To the extent possible, the report also employs secondary data about the characteristics, needs, and resources of small municipalities.

1. DEFINING SMALL MUNICIPALITIES

There are approximately 6,200 municipalities in the Czech Republic, together encompassing the entire country. All municipalities, regardless of size, have the same powers of self-government, including an elected council (which selects a mayor from among its members) and independent control of their own budget. For the most part, the current discussion defines "small" municipalities as those with less than 2,000 inhabitants, though some parts of our discussion uses alternative definitions. As Table 1 indicates, 90 percent of the Republic's municipalities are small jurisdictions with 2,000 inhabitants or less. These same jurisdictions account for 25.6 percent of the Republic's population.

Small municipalities, by this definition, are found across most of the Republic, however there is some regional variation in their importance. To illustrate this variation, the Republic's 76 districts jurisdictions, or local units of the state, are ranked according to their population found in municipalities with less than 2,000 inhabitants. Districts were grouped into quartiles according to this rank. Figure 1 shows that districts with the greatest concentration of population in communities under 2,000 (46 to 59 percent) are found in a band across central and southern Bohemia (excluding Prague) and a band across eastern Moravia. Districts with the lowest share of population in small municipalities (0 to 23 percent) include the urban districts (Prague, Brno, Plzen and Ostrava) and heavily industrial districts (Municipalities Republic's north-eastern border).

2. THE HISTORICAL DEVELOPMENT OF MUNICIPALITIES

The proliferation of small jurisdictions reflects centuries-old traditions of local self rule by small villages and towns in Bohemia, Moravia and Silesia. To begin to understand the challenges that these thousands of small jurisdictions confront in 1994, it is useful to review the events that formed and shaped the development of Czech local governments in three distinct historical periods:

- The origins as part of village life during the feudal and imperial periods and the formal recognition of municipalities in 1848.
- The distortions to the concepts and practice of local government from 1949 to 1989 in an authoritarian, centralized state.
- The evolution since 1989 in the context of a modern democratic state and a market economy.

Legend: Percent of district population in municipalities with less than 2,000 population



Source: Compiled by the Urban Institute from Czech Statistical Office, *Obce Ceske Republiky 1992 Maly Lexicon*.

Origins of Municipalities¹

The basic structure of contemporary Czech local government has its origins in a Decree issued in 1848 by the Austro-Hungarian Emperor. The decree marked the end of the feudal system in Bohemia, Moravia and Silesia by recognizing formally the concept of municipality which "existed naturally" in these three regions. It created local governments with three basic attributes:

- The authority of the local government over local matters would be subject only to the limitations imposed by "generally applicable" legislation. This is called *samosprava* in Czech. It is the right of self-government.
- The local government would serve as the agent of the state in the local administration of generally applicable legislation. This is called *statnisprava* in Czech. It refers to the administration of state functions.
- Local governments would have a broad right to own property on behalf of the local community.

Early Czech villages developed as small, compact clusters of buildings established near some point of authority - the castle of a feudal lord or a church or monastery. People lived in these villages and went out to work in surrounding fields. From the very beginning, persons with authority preferred to deal with the village as a whole and not with the individual villagers. The feudal lord demanded that the village provide workers for his fields or soldiers for his army. The imperial rulers continued this practice. The village provided troops for the imperial army. Imperial decrees affected the entire village. One decree required that each village build a pond for fire protection. Forced to deal as a single unit with the outside world, the villagers developed their own leaders and learned to manage their own affairs.

At the beginning of the XIX century formal authority in what is today the Czech Republic was divided between the Emperor and the landlords, who continued to hold all the powers not conquered by the Empire. With the decree issued in 1848, the Emperor swept away most of the powers of the landlords in Bohemia, Moravia and Silesia. In their place, he recognized the municipality which "existed naturally" in the villages. In its first section, the decree confirmed by law the authority of the villages to manage their own affairs (*samosprava*). This authority would be subject only to the limitations of legislation that applied uniformly to all persons throughout the Empire. In addition, the municipalities would serve as agents of the state in the local administration of state functions (*statnisprava*).

Rooted in the relation of villages first with the feudal lord, then with the Empire, *samosprava* became synonymous with the distrust of the villagers for all authorities lying outside their immediate community and with the autonomous management of their own affairs. The villagers had the sole right to select their own leaders. Decisions made by the local leaders in the exercise of their right of self-government were final.

Statnisprava reinforced the notion of local autonomy by entrusting to the village authorities the local administration of state affairs, while retaining the right of oversight by the state. The local leaders appointed the persons who would perform state functions in their jurisdiction, subject to the concurrence of the central authorities. Decisions made in performing state functions were subject to review by the central authorities.

¹ This section derives largely from an interview with Professor Jan Barta, chief researcher of the Juridical Institute of the Czech Academy of Sciences. To illustrate the origins of local authorities, he took us out on the roof terrace of the Academy of Sciences and pointed to different nearby sections of Prague which originally were separate villages.

Finally, the decree of 1848 granted ownership to the municipalities of all communal property within their jurisdiction. This property consisted of community roads and of fields or forests that were used by the entire community. The rights of all members of the community to use these properties had been recognized and respected by all persons, including the feudal landlords. Following 1848, the newly constituted municipalities became the formal owner of these communal properties. The latter half of the XIX century generally was one of great prosperity. The villages did well and their municipalities acquired additional property. This included land and buildings for schools. It also included vehicles, pieces of art or financial holdings, such as bank accounts. The right to own property became a fundamental attribute of the municipalities.

Since 1760, there had been a general inventory of all real property throughout the Empire called the cadastre. The sole purpose of the cadastre was to administer the collection of taxes. All the territory was divided into cadastral units. For each unit there was a book listing all the existing properties and their owners, hence the taxpayers. The decree of 1848 established one municipality for each cadastral unit. Although some municipalities grew to encompass more than one cadastral unit, the identity between the two concepts continued. All the cadastral unit had to lie within the boundaries of a single municipality. Municipalities consisted of one or more entire cadastral units. This relationship remains to this day.²

Local government in the Czech Republic today retains the basic structure and attributes of the municipalities that grew out of the early history of Czech villages and the Decree of 1848:

- A belief in the autonomous management of local affairs by the residents of the immediate community, as summarized by the concept of *samosprava*.
- A shared responsibility for the local administration of state functions as summarized by the concept of *statnisprava*.
- Extensive ownership of properties of diverse types.
- Large numbers of municipalities with the great majority having jurisdiction over small geographical areas composed of one or two cadastral units.

Finally, it is important to keep in mind that the municipalities are the earliest form of self-government known to the Czechs. The First Republic did not come into existence until seventy years after the decree of 1848 and literally centuries after most local communities had developed the tradition of self-government.

Diminished Local Autonomy Between 1949 to 1989³

The system of municipalities created in 1848, with its basic attributes of *samosprava*, *statnisprava* and the right to own property, survived with only minor modifications for the next 100 years. It was preserved by the new

According to TERPLAN, a Czech regional planning firm, there are approximately 20,000 "basic territorial units." Presumably, this is the upper limit in the number of potential local authorities in the country.

The content of this section draws on the interviews with numerous persons, including: Mr. Jiri Mejstrik of the Ministry of Economy (now employed by Urban Research), Mr. Jaromir Jech and Mr. Kment of the Union of Towns and Cities, Mr. Radim Perlin of VUVA (the Research Institute for Development and Architecture) and Ing. Oldrich Smotacha head of the Fund for the Assistance to Local Authorities, among others.

republic following the demise of the empire after World War I. It was ratified in a new law issued in 1945, following the restoration of the republic after World War II.

All this changed radically in 1949. The authoritarian, centralized regime that came to power in that year made three fundamental changes which greatly distorted the nature and the functions of municipalities over the next forty years. The new system of "national committees" became a parody of the original system of municipalities, even though some elements of both *samosprava* and *statnisprava* apparently survived.

