1. Country and Sector Background

Bosnia and Herzegovina (BiH) is a country that has a central government, called the State Government, but is essentially divided into two parts (referred to as the "Entities"): the Federation of Bosnia and Herzegovina (the Federation), and the Republika Srpska (RS). The central government has State institutions that encompass the entire country but each of the two Entities have Parliaments and ministries that function in a semi-independent manner. The road network of Bosnia and Herzegovina consists of approximately 22,600 km, with 3,788 km of main roads (of which about 96 percent is paved), 4,842 km of regional roads and 14,000 km of local roads. Of these, 2,024 km of main and 2,724 km of regional roads are in the Federation of Bosnia and Herzegovina, and 1,764 km of main and 2,118 km of regional roads are in Republika Srpska. Emergency Program of Assistance. Following the end of hostilities in 1995, an emergency transport reconstruction program was prepared and presented to the international donor community in December 1995. This program was implemented through the Emergency Transport Reconstruction Project (ETRP) and its successor, the Second Emergency Transport Reconstruction Project (SETRP). The ETRP was launched in early 1996 for a total amount of US$149
million of which IDA financed US$35 million. The SETRP, launched in 1997, totaled US$184 million, and was conceived as a continuation of the activities initiated under the ETRP, of which IDA financed US$39 million. The primary objective of the ETRP and SETRP was to remove critical infrastructure bottlenecks in order to permit the resumption of operation of the country's major transport network. From 1996 to 2000 under the two projects, a total of US$158.4 million in assistance from the European Union, the United States, Japan, EBRD, and IDA was made available for improvements in roads and bridges. Most of the emergency needs defined in 1995 have been met, due in large part to the combined activities of the donor community with funding under the ETRP and the SETRP as described above: (i) a significant part of the main and regional road networks has been rehabilitated, based on the needs identified in 1995, with 60 bridges located on the main and regional road networks repaired and/or rehabilitated and road maintenance carried out on 1,600 km of the main network and 750 km of the regional network; (ii) the Sarajevo, Mostar and Banja Luka airports are now operating to civilian standards; (iii) trains can run on most of the network, although at minimum safety and technical standards; and (iv) public transportation has resumed country-wide, the tram system in Sarajevo is in operation, and 300 buses and mini-buses have been procured, meeting about 70 percent of the needs identified in 1995. Also, the local contracting and consulting industries have strengthened considerably, as evidenced by the degree of competition now existing, and by the ability of the contractors to submit correct bids on studies and works, as well as to execute works in a timely and technically competent way. However, a number of important issues could not be addressed adequately in the context of these two emergency operations. These were: (i) the need to establish a sustainable road maintenance capacity throughout the country; (ii) efficiency in the use of public funds for road maintenance; and (iii) provide adequate resources to preserve and improve the serviceability of the existing road network. Without urgent action on all these three areas, there is a danger that the road network will deteriorate rapidly with an increased level of traffic, thus impeding development. Present Condition of the Road Network. Despite the emergency program, a significant part of the main road network is still in poor condition, mainly because of: (i) the maintenance backlog accumulated before and during the hostilities; and (ii) insufficient allocations to road maintenance and rehabilitation, especially in the Federation. The lack of funding has contributed to the continued deterioration of the Federation’s main road network, while the condition of the main road network in Republika Srpska can be considered stabilized; (iii) lack of respect of axle-load limits; and (iv) increase in traffic volume, whereby since 1987, traffic increased between 2 and 3 times on road sections located around the country’s main cities, which corresponds to an average annual increase of about 7 percent. Traffic counts performed in 2000, during the preparation of the JICA-financed Transport Master Plan, showed that traffic was about 10,500 annual average daily traffic (AADT) on the Sarajevo-Tuzla road near Tuzla, 17,000 AADT on the Sarajevo-Mostar road near Sarajevo, and 15,400 AADT on the Banja Luka-Gradiska road near Banja Luka. Damage includes deep rutting (on some sections, over 70 mm), wide-spread cracks, potholes and generally increasing roughness due to a high density of patchwork and in some cases to structural fatigue. While road maintenance can still be effective in prolonging the life of the pavements on some of these damaged sections, more costly solutions will be required to stop the deterioration, including in some cases partial
reconstruction. In addition, the traffic increases mentioned above have occurred over a period during which basically no road widening has been carried out. This increasing traffic on narrow roads has a negative impact on road safety. It is thus foreseen that a number of traffic safety-related measures such as modifications of intersections and widening of shoulders (typically only 0.5 m wide) on some of the most critical parts of the main network will need to be carried out. Road management capacity.

