

## Intelligence Report

DCI Interagency Balkan Task Force

21 August 1995

### Bosnia and Croatia: Facing Costly Economic Rehabilitation

*Bosnia and Croatia confront massive rehabilitation costs of about \$20 billion, with about 80 percent of that sum needed for Bosnia. This challenge will require both economies to channel resources to reconstruction while making the transition to free markets.*

- *Much of the total cost will consist of investments to replace infrastructure and industry that was already substandard before Yugoslavia broke apart.*

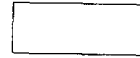
*The bulk of the Croatian economy was unaffected by the fighting in 1991 or this year, which will make reconstruction of the relatively small Krajina economy manageable for the country's resources. Although the Croats captured the Krajina virtually intact, the flight of up to 200,000 Serbs could hinder the region's economic recovery.*

- *Opening transportation routes through the Krajina will remove a major burden for Croatian industry.*
- *An end to the fighting in Croatia will revive tourism, which had produced one-fourth of national income before the war.*

*Bosnia faces the more daunting task because of widespread destruction of infrastructure and housing, displacement of the population, and the probable absence of a unifying authority after the war. Because Bosnian GDP in the first postwar years probably will be hard pressed to reach half the prewar level of \$10 billion, economic reconstruction—which probably will cost more than \$15 billion—could take 20 years, depending on how many refugees return from abroad.*


- *Bosnia's old capital-intensive industries were relatively uncompetitive on world markets, and if its sizable defense industry revives, it will struggle to find a niche in the face of world overcapacity.*
- *Labor-intensive industries, such as textiles and furniture, will have to carry the economy.*

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### A Hierarchy of Needs

Reconstructing the economies of Bosnia and the Krajina will have three overlapping stages—primary humanitarian aid, repair of infrastructure and restoration of basic services, and industrial rehabilitation. Cleaning up unexploded munitions also is essential for restoring farming, forestry, and transportation and could take decades. In Bosnia alone, more than 2 million landmines have been sown, according to UN officials and the press.

- Humanitarian aid—food, medicine, and basic shelter—often phases out within a year or so of the end of hostilities as the reviving economy generates income.
- The repair of transportation and utilities and the revival of health, education, and waste disposal services will take five years or longer and consume a sizable portion—possibly half or more—of reconstruction resources. In this phase, housing repairs are vital for ending reliance on humanitarian aid and can jumpstart the economy by providing construction contracts for local companies.
- The cost of industrial rehabilitation will depend on the size and importance of industry to the overall economy, the extent of damage, and the technological base of the industry. Officials in Sarajevo and Zagreb have told US diplomats that they intend to make their industries competitive in world markets, not restore obsolete production processes. 





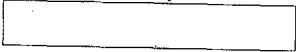
Although prosperity and political stability are essential for a lasting peace, spending on the psychological and spiritual well-being of the population is also vital, even if it is not an immediate need.

- The restoration of parks, the reconstruction of mosques and churches, and the revival of cultural organizations will be important signs of the normalization of life for the population. 

### Croatian Reconstruction Under Way


Croatian forces captured UN Sectors North and South—known as the Krajina—virtually intact, but the flight of more than 150,000 Krajina Serb refugees was a big blow to the region's economy. Journalists and US officials touring Knin and other

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This memorandum was prepared for Leon Fuerth, Assistant to the Vice President for National Security Affairs, by , Office Of European Analysis, with a contribution from   
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Krajina towns report remarkably little structural damage to buildings, but many had broken windows and walls pockmarked from bullets and shrapnel. Buildings on the outskirts of Knin were burning on 9-10 August, but the center of town had suffered little damage.

- Most buildings in ruins were overgrown with grass and weeds, suggesting the damage dates back to 1991, according to the US Defense Attaché.
- Several sources indicate only modest harm to this year's harvest.
- Although Knin had a population of about 20,000 before the Croatian attack, US officials report only 800 mostly elderly residents remain.
- Croatian refugees are unlikely to return quickly enough to maintain the region's production, and uncertainty over ownership of houses, farms, and businesses probably will retard private investment. 


