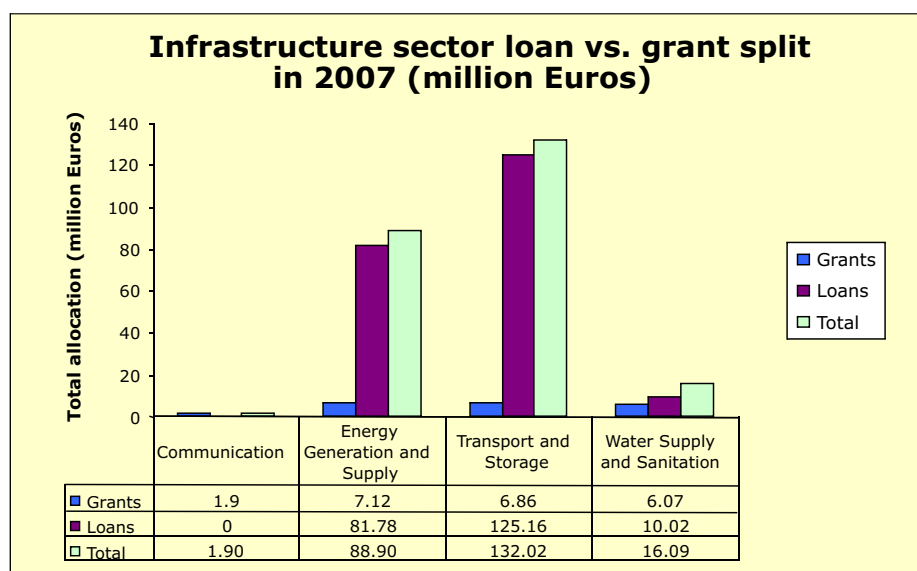


Sustainable economic development and the associated human development gains can only be achieved by creating a solid foundation on which economic activity can flourish. Accordingly, the Infrastructure sector can be viewed as the backbone of an economy. Connectivity - in terms of transportation and communication - allows for the free flow of economic assets and ideas. Ease and efficiency of transportation and communication are of fundamental importance in the endeavor to appropriately allocate scarce economic resources. At the same time, economic activity is physically powered by the output of the Energy sub-sector. While safe, sufficient water services contribute directly to citizens' health and are thus a human right, they are also of paramount importance for the economic development of key sectors, such as Agriculture. Infrastructure also exerts influence on the environment, often producing negative ramifications. Therefore, the environmental pros and cons of planned sectoral reforms need to be assessed before policies and projects are implemented.

Donor activities in the Infrastructure sector in Bosnia and Herzegovina (BiH) are guided by national priorities and the BiH Government's regional commitments. The Medium-Term Development Strategy (MTDS) covers all of the main focus areas of the relevant segments of the Infrastructure sector, as per the DAC codes: Transport, Communication, Energy, and Water Resources. In addition, the *Public Investment Programme* (PIP), the basis for short- and medium-term public expenditure and investment planning, indicates the BiH Government's view of infrastructure activities as a priority.



The total allocation to the Infrastructure sector in 2007 was € 283.9 million, of which € 217 million was in the form of soft loans. The largest share of funds was allocated to the Transport and Storage sub-sector, while Energy Generation and Supply also received significant support.

Transport and Storage

Sector definition	Based on DAC definitions, the Transport and Storage sub-sector encompasses the following elements: <ul style="list-style-type: none"> • Transport policy and administrative management; • Road, rail, water and air transport; • Storage. <p>DAC code: 210.</p>
DCF donors	Japan/JICA, EBRD, the EC, EIB, and the World Bank.
Key government partners	At the state level, the BiH Ministry of Transport and Communication holds coordination responsibilities. At the entity level, the RS Ministry of Communications and Transport and the FBiH Ministry of Transport and Communications (which includes the Federal Directorate for Civil Aviation and Federal Directorate for Building, Managing and Maintaining Motorways) are the bodies in charge of this sector.
Total donor allocation to the sector in 2007	€ 132 million.
Sector strategies	The National Transport Strategy and Action Plan have been developed, but not yet approved. The World Bank is currently supporting studies to inform strategic planning in transport infrastructure. An Air Traffic Management Strategy has also been developed.
International obligations	Aviation Airspace Agreement.
Donor coordination	Informal donor coordination; no regular coordination meetings.

Overview

As articulated in the MTDS, the Transport sub-sector in BiH consists of the road, rail, and water transportation networks, as well as air infrastructure.

The rehabilitation of the existing road networks¹⁶² and the introduction of new road maintenance methods remain high priorities. According to the MTDS (revised May 2006), problems with BiH roads and highways include potholes and cracking, poor drainage, land and rock slides, inadequate lighting in tunnels, and transit issues throughout cities. In addition, construction of the Pan-European Corridor 5c is seen as an important priority for BiH's future economic development. This branch of the Pan-European Corridor will cut across the middle of the country, passing through Bosanski Šamac at BiH's northern border, and continuing through Doboj, Zenica, Sarajevo, and Mostar, before crossing into Croatia at Metković. When finished, the Pan-European Corridor 5c will connect Budapest, Hungary to the Adriatic Sea at Ploče, Croatia. This transportation line will feature a modern highway, upgraded rail links, and improved airport capacity.

Needs in the rail transport area include reconstructing railways and enhancing the rail infrastructure to achieve compliance with regional and international commitments. It is important to improve not only the operation and maintenance of the railway system, but also its safety and environmental standards.