Federation Road Administration. Roads are maintained by separate road administrations for the Federation and for Republika Srpska. For the Federation, road management is the responsibility of the Federation Roads Directorate (FRD), which was formally established in 1999 as part of the Federation Ministry of Transport and Communications. The previous projects in the sector were implemented by a Project Implementation Directorate (PID). The PID’s performance in implementing the SETRP was rated as satisfactory, and FRD has retained some of the key PID staff. However, road maintenance has remained severely under-funded since the end of the hostilities despite agreement reached with IDA during the preparation of the SETRP. A draft Law on Roads dated July 2001 is under discussion in the Federation. The draft of the law has been reviewed and is considered an acceptable legal framework for the road sector; it should now be adopted without further delay. One of the reasons for the less than satisfactory performance in the transport sector is the persistent disagreements between Bosniacs and Croats with respect to the organization and management of institutions and sectors within the Federation of Bosnia and Herzegovina. While this issue can not be resolved within the context of a transport operation, a workable arrangement needs to be agreed upon as soon as possible so that the operations of the FRD can be strengthened and a stop can be put to the ongoing degradation of the road network. Republika Srpska Road Administration. In Republika Srpska, the situation is more satisfactory. A Law on Roads was passed in 1995 establishing the Republika Srpska Road Directorate (RSRD). RSRD is gradually building up its capacity. The administration now has 49 staff members and is able to carry out the basic duties pertaining to a road administration. However, more support will be required to develop it into a full-fledged administration in areas such as road management, planning and prioritization for road maintenance, competitive procurement, environment and safety related activities, and axle load controls. State of Bosnia and Herzegovina Road Administration. At the State level, a third organization with responsibilities for road maintenance and development has been established called the Bosnia and Herzegovina Road Infrastructure Public Corporation (BRIC). BRIC was established in February 2000 under the auspices of the Office of the High Representative (OHR), the international civilian authority in the country. This corporation was created to deal with inter-Entity and international road transport matters. These include (i) establishing a coordinated system of road standards, including geometric design, road safety, and specifications for road and bridge materials; (ii) planning of overall road network development; (iii) creation of a road safety database and the capacity to conduct safety awareness campaigns; (iv) coordination between the Entities to ensure that safety and maintenance are dealt with in an appropriate manner on those corridors of significant economic importance to Bosnia and Herzegovina; and (v) management of inter-Entity and international road matters. BRIC can perform a useful role in introducing standard practices to both of the Entity road administrations in these areas. In order to achieve results in the short term, the BRIC should not consider road
network development as a primary area of focus for the time being, given: (a) the weak fiscal situation prevailing in the country, with adequate funding not likely to be available for road development in the foreseeable future; (b) the difficulties of attracting private investments on acceptable terms to Bosnia and Herzegovina; and (c) the fact that, especially in Bosnia and Herzegovina, road development is politically a very difficult question, as a country-wide road development scheme requires the agreement of the three constituencies which, so far, have shown diverging interests. Instead, it should concentrate on areas where coordination is needed, and should leave the implementation of road maintenance civil works to the FRD and the RSRD for each of their respective road networks. BRIC has received financial support from EU-PHARE for a short term consultancy contract with the German Technical Cooperation Agency (GTZ) for expert advice on the institutional development and organization of BRIC to help establish it as a functioning organization with headquarters in Banja Luca, with the expectation that it would eventually become the country’s lead highway agency. In addition, the Quick Reaction Fund of the Swiss Government has made 50,000 KM available to BRIC to finance the procurement of its own equipment and office furniture in order to enable it to become an institution capable of operating independently from the Government ministries. Efficiency of public expenditures Increasing the efficiency of public expenditures is of primary importance in a context of scarce budgetary resources and sharply declining support from the international community. Inefficiencies have been identified as follows: (i) weaknesses in the procurement process of maintenance activities funded out of budgetary resources; (ii) a majority of road maintenance companies (at least 13 out of 19) are still owned by the Entity Governments; (iii) road maintenance contracts, and to a lesser extent, road rehabilitation contracts, are awarded on an annual basis, to follow the budgetary year; and (iv) the absence of a road databank and the present design standards, which usually lead to overdesigned technical solutions that do not achieve an optimal use of available resources. Road maintenance financing (a) Federation Road Financing. Road User Charges are levied in the form of various taxes and fees. Forty-five percent of the fuel and road fees are allocated to the Federation Ministry of Transport, but there is no fixed percentage allocated directly to the FRD. Consequently the relationship between the road user charges and the expenditures for road maintenance is weak. New construction is financed through various means such as local budgets, contributions by enterprises, and work carried out by contractors but not paid in the year that the work is performed. The only expenditures financed through the FRD budget have been routine and winter maintenance. Thus in the Federation, allocations to road maintenance have so far been insufficient to cover even minimum maintenance requirements, estimated at between US$15 million per year. (b) Republika Srpska Road Financing. In Republika Srpska, the situation is more satisfactory. Road user charges include fuel taxes and vehicle taxes. Of these, only a few categories are intended for road/transport purposes. 46.25 percent of the fuel excise duties and 85 percent of the annual vehicle tax are allocated to the RSRD. The other charges are allocated mainly to the general Government budget with some amounts also to the municipalities. RSRD’s actual expenditures have shown a consistent increase from 1997. The approved budget for 2001 is 60 million KM, but the actual expenditures are expected to be higher than the 2000 level of 67.4 million KM, since the fuel excise tax is estimated conservatively at the beginning of the year and the budget is adjusted upward as revenues are
collected. Road Safety Conditions