Although the latest round of fighting hardly damaged the Krajina's infrastructure and housing, the Krajina Serb economy was too impoverished to clean up wreckage from the 1991 war and maintain infrastructure and industrial machinery, according to US Embassy, Defense Attaché, and press reports. Moreover, UN sanctions on Serbia and the Serbian embargo of Bosnia made spare parts and maintenance supplies difficult to obtain for the self-proclaimed "Republic of the Serb Krajina," and stores were almost bare, according to US diplomats.

- The US Defense Attaché describes the Knin hospital as intact but "filthy." Western and Croatian journalists report that the Krajina Serb hospital staff used the basement as a medical refuse dump. 

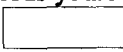
Efforts already in train promise rapid progress in repairing the housing stock, in large measure because the task is small relative to the overall Croatian economy. Zagreb expects that about two-thirds of the 210,000 displaced Croats will be able to return to their homes. According to the Croatian officials, people whose houses were destroyed or heavily damaged will move into properties abandoned by Krajina Serbs until their own houses are ready to live in. UN cost estimates for repair of lightly damaged housing in Bosnia suggest a cost for Croatia of about \$50-100 million, or about 0.5 percent of GDP.


- Croatian Reconstruction Minister Jure Radic announced 9 August that Zagreb would pay the full cost of repairing the basic elements of all homes—roofs, exterior walls, and windows.

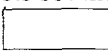


- The Croatian Bank for Reconstruction and Development will furnish low-interest credits for repairs beyond the minimum provided by the state.
- Radic told the press that he thinks that most housing repairs can be finished by yearend.
- Harvesting the crops abandoned by the fleeing Krajina Serbs probably will more than offset the costs of this year's repairs. 

Transportation links for the overall economy are likely to improve significantly within the next few weeks at minor cost, removing perhaps the biggest economic drag from the Serb rebellion.

- The Adria pipeline already is pumping oil to Croatia's largest refinery at Sisak, and oil tankers will again be able to unload shipments for Hungary, the Czech Republic, and Slovakia. The Krajina Serbs had shut the 65-kilometer section they controlled to pressure Zagreb to recognize their independence.
- Radic has told the press that the railroad linking Zagreb and Split via the Krajina will be operating scheduled service by the end of the month.
- Zagreb expects the major highways through the Krajina to be open within weeks. Worries about security and four years of poor maintenance probably are behind the delay. 

Other industries probably will be operating before the end of the year. The rapid Croatian military advance limited the destruction of economically significant facilities in Sectors North and South, which accounted for only about 10 percent of Croatian GDP before the 1991 war.  most light industries near Knin appear to be intact but not operating. In many instances, the biggest obstacle to renewed production is the depopulation of the Krajina, which means that enterprises whose most recent owners and managers have fled will need to hire workers from the ranks of returning Croatian refugees.

- Three hydroelectric plants probably will be back on line well before yearend, eliminating the expense of using oil-fired plants to provide electricity to Dalmatia. Although the Krajina Serbs controlled only the Obrovac plant, the Zakucac and Orlovac facilities had been shut down because of their location near the frontlines.
- The Croatian power company probably will make the repair of the 400-kilovolt power line that connects southern Dalmatia with the national grid via the Krajina a priority. 

### UN Sector East Still a Wasteland

The sole portion of Croatian territory still controlled by rebel Serbs is UN Sector East, which was the scene of the heaviest fighting in 1991, highlighted by the six-week siege of Vukovar. Vukovar, along with the towns of Borovo and Beli Manistir, had produced textiles, processed foods, rubber products, and leather goods and produced about 5 percent of Croatian GDP before the war. In contrast to Sectors North and South, industry had played a major role in the economy of Sector East, but farming is now the mainstay of the depressed local economy.