The major focus of development activities in the field of water transport deals with the renewal of the Sava River as a fully functional water transportation option. In 1990, water transport tonnage on the Sava in Croatia, BiH, and Serbia totaled 5.7 million, but the 1992-1995 war caused the cessation of most economic activity on the waterway and resulted in massive destruction of river and port infrastructure. As a result, tonnage fell to roughly 1 million.¹⁶³ According to international classifications measuring shipping capacities of water bodies,¹⁶⁴ the Sava River is classified as a Class III waterway upstream of the Brčko District, the largest section of the river in BiH, running along the country's northern border. Downstream of Brčko, the Sava is classified as a Class IV waterway, but this section of the river in BiH is much shorter (approximately 50 km), covering the

¹⁶² According to the Institute of Transportation Engineers in 2002, during the 1992-1995 war, over 2,000 km of the main road network and over 70 major bridges were either partially or totally destroyed.

¹⁶³ Pre-Feasibility Study for the Rehabilitation and Development of the Sava River Waterway (International Sava River Basin Commission, March, 2007).

¹⁶⁴ For details see Ibid., 2-1.

distance between Brčko and the Serbian border. According to the International Sava River Basin Commission, the Sava Strategy includes a plan to upgrade the Class III section of the river to Class IV.

In the Air Transport sub-sector, needs include the application of market access rules, and improved safety, security, and air traffic management. This sub-sector also requires the establishment of a civil aviation authority and an air navigation services provider.

The BiH Ministry of Transport and Communication holds coordination responsibilities for activities at the entity level, carried out by the Republika Srpska (RS) Ministry of Communications and Transport and the Federation of BiH (FBiH) Ministry of Transport and Communications (which includes the Federal Directorate for Civil Aviation and Federal Directorate for Building, Managing and Maintaining Motorways). The Transport sub-sector has experienced a variety of different strategic planning and policy development initiatives in recent years. A national Transport Strategy and Action Plan have been created at the state level but these require agreement from entity counterparts before being adopted and implemented. The World Bank is also currently supporting studies to inform strategic planning in transport infrastructure. At the regional level, BiH is a participant in the Core Regional Transport Network and in the South East Europe Transport Observatory (SEETO).

As succinctly summarized by the EC, "Overall, Bosnia and Herzegovina has made some progress in the field of transport. Sustained efforts remain necessary, particularly as regards legislative alignment and the development of the administrative capacity to ensure proper implementation."¹⁶⁵

Donor activities in 2007

The donors in the Transport and Storage sub-sector in 2007 were Japan/JICA, EBRD, the EC, EIB, and the World Bank. Together they contributed € 132 million. Most large-scale funds to this sub-sector were in the form of loans, although some agencies, like Japan/JICA, also contributed significant grants. EBRD is active in every aspect of the Transport sub-sector, including road networks, air traffic management, and railways.

In order to improve BiH's Road Networks, in July 2007, the **EBRD, EIB, and World Bank**¹⁶⁶ initiated the *Bosnia and Herzegovina Road Rehabilitation Project*, a major initiative to support the improvement of the country's road infrastructure and safety. In addition to the provision of loan capital for rehabilitation activities, the project seeks to introduce new methods for road upkeep in order to eliminate the current maintenance backlog. The initiative also supports the development of a transport law for the FBiH. The domestic authority partners are the BiH, the FBiH, and the RS Ministries of Transport and Communication, and the Entity Directorates of Road Maintenance. The **EC's** activities focus mainly on institutional development and reform through support to the relevant authorities and administrative bodies, and the facilitation of direct investments. In addition, the EC supports studies aiming to explore the feasibility of intermodal transport in BiH. **Japan/JICA** has assisted BiH's road maintenance by supplying equipment to CESTE. Their € 6.6 million contribution was all in the form of a grant.

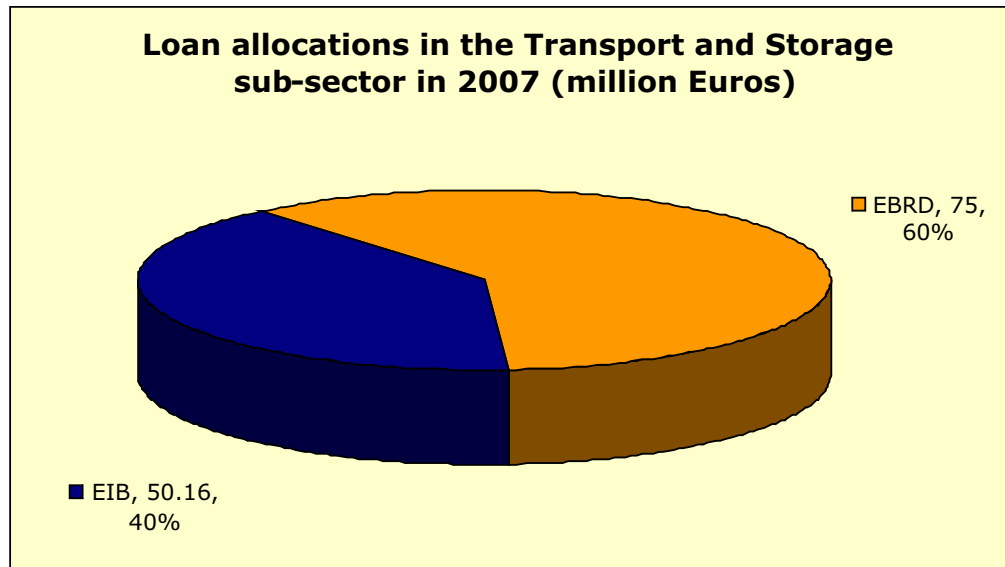
For the betterment of the Rail Networks, the EBRD and the BiH Government signed the *Regional Railway Project* in 2005 but to date, no progress has been achieved. The initial aim of this effort was to renew tracks on key sections of the north-south Pan-European Corridor 5c and certain east-west lines, and to rehabilitate the station signaling system and track machinery. The project was also meant to support the restructuring of the railways in BiH, through the separation of infrastructure from operations. The EC's assistance to this sub-sector is multi-faceted. The EC provides twinning assistance to the BiH Ministry of Communications and Transport in implementing the BiH Law on Railways. At the same time, the EC has supported the design of the reconstruction of railway sections on the Pan-European Corridor 5c, as well as preliminary studies and solutions for creating the regional railway link between Čapljina and Trebinje, in BiH, and Nikšić, in Montenegro.