According to a report prepared for EU-Phare in November 1999, the 1997 fatality rate of around 18.6 deaths per 10,000 vehicles was around nine times higher than the fatality rate of 1.5 to 2.0 deaths per 10,000 vehicles in other industrialized countries such as the United Kingdom. Because of the breakup of the road management systems that existed previously when Bosnia and Herzegovina was part of Yugoslavia, there is little data on accident causes (and hence a reason for the high fatality rate), condition of the vehicle fleet, and accident reporting. However, several locations of accident black spots have been identified and will be addressed by the project. There is also no coordination of road safety activities between the two Entities. The EU-Phare report recommended that one organization at the national level should be tasked with collating the data and analyzing trends, as well as coordinating all areas of road safety activity. The newly established BRIC has the potential to play this role but will need to be strengthened in order to do so. Environmental management

Present road construction environmental standards (including mitigation measures) are still those which were used during the time of the Federal Republic of Yugoslavia. These standards are in the process of being upgraded and aligned with international requirements (EU). In addition, since the end of the hostilities, the Entities’ capacity of enforcing environmental standards and monitoring the impact of road works on the environment has been limited. This capacity needs to be reinforced, both within the road administrations and within the environmental agencies.

2. Objectives

The project development objective is to improve traffic flow and reduce accident rates on the country’s road network through rehabilitation of priority road sections associated with identified poor road condition and accident ‘black spots’.

