

Georgia/Abkhazia Coordinating Council

UNDP/World Bank Needs Assessment

Mission to Abkhazia, Georgia

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ABKHAZIA

PRELIMINARY NEEDS ASSESSMENT REPORT

INTRODUCTION

1. Mission Context and Scope of Work

The United Nations Needs Assessment Mission to Abkhazia was fielded under the auspices of the Georgia/Abkhaz Coordinating Council and in response to the agreement between the parties negotiated by its working group dealing with economic and social matters. In addition to the six members of the Bank team, the mission consisted of eleven staff and consultants from four United Nations organizations (i.e., FAO, UNDP, UNICEF and WFP), as well as representatives of three bilateral aid agencies from Germany, the Netherlands and the United States, providing expertise in agriculture, food security, transportation, energy, mine action, education, health, water supply, housing and municipal services. Team members from Greece and Russia participated as observers.

The Preliminary Needs Assessment mission provided the Bank with the opportunity to carry out an initial economic and technical analysis of Abkhazia's present condition. The mission's main objective was to explore the region's current difficult economic predicament, identify the population's priority needs and propose a preliminary strategy for a progressive transition from humanitarian support to development assistance. Because support to post-conflict zones is among the institution's highest priorities, senior management has endorsed the objective of making technical advice and - once the conflict with Georgia is settled - appropriate operational assistance available to Abkhazia in a timely manner. The Bank was invited by the Government of Georgia to join a broader UN mission and provide its own cross-sectoral analysis of Abkhazia's situation. Such invitation was viewed by management as a prerequisite for operating in the region, because the Bank's Articles of Agreement only authorize the institution to provide assistance to members of the UN community. It was further made clear to all counterparts and interlocutors that the Bank team's presence did not imply any sort of commitment to project funding. Such a commitment will in fact require considerably more detailed analysis and discussion of the region's legal, political and administrative context. For the purposes of the present report, the Bank team covered the following sectors: (i) agriculture; (ii) roads, railroads, bridges and ports; (iii) energy and power supply; (iv) water, wastewater and solid waste; (v) housing and public facilities. For all sectors, the findings and recommendations presented in this report should be considered preliminary and subject to revision following more extensive data-gathering and analysis. For each of the above, a sector analysis is provided in Section II and a proposed preliminary Bank assistance program in Section III.

2. Acknowledgments

The mission wishes to extend its thanks to the *de facto* authorities of Abkhazia for the generous hospitality offered, and for responding openly to the mission's many inquiries. The mission also wishes to record the valuable advice and assistance provided by the Special Representative of the Secretary General, by all UNOMIG staff, and by the Resident Coordinator in Georgia, Mr. Marco Borsotti. Special thanks are also due to the OCHA team in Georgia for preparing the Mission members briefing kits, and for liaising with the Abkhaz authorities, thus making the Mission's stay a smooth and productive exercise.

I. BACKGROUND

A. Political Context

1. Evolution since Independence

When Georgia became independent in April 1991, Abkhazia appeared to be a relatively better-off region with fairly good growth potential. Its sources of strength were a successful agriculture sector, substantial natural resources, and its long tradition of entrepreneurship. Furthermore, the territory's location made it a primary transit corridor for goods shipped elsewhere in the Caucasus, and its climate and scenic variety offered a great potential for tourism. Despite these very favorable conditions, the Abkhaz economy went into a tailspin during the period following independence and the breakup of the FSU. Partly this was due to factors that were common to the newly independent entities, including disruption of traditional trade links. However, these difficulties were compounded by civil conflicts with Georgia. Very rapidly ethnic tensions finally resulted in an open conflict in 1992. The war lasted about two years and heavy fighting along the major roads and in mountains, and aerial bombardment brought great suffering to civilians. Although damages were extensive, the Abkhaz territory was differently affected by the war: the Gali rayon, the most economically active area suffered some of the heaviest fighting and was devastated; a very large portion of the Mingrelian population migrated towards the Georgian major cities; Sukhumi, the main urban center in Abkhazia was for many months the front line and suffered major damages; the northern part of the territory suffered less from hostilities, though about 20% of the housing stock was destroyed. At the end of the war, the population in Abkhazia was reduced by more than 50%.