- The Serbs have made few efforts to restore the local economy. [redacted] rubble from the 1991 war still litters the ground.
- Only the textile industry is now operating, but at low levels of output, according to several sources.
- The Krajina Serbs reportedly draw about 3,000 barrels a day from three oil wells in the southern part of the Sector. At world market prices, the annual output of these wells is worth about \$20 million a year. [redacted]

Industrial production in Sector East operates at only 20 percent of capacity, despite direct access to markets in Serbia [redacted]

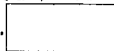
- Unemployment is running at 80 to 90 percent [redacted]. The grim employment picture makes efforts to resettle Krajina Serb refugees in Sector East improbable. [redacted]

Several sources say that some losses to the Krajina's agriculture occurred during the fighting, but crop destruction has been minimal. Many Serb farmers released their livestock and fled Sectors North and South on tractors and other farm machinery. Returning Croatian refugees could reap the crops left by the Krajina Serbs, but a significant portion of the crops may be lost because of the lack of time to organize harvesting.

- The winter wheat harvest had been largely completed when the Croatians attacked.
- Harvests of fruits, vegetables, and fodder are vulnerable to shortages of labor and machinery.
- Corn tolerates delays in harvesting better than most other crops. Before the Croatian attack, Sectors North and South had been on track to produce more than 100,000 tons of corn. [redacted]




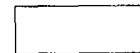
The current Croatian offensive toward the Bosnian Serb-held town of Trebinje near the Montenegrin border probably is largely intended to allow tourism to revive along the southern Dalmatian coast, which has been subject to sporadic Bosnian Serb shelling since 1991. If Croatian forces push the Serbs out of artillery range of Dubrovnik and other southern Dalmatian towns by this fall, package tour operators will be able to buy the insurance needed to book tourists for the 1996 tourist season.

- Tourism receipts provided \$3 billion a year before the war, about one-fourth of Croatian GDP. 

#### **Upgrades Already on Zagreb's Drawing Boards**

Zagreb's announced plans to upgrade infrastructure and industrial production in the Krajina probably will cost \$1-2 billion to implement, dominating the total reconstruction bill. Efforts to diversify the Krajina's economy by introducing new industries, however, are likely to yield disappointing results, given the lack of industrial skills among returning Croatian refugees. As a result, the Krajina's economy almost certainly will continue its dependence on farming, forestry, minerals, and food processing—particularly if Croatia's transition to a market economy weakens Zagreb's control over investment.

- Days after the capture of Sector West in May, the Croatian telephone company installed digital switches and fiber optic cable to replace antiquated mechanical switches and copper cable, according to the press. Similar upgrades probably are already under way in Sectors North and South.
- Radic told the press this month that Zagreb intends to build 1,700 kilometers of roads in the Krajina over the next 10 years. This project alone could cost more than \$1 billion, depending on the civil engineering challenges posed by the new routes.
- Zagreb's efforts to attract new industries to the Krajina probably will remain dependent on foreign aid and investment because of the government's lack of resources and more attractive locations elsewhere in Croatia. According to the press, Croatian officials have asked the German and Swiss Governments about the possibility of assistance. 



### **The Bosnian Economy on the Ropes**


The Bosnian economy will face a difficult transition after a peace settlement because—unlike Croatia—hardly any part of the economy has escaped the fighting undamaged and the country is unlikely to have a unified postwar government. The war has displaced about half the prewar population of 4 million, with 750,000 having fled the country and another 250,000 dead. Tens of thousands have been disabled and will need rehabilitation before rejoining the labor force, if ever. Ethnic cleansing in some cases has deprived the economy of key personnel, particularly in the professions and the skilled trades. This is particularly the case in Banja Luka, the most industrially significant city in Bosnian Serb hands.