The first change diminished the importance and changed the role of local leaders. The national committees which replaced the original municipalities were elected from a single list of candidates of members of the Communist Party. Deprived of real local leadership, the local elected official became important for his or her connections with the national government. The key measure of success became the ability of local officials to obtain subsidies for the locality. The amount of the subsidy was far more important than the actual local need. Some communities obtained subsidies for facilities, such as a cultural center, with a capacity far in excess of the local need or demand. The sound, autonomous management of local affairs was of secondary importance. The state became the source of all solutions for local problems.

The second change imposed after 1949 was to nationalize all the property of the municipalities. This further diminished the autonomy of municipalities to manage their own affairs and emphasized the dominant role of the central state authorities. The state constructed housing projects and built public facilities on land that had belonged to the municipalities without consulting with the community. Certain prized pieces of art were removed from the local city hall to national museums, again without local approval. The right to own property was the one traditional attribute of Czech municipalities which was completely abolished during this period. Some view this as being equivalent to having abolished altogether the system of municipalities that had existed since 1848.⁴

Finally, what appears to have been the most profound change involves the transgression of the spirit of *samosprava*. Acting unilaterally, the state consolidated many of the smaller jurisdictions with larger "central" villages. From a high number of 11,500 municipalities which existed in 1950, only 4,000 remained in 1989. Every person interviewed for this report mentioned this process as a key development during the communist regime.⁵ Most view it as a case of gross disregard for traditional values and for the aspirations of the residents of many small

This is the view of Professor Barta of the Academy of Sciences. He repeated this point in our interview until he was comfortable that we had understood the significance of the right to own property as a fundamental attribute of Czech local authorities.

Some of the persons we interviewed saw merit in the process of "amalgamation" of the smallest local authorities. For example, Mr. Smotlacha of the Fund for Assistance to Local Authorities described the selection of the 1000 "centers of amalgamation" as "reasonable and well done." Everyone agreed, though, that whatever the merits of the process, the approach taken was insensitive to the tradition of *samosprava*.

communities. (See, for example, insert describing experience of Korno.)

The Fall and Rise of Local Autonomy Since 1949

The changes made during the period from 1949 to 1989 serve to illustrate both the great strength and weakness of municipalities in the Czech Republic. The Imperial decree of 1848 was based on the principle that the jurisdiction of the municipality over local matters would be subject only to the laws issued by "generally applicable" laws. Korno became part of a large national administrative district based on a neighboring town. To make matters worse, this was not a neighboring town which had traditionally provided some services for Korno. Rather, it was another, more distant town, which the Mayor described as being "out of sight over that hill." The government picked that town because it served as the headquarters for the agriculture cooperative that controlled all the land in Korno. Korno was not considered by the state to be a viable community. It was slated to disappear slowly as its sole discretion to approve laws which extend the powers of the state at the expense of those of municipalities. The current residents died or moved away. The villagers were not allowed to build new structures and could only try to maintain those that existed. bounded by the acts of parliament. The powers of parliament over the municipalities are bounded only by the degree of political support in the country for local self-government. In 1990, following the fall of the communist regime, the village of Korno again became an autonomous local authority. The children of Korno once again go to school in the neighboring town. The village has recovered its properties and has a land use plan that will guide its growth through the year 2010. The mayor pointed with pride to the new homes in the village in fifty years. He took us to see the sites where two other homes are under construction. Three new homes is a big change for a village with forty-three existing homes. Korno faces many difficult obstacles. The village may not grow at all. The mayor understands the challenge in the reborn spirit of *samosprava* he and his fellow villagers are committed to trying.

Following the Velvet Revolution of 1989, the Czech national parliament has acted consistently to restore to the residents of local communities the right and the ability to manage their own affairs.

Restoring local self-government (*samosprava*)

The Communities Act of 1990 restored the full concept of *samosprava*. It recognized the right of residents to choose through a referendum whether to establish a municipality in their community. The response has been overwhelming. The number of municipalities had diminished from a high of 11,500 in 1950 to 4,000 in 1989. Between 1990 and 1991, the residents of over 1,800 communities exercised their right under the new Communities Act to form their own municipality. The process continues, although more slowly. Today, there are over 6,200 municipalities in the Czech Republic. This number actually understates the extent of the revival of local self-government in the Czech Republic. In Prague, for example, there is nominally one municipality. In reality, there are fifty-seven additional locally elected councils to which the Prague City Council has granted some degree of autonomy over spending to meet local needs. Similar "statutory" councils exist even in very small jurisdictions where there is more than one village or community.⁷

Expanding local self-sufficiency

The Parliament has acted to make the municipalities fiscally independent and self-sufficient. It has replaced most state subsidies with the direct transfer to the municipalities of certain tax revenues collected by the state. The mayor and the city council decide how to spend these revenues without interference by state authorities. Tax revenue transfers and local fees now represent over 80% of municipal revenues. Most remaining state subsidies are directed to very specific uses, such as the subsidy provided per school child to help defray the cost of maintaining school buildings.

Professor Barta helped us understand this crucial difference between a legal system based on codified law and our more familiar experience with common law.

Mr. Jan Prikryl of the Prague Institute of Economics used the example of the fifty-seven "individual town halls" that exist in Prague to illustrate what he called the "biggest secret in understanding *samosprava*." According to Mr. Prikryl, *samosprava* is seen by the Czech people as the defense of the small communities against the state. The "state" is everything that is not included in the local community. In that sense, even the Prague city government can appear distant and suspicious.

Another law approved since 1989 restored the right of municipalities to own property and returned to them all the property that was nationalized in 1949. In addition, the law also transferred title to the municipalities of all structures built between 1949 and 1989 on communal properties by the state and which had remained under state control. It is through this law, for example, that the municipalities became the owners of all the public housing units in their jurisdictions. Along with the real property, the municipalities also have received equipment, vehicles and other similar assets. This has been especially helpful to the new small local jurisdictions which were able to begin operating immediately.

3. CURRENT SITUATION OF SMALL MUNICIPALITIES

The new legislation enacted since 1989 has restored the traditional Czech structure of local self-government. The basic attributes of municipalities in the Czech Republic in 1994 are the same ones that were first recognized formally by the Austro-Hungarian imperial decree of 1848. The structure is based on village traditions that are centuries old. It is not surprising that the belief in local self-government, as typified by *samosprava*, is a tremendously powerful political force in the Czech Republic. These traditions and this political force, more than any other factors, account for the large number of small municipalities which exist in the country today.

That is only part of the picture. Traditions by themselves do not explain all the current reality of small municipalities in the country. The forty years of authoritarian rule also left their mark in the fabric of Czech communities, particularly in many of the small ones. Current events which reflect the imperatives of a modern democratic state and of a market economy are redefining the relations between the state and local communities and among local communities themselves. The place and the role of small municipalities in this contemporary context are still not clear.

Differing Patterns Among Small Jurisdictions⁸

The many changes made by a dominant state over forty years from 1949 to 1989 are dramatically evident in the **Rebuilding Border Communities** communities that exist in the different regions of the country. Many communities have existed for centuries as small villages and towns. Vrane na Vltava near Prague celebrated its 1000th anniversary in 1992. This is not the case in the villages along the border. The German residents of these villages originally as maintenance workers for the camp facilities. They stayed on when the camp shut down after the end of the cold war. We visited Prasly with the Mayor. He showed us the round cement platforms from which the tanks made their practice in the direction of the German border. We saw the dismal barracks which had served as housing for the maintenance workers. In their new status as residents of the new town of Prasly, they now live in the housing area of the old military camp. The Mayor showed us his long-term plan. Through the strength of **samosprava**, Prasly has developed a clear vision for its future.