In April 1994, the Moscow Agreement imposed a tight economic blockade putting the region on the margins of the international community. Since then, Abkhazia has been isolated and has endured economic hardship, characterized by rapidly declining standards of living, an extremely reduced ability of the *de facto* government to ensure the well-being of the population, a growing disparity of wealth compared to neighboring countries, civil strife and migration, in a large flow, of the most skilled labor force. In 1995, in the midst of the Chechen conflict, the Russian Duma decided to tighten control measures on the Abkhaz borders, reducing drastically the cushion provided by informal economic activity to the population. A cease-fire is now in effect, and an agreement involving Russia and the United Nations has been signed to work out a peaceful resolution of the conflict. Since Georgia joined the Commonwealth of Independent States (CIS), Russian peacekeeping forces are now in Abkhazia to work out return of the refugees and to reopen the route to Russia.

2. Recent Developments

Although violent confrontation between Georgia and its break-away autonomous region of Abkhazia ended over four years ago, reconciliation and accommodation do not seem to be an immediate prospect. The key building blocks for a managed transition from conflict to peace and development are not yet in place. There is still little common ground for a resolution of the basic dispute on the political status of the region. An understanding has yet to be reached on the conditions under which populations displaced by the hostilities may return to their areas of origin and to their homes. Trade restrictions have reduced Abkhazia's commerce with neighboring countries to cash and barter cross-border operations, impeding or stalling local efforts towards normalcy and reconstruction. In consequence, the economic decline and dilapidation of capital assets that began in the early 1990's and that were precipitated by the war have barely been arrested. At best, there has been a leveling out. Privatization, socio-economic organization and development remain all but frozen in time. The economic stabilization and recovery that has taken place in the rest of Georgia over the last few years has by-passed a region which continues to struggle for independence and recognition, against seemingly overwhelming odds. With a population decimated

by the exodus of over half of its people, and deprived of normal commerce with its neighbors, Abkhazia has retreated into a regime of self-sufficiency, while at the same time confidently staking its claim to sovereign nationhood.

For the time being, however, the political structures in Abkhazia established at the end of hostilities remain in place. The *de facto* authorities in Abkhazia refer to these structures in terms of an independent state; thus, Abkhazia (which has its own constitution) is headed by a president and a prime minister, who is responsible for the overall conduct of government business. A parliament exists and consists of members who were elected in November 1996 for five-year terms. In an effort to decentralize, the government has scheduled local elections for March 1998, and it is expected that these will lead to the establishment of village-level councils, each with one representative at the *rayon* level. Neither the Abkhaz parliamentary establishment nor the planned local government elections are recognized by the Government of Georgia. In consequence, tensions persist between the Georgian government and the *de facto* authorities currently in power in Abkhazia, with respect to who has jurisdiction over Abkhaz territory and the people living there. These differences are compounded as a result of the exodus of some 250,000 ethnic Georgians at the end of the war, the vast majority of whom have not returned to Abkhazia. Many of them hope to do so.

C. Macroeconomic Framework

1. General Trends since 1990

As a result of the war and the economic blockade, the regional economy totally collapsed. Abkhazia suffered from the sharpest economic decline in the FSU: between 1991 and 1994, GNP per capita is estimated to have fallen below US\$400, the lowest among FSU countries. Although precise estimates of output contraction are not possible due to deficiencies in the coverage and quality of economic statistics the magnitude of economic decline is substantial and is likely to exceed 80%. Between 1990 and 1997, total production has been declining from a high US\$424 million to a low US\$25 million while the government revenues declined from US\$43 million before the war to US\$6 million in 1997. Official data do not, however, provide a complete picture of the economic situation. The informal economy- a long-standing feature of Caucasian economy - seems to have developed considerably, especially in the trade sector, but its activities remain largely unrecorded. Within the shrinking economy, the tax ratio, measuring the government's ability to mobilize revenues, rose significantly from 10% in 1990 to about 25% in 1997. Because external financing is non-existent and domestic financing, partly through remittances from Abkhazians residing abroad, is very limited, budget deficits have increased. Despite the drastic reductions, arrears in public expenditures (primarily salaries) are growing rapidly. The Abkhaz economy is barely able to secure self-sufficiency and the *de facto* government is implementing a survival strategy.