3. Rationale for Bank’s Involvement

The possibility of utilizing an APL instead of a SIL was explored and discussed at the Decision Review Meeting. However, while the meeting agreed that an APL might be appropriate in order to better stage the implementation of the institutional reforms and to increase IDA’s leverage regarding budget financing for road maintenance, it is not well suited to the use of IDA financing, and would be difficult to accomplish within the limited time available for project preparation. Therefore under these conditions, a SIL was determined to be more appropriate. The alternative of focusing the project on road rehabilitation only was considered, as rehabilitation is essential to keep some of the key road sections in acceptable condition and the prospects for institutional strengthening are uncertain. While such an alternative would have provided for a simple project design and straightforward implementation, it would have three major flaws: it would not ensure the sustainability of the investments being undertaken, as it would not focus sufficiently on developing adequate road management capacity and financing; it would unduly restrict the potential institution building impact of the project, which is seen as a vehicle for making a major contribution to improved road management capacity; and it would not address the issue of traffic safety. The alternative of including a road building component in the project was also considered, as traffic has increased rapidly since 1987, while virtually no capacity increase of the main network has taken place. This alternative was rejected, as increasing capacity would have been possible only on a
restricted number of road sections due to the high cost of this alternative, and as other aid donors have expressed interest in financing such activities. In particular, the EIB plans to finance one of the remaining sections of the Sarajevo bypass, and two proposals have been received from the private sector for road concessions during the last year. However, evaluation of these proposals showed that the rationale for "traditional" concession agreements was weak and that other solutions had to be found.

4. Description
1. Road rehabilitation and safety. This component covers estimated maintenance and rehabilitation needs on the main and secondary road network, including upgrading of drainage, identified accident black spots, road markings, crash barriers and signaling. It includes the improvement of 230 km of priority road sections in the Federation (US$26.77 million), and 290 km of priority road sections in Republika Srpska (US$10.82 million). Project Component 2 - US$3.66 million2. Institutional Strengthening. This component will provide consultant services for the institutional strengthening of the FRD (US$0.53 million), including (i) setting up of a road data bank, introducing the use of HDM for setting road maintenance and rehabilitation priorities and annual road works programs, (ii) improved quality control procedures for civil works, (iii) the use of competitive bidding procedures, (iv) familiarization with modern road maintenance technologies, (v) improved financial management systems, (vi) support for the creation of core environmental capacities, including establishing environmental units in each of the Road Directorates and the review of environmental standards and monitoring pertaining to the road sector, (vii) the training of the FRD staff, and (viii) half of the cost of the audit of the project accounts. For RSRD (US$2.00 million), it includes (i) assistance in establishing procedures for works supervision, (ii) setting up road and bridge data banks, (iii) training in economic analysis and road management, (iv) pavement condition surveys, (v) support in setting up procurement procedures and units for traffic management and road safety and for environmental management, and (vi) one-half of the cost of audits of the project accounts. It also includes a program of technical support for the State road administration BRIC (US$0.45 million), including (i) establishing improved and uniform road and bridge design standards, (ii) creation of a road safety data base and conducting safety awareness campaigns, (iii) development of the capacity to evaluate private sector proposals for investments in road concessions, (iv) the coordination of inter-Entity and international road matters, and (v) the training of the BRIC staff. Equipment, materials and supplies. This component will finance the equipment, materials and supplies needed to support the project activities, including improved road management. For FRD, it will finance office equipment and supplies needed to implement the road data bank, for the operation of an adequate financial and planning system and a road safety system, preparation of reports, and vehicles and survey equipment for road works surveys and supervision (US$0.38 million). For RSRD, it will include road measurement equipment and related office equipment needed to establish the road and bridge data banks (US$0.25 million). For BRIC, it will finance office equipment and supplies, and vehicles (US$0.05 million).