There were no substantial developments in the Water Transportation Network in 2007. In the field of Air Transport, there were a few initiatives. EBRD's *Air Traffic Management System Project* entails the procurement and provision of air navigation, communication and

¹⁶⁵ Commission of the European Communities, *Bosnia and Herzegovina 2007 Progress Report*.

¹⁶⁶ The World Bank does not feature in the below graph, as this donor indicated a fund allocation for 2008 only.

meteorological equipment, software, and training to three regional airports (Banja Luka, Tuzla, and Mostar) in order to improve safety and enable BiH airports to meet international standards. EBRD also supports the establishment of a new Air Navigation Services Provider, which would take over the control of intermediate and lower air space in BiH. The EC provided technical assistance to the BiH Directorate for Civil Aviation (BHDCA) to implement the Air Traffic Management Strategy.



Sector strategies

Although a state-level Transport Strategy was developed through a coordinated effort between the BiH Ministry of Transport and Communication, France, EBRD, and the World Bank, it has not yet been approved. An Air Traffic Management Strategy has also been created. Other guiding documents include the BiH Railways Law (passed in 2004 but not yet implemented), the *Study on the BiH Transport Master Plan*,¹⁶⁷ and some EC regional studies such as the *Transport Infrastructure Regional Study (TIRS)* and the *Regional Balkans Infrastructure Study (REBIS)*. The World Bank is expected to make a significant contribution to the strategic guidance of the sub-sector when it completes a Country Assessment Study focusing on the Transport sub-sector for the period 2008 - 2012.

This sub-sector can claim a relatively strong strategic planning component. The work of entity ministries has been improved by the adoption of new planning approaches that offer increased discipline in programme budgeting with predetermined goals providing clear strategic direction.

Positive developments and challenges in the sector in 2007

A contract outlining intended cooperation on the Pan-European Corridor 5c between the EBRD and BiH authorities was signed, and construction commenced. Furthermore, a feasibility study on the Corridor was completed. Other than that, some progress was made on building motorways and installing lighting systems in tunnels. In the Air Transport sector, the Aviation Airspace Agreement was ratified by the BiH Government. For this sub-sector, in spite of the achievements related to fulfilling the requirements under the *acquis communautaire*, there is significant work remaining in the MTDS priority areas of equipment provision and air space control.

Although there were no new substantive developments in terms of improving the Sava's River Navigation in 2007, the International Sava River Basin Commission did publish the *Pre-Feasibility Study for the Rehabilitation and Development of the Sava River Waterway* in March 2007.

¹⁶⁷ The BiH TMAP was developed with the assistance of Japan/ICA in 2001 in conjunction with the BiH Ministry of Civil Affairs, and the BiH, FBiH, and RS Ministries of Transport and Communications.

Significant challenges in the sub-sector in 2007 included the delays resulting from the state-level strategy not being passed and the postponement of the implementation of the EBRD's railway network improvement project.

Coordination and ownership

Although the practice of informal coordination in this sub-sector is generally considered to be operating at an acceptable level, there are diverging opinions as to whether overall donor coordination has increased or decreased compared to past years. Coordination of international agencies at the regional level was noted as being rather effective. One challenge to synchronizing donors' activities is the complex organization of the sub-sector. Thus, steps toward simplification would make coordination easier.

National ownership has not reached its full potential yet. This is largely due to the international community not setting up operational consultative processes. However, the joint funding requirement associated with Instrument for Pre-Accession Assistance (IPA) funds is expected to encourage greater BiH Government ownership and accountability.

Future activities

While the BiH Ministry of Transport and Communication is viewed as being very competent and prepared to guide the Transport sub-sector toward achievement of *acquis* requirements, capacity-building activities to support the Ministry's efforts to reform legal and regulatory frameworks would be useful. Other domestic authorities active in the sub-sector require capacity development assistance to enable them to take on a greater role in coordination, business planning, and project preparation skills. These skills are: developing and producing preparatory studies, contracting, implementing projects, and performing assessments of transition impacts. Donors agreed that more attention should be paid to consulting with domestic authorities.

National priorities for the Transport sub-sector include addressing maintenance deficiencies and maintenance backlogs, as well as the development of the Pan-European Corridor 5c. Large-scale investments are anticipated from donors to finance these efforts over the coming years. International agencies such as EBRD, the EC and the World Bank all require strategic justification for their investments, which highlights the relevance and importance of internal planning and policy capacities within the Transport sub-sector. The EC has stated its intention to provide dedicated twinning support to assist BiH transport authorities in strengthening their capacities to deliver remits effectively.

Communication

Sector definition	<p>Based on DAC definitions, the Communication sub-sector refers to the following:</p> <ul style="list-style-type: none"> • Communications policy and administrative management; • Telecommunications; • Radio, television, and print media; • Information and communication technology (ICT). <p>DAC code: 220.</p>
DCF donors	USA/USAID, the EC, and UNDP.
Key government partners	The BiH, the FBiH, and the RS Ministries of Transport and Communication.
Total amount of donor allocation to the sector in 2007	€ 1.9 million.
Sector strategies	No state-level strategy, but a working group has begun the strategy development process. A Strategy and Action Plan for Information Society have also been developed.
Donor coordination	Informal coordination, with no regular coordination meetings.