Trade. While the region's economy was experiencing serious and growing difficulties during the 1980s, the civil conflict brought to a stop the commercial activities and business relationships with most of Abkhazia's trading partners. Coupled with the generalized lack of preparation to deal with the transition to a market economy and the shortage of skills, foreign trade became progressively marginal. With the current blockade, trade activities remain subject to a regime of restrictions and only a limited number of goods can be officially imported (mostly food, medicine, fuel, and some basic equipment).

Trade Exchanges by Commodity (1997)

Exports	Mt	Imports	Mt
Citrus	3,700	Wheat & flour	11,300
Tea	673	Sugar	1,200
Tobacco	29	Vegetable oil	200

Timber (m ³)	11,000	Other cereals	100
Scrap metal	5,000	Potatoes	3,000
		Pasta	700
		Fats	320
		Fuel	14,000

The table below contains trade balance estimates for the last three years:

Trade Balance (in US\$ million)

	1995	1996	1997
Exports	2.8	6.0	6.0
Imports	4.8	11.6	14.0
Trade Balance	-2.0	-5.6	-8

While the imports represent more than twice the value of the exports, it is not entirely clear how the trade deficit is covered. About 62% of the imports originate from Turkey and 12% from Russia. Recorded exports show 45 % are destined to Turkey and 54% to Russia. Timber export (about 16,000 cubic meter of logs in 1997) is the only industry experiencing some growth. Facing major administrative, financing and technical constraints, most trade transactions are carried out through one-shot deal by cash on delivery or barter arrangements. Regular and sustained business transactions cannot be carried out and access to financing mechanisms is extremely limited.

Banking. The banking system is embryonic, with the National Bank playing the role of regulator of about 18 commercial banks. The level of hard currency reserves is insignificant and there are no foreign debts reported. Presently, the commercial banks are not authorized to maintain business relations with foreign banks and they do not have correspondent accounts outside of Abkhazia. This restriction drastically reduces the possibility for Abkhazians working abroad to transfer funds. Overall, the banking system is poorly capitalized. Deposits are remunerated at a monthly rate of 10% and short term credits are available at about 15% a month (in US dollars). The credit rates in Russian rubles, the Abkhazia official currency, are about 5 percentage points more expensive. The average operation is about US\$20,000 to US\$30,000 with a three month maturity. In 1997, the total banking activity represented less than US\$2 million.

Privatization. The economy remains largely in state hands, with state enterprises retaining a dominant position. Housing has been (partly) privatized, and a substantial share of agriculture is generated in the private sector, i.e. on small private holdings or on land leased from the state farms. The state still holds ownership of 92 % of total land under cultivation. Entire sectors of the economy, including forestry, fishery, energy, transport, industry and tourism remain almost entirely in state control. In most of these sectors state-owned enterprises have monopoly rights.

2. Current Status

Few reliable figures on which to base estimates of GDP are presently available. It is however abundantly clear that production volumes for the main agricultural products, in particular export crops, and of the processing industry have plummeted. Current exports of citrus, tea and tobacco represent less than 10 % of their 1989 levels. Staple crops, such as maize and beans, are progressively making inroads on acreage planted with tea. The tourism industry which in normal times constituted a major income earner and source of employment for Abkhazia is at a virtual standstill. Most of the tourism infrastructure, with its 12,000 hotel beds inventory, is in a state of abandon; existing facilities are maintained and still in relatively good condition, but would need to be refurbished at substantial cost to attract an international clientele. The timber industry stands out as the only state-owned industry currently experiencing some growth, with 16,000 m³ of timber

exports in 1997, mainly in the form of logs, and about 10,000 m³ sold on the local market, either as fuel for heating or sawn and processed as construction material. The development of a timber processing industry for export faces major financing and technological constraints.