- As a result, Bosnian reconstruction will rely much more heavily on foreign aid than in Croatia, particularly in its early stages.
- Because Bosnian GDP in the first postwar years probably will be hard pressed to reach half the prewar level of \$10 billion, economic reconstruction—which probably will cost more than \$15 billion—could take 20 years, depending on how many refugees return from abroad.



### **Sizable Costs for Humanitarian and Housing Needs**

Bosnia probably will need humanitarian aid for about two years after the fighting stops, at an estimated cost of at least \$500 million. If most of the 750,000 refugees who fled abroad return, the sum could more than double. Some internally displaced people will want to leave their current locations to return home or move to areas that they like better or that have better economic opportunities.

- Wherever the displaced finally settle, they will need food, medicine, and shelter until they find or create jobs. 

Construction of new housing throughout Bosnia probably will absorb a huge share of the economy's investment for several years. Rehabilitation of damaged residences will take much less time and resources. The sum needed for reconstruction will depend on the condition of housing where the displaced want to live and on how many refugees return from abroad. Using local firms for construction and building supplies, however, would provide a substantial boost to the economy.

- If 1.5 million displaced people want to resettle in Bosnia, the cost of building new housing to replace temporary shelters could reach \$7.5 billion, assuming four people per family and \$20,000 per dwelling.

- US AID estimates that repairing lightly damaged houses would average \$3,500 per dwelling. The UK/US Civil Planning Mission for Sarajevo estimated in April 1994 that half of the Bosnian capital's apartments were damaged, and press reports suggest even more widespread damage in Mostar. The damaged housing in these two cities alone amount to 10 percent of the country's stock of housing.
- Other Bosnian towns have suffered severe damage to housing, including Travnik, Novi Travnik, Vitez, Maglaj, Gornji Vakuf, Bosanko Grahovo, Turbe, and Kladanj. If this damage to the housing stock—along with that in Sarajevo and Mostar—amounts to 20 percent of the national total, repairs would cost an additional \$1 billion.

#### **Bosnia's Outmoded Economic Base**

Bosnia-Herzegovina was the second-poorest republic in the former Yugoslavia, with substantial defense industry and significant mineral and timber reserves but few other resources. Bosnia lacks the farmland to be agriculturally self-sufficient, which means its economy must rely on industry and services. In general, the Bosnian Government controls the most significant economic resources, while the Bosnian Serbs hold most of the arable land. Modernization has been on hold since the Bosnian war broke out in 1992.


- The largest concentrations of iron ore, bauxite, and manganese in the former Yugoslavia are in Bosnia, and the country also has abundant coal reserves. Bosnia also produced enough hydroelectric power—1,900 megawatts—to meet its own demand and to export to Croatia's Dalmatian coast.
- About 50 percent of the former Yugoslavia's defense plants are scattered throughout the country, in areas controlled by Sarajevo and Pale.
- Other industries include metal smelting and fabrication in Zenica—the site of the largest Yugoslav iron and steel works; motor vehicle assembly, textiles, and tobacco production in Sarajevo; and furniture and domestic appliance manufacturing.






## Restarting Production

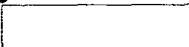

The war has damaged much of Bosnia's economy, particularly in the Sarajevo and Mostar areas. The cost of repairing damaged factories probably exceeds \$3 billion, based on an analysis of imagery. Fighting has also shut down many other industrial facilities for lack of labor, utilities, raw materials, and spare parts. These undamaged plants will be able to resume at least some production within months of a permanent cease-fire.

- Several years without maintenance or investment in new equipment and machinery—along with probable shortages of skilled labor—will slow the postwar recovery of output even at undamaged factories. 

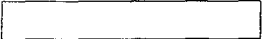
**Agriculture and Forestry.** Farming has continued despite the fighting in Bosnia, and the renewed availability of seed, fertilizer, and fuel could spark an almost immediate upturn in production throughout the country. The most favorable conditions exist in a small region in the foothills of northern Bosnia, where fairly fertile soils, well-distributed rainfall, and a long growing season support a variety of crops.