Overview

While the transition to a market-based Telecommunications sub-sector is underway, it remains in its early stages. Therefore, not all of the requisite market protection mechanisms are in place, and competition has not yet adequately developed. The MTDS highlights the need to increase competition within this sub-sector, a key point recently echoed by the EC.¹⁶⁸ The importance of satisfying EU requirements, as per the Lisbon Strategy, is prominently presented in the Medium-Term Development Strategy (MTDS). To this end, the goals for BiH all relate to the development of a modern information-based society. These are namely: defining priority policies and areas; adjusting and updating the legal framework, including harmonization with EU documents; promoting the development of small and medium-sized enterprises in the field; achieving further liberalization of the communications sub-sector; and creating broadband infrastructure.

Donor activities in 2007

USA/USAID, the EC, and UNDP are donors to this sub-sector. Together they contribute € 1.9 million.

The **EC** focuses on initiatives that both directly and indirectly support BiH's achievement of compliance with EU accession requirements. For example, technical assistance in the form of equipment and training to the Communications Regulatory Agency (CRA) is enabling the agency to adopt European standards in the regulatory framework. Supporting reform of the Public Broadcasting System (PBS), including the creation of a state television channel, is another way in which the EC is directly assisting BiH to achieve compliance. The Delegation is also indirectly supporting BiH's accession by advocating for the transformation of the Citizens Identity Protection System into a state-level Agency for Information Society in charge of implementing the Strategy for Information Society and its Action Plan, as well as coordinating related activities throughout the country.

As mentioned in the Public Administration Reform (PAR) sub-chapter, the objective of UNDP's *E-Governance Programme* is the development of an efficient and responsive public administration, which will ensure equitable access to public services. The *E-Governance Programme* ensures that Information and Communication Technology (ICT) will be utilized effectively for PAR objectives. Therefore this initiative has a strong link to Infrastructure as well. The EC financially supports UNDP in this endeavor.

¹⁶⁸ Medium-Term Development Strategy (MTDS) 2004-2007 – Revised Document (Sarajevo: EPPU, 2006).

In the framework of its *Digital Cities* initiative, **USA/USAID**'s provides technical assistance and supports the installation of CISCO's contribution of equipment to establish a wide communication network in Srebrenica and Bratunac. The project is designed to provide a base for all types of e-government, with a robust network that reaches into rural areas around the towns. A shared network will enable municipal institutions to ensure that information on pension payments, healthcare, education, business services and other social benefits is accessible in a way that encourages returnees to actually register their residence in Srebrenica. It will also create the opportunity for the Srebrenica community to communicate with people and agencies from other cities, develop rural areas, and connect with education institutions worldwide. Introduction to new communication technologies will open this community to the world, enabling better correspondence and higher efficiency when corresponding with potential business partners.

Sector strategies

The BiH Ministry of Transportation and Communication has established a Working Group to begin the sectoral strategy development process. This guiding document will also deal with digital media. Additionally, a Strategy for Information Society and its Action Plan have also been developed.

Positive developments and challenges in the sector in 2007

Donors note that little progress was achieved in 2007 in this sub-sector. One of the biggest challenges was the FBiH Parliament's unwillingness to sign the PBS Law.

Coordination and ownership

Coordination between the few donors in this sub-sector is solid, albeit informal. Clearly, the lack of a strategy to guide the efforts of international agencies and domestic authorities alike exerts a negative influence on both the harmonization of donor activities and the ownership of the reform process of the Communications sub-sector. The development and adoption of a state-level strategy would facilitate the work of all stakeholders involved.

Future activities

According to donors, advocating for the FBiH Parliament's adoption of the PBS Law should be one priority focus area in 2008, given that this is a precondition for BiH signing the Stabilization and Association Agreement (SAA) with the EU. The CRA has already achieved compliance with European Standards, but it continues to require some assistance in raising the regulatory framework to the same level. In greater need of support is the public broadcaster, especially in terms of transitioning to a digital format. To this end, donor assistance in terms of the provision of equipment would be helpful, but the importance of engaging the private sub-sector must also be recognized.

Energy Generation and Supply

Sector definition	<p>Based on DAC definitions, the Energy Generation and Supply sub-sector refers to:</p> <ul style="list-style-type: none"> • Energy policy and administrative management; • Power generation and (non-)renewable sources; • Electrical transmission and distribution; • Gas distribution; • Energy education and training; • Energy research. <p>DAC code: 230.</p>
DCF donors	Canada/CIDA, Germany/KfW, the Netherlands, Spain/AECID, USA/USAID, EBRD, the EC, EIB, and the World Bank.
Key government partners	The Energy Department in the Ministry of Foreign Trade and Economic Relations (MoFTER), the FBiH Ministry of the Energy, Mining and Industry, and the RS Ministry of Economy, Energy, and Development.
Total amount of funds to the sector	€ 88.9 million.
Sector strategies	No state-level strategy exists, but one is currently under development.
International obligations	Athens Energy Community and the Kyoto Protocol.
Donor coordination group	Bi-annual meetings chaired by the Energy Department in MoFTER