In other parts of the country, the traditional patterns of land ownership account for the differences among villages. In 1949 most agricultural lands were nationalized to form collective farms or cooperatives. The Parliament returned the land to small land owners in 1990. The villages in these areas, such as the highlands of Moravia, have returned to their traditional roots. In the lowlands, where there were fewer, larger landholders, the process has not been as simple. Many current residents arrived to work on the collective farms and do not have traditional ties to the local village.

⁸ The content of this section draws on the lucid descriptions of the regional differences in land use patterns provided by the staff of TERPLAN. We observed the differences clearly as we traveled to different parts of the Czech Republic.

There can be no easy generalizations in dealing with small municipalities. There are traditional differences in the settlement patterns in the different regions. The changes made by an authoritarian state from 1949 to 1989 added to those differences.

Overlap of National and Local Interests and Functions

The shared administration by municipalities of state functions - *statnisprava* - is an important part of the traditional structure of local government in the Czech Republic. In keeping with this tradition, since 1989 the state has delegated functions such as the approval of building permits and the operation of certain social services to municipalities. Whereas the new laws restoring the tradition of *samosprava* and granting fiscal autonomy apply equally to all municipalities regardless of size, *statnisprava* extends to only 381 larger jurisdictions.

Despite the presence of a long tradition of *statnisprava*, the division of responsibilities between the state and municipalities has not been worked out fully. The definition of the relative role of the two levels of government is further complicated by the continuing debate on the need for a third, regional level of government. There had been talk of setting up regional governments beginning as early as 1995. It now appears that this will be delayed until 1997 or 1998, largely in deference to the strong political support in the country for local self government.⁹

The case of water and waste water services¹⁰

In the meantime, the relations between municipalities and the state are evolving daily in areas where their interests and functions overlap as they seek to address existing problems. Water and waste water services and investments offer a good example of such an area. Traditionally, municipalities had been responsible for providing these services in their communities. In the highly centralized state that governed from 1949 to 1989, the facilities were nationalized.

In 1990, the state returned the ownership of the water and waste water systems to the municipalities. In consultation with the municipalities, the state transferred ownership of some of the systems to regional unions or to limited stock companies owned by more than one jurisdiction. In any case, municipalities once again own and control the water and waste water systems. Naturally, the mayors and councils feel responsible for these services in their communities.

The state also continues to maintain an active interest in water and waste water services, but more from the perspective of technical and financial efficiency and of overall environmental standards. These overlapping interests have not been sorted out. Municipalities continue to pursue their own projects. The state maintains an active program of subsidies which provide the opportunity to review and guide local decisions. The National Association of Water and Waste Water Authorities is promoting legislation to establish new standards and licensing requirements for building and operating water and waste water systems.

The evolving relations between municipalities and the state in the area of water and waste water services may have a disproportionate impact on the smaller jurisdictions. They tend to have the smaller facilities that may

Mr. Jiri Mejstrik of the Ministry of Economy gave us this information.

This discussion draws on material provided in interviews by Ing. Vladimir Pytl of the National Association of Water and Waste Water Authorities and by Ings. Jan Plechaty and Stanislav Pavlik of the Water Department of the Ministry of Agriculture.

not be technically or financially efficient. They have less expertise and fewer means to address the new environmental standards. The small municipalities are developing new forms of cooperation among themselves to compensate for their limitations of size and skills. The state may also assume greater control over these matters. It is not clear where the division of power will end up.

A similar process is occurring in other areas. The common factor is that traditional local areas of responsibility now overlap with areas in which the state has national concerns, such as preservation of natural areas or economic development.

New Local Initiatives

Samosprava was born as an inward looking concept in which local communities tended to their own needs and concerns. The introduction of market forces in the Czech Republic is adding a new, outward looking twist to the concept of self-government.¹¹ Municipalities want jobs and greater economic opportunities for their villages, towns and cities. They have become aware quickly that there are limited opportunities. They are taking action to try to make their communities more competitive.

The smaller jurisdictions have limited options and resources. The current rules for sharing tax revenues with the state are having a curious effect on the strategies that some of them have adopted for promoting local economic growth. In the towns and villages surrounding Prague, most small jurisdictions are planning to invest in water and waste water facilities to attract new residents or to try to entice those with second homes to establish their primary residence in the community. They are less interested in taking steps to attract new businesses.

The mayors explained this strategy in terms of the new tax sharing rules. The state shares the tax revenues from profits on businesses with the municipality where the owner of the business lives. The idea, then, is to attract new, higher-income residents who presumably own businesses and will generate new tax revenues. The mayors do not appear to view the presence of the business itself as a boon. Businesses generate demands for services from the municipality, but do not produce new revenues to pay for the services.

Smaller jurisdictions also are finding strength in unity. They have formed new entities to undertake specific projects, such as a new water line. They also have formed associations with a broader focus. The common factor is the desire to identify new ways to pursue the interests of the village or town. The fact that municipalities are pursuing an active strategy to promote the development of their community is one more component of the many changes that are occurring among local governments in the Czech Republic. Small local jurisdictions are very much a part of this change. It is not clear where these changes will lead.

Key Factors Affecting Small Municipalities

Any proposal to assist small municipalities in the Czech Republic today must take into account three key factors:

Mr. Jan Prikryl of the Institute of Economics explained that the state traditionally has decided where to place public services. This was taken to the extreme under the communist regime. The recent reforms have "planted a seed of change that is much more market oriented," according to Mr. Prikryl. He feels that the force of the change is not yet evident because there are psychological barriers to overcome. He feels that public policy may not recognize the full implications of the change.

- Number and character of municipalities. The existence of over 5,500 small municipalities in 1994 in the Czech Republic reflects the centuries old Czech tradition of autonomous self-management of local affairs (*samosprava*). The communities may not be receptive initially to assistance from "outsiders."
- Municipal diversity. These small municipalities are a diverse group in terms of: historical development, fiscal independence, opportunities for development, degree of initiative in addressing their own needs.
- Changing role of government. The role of local government in general and that of small municipalities specifically is evolving as:
 - The mayors and municipal councils move in new directions in response to the challenges they confront.
 - National policy makers struggle to find the proper balance between the imperatives of a modern state in a competitive world and the deeply held values of autonomous local self-government.

Parameters for Proposed Assistance

- The proposed assistance program to small municipalities should target that part of their needs that relate to broader USAID efforts to establish a viable municipal finance system, including the newly formed municipal finance company, MUFIS.
- Respect for the concept of *samosprava* suggests the need to work directly with individual small municipalities where there are strong local initiatives and where the mayors are willing to accept advice by outsiders. This may require a slow process of gaining the confidence of local officials before any formal assistance can begin.
- The difficult logistics of such an effort and the limited resources available suggest the need for a modest initial program involving associations of small municipalities, rather than individual municipalities.
- The differences that exist among small municipalities in different parts of the Czech Republic suggests the need to work with associations from at least two different regions.
- The continuing need for such assistance points to the need for an institutionalized learning process that draws on the individual success stories to guide the broader development of local self-government. An initial effort should explore the relative merits of alternative vehicles to institutionalize the learning process.

4. DEMAND FOR INFRASTRUCTURE INVESTMENT

The focus of broader USAID efforts on establishing a viable finance system for Czech municipalities suggests that the proposed assistance should look at the infrastructure financing needs of small local jurisdictions. Within the context of renewed local autonomy, infrastructure investment has emerged as a major priority for small municipalities. Many small municipalities have plans to improve their infrastructure, in fact *every* community visited for this research had such plans. For the most part small municipalities plan investments related to the environment:

plans to improve waste-water or water facilities appear to be most common, though, to a lesser degree, small municipalities also plan investments in solid-waste disposal and heating fuel conversion. This section investigates the demand for infrastructure investment among small Czech municipalities.