5. Financing

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6. Implementation
The State of Bosnia and Herzegovina will be the Borrower of the Credit. The Borrower will onlend, under subsidiary agreements, respective parts of the proceeds of the Credit to the Entities on the same terms and conditions as the Borrower shall pay to the Association. The State Government will be responsible for implementing its part of the project through the BRIC, which is now under the Ministry of Civil Affairs and Communications. In the Entities, implementation responsibility will be delegated to the Entity Ministries of Transport and Communications. The implementing agencies will be the Entity road directorates FRD and RSRD. Each of these organizations had Project Implementation Directorates (PIDs) under the Emergency projects, which either have been or will be integrated into their organizations. Implementation at all levels will be conducted in accordance with the provisions of the Credit and Project Agreements, and performance will be monitored through the use of the project design and monitoring indicators (see Annex 1). FRD and RSRD will each have a separate Special Account. The Ministry of Civil Affairs and Communications, through BRIC, will be in charge of preparing consolidated quarterly progress reports on the basis of inputs provided by the Entity road administrations.

7. Sustainability
The key to project benefits sustainability lies in the efficiency of the road management structures and the allocation of sufficient resources to road rehabilitation and maintenance. The project will address the issue of road management capacity, road maintenance efficiency, and prioritization of activities according to economic criteria. However, it will not, beyond the project implementation period, provide leverage to ensure that sufficient resources are being allocated to the conservation of road assets, and that only economically sound road construction projects are being undertaken. These two specific aspects should continue to be monitored through other Bank activities such as follow-on projects or adjustment lending. With respect to the creation of a concession capacity, sustainability will be attained only if this capacity is used to properly assess the feasibility of concession schemes.

8. Lessons learned from past operations in the country/sector
Project Implementation Directorates. In an emergency situation where speedy implementation is crucial and where established institutions do not exist or where their performance is uncertain, it makes sense to create special organizations for project implementation that can focus their attention on the task at hand without being diverted by other considerations. From this perspective the PIDs proved most useful and appropriate for the implementation of the two Emergency Projects. However, they should be seen as transitory arrangements only, and be integrated into more established administrative structures as soon as feasible. In Republika Srpska, the PID has already been integrated into the Road Directorate, and the Federation is in process of integrating its PID, with its knowledge and competence, into the Federation’s developing Road Directorate. Time Needed for Reform. Even in an extreme, post-conflict situation such as in Bosnia and Herzegovina, where the international community has more leverage than in most other countries, the prospects for reforms have proven slim in the absence of local consensus and
interest. The situation with respect to the unsatisfactory progress in establishing the Federation Road Administration during the Emergency Projects is but one example of this in the transport sector. In this case there are compelling objective reasons to proceed rapidly with reforms, but unless these reasons have been weighed in the political process against the perceived disadvantages for the different ethnic groups, progress is not likely to be forthcoming. Institutional Components. Closely linked to the previous lesson is the fact that institutional components of projects have often fallen short of achieving their objectives. The frequent changes of sector administrations have been an important factor. But the scope and timetable of these components have often been overly optimistic. The institutional component of the project focuses on a few essential issues. It will be monitored against clear indicators and targets. Counterpart Funding and Budgets. Counterpart funding has been an issue under the SETRP. In order to reduce this risk, the Entities’ road programs and budgets will need to be reviewed by IDA each year before the programs are sent to the Parliaments for the following year’s budgets. The budgets should include the counterpart amounts estimated to be required during the following year as part of the Entities’ Public Investment Programs.