Overview

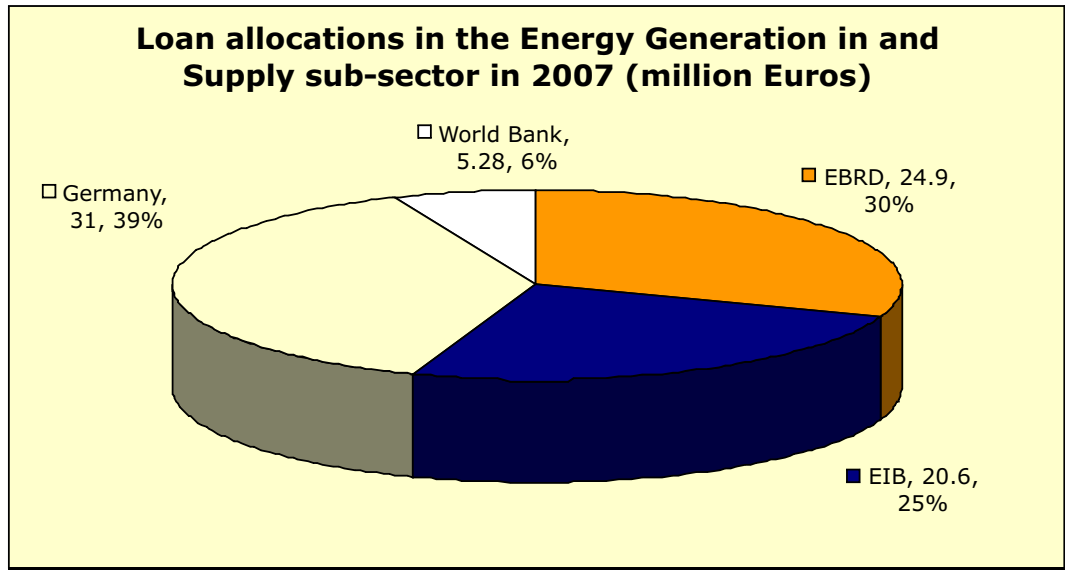
The Energy sub-sector in Bosnia and Herzegovina (BiH) is divided into the following sub-categories, according to the Medium-Term Development Strategy (MTDS): Electricity, Coal, Natural Gas, Oil, and Central Heating. Some of the key reform goals for this sub-sector include encouraging private investment (domestic and foreign), and achieving a stable supply of energy that is available at reasonable prices for citizens, but also provided in accordance with accepted quality standards. Moreover, within this sub-sector future activities should focus on moving in the direction of creating a single economic space, improving conditions for liberalization and competition, increasing the usage of renewable energy sources, and fulfilling the requirements of the Energy Community Treaty.

The state-level coordination responsibility for the sub-sector lies with the Energy Department in MoFTER. Yet major decisions are made at the entity level, where jurisdiction lies with the Federation of BiH (FBiH) Ministry of Energy, Mining, and Industry, and the Republika Srpska (RS) Ministry of Economy, Energy, and Development.

Donor activities in 2007

Canada/CIDA, Germany/KfW, the Netherlands, Spain/AECID, USA/USAID, EBRD, the EC, EIB, and the World Bank are the donors to the Energy sub-sector in BiH. Together, they allocated € 88.9 million during 2007, of which € 81.78 million was in the form of loans.

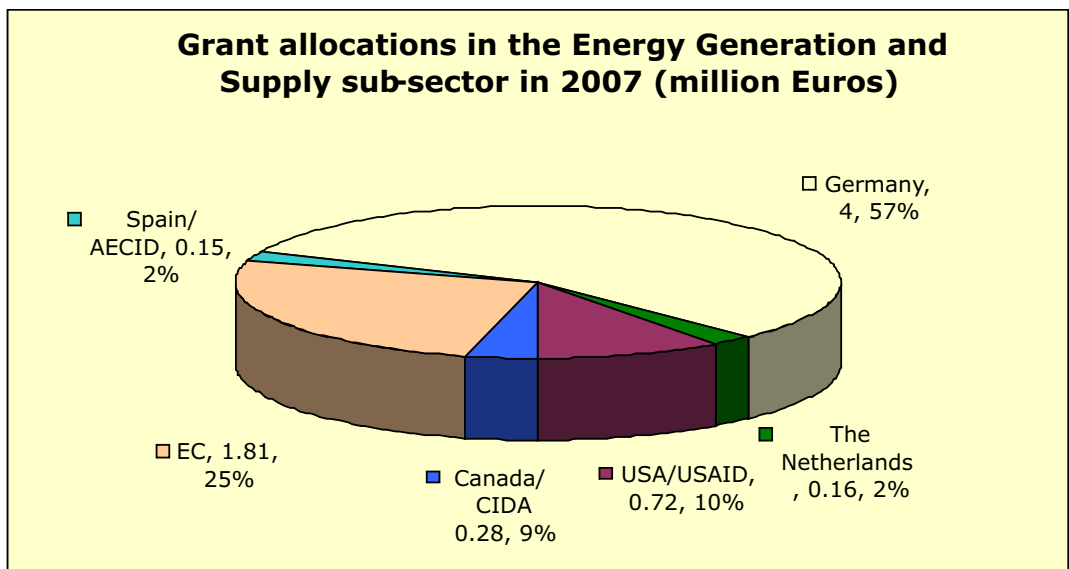
The **EBRD** assists BiH with the development of renewable power generation resources and facilitates private sector investments in the Power Generation sector. In the area of energy reconstruction, EBRD has been installing new measuring equipment, protective cables, and has been performing station rehabilitation in order to improve the efficiency of electricity distribution. EBRD made further progress towards unbundling power generation and distribution in the FBiH, and distribution from supply in the RS. These measures were required under the Athens Energy Community of South East Europe Agreement (ECSEE), which BiH joined in 2006. This will not only enable citizens to choose their power supplier, but will also move the sector one step closer to compliance with EU standards.



The **EC** is also supporting the process of unbundling power generation, transmission, and distribution. Additionally, the EC provides technical assistance to the Transmission Company, and works to improve its coordination and cooperation with the Independent System Operator. The harmonization of these companies' activities is essential, as they manage all transmission facilities in the country and must be compatible in order to ensure smooth operation. The EC also provides capacity-building assistance to the State Regulatory Commission for electricity and gas in BiH and to the Energy Department within MoFTER.

EIB supports the rehabilitation of hydropower plants and electric power distribution systems in BiH. This EIB loan will finance measures leading to a more rational usage of energy through the reduction of losses, improvement of energy efficiency, reducing operation and maintenance costs as well as increasing the quality and reliability of the power supply of the energy system across the country. BiH will re-lend these EIB funds to the beneficiaries: the F BiH and the RS.