- The biggest advantage for the Bosnian Serb economy is its agricultural self-sufficiency, while government-controlled territory will have to rely on imports to feed itself. 

Forestry has continued to be a source of income in Bosnia for all sides. Over the years, Bosnia has exported substantial quantities of beechwood pulp to European papermakers. Housing reconstruction undoubtedly will lead to a boom in lumber production after the war ends.

- Serb-controlled areas are abundant in timber, and timber is one of the few products that the Bosnian Serbs still export despite Serbia's trade embargo and UN sanctions, according to the US Embassy.
- The lumber mill at Bosansko Grahovo, which was recently captured by Croatian troops, is undamaged, although the administration building and workers' housing were destroyed.  

**Steel.** The Bosnian steel industry is in the best shape of the country's heavy industries for a rapid resumption of production. For now, only the Bosnian Serb-held Banja Luka cold-rolling mill and portions of the government-controlled Zenica iron and steel works—the largest in the former Yugoslavia—are operating.

-  the Derventa pipe plant in Bosnian Serb territory is severely damaged and incapable of operating without major repairs.

- Most of the industry's other plants are intact [redacted] and could restore production with minimal investment once electricity and raw materials are flowing. [redacted]

**Aluminum.** The Bosnian Government and the Bosnian Serbs can each mine bauxite and process it into alumina, and some production appears to be continuing at Bosnian Serb plants, according to imagery. The country's only smelter in Mostar, however, probably was severely damaged when fighting between government forces and the Bosnian Croats in 1993 shut off power to the facility.

- If molten metal was in the potrooms when the power went off, the hardened metal would ruin the facility. [redacted]

**Defense Industries.** Bosnia boasted half of the former Yugoslavia's defense industrial capacity before the war, but little of that capability remains in production. Almost every facility has been severely damaged [redacted] with particularly extensive destruction to plants in the Mostar area.

- The government-held Pucarevo weapons and tractor plant probably is producing mortars and recoilless rifles but is unable to make cannon barrels as it did before the war.
- Several Serb managers of factories throughout Bosnia have moved their equipment, production lines, and labor forces to Serbia, according to various sources. The Pale regime probably will have difficulty enticing these factories to return, especially as the workers and managers establish new lives in Serbia. [redacted]

Although defense plants had been the mainstay of the prewar Bosnian economy, it seems unlikely that the defense industry will again play an important economic role. Worldwide overcapacity will make finding a niche even more difficult.

- In particular, Bosnia would be hard pressed to revive the military aircraft industry that Tito built. Plant and equipment have been destroyed or have disappeared, research and development funds will be scarce, and foreign donors are unlikely to fund rebuilding. [redacted]

**Chemicals.** The Bosnian chemical industry, which is centered around Tuzla, probably could begin production in short order after reliable utility and transportation service resumes [redacted] of the major plants. The Bosnian Serbs use the Tuzla soda ash and the Tuzla coke and coal chemical plants to produce district heating during the winter.

- Although the Bosnian Serbs have shelled the Tuzla chemical plant, the factory irregularly produces chlorine, caustic soda, ethylene, detergents, and some other common industrial chemicals.
- Control of the Gorazde nitrogen and nitrates plant is contested and, as a result, the plant is off line. [redacted]  
[redacted]

**Electric Power Generation.** Operation of thermal plants in Bosnia has been limited because of the difficulty in obtaining steam coal. Most hydroelectric plants appear in good shape, but the Mostar and Salakovac plants had been damaged in fighting between the Bosnian Government and Bosnian Croat forces. Several intact plants are off line because of destruction of the country's transmission grid.

- The hydroelectric facilities at Jajce—the goal of an ongoing Government offensive—are underground, making them virtually invulnerable. Jajce is the major source of power for Banja Luka.  
[redacted]

**Petroleum Refining.** The Bosanski Brod refinery in Bosnian Serb territory has suffered damage to its storage tanks and to some of its pipelines, but the processing area appears intact, according to imagery. If the processing area has been maintained, the refinery could begin partial operations within a month.