As noted in the previous section, with the restoration of local self-government small municipalities have been enthusiastic to assume responsibility for provision of local services. But, why should infrastructure investment be a high priority for these communities? The following discussion considers two main forces behind the demand for infrastructure investment--the existing level of service in small communities, and the role infrastructure improvements are perceived to play in the long-term viability of these communities. Infrastructure investment is seen as a goal in and of itself, and as a means to another end.

Shortfall in Level of Service

Demand for infrastructure investment in small municipalities is in part a product of the existing level of service in these communities. Aggregate national data show that small municipalities on average are not served as well by various types of infrastructure as larger communities. Planned infrastructure improvements would reduce this shortfall.

Conceptually, the level of service shortfall falls into two different categories:

- First, small municipalities have a disproportionate share of the population not served by various infrastructures--i.e. an un-served population.
- Second, small municipalities have systems which do not fully or adequately serve their clientele--i.e. an under-served population.

These two kinds of shortfall cut across different types of infrastructure. By way of illustration, the waste-water collection and treatment, and water provision are discussed below.

Waste-Water Collection and Treatment

Investment in waste-water collection and treatment arguably is the highest infrastructure priority for Czech municipalities. On a national basis, only 72 percent of the population was connected to a waste-water collection system in 1991, and, more significantly, only 58 percent of the population was connected to a system with some kind of treatment facility.¹² To a certain extent the demand for waste-water improvements affects municipalities regardless of size, but the Republic's smallest municipalities report the lowest levels of service and account for the majority of the un-served population.

There is a clear disparity in the level of waste-water service in small versus large municipalities. As Table 2.A shows, in terms of waste-water collection, residents of small municipalities enjoy a much lower level of service than do inhabitants of large municipalities. On average, in communities with under 2,000 inhabitants only 16 percent of the population is connected to a waste-water system, compared to 94 percent of the population in municipalities of 50,000 persons or more. Residents of small municipalities also are less likely to benefit from waste-water treatment. Unfortunately we cannot enumerate this difference without detailed information about access to waste-water treatment, but we can assume that the share of inhabitants connected to treatment facilities in small municipalities is less than 16 percent (the share connected to a collection system in these communities), while the share of inhabitants benefitting from waste-water treatment in the Republic's largest municipalities must exceed 58 percent (the aggregate national share). This disparity between different-sized municipalities.

As well as their comparatively low level of waste-water service, it is noteworthy that small municipalities account for a majority of the Republic's waste-water improvement needs. In 1991, almost 60 percent of the 1.6 million Czechs not connected to a waste-water collection system lived in municipalities with fewer than 2,000 inhabitants (see Table 2.B). Moreover, this 59.8% of the Republic's overall un-served population out-stripped the share of the total population in communities of this size by a wide margin--about one quarter of the country's population lives in these municipalities. By contrast, municipalities with over 100,000 population contain about one quarter of the country's population but less than 5 percent of the population not connected to a waste-water system. Small municipalities account for a disproportionate share of waste-water investment needs.

Table 2
Waste-Water Levels of Service by Population Category

A. Share of Population Connected to a Waste-Water System, 1991

Population Category	Share of Population
Under 2,000	16%
2,000-4,999	42
5,000-9,999	70
10,000-19,999	89
20,000-49,999	89
50,000-99,999	94
100,000 plus	94
Nation-Wide	72%

B. Distribution of the Un-Served Population, 1991

Population Category	Un-Served Population (millions)	Share of Un-Served Population	Share of Total Population
Under 2,000	2.14	59.8%	24.8%
2,000-4,999	0.61	17.1	10.2
5,000-9,999	0.28	7.9	9.1
10,000-19,999	0.19	5.3	10.7
20,000-49,999	0.13	3.6	10.9
50,000-99,999	0.06	1.8	10.9
100,000 plus	0.16	4.5	23.3
Nation-Wide	3.58	100.0%	100.0%

Source: Compiled by the Urban Institute from *Czech Drinking Water Supply and Sewerage Systems Annual Report, 1991*.

Water Provision

Because overall levels of service are higher for water provision than for waste-water facilities, investment in water provision is generally a low priority. As Table 3.A shows, to the extent the Czech population is un-served or under-served in terms of water provision, this shortfall occurs primarily in small municipalities.

A. Share of Residential Units With Piped Water Supply, 1991

This pattern is illustrated by the share of residential units with piped water in communities of different size--that is, the share of residential units hooked up to the public water network or an independent spring or well-water system. As Table 3.A shows, large communities enjoy a higher level of service according to this measure. In communities under 200 population on average 92 percent of residential units have piped water, whereas in municipalities over 20,000 approximately 100 percent of units are so-equipped. Though not large, this difference indicates the shortfall in water delivery to residential units that exists in smaller municipalities.

B. Share of Population Connected to the Public Water Network, 1991

Another measure of water provision--the share of population served by the public water network--confirms the level of service shortfall and resultant concentration of the un-served population in small municipalities. In fact, the difference between large and small municipalities is more dramatic according to this measure because it excludes the population served by independent spring and well water systems, and independent systems are a more common form of water provision in small municipalities. As Table 3.B shows, only 65 percent of the population is served by public water system in communities with up to 5,000 inhabitants. By contrast, 98 percent of the population in communities over 100,000 is connected to the public water network, and on a national basis approximately 84 percent of the population is linked to the public system. This measure also shows that the un-served population is concentrated and predominantly in small communities. Table 2.C indicates that municipalities under 2,000 account for 54.7 percent of the total population not connected to a public water system. As with waste-water services, this shortfalls strips the share of the Republic's population found in municipalities of the same size by a considerable margin.

The share of population served by the public water network also points to potential water quality and/or supply problems in the small municipalities--that is, an under-served population. Though a considerable share of water provided from the public network does not

C. Distribution of Population Not Connected to the Public Water Network, 1991

Population Category	Un-Served Population (millions)	Share of Un-Served Population	Share of Total Population
Under 2,000	0.90	54.7%	24.8%
2,000-4,999	0.38	23.1	10.2
5,000-9,999	0.13	8.0	9.1
10,000-19,999	0.10	5.9	10.7
20,000-49,999	0.06	3.5	10.9
50,000-99,999	0.03	2.1	10.9
100,000 plus	0.04	2.7	23.3
National Total	1.64	100.0%	100.0%

Sources: Compiled by the Urban Institute from *Terplan Population Housing Characteristics and Czech Drinking Water Supply and Sewerage Systems Annual Report, 1991*.

meet national quality criteria¹³, water provided by the public network is probably of more consistent quality and volume than water from independent spring and well systems. If so, the larger share of population served by independent water systems in small communities means the same communities are more likely to have water supply and quality problems. No aggregate data are available for the quality of water produced by independent systems, so a comparison with the public network supply is impossible. However, several communities visited for this project diminished the available supply, and testing showed some of the village's wells are polluted by sewage and agricultural nitrates. Only 2 village wells currently meet quality standards. The village of Korno is one such example--see insert below.

¹³ According to the *Czech Drinking Water Supply and Sewerage System Annual Report, 1992* one-third of water produced for the public water system did not meet all quality criteria; 5.2 percent of produced water did not meet the Ministry of Agriculture's most stringent standards.