The **World Bank** is implementing its fourth programme cycle in the Energy sub-sector, which is now being realized at the regional level in conjunction with a broad donor group, including, Canada/CIDA, Germany/KFW, Switzerland/SDC/SECO, USA/USAID, EIB and the EBRD. The goal of this initiative is to reform and restructure the Energy sub-sector. In addition, the World Bank is also implementing the *Power III Project*, which is a continuation of the post-conflict reconstruction of the power sector in BiH.



Canada/CIDA supports the development of expertise in the electricity sector through the improvement in skills, management capability and education. Canada/CIDA's project aims to enable countries in the region to better meet their electricity needs. **Germany/KfW** with its rehabilitation of the hydro power plant in Trebinje assisted the economic development of BiH by contributing to a stable, environmentally-friendly, and efficient energy supply. Technical assistance has been provided to prepare the intended wind park project in Mesihovina and the Distribution Scada Project. Rehabilitation of Hydropower Plant Rama was still pending, due to the local procedures of contract approval. **The Netherlands** concentrates on electrification projects in the Žepa and Srebrenica regions.

Spain/AECID seeks to strengthen the capacities of the departments responsible for the development of renewable energies within the FBiH and the RS Ministries of Energy. Moreover, Spain/AECID is also supporting the technical staff of the Independent System Operator (ISO BiH) in the use of alternative energy for the production of electricity. During the project, specialized software will be installed in order to stimulate the flow of electricity. Also codes, regulations, and frame agreements will be developed for the use and commercialization of the electricity produced by renewable energies. In this sub-sector, **USA/USAID** aims to help BiH fully integrate its energy sector into the regional and EU markets as well as to restructure and commercialize its energy companies.

Sector strategies

While there is no state-level strategy, the EC is supporting MoFTER's Energy Department in its development of a countrywide energy plan. The targeted completion date for this very sensitive document is October 2008. In the absence of such a strategy, guidance comes from the Athens Energy Community of SEE (ECSEE) Treaty and the Kyoto Protocol.

The sub-sector has benefited from strategy and policy development support in the past resulting in new policies and institutional reforms, such as the introduction of new regulators and the re-organization of public utilities. These changes have been driven by the Entity Action Plans for Power Sector Restructuring that were adopted in 2003 by the RS Parliament and in 2005 by the FBiH Parliament. Ongoing strategic support activity includes EC assistance to build the capacity of the state-level Energy Department in MoFTER and to develop an energy strategy blueprint for BiH covering the period until 2030.

Additionally, a number of action plans exist, which focus on encouraging large investment, improving distribution networks, building hydro power plants, and upgrading environmental protocols.

Positive developments and challenges in the sector in 2007

The establishment of the Energy Department within MoFTER, which has legal responsibility for the implementation of the Athens ECSEE Treaty commitments, was a positive development. The privatization of an oil refinery in the RS was also a favorable achievement in 2007, as it is in line with EU accession requirements and will reduce BiH's dependence on imports. Progress was achieved in liberalizing the electricity market, beginning early in 2007, first with major industrial consumers.

New BiH legislation was introduced incorporating environmental assessments. Nonetheless, enforcement of the law remains a significant challenge. As there are several ministries involved in the process, and coordination is difficult. Another hindrance is the lack of transparency in the common practices in the Energy sub-sector. Finally, as in other sectors, behavioral change toward a client-first focus is still a challenge.

Coordination and ownership

Bi-annual meetings have been successful in facilitating donor coordination, and the new Energy Department within MoFTER is now chairing these gatherings. Donors generally agree that their activities do not overlap. However, there was a concern expressed that donor initiatives do not

effectively incorporate the views of local authorities when outlining project priorities. Changing dynamics in the donor community had an impact, as the clear leadership from past years has waned.

The Energy Department is responsible for coordination and the fulfillment of obligations under the Athens treaty. The entity ministries in charge of energy issues do not always agree on reform and development priorities. Therefore, while their ownership is strong, coordination of entity ministries' activities is a bigger challenge. Capacity building in the interest of strengthening the relevant ministries and domestic institutions would help them to take an even greater role in terms of leadership in reform processes.

Future activities

The future activities are largely the same as the current key focus areas: encouraging investment and satisfying regional commitments. Special interest is to be paid to meeting EU Energy Directives and the obligations undertaken in the ECSEE Treaty. The EC has stated its intention to provide dedicated twinning support to help the Energy sub-sector strengthen capacities for implementing market oriented reforms linked to joining regional power markets.

Water Supply and Sanitation

Sector definition	<p>Based on DAC definitions, the Water Supply and Sanitation sub-sector refers to:</p> <ul style="list-style-type: none"> • Water resources policy and administrative management; • Water resources protection; • Water supply and sanitation, large systems; • Basic drinking water supply and basic sanitation; • River development; • Waste management and disposal. <p>DAC code: 140.</p>
DCF donors	Germany/GTZ/KfW, Norway, Spain/AECID, Switzerland/SECO, EBRD, EC, and the World Bank.
Key government partners	The FBiH Ministry of the Agriculture, Water and Forestry and the RS Ministry of the Agriculture, Forestry, and Water.
Total amount of funds to the sector	€ 16.1 million.
Sector strategies	The National Environmental Action Plan (NEAP).
Donor coordination group	No formal coordination mechanisms.

Overview

Sustained economic growth, human development, and environmental integrity depend on the existence of a water system that delivers water services reliably, efficiently, safely (i.e. with proper testing for contamination), and equitably. The water system in Bosnia and Herzegovina (BiH) does not fully satisfy any of these criteria. The water supply and sewage system in BiH is currently unsustainable over the long term. It is characterized by gross inefficiencies, does not have the requisite controls in place to ensure that the water is uncontaminated, and does not reach the entire population.