- If the processing area has not been maintained—as seems likely, given widespread labor shortages caused by the manpower demands of the Bosnian Serb Army—the corrosive chemicals left in the pipes probably will make a major overhaul necessary. [redacted]

**Light Industry.** Outside the Sarajevo and Mostar areas, most light industries—textiles, footwear, food processing, and building materials—appear to be intact.

- Few are in operation because of a lack of raw materials, power, and workers, according to press. [redacted]

### Needed—but Costly—Upgrades in Infrastructure

Bosnia will need major improvement in its transportation and telecommunications. Failure to do so will hinder all reconstruction efforts. Even before the war, Bosnia's infrastructure was among the most decrepit in Yugoslavia, according to US diplomats. Bosnian officials have told journalists that repairing and upgrading both networks could cost \$3-5 billion.

- US AID consultants report that Bosnian telecommunications—although functioning relatively well despite substantial war damage—rely on long-outdated mechanical switches and copper cable.
- The Bosnian Serbs control segments of the railroad from Tuzla to Sarajevo and from Sarajevo to the Croatian port of Ploce. Only this main north-south rail line was electrified before the war; the other lines relied on steam and diesel locomotives. Several railroad bridges have been destroyed and need replacement.
- The Bosnian Serbs also hold segments of the main road linking Sarajevo and Tuzla. Many Bosnians consider the alternate road now in use to be the worst in Bosnia—an opinion shared by US Embassy officers.

### Prosperity Will Require More Than Brick and Mortar

To achieve prosperity, Croatia and Bosnia will need to follow policies to smooth the transition to market-oriented economies. Macroeconomic stability—low inflation, competitive exchange rates, and fiscal reforms—will be a key factor in creating healthy economic climates that can attract investment from home and abroad.

- The concerns of the Croatian and Bosnian Governments will have to turn from military matters to the task of building modern economies.

Croatia is well on the way to achieving this goal. With a budget deficit of 0.3 percent of GDP, its finances are in order, and inflation is expected to run about 3 percent this year, according to the World Bank. Moreover, the press and US officials have commented on the relatively high level of entrepreneurship in Croatia.

- Nonetheless, the privatization program is operating under a cloud because of the regime's efforts to reward its supporters, according to the financial press. Such moves not only discourage foreign investors but also encourage Croatians to move their funds out of the country.

With survival at stake, Bosnian officials in Sarajevo have yet to consider how to make the transition to a market-oriented economy. In contrast, the Pale regime's failure to assert authority over the Bosnian Serb economy has at least allowed the spread of private ownership of many economic resources. Throughout Bosnia, programs to develop the emerging private sector, such as the enterprise funds active elsewhere in Eastern Europe, could contribute to creating the conditions for prosperity.

- Market-based commercial banks will have to be introduced throughout much of Bosnia. Although commercial banks from Croatia have replaced the former state-owned banks in Bosnian Croat territory, the banking systems in Bosnian Government and Bosnian Serb areas have all but collapsed, according to US diplomats.
- Bosnia also will need help in bringing its debt payments up to date, which is a prerequisite for obtaining funds from international financial institutions. According to the World Bank, Bosnia has fallen behind by \$415 million in principal and interest payments on total debt of \$450 million.
- The Bosnians also would benefit from help in the key—yet relatively inexpensive—task of setting up the legal structure for a market economy.

#### Croatia and Bosnia: Facing Massive Reconstruction Costs

	Billion US \$		
	Combined	Croatia	Bosnia
<b>Total</b>	19.5	3.0	16.5
Humanitarian	1.1	0.1	1.0
Housing	8.6	0.1	8.5
Industry	3.1	0.1	3.0
Infrastructure	2.0	0.5	1.5
Upgrades	4.7	2.2	2.5

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