Spatial distribution of infrastructure needs

Figure 2

Spatial Distribution of Infrastructure Needs by District

The concentration of the waste-water and water infrastructure shortfall in small communities produces a clear spatial pattern to the distribution of needs. Districts with a greater share of population in communities with fewer than 2,000 inhabitants--tend to have a

B. Districts With Lowest Share of Population Connected to a Waste-Water System

smaller share of population served by a public water network and a smaller share of population connected to waste-water systems.¹⁴

The maps in Figure 2 illustrate this relationship. Districts were ranked according to the share of their population connected to the public water network and the share of their population connected to a waste-water collection system. Shaded areas on the maps correspond to the one-fourth of districts with the worst level of service according to these two measures. Figure 2.A shows the clear concentration of water supply needs in two areas: one across central Bohemia (with the exclusion of Prague), and the other across central Moravia (with the exclusion of Brno). This pattern clearly matches the pattern for concentration of population in small municipalities presented in Figure 1, above. The distribution of concentrated waste-water needs deviates somewhat from this pattern. In addition to concentrations of need in central Bohemia and central Moravia, several Districts along the Republic's border with Poland, Slovakia and Austria are among those with the worst level of

Analysis indicates a strong correlation between these measures. With District level data, the Pearsonian correlation between share of population connected to the public water network and share of population in communities under 2,000 is 0.67. The correlation between share of population connected to a waste-water collection system and share of population in communities under 2,000 is 0.70. The significance level for these tests is 0.0001.

service. Possibly this variation points to the special problems associated with providing waste-water service in mountainous areas.

Long-Term Community Viability

The demand for infrastructure investment also is driven by the role infrastructure improvements are perceived to play in securing long-term viability for small municipalities. In this respect, mayors and other local decision-makers see infrastructure improvement as a means to an end rather than a goal in and of itself.

For many small communities long-term viability hinges on maintaining (or increasing) their resident population, and several local officials interviewed for the current research identified a clear link between infrastructure investment and the prospects for achieving this goal. These villages have witnessed a long-term decline in population, and many are further threatened by the realities of the new market economy. For example, the dismantling of agricultural cooperatives and collectives by one estimate threatens to reduce agricultural employment by over 50 percent.¹⁵ Efforts to stem (or reverse) the flow of population to larger and better serviced communities depend on bringing levels of service closer to the standard found in those communities. This leads to an attitude of "build it and they will stay" or "build it and they will come"--i.e. if small municipalities can only improve infrastructure and other services sufficiently, then they can preserve their current population and/or attract new residents. We found this argument carries considerable weight with local officials.

In other small municipalities long-term viability is linked to a secure tax base and infrastructure improvement is pursued as a means for increasing revenues. The recently reformed municipal finance system rewards communities that can attract entrepreneurs as permanent residents, and to do this municipalities must provide the level of service to which the modern-day entrepreneur is accustomed. In addition, the new revenue system offers higher property tax revenues for housing serviced by water and waste-water facilities. Together these rewards provide a considerable incentive for communities to pursue infrastructure investment. To a certain extent, this is an irreconcilable situation: to secure additional revenue, a community must invest in infrastructure; but, to make infrastructure investments a municipality must already have a secure revenue base. The next section will explore the fiscal constraints on infrastructure investment in small municipalities in more depth.

5. FINANCIAL CONSTRAINTS ON INFRASTRUCTURE INVESTMENT

The opportunity for small municipalities to *make* infrastructure investments is largely determined by the availability of financial resources, or more often than not the lack thereof. Fiscal capacity is the main barrier to implementation of infrastructure development plans in small Czech municipalities. While renewed local autonomy may have spurred calls for infrastructure development, small communities generally lack the funds necessary to respond.

This section examines the financial resources available for infrastructure improvements including annual municipal revenue and project-specific resources such as state infrastructure subsidies, user charges, and private finance. In so doing, it documents the circumstances that exasperate the fiscal capacity of small municipalities, and highlights the means by which communities can overcome these barriers. Overall small municipalities face grim

odds when trying to fund infrastructure improvements, but our research found some communities much better positioned than others.

Municipal Revenue

Annual municipal revenues generally are not sufficient to finance infrastructure investments outright, but for two reasons they play an important role in determining whether municipalities can secure enough alternative funding to realize development plans. To start, surplus municipal revenues can be used as equity in an infrastructure project and the Czech Municipal Revenues, Expenditures and Budget Surpluses, 1993 the extent that access to public or private funds depends on debt-service capacity, municipal revenues are important because they partly determine how much debt a municipality can carry. The following discussion focuses on the annual revenue-generating capacity of small municipalities including the impact of recent municipal finance reform.

Table 4
Czech Municipal Revenues, Expenditures and Budget Surpluses, 1993
by Population Category
(in Kc per capita)

Population Category	Revenue	Expenditures	Surplus
Under 200	5,912	3,321	2,591
200-499	5,944	3,283	2,661
500-999	5,406	4,068	1,242
1,000-4,999	6,708	5,796	970
5,000-9,999	7,827	7,157	670
10,000-49,999	7,614	7,075	539
50,000-99,999	7,442	-	-
100,000-499,999	10,512	-	-
Prague	14,489	-	-

Small municipalities on average generate less income per capita than do larger communities. As Table 4 shows, per capita revenues increased with size of community in 1993. The smallest municipalities--those with less than 200 population--had less than half the per capita revenue of Prague. At the same time, the number of responsibilities a municipality also varies with size--expenditures per capita increase with municipality population.

As a result of 1) the limited expenditure responsibilities, and 2) the conservatism of local officials, small municipalities on average do not guarantee infrastructure projects can be financed more populous municipalities. Municipalities with a population less than 200 have an average per capita surplus of Kc 2,591, whereas cities with between 10,000 and 49,999 inhabitants have only Kc 539 in budget surplus per capita. Paradoxically, small municipalities generally cannot afford infrastructure investments even with a comparatively large per capita budget surplus. However, despite this prodigious rate of saving, Hlohovec is a long way from saving enough equity to finance its Kc 44 million development project. And, with a current budget surplus of only Kc 2 million each year, the village does not have enough funds to service a short-term municipal loan to make up the difference. Increased reliance on "own" source revenue

The Czech municipal finance system underwent considerable reform at the beginning of 1993 in a shift that was part of the nation-wide redistribution of resources and responsibilities from state to local government described above. With a switch in the budgetary importance of state subsidies versus "own" source revenues, municipalities were given more latitude over their own fiscal affairs including a greater responsibility over raising revenue.¹⁶

The state government's decision to reconstitute municipal finances may have adversely affected small municipalities because small municipalities were on average more reliant on state subsidies than other municipalities prior to the reform. Up through 1992, on average municipalities received about 70 percent of their revenue from state subsidies and 30 percent from own-source revenues. By contrast, state subsidies had accounted for upwards of 90 percent of total revenue in small municipalities.¹⁷

For a detailed discussion of these reforms, see Firestone, Robert. 1993. *Local Finance in the Czech Republic*. Report prepared for the Office of Housing and Urban Programs, U.S. Agency for International Development. Washington, D.C.: The Urban Institute.

The overall reversal of budget shares from state subsidy versus own source is confirmed by Table 5 which shows the split between subsidy and own source revenue by municipality size. On average, subsidies accounted for 27 percent of total revenues in 1993. For municipalities up to 1,000 population, the share of revenues coming from state subsidies Czech Municipal Subsidy Versus Own Source Revenues, 1993 pattern was reversed. Municipalities under 1,000 population received more than 70 percent of their income from state subsidies.

Whether this suggests small municipalities on average lost out with reforms in the municipal finance system is not clear. Can small municipalities compensate for the loss of state subsidies? At an aggregate level, it is impossible to fully gauge the impact of reform on small municipalities without actual revenue data from before and after the changes took place.

Table 5

Population Category	Subsidies	Own Source
Variation among small municipalities		
Under 200	79%	81%
200-499	18	82
500-999	22	76
1,000-4,999	26	74
5,000-9,999	32	68
10,000-49,999	25	75
50,000-99,999	26	74
100,000-499,999	29	71
Prague	28	72

Our site visits confirm there is considerable variation in the impact of reforms on small municipalities. That is, some municipalities saw a net gain as a result of the changes, some a net loss. This variation in impact is mainly the result of the newly instituted revenue sharing between the state and local governments. The method for distributing the state tax on physical persons seems to have been devised for administrative simplicity without due regard to the impact it would have, especially on smaller municipalities.