There are a number of factors that can account for this state of affairs. The long-term reliability of water service delivery is in jeopardy due to two related problems: financial and physical unsustainability. The former is caused by the following: enormous quantities of non-revenue water (treated water that cannot be traced and charged due to leakage, illegal household connections, defective meters, etc.); an inability to satisfy total demand due to incomplete coverage; and insufficient fee collection levels largely due to evasion, limited enforcement options for dealing with free riders, and flawed billing systems. In turn, this lack of funds leads to insufficient annual maintenance capital expenditures, which accordingly results in the deterioration of the capital infrastructure, further non-revenue water loss, and revenue declines from reduced water delivery volumes. Although water companies are funded by their respective municipalities,¹⁶⁹ these subsidies are insufficient to cover losses and minimum maintenance capital expenditure requirements.

The lack of efficiency stems from poor physical infrastructure, limited management and administrative capacities in both the water utility companies and their associated municipalities. The ineffectiveness associated with poor physical infrastructure is mainly manifested in two ways: leakage and an inability to monitor the system properly. In turn, the latter results in difficulties in detecting abuse, like illegal connections, and billing customers properly, which requires meters. Additionally, a shortage of qualified and educated personnel keeps the water companies and municipalities from addressing inefficiency problems. Data collection, planning and budgeting are performed rather poorly by the water companies. Accordingly, municipalities experience significant difficulties. Clearly, water utilities in BiH face serious challenges, and it is therefore predictable that over two-thirds operate with a loss.

As a result of the water system not being regulated at the state or even entity levels, the weak capacity of water company personnel, and a general lack of funds, water testing is not always up to proper safety standards. This is particularly disconcerting in the context of a system with poor

¹⁶⁹ Jurisdiction over water supply and sewerage service distribution lies at the municipal level. There is no centralized regulation of this sub-sector in BiH.

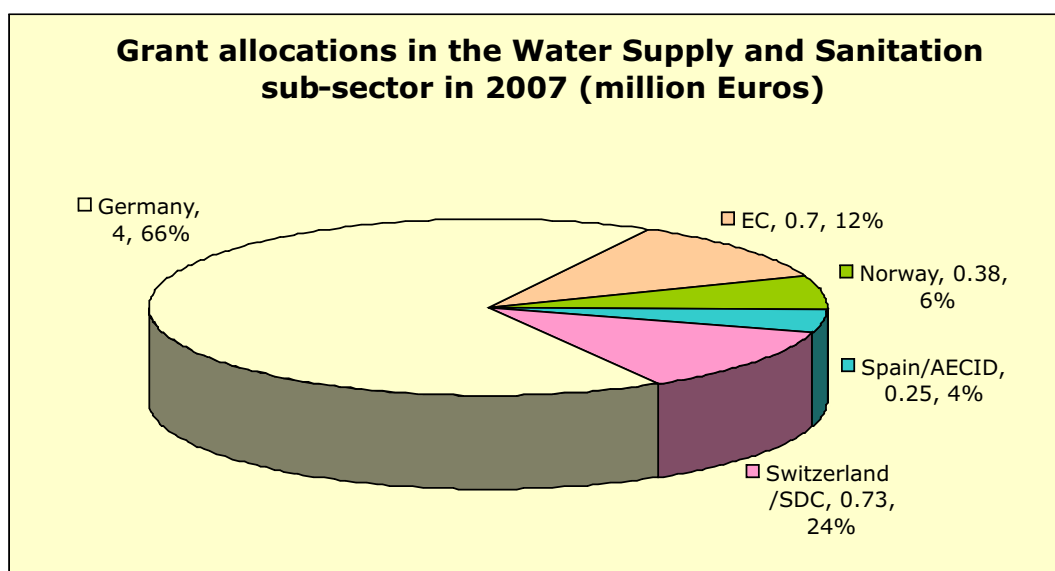
physical infrastructure, which makes the water supply more vulnerable and susceptible to contamination.

Finally, given the inadequate physical infrastructure, lack of funds needed for capital investment, and BiH's mountainous terrain populated by many isolated villages, vulnerable groups are often not covered by the system at all.

In order to rectify this grave situation, a number of measures, consistent with national priorities articulated in the Medium-Term Development Strategy (MTDS), are required. The MTDS outlines several goals associated with water management. These include satisfying international conventions and commitments, establishing an adequate institutional framework, setting up sustainable financing mechanisms, and improving the existing infrastructure to ensure the provision of safe water in sufficient quantities.

Donor activities in 2007

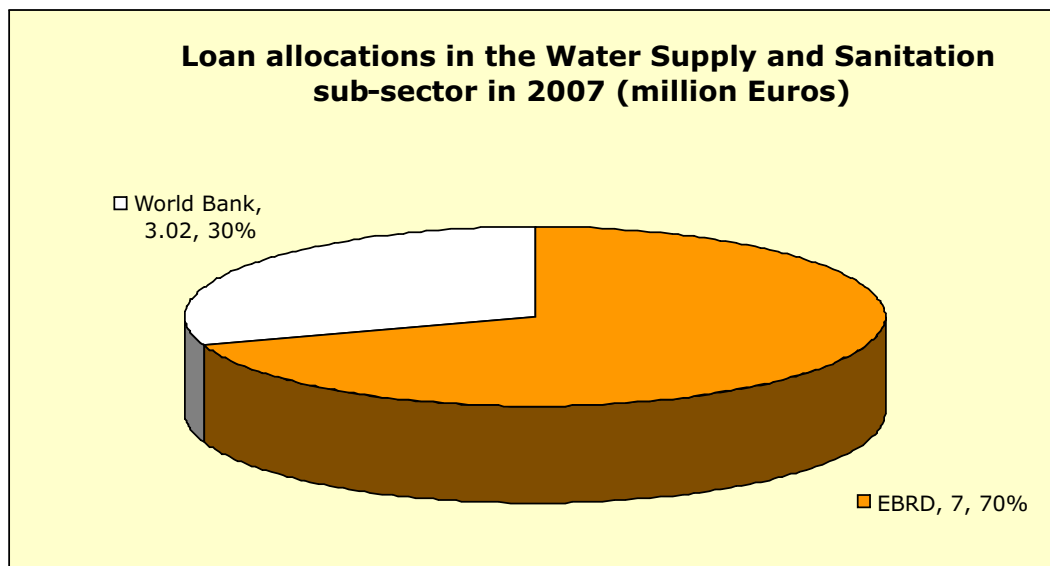
The DCF donors in the Water Supply and Sanitation sub-sector are Germany/GTZ/KfW, Norway, Spain/AECID, Switzerland/SECO, EBRD, the EC and the World Bank. Together, these donors contributed € 16.1 million to this sub-sector, of which € 10 million was in the form of soft loans.