9. Program of Targeted Intervention (PTI)

10. Environment Aspects (including any public consultation)

Issues: In accordance with World Bank safeguard policies, the project has been rated "Category B" (OP/BP/GP 4.01, Environmental Assessment). No other environment or social safeguard policies are triggered by this project. As a consequence, Borrowers in both the Federation and Republika Srpska prepared individual Environmental Management Plans (EMPs) for their particular project elements. The EMPs were received by the World Bank in July 2001 and were displayed in country in August 2001. Also, as part of project preparation, during appraisal a seminar is being planned by the World Bank in conjunction with BRIC to introduce entity government officials to environmental management issues impacts/mitigation, consultation, disclosure and regulatory requirements of the donor community and the EU. The project is expected to have only minor negative impacts on the environment during the construction phase, as it will focus on road maintenance and rehabilitation activities, with no resettlement or land acquisition involved. Negative impacts during construction would be restricted to the direct impacts of road works related to quarries, asphalt plants, borrow pits, drainage, disposal of wastes and activities of road crews. After completion, the project will have positive indirect impacts on human health and safety through decreased number of accidents; reduced air pollution resulting from more even travel speeds on rehabilitated road sections; reduced water pollution resulting from rehabilitated drainage systems; and reduced noise pollution for those collectivities located close to the rehabilitated road sections. Materials would be supplied from sources with approved licenses, permits and/or approvals for environment and worker safety, and any equipment used during construction would meet internationally recognized standards (e.g. EU) for the environment and for worker health and safety.

5.2 What are the main features of the EMP and are they adequate? During project implementation, the provisions of the EMPs will be applied to all of the activities to be undertaken by the road directorates, including the design of road works. As appropriate, mitigation measures specified in the EMPs
will be incorporated as requirements in each bidding document for works. For example, materials to be used (asphalt, crushed stone etc.) would only be provided from suppliers with valid licenses and/or operating permits (including any environmental requirements) and this will be specified in their bid documents. The contracts will contain adequate provisions to ensure that contractors undertake measures listed in the EMPs. The road directorates will be committed, under the Project Agreements, to implement their part of the EMP through their environmental units to be established under the project and with the support of the Entities’ environmental agencies. The EMP also includes specific elements of institutional strengthening to assist: (a) in the creation and technical support of Environmental Units in each road directorate, and (b) environmental management techniques for road and highway projects for each entity Ministry of Physical Planning and Environment. 5.3 For Category A and B projects, timeline and status of EA: Date of receipt of final draft: The EMPs have already been prepared and sent to IDA for review. 5.4 How have stakeholders been consulted at the stage of (a) environmental screening and (b) draft EA report on the environmental impacts and proposed environment management plan? Describe mechanisms of consultation that were used and which groups were consulted? While it is expected that stakeholders will view this project favorably, public hearings will be held for those communities located close to road sections to be rehabilitated under the project to ensure that those most directly concerned by the project can, by voicing their opinions and suggestions, increase the quality and efficiency of the works’ design. Maintenance and rehabilitation works to be funded under the project include activities ranging from cleaning of ditches and pothole patching to new overlays on certain road sections. The project will also fund the modification of dangerous intersections and the creation of parking areas on mountainous road sections. However, these works will be performed on road sections that are not located within inhabited areas, and will be confined to the road right-of-way. Works to be carried out are standard and do not have the potential to substantially modify the environment within which the communities are located. Hearings will take place as part of EMP preparation and will be held in accordance with guidelines to be agreed by the Road Directorates. A summary of these public consultations is included in the EMPs. 5.5 What mechanisms have been established to monitor and evaluate the impact of the project on the environment? Do the indicators reflect the objectives and results of the EMP? The Entity Governments will be committed, under the Project Agreements, to monitor on a regular basis the impact of the project on the environment. A detailed monitoring program designed to validate the effectiveness of the mitigating measures will be included in the EMP. The monitoring program will be implemented by the Road Directorates, in collaboration with the Entities’ environmental agencies.

11. Contact Point:

Task Manager
Cesar Queiroz
The World Bank
1818 H Street, NW
Washington D.C. 20433
Telephone: 202 473 8053
Fax: 202 614 0900
For information on other project related documents contact:
The InfoShop
The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 458-5454
Fax: (202) 522-1500
Web: http://www.worldbank.org/infoshop

Note: This is information on an evolving project. Certain components may not be necessarily included in the final project.

This PID was processed by the Infoshop during the week ending October 5, 2001.

Lucy Njuguna
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October 3, 2001 6:13 PM