Municipal revenue from the physical persons tax consists of two parts: 1) a share on the tax on *dependent* income (like a wage tax) which is shared with the state government's district level administration--in 1993, 60 percent to the District, 40 percent to the municipalities--and distributed on a district-wide per capita basis. And, 2) a tax on the *independent* source, compiled by physical persons (like from entrepreneurial tax) which accrues in its entirety to the municipality where the payer is a permanent resident.

As restructured, the revenue sharing system rewards municipalities where entrepreneurs are full-time residents, and it penalizes those where entrepreneurial activity occurs. Ordinarily in the West we would expect a tax on entrepreneurial income to accrue, at least in part, to the jurisdiction where that entrepreneur does business. It is that Unetice is a small village of 450 inhabitants just outside Prague's city limits. Among the village's limited "assets", the mayor lists two shops, a pre-school, and a historic church--all fairly typical for a municipality of this size. In fiscal terms, though, the village's greatest asset is that a number of entrepreneurs from Prague have decided to make it their home. And as a consequence, municipal revenue has increased dramatically. The village's annual revenue totalled about Kc 600,000 prior to municipal finance reform (1991), 80 percent of which came from direct state subsidies. Now the municipality receives most of its revenue from the state tax on physical persons' independent income, and annual revenue exceeds Kc 4,500,000 (1994). That represents more than a seven-fold increase over three years.

On the one hand, if a community is the location of businesses, but none of the business owners actually live in it, by contrast, the town of Karlstejn lost out under municipal finance reform. Mayor Jaroslav Kotek sees himself as "fighting alone against the illogical consequences of unreasonable laws." His town of 800 permanent residents receives over 400,000 visitors a year who come to see the marvelous castle which gives Karlstejn its name. The visitors create a demand for services which he must try to satisfy. Yet, his tax base derives solely from the incomes of the permanent residents. Over 80% of owners of the businesses in the town pay their taxes to the other jurisdiction where they live.

Prospects for raising additional revenue

In the short-term, the prospects for raising additional revenue are best illustrated by communities that are ahead of the curve in terms of generating revenues. These communities have adopted strategies which maximize resources given their circumstances and the current municipal finance system--see insert.

One strategy emphasizes local economic development. In many small municipalities, especially those in remote or rural areas, unemployment is a major concern, and so an appealing strategy emphasizes both job creation and revenue generation. Municipalities achieve this double pay-off by promoting small business development by local inhabitants. New businesses provide local job opportunities outside (or ancillary to) the agricultural sector, and having local entrepreneurs start those businesses ensures that tax on independent income from is channeled back to the local community. Among the communities visited for the current research, Hlohovec offers the best example of this ambitious strategy.

Different Strategies to Maximize Revenue for the current research have developed what could be termed a "bedroom suburb" strategy for maximizing revenue. As noted above, this strategy depends mainly on attracting permanent residents, especially entrepreneurs who pay the tax on independent income. Among the variations on this strategy we witnessed around Prague, was 1) conversion of weekend homes into permanent residences, and 2) the development of the state as a primary source for prospective employers. For this strategy to work, he has had to offer property at negligible cost, but in return five new businesses have already or plan to locate in the village. These include gas station, a meat processing facility, a vegetable processing facility, a metal workshop, and a sports goods outlet which together will employ 60 people--more than enough to meet the village's needs. In addition, a surprisingly successful part of Mr. Vlasic's strategy has been to target local residents as prospective entrepreneurs. All but one owner is from Hlohovec, and, as a result, the village will reap the added benefit of receiving income from the state tax on independent income generated by these new businesses. Although previous analysis showed that the number of households that could afford privately developed housing is significant enough to support independent income, explicit data on the demand for bedroom suburb housing. What share of villages around Prague and other large cities can be successful with this strategy? Stechovice is a municipality of 1,340 permanent inhabitants located a short distance from Prague on the Vltava River. Its location means that it has long been a popular weekend escape for city-dwellers, in fact, with over 1,000 second homes, the village's population more than doubles each weekend. The Mayor of Stechovice, Mr. Broulik, would like to see some of these weekend visitors to convert their second homes into permanent residences. As permanent residents, this population would increase the village's revenue from the state tax on physical persons' dependent income. More importantly, with this strategy, the village to secure additional revenues from the state tax on physical persons' independent income. According to Mr. Broulik, an unusually high share of current weekend visitors are Prague-based entrepreneurs. Currently, property tax rates are set at the national level, though it is within the power of local jurisdictions to raise this revenue by improving infrastructure services. Eventually, the property tax should become the major source of local finance.

It is noteworthy that further changes to the revenue system could undermine current efforts to maximize revenues. A minor change in the distribution of the tax on independent income could have a catastrophic impact on the strategy small municipalities that are trying to maximize revenue from this source. In larger communities municipal finance reform is more likely to be revenue neutral. Above all else, the long-term prospects for small municipalities to raise revenues depends on the predictability of the finance system.

State Infrastructure Subsidies

Small municipalities visited for this research all identified state infrastructure subsidies as a preferred option for financing their projects, and understandably so. While municipal finance reform has reduced the subsidy share of municipal revenues, the state still offers project-specific infrastructure subsidies with very favorable terms. Major resources include the State Environment Fund and the Ministry of Agriculture, and, starting in 1994, the Program for Village Reconstruction. The following discussion examines what resources are available and how well small

Maxian, Miriam, and G. Thomas Kingsley. 1992. *Housing Costs and Affordability in Czechoslovakia: the Opportunity for Private Home Building*. Report prepared for the Office of Housing and Urban Programs, U.S. Agency for International Development. Washington, D.C.: The Urban Institute.

municipalities can access these funds. At current funding levels and under current rules, project-specific subsidies offer limited support for investment by small municipalities.

The Environment Fund

The State Environment Fund finances improvements in the areas of water, air, and soil quality plus solid-waste disposal. For small municipalities, the Fund is primarily a resource for waste-water projects, though municipalities can and do apply for assistance in the Fund's other categories along with private and state-owned corporations. The Fund provided approximately Kc 3.68 billion in assistance provided in 1993. As Table 6 shows, water quality projects account for the largest share of these resources. By one estimate "small" municipalities (those under 5,000 population) account for about 20 percent of the Fund's assistance in any given year.¹⁹

Municipalities almost universally seek Environment Fund assistance because of the favorable terms under which assistance is offered. For municipalities, assistance is provided according to a 40-40-20 formula. That is, the Fund provides a grant at 40 percent of the project cost, a zero percent interest loan for another 40 percent, and applicants must provide a 20 percent match. The applicant's share of the cost can come in the form of an equity injection, or can be privately financed. In theory, therefore, a small municipality can finance an environmental improvement project with no up-front, out-of-pocket equity required.²⁰

For small municipalities, though, three factors tend to restrict access to Environment Fund resources. First, the Fund prioritizes projects according to their ecological importance--i.e. how much they will reduce current pollution levels--and cost per unit of pollution reduction. Compared to projects sponsored by larger communities and large state-run enterprises, small municipality projects are likely to reduce pollution levels by comparatively little, and cost more on a per-unit pollution reduction basis. As a result, infrastructure improvements in small municipalities are less likely to receive funds.

Second, small municipality access to Fund resources is restricted by the absolute amount of funds available. The Fund separates resources for different kinds of environmental clean-up, so in any given year the resources available for water quality improvements--the category most often pursued by small municipalities is limited to 1) fines levied for water pollution, and 2) repayment of previous zero percent interest loans for water quality projects, and 3) intermittent cash injections from the state government dedicated for water projects. (A recent state injection of Kc 5 million is dedicated for air quality improvements; small municipalities will receive only a small share of these resources.)