Germany/KfW is working in selected municipalities to improve water infrastructure and water sanitation systems. Germany/KfW provides financing and supports the procurement and supervision of construction activities to be performed by the local water utilities with the assistance of internationally tendered consultants. Germany/KfW also enhances the participating water utilities at the institutional level. Germany/KfW successfully adapted the former *Una Sana Programme* into an *Urban Water and Wastewater Programme* in BiH. In addition to investments in Bihać, Derventa, Kostanica, and Kakanj, institutional support is supplied as a project-accompanying measure to the municipalities of Bihać, Derventa, and Kostanica.

In this sub-sector, **Spain/AECID** devotes its attentions to the protection of the Neretva Delta and the improvement of the control of quantity and quality of river water. Spain/AECID works on strengthening the Public Utility Company of Water for the Basin of the Adriatic Sea, in order to support the Company in its endeavor to manage the basin.

Switzerland/SECO assists municipal administrations and civil society to practice good governance related to water and environmental management. **Switzerland/SECO** assists Prijedor Municipality in the context of the new *Prijedor Water Supply Project* aiming to ensure regular water supply for the Prijedor Municipality through infrastructure investments and institutional building of the Prijedor Water Company.



EBRD is providing a loan towards the cost of construction of the priority waste water collection network in the town of Bijeljina. The aim is to prevent further pollution of underground water sources that are used for potable water, thus reducing the health hazard for the town's population. The **World Bank's** *Urban Infrastructure and Service Delivery* project is assisting with the improvement of the quality and reliability of delivery of basic infrastructure services, particularly water and sanitation, in urban areas. The **EC** has two water-related activities. One is to provide a laboratory oxygen meter, and communication and surveying equipment for the *River Basin Management Programme*. The other is to conduct a feasibility study for the Waste Water Treatment Plant in Bihać. **Norway** is engaged in improving water supplies in Vrbas and Prijedor.

Sector strategies

There is no specific state-level strategy defining or prioritizing infrastructural activities in this sub-sector. The National Environmental Action Plan (NEAP) provides a basic framework for environmental protection and has been adopted along with a number of important environmental laws (including legislature on air and water protection and waste management). For more information on this document see the Environmental Protection chapter.

Positive developments and challenges in the sector in 2007

The Water Information System is under development, with further improvements required in terms of data collection and processing. Implementation of the Water Laws has been delayed pending the approval of the requisite legislation. On the whole, donors assess that little progress towards upgrading water quality was achieved in 2007.

Coordination and ownership

For the time being there appears to be no regular coordination between the international agencies working in this sub-sector. This can be explained by the fact that, as illustrated above, most donor projects focus on particular municipalities or water basins. Nonetheless, better planning of further activities would be facilitated by regular exchanges of information among the major funders of the Water Supply and Sanitation sub-sector. As with other sectors, it can be surmised that the ownership of Water Supply and Sanitation will improve when domestic authorities become significantly involved both in terms of decision-making and financing of projects in the planning and implementation of further reforms related to water management.

Future activities

The establishment of Water Agencies is a priority in order for management, at the river basin level, to take effect. BiH has not yet ratified the amendments to the Barcelona Convention on the protection of the Mediterranean and its Protocols. Advocacy activities to encourage this would be helpful.

Insufficient wastewater treatment remains a key environmental challenge. The EBRD intends to get engaged in projects addressing municipal infrastructure deficiencies, with the main focus being on water and wastewater projects.



Conclusion

While there has been progress made in the Infrastructure sector, there is much that remains to be done in order for the sector to fulfill its role as the foundation on which economic development may proceed and flourish. Regional commitments are, appropriately, a major driver of the prioritization of activities in BiH. In most sub-sectors, donor activities are in keeping with national priorities, which are themselves generally well-aligned with regional commitments.

Donor-supported efforts can be divided into two categories, physical and technical assistance. Physical capital interventions include activities such as reconstruction and rehabilitation efforts in the Transport sub-sector, equipment provision in the Communication sub-sector, equipment installation in the Energy sub-sector, and the improvement of physical infrastructure in the Water Supply and Sanitation sub-sector. Technical assistance and analytic inputs have also been provided to improve institutional frameworks and support the development of sector strategies. For example, a new Country Assessment is soon to be published by the World Bank, which will work with the BiH Government to determine strategic priorities in the Transport sub-sector. Technical assistance is being provided to the state Communication sub-sector regulator to support its efforts in updating the legal framework in order to achieve compliance with European standards. Support to the process of unbundling power generation and distribution is another area where donors supply technical assistance.

In general, BiH is receiving relevant assistance from the donor community in the Infrastructure sector. Coordination among donors seems to be satisfactory, partially due to the relatively small number of actors in this sector. More effort should be made to engage domestic stakeholders during the decision-making process regarding the prioritization of projects.