The final and arguably most important barrier to small municipality access to the fund is competition for these resources. Because the Fund offers such favorable financing terms, small municipality demand for assistance by far out-strips supply. Unfortunately, we do not have hard data about what share of small municipality applicants are granted or denied funding in any given year. For illustrative purposes, though, we can estimate how many small

This estimate was provided by Ing. Antonin Kadlec at the Environment Fund. The use of a 5,000 population cut-off to categorize "small" municipalities is significantly less restrictive than the threshold applied elsewhere in this paper.

Although these terms are favorable compared to commercial loan terms, the debt servicing capacity required to repay the Environment Fund's zero percent interest loan can sometimes make a project unfeasible if that precludes the use of debt financing for the 20 percent municipality match.

municipality projects might be funded given the reported share of funds being allocated to such projects. How many projects does the small municipality share translate into?

If small municipalities (with populations under 5,000) account for 20 percent of the Fund's total allocation in any given year, and we assume that funding for small municipalities is disproportionately in the water quality category, then perhaps 40 percent of the resources provided for this kind of project go to small municipalities. In 1993, a 40 percent share of water quality allocation translates into about Kc 600 million. At this level of funding, the Fund could support only 15 projects costing as much as Hlohovec's waste-water system (40 million). There are 5,934 municipalities with populations under 5,000, so at a rate of 15 projects per year, some communities have a very long wait. Respondents generally confirmed the slim prospects for Environment Fund assistance, though most remain optimistic about the prospects for assistance in the near future--see insert.

The Ministry of Agriculture

The Water Department at the Ministry of Agriculture provides subsidies for public water system improvements. This program supports development of public water supply networks in municipalities under 5,000 population, but also funds projects to resolve emergency water quality problems, or to modernize or develop water treatment facilities (plus irrigation, etc.) in communities regardless of their size. In addition to municipalities or groups of municipalities, eligible applicants include joint stock water and waste-water companies. Like the Environment Fund, therefore, the Ministry of Agriculture does not offer a dedicated source of funds for small municipalities. In fact, the Ministry's stated priorities appear to overlook the priority concerns for small municipalities.

Assistance currently is provided as a grant of between 30 and 80 percent of total project costs, but this system is currently under revision. Pending legislation will revise the Ministry of Agriculture program so that its format mirrors the Environment Fund formula, with the state subsidy split between an outright grant and zero percent loan. The new program will also involve a more rigorous financial analysis of prospective projects. To qualify applicants will have to establish availability of other resources--taxes or commercial loans.

Authorization for the new program is expected to reach Kc 5 billion in 1995, though what share of this will be dedicated for municipal water supply, and what share of that for small municipalities, is unclear. Stated Water Department priorities for the revised program suggest access to the funds by small municipalities will be limited. The Water Department emphasizes meeting national priorities, even though communities with under 2,000 inhabitants account for the largest single share of the population *not* served by the public water network. In no particular order, the Water Department's priorities order include: 1) completion of major water system projects currently under way to integrate current water systems, 2) construction of additional water supply infrastructure for Brno and Prague, 3) system maintenance to stem loss of water from the system, and 4) improvements to address pollution concerns and bring the Czech water supply system into line with EU quality standards. Extension of the public water supply network to unserved populations is not a priority.²¹

The Program for Village Reconstruction

Unlike the other two subsidy programs, the Program for Village Reconstruction is a dedicated resource for improvements in small municipalities. However, this is not a major source of funds for infrastructure investments.

In fact, a table describing the level of service by community size in the Water Department's Annual Report, 1991 does not provide information for communities under 2,000 population.

One respondent dubbed this as the program to restore "public interest in the public good," and, as this label suggests, the scope of the program goes far beyond the narrowly-defined infrastructure needs.

The program began in 1991, but through 1993 focused on support for rehabilitation planning as opposed to project financing. Of 1,200 original inquiries for assistance under the program, approximately 500 "villages" followed up with a formal application. A pre-condition for participation was development of a land-use plan that spells out specific actions intended to restore village life. These might include renovating public facilities, but also social, cultural and sports activities meant to revive village social networks.

In 1994, the Program was allocated Kc 100 million to fund project implementation. Educational facilities are given first priority, with subsequent priority for streets, energy improvements, and public facilities--especially ecology-oriented projects. From over 500 program participants, a committee including representatives from various state ministries selected 300 projects for funding. In the absence of more detailed information, we can not say how much individual awards have been under this program or for what purpose, but if awards are, on average, approximately 300,000 Kc each, generally this amount will be insufficient to make a major contribution to the costs of a infrastructure improvement project. Having said that, perhaps the Program for Village reconstruction is more important as a symbol of an ongoing state commitment to subsidize development activities in small municipalities.

Water and Waste-Water Fees

User fees offer another potential source of finance for investment in water and waste water infrastructure, however municipalities are more likely to employ this option over the long-term rather than short-term because of unresolved issues related to the denationalization of water and waste water authorities (VaK).

The current state of flux in the water and waste-water sector is illustrated by ambiguity over who controls user fees. Municipalities now have the legal authority to raise fees, but for the most part fees continue to be set on a regional basis by the water and waste-water authorities. Current practice is for municipalities to control user fees only where they own and operate a system independent of the local VaK. Overlaying this situation, regulators at the Ministry of Finance have the authority to modify water and waste water fees that yield an "unreasonable" profit.

Another deterrent to municipal use of water and waste water fees to finance infrastructure improvements is the traditional system water and waste water authorities have used to redistribute income among the jurisdictions they serve. Because fees levied in a particular village or town traditionally have not been dedicated for operation and capital costs in that same jurisdiction, there is a strong disincentive for officials to support a unilateral fee increase without a clear agreement on how additional revenues will be shared with neighboring jurisdictions and the local VaK. In other words, municipalities are unlikely to rely on water and waste water user fees to finance infrastructure improvements until new institutional relationships are established. The experience of Jablonn e provides an example of how complex this process can be--see insert.

Developing a Framework to Access User Fees

One of the arguably most important deterrent for using water and waste water fees to pay for infrastructure improvements, is the price elasticity of these products. It is not clear whether revenue from increases in user fees would be offset by decreased demand for water and waste water services. To date there has been no do so it must first gain access to these resources. Currently, the town's residents pay fees for water and waste water directly to the local VaK, except for a small number of residents served by a segment of the existing sewer system that is owned and operated by the town. The town also pays into its own municipal use of the VaK-operated system. Mr. Motl, mayor of Jablonne, would prefer the town assume ownership of all infrastructure, both new and old. If he is successful in packaging the development project this way, in the future residents will pay waste water fees determined by the town directly to town. Revenue from the new user fees would pay for operation of the town's waste water system by the local VaK (or possibly a newly formed, private competitor), and service the debt on the new facility. Water fees would still be paid directly to the VaK.

To achieve his goal, Mr. Motl must overcome considerable opposition from those interested in maintaining the status quo, most notably the local VaK. He must also convince the Jablonne electorate and other town officials that this is the most appropriate means to finance the development project, and convince those providing the debt finance for the project that the new institutional arrangement will work.

Private Finance

For small municipalities, the last option for financing infrastructure improvements is borrowing funds from a private bank. As Table 7 shows, aggregate national data suggest that small municipalities are taking up this option, at least to a limited extent. Small communities raised less funds per capita from loans than larger communities, but as a proportion of total revenue, they raise much revenue from private financing either.

Table 7
Czech Municipal Revenues, 1993
by Population Category
(in Kc per capita)

Population Category	Income From Loans	Share of Total Income
Under 200	60	1.0%
200-499	27	0.5
500-999	74	1.4
1,000-4,999	158	2.4
5,000-9,999	203	2.6
10,000-49,999	339	4.5
50,000-99,999	325	4.4
100,000-499,999	641	8.2
Prague	68	0.43

Source: Compiled by Urban Research from Ministry of Finance data.

Solimar Environmental Research reports that Ceska Sporitelna offered Jablonne assistance at 10.5%.

Sporitelna's program is the only viable option for small municipalities that want to borrow funds--see insert.

Borrowing as an Interim Measure.

Regardless what mechanism small municipalities use to secure a loan, they can only qualify for assistance up to their debt carrying capacity--at least to the extent that lenders rely on this income rather than collateral as security. As noted above, small municipalities have greater per capita budget surpluses than larger communities. Stechovice has a letter of credit with a Czech commercial bank totalling Kc 8 million, with a 10 year term at 14% interest. According Mr. Broulik, the mayor of Stechovice, this is an interim measure. The municipality will use the funds to pursue development activities including 2 km of sewers and a waste water treatment plant, but in the meantime will continue to apply for state subsidy applications, and possibility of alternative credit where MUEIS is available and running. The opportunity cost of this strategy including a lower rate of interest on deposits is offset by being able to achieve something.

There are limits to this strategy, though. The whole project has a price-tag of Kc 27 million, which the town cannot afford to finance on its current annual revenue. The only option is to stage development borrowing in manageable chunks, taking time to repay that loan, then borrowing again. By this method, the village will be under construction for 10 years.

6. INSTITUTIONAL OPPORTUNITIES

In the face of considerable barriers to development, small municipalities have begun to join or form associations of municipalities. These new institutions offer municipalities an opportunity to muster additional fiscal and political weight and thereby move forward a common agenda--whether that be a specific development project or a development plan for a region. At the same time they are formed from bottom-up, not by state top-down, so they do not necessarily conflict with the concept of *samosprava* described above. Associations are all built on the notion of strength in numbers, but the precise composition and purpose of the groups varies.

Municipal associations have become a widespread phenomenon in the Czech Republic, and an important mechanism for small municipalities. A 1993 survey unearthed 96 such regional and local municipal associations, 68 of which we have detailed information about.²³ The 68 associations involved 1,240 municipalities, or about 20 percent of the municipalities and 27 percent of the population in the Districts surveyed. Of course, some municipalities belong to more than one association. A large share of participants are small municipalities, in fact 70 percent of participating municipalities have populations less than 1,000.²⁴ Most of the organizations involve either a mix of mid-sized and small municipalities, or just small municipalities.

The survey was conducted by the Institute for Research on the Development of Regions and Cities, Ostrava. Responses came from 56 out of the Republic's 76 Districts, or Districts accounting for about 80 percent of all municipalities. The survey therefore underestimates the extent of these associations.

The Institute for Research on Development of Regions and Cities did not provide information for municipalities with under 2,000 inhabitants--the cut-off used elsewhere in this report.

There are basically two kinds of association, based on their purpose or goal--see insert. About one quarter of the organizations were formed to pay a comprehensive role in the regional economic and social development. An example of this kind of group is the Sumava Regional Association visited for this current research.²⁵ Other associations have a special purpose, i.e. they were formed for the express purpose of developing (or operating) a specific project. Not surprisingly, the largest number of associations with a specific purpose formed in and around the German population center of World War II and the remainder of the population which the Iron Curtain was put up. Current residents would like to repopulate and develop the area, and they see the area's National Park as means to boost the tourist industry. Relations with the National Park administration generally are not good. Associations also offer an opportunity for a possible support strategy for small municipalities. To start, the association therefore serves two purposes: 1) to represent member municipalities vis-a-vis the state and/or National Park authorities, and 2) to encourage development and attract investors. To these ends, representatives from 9 micro-regions meet on a regular basis, and the association has set up two consultants to provide technical assistance for municipalities in preparing development projects. The association acts very much as a facilitator for municipal activities. The association is eligible for the Development Municipal Finance Program (MUFIS) if they have joined together because of the commercial nature of that program. And finally, to the extent that different associations are trying to overcome the same barriers, the lessons of successful assistance to one or more associations could be transferred to many other groups. The final section of this report discusses in full how our proposed assistance strategy would tap into associations of municipalities.

Specific Purpose Associations--Zlatnicky Incineration Plant

The Zlatnicky Incinerator will serve 9 villages in the Praha West district including Vrane nad Vltavou which we visited for the current research. These communities have 10 years maximum capacity left in existing dump-sites at current waste-disposal rates, so they have come together to try and develop a long-term solution to their problem. Construction of an incinerator would drastically reduce the volume of dumped material.

7. PROPOSED ASSISTANCE PROGRAM

Needs and Opportunities

National programs that provide financing for municipal infrastructure projects tend to set minimum funding or population limits. For example, the water and waste water program of the Ministry of Agriculture target jurisdictions with 10,000 or more inhabitants. The MUFIS requires a waiver for loans of less than Kc 10 million. This represents greater efficiency and lower transactions costs for these programs. If the small municipalities want to seek loans or subsidies from these sources, they must look and act like larger jurisdictions. They will have to package their individual projects. They will have to present joint proposals that can address the technical and financial criteria of the national programs. Fortunately, the small municipalities already are coming together in strategic alliances. The proposed assistance program might work with these existing alliances in two broad areas:

- General infrastructure investment analysis and planning, including subjects such as:
 - Understanding the concepts of present value and opportunity cost
 - Establishing priorities (opportunity costs) and developing an investment strategy
 - Packaging funding from different sources of outside financial support - state subsidies, and private bank loans - to finance specific projects
 - Analysis of alternative technologies
- Strategies and techniques for creating viable alliances, including subjects such as:

However, the Sumava Regional Association is not included in the 68 identified associations because of non-response from Sumava area District Councils to the survey.

- Forming the alliances through limited liability companies, regional or local associations or contracts.
- Sharing risks through "solidarity loans" or other forms of joint liability.
Formalizing loans on commercial terms to finance joint projects.

At the other extreme, it will be important to ensure that there are no unjustified biases against such proposals at the national level. The funding criteria and project review procedures of the national programs must allow any projects presented jointly by or on behalf of groups of smaller jurisdictions to compete solely on the basis of their merits with those of the larger jurisdictions. This may not be the case at this moment. If so, this suggests a third possible area of assistance. The target would be major national programs that fund local infrastructure projects, such as the environmental fund or the water and waste water program of the Ministry of Agriculture. The assistance would focus on:

- Lending criteria and procedures for joint funding proposals presented by groups of municipalities

Phases of the Proposed Assistance Program

The overall assistance program could be carried out in three phases:

- Phase one would involve an inventory of "best" cases of existing alliances of small municipalities and an analysis of the lending criteria and procedures of MUFIS and other national programs as they apply to the small municipalities.

Level of effort: Eight (8) person weeks

Products: Inventory of existing municipal alliances, analysis of "best" cases, analysis of impact of existing lending criteria and procedures of MUFIS and other similar national programs on joint financing proposals presented by small municipalities.

- Phase two would work with actual requests for financing presented by one or two alliances of small municipalities to the MUFIS and/or another national infrastructure program. The intent would be to develop successful practical experiences with this type of project financing.

Level of effort: Eight (8) person weeks

Products: Successful financing of joint infrastructure projects developed by one or two alliances of small municipalities and an evaluation of the experience. The experience might also lead to a "model" contract for use by commercial banks dealing with such alliances.

- Phase three would focus on disseminating the lessons learned from the two first phases to all the interested small municipalities in the Czech Republic.

Level of effort: Six (6) person weeks

Products: Case studies of successful municipal alliances, case studies of successful financing of joint infrastructure projects developed by such alliances including model contracts, regional seminars, distribution of case studies to interested municipalities.

The complete program would probably take place over a period of nine to twelve months. It would contribute to the success of the MUFIS by supporting a new type of borrower. This would create a broader demand base for the Fund. Finally, if successful, the program would expand the financing available for water, waste water and other basic infrastructure in the smaller municipalities of the Czech Republic. These are the areas of greatest need at present.