D. Public Finances

1. General Assessment

The main constraint Abkhazia faces in designing its public expenditure policy is the availability of resources. With no possibility to finance the public deficits through central bank credit or foreign borrowing, little ability to borrow domestically, and very limited foreign exchange reserves, the *de facto* government has only one option: compression of spending that implies cuts in financing of key services. Because of scarce financial statistics, it is not possible to conduct an analysis of official spending. The total breakdown provided by the authorities covers only 65% of the official revenues while the spending barely accounts for 25% of total expenditures.

Revenues and Expenditures (in US\$'000)

	1994	1995	1996	1997
Total Revenue	3,351	4,945	5,555	6,106
Tax Revenue	2,116	2,250	3,143	3,440
Taxes on income and profit	695	640	997	1,147
Corporate income tax	391	300	432	444
Wage tax	303	341	565	703
Taxes on goods & services	1,421	1,609	2,146	2,293
Sales tax	452	314	341	425
Customs duties	609	879	1,277	1,436
Licenses and fees	239	245	272	174
Excise duties	105	107	173	189
Fuel and road tax	16	63	82	70
Non-tax revenue	0	0	181	556
Housing privatization proceeds	0	0	0	60
Rent of agricultural lands	0	0	181	496
Unaccounted for	1,235	2,696	2,231	2,111
Total Expenditures	4,048	5,292	5,768	5,987
Expenditure by Administration				
Central authorities	2,825	4,203	4,045	4,035
Municipalities	1,222	1,088	1,723	1,952
Expenditure by Sector				
Education	258	364	503	472
Health	428	459	642	589
Culture	146	161	146	136
Social services	452	190	175	183
Unaccounted for	2,763	4,118	4,302	4,607
Deficit/surplus	(697)	(346)	(213)	120

Until now, the *de facto* government of Abkhazia has reacted to the insufficient level of revenues on a "day-to-day" basis: addressing the most pressing needs with available resources, and delaying all other spending until it becomes unavoidable. Although no indications have been provided on military expenses, it is likely that a substantial share of the public expenditures is devoted to the defense and security. As a second priority, the necessity of paying wages and social entitlements dominate the spending agenda, leaving little room for investments. Spending on maintenance of essential infrastructure basically disappeared.

2. Current Performance

Faced with extremely limited budgetary resources, the *de facto* government is only marginally performing many of its basic functions - most importantly those maintaining law and order, providing basic safety net protection for the most vulnerable, and maintaining critical infrastructure. Between 1996 and 1997, expenditures on education and health declined from US\$503,000 to US\$472,000 and US\$642,000 to US\$589,000 respectively. On a per capita basis, spending on education and health is well below the average of the rest of the region and below levels seen in much of the developing world.

Education and Health Spending (1995)

Country	Population	Per capita spend.(US\$) Education	Per capita spend.(US\$) Health
Greece	10.3	228	358
Latvia	2.6	89	39
Lithuania	3.7	51	41
Georgia	5.4	5	3.3
Abkhazia	0.2	1.8	2.2

E. Social Crisis

The absence of peace has prevented the region from participating in the process of economic reform and stabilization that has improved the lot of the Georgian population outside Abkhazia. As a result, the economy of Abkhazia has remained in the same state of stagnation and severe recession since 1994. Moreover, following the massive emigration that took place during the war, shortages of skills and labor weigh heavily on prospects for recovery in virtually all sectors. Much of the social infrastructure, notably in schools and hospitals, is at the same time oversized. The region's demographic structure has been severely skewed and exhibits an unusually large number of elderly people. As a rough estimate, the economically active population has been reduced to less than 100,000, out of a total population estimated at 200,000.

II. SECTOR ANALYSIS

A. Agriculture

Sector Profile

Abkhazia is an important agricultural region. In Soviet times it produced significant shares of Georgia's total production of a number of important primary and processed crops including tea (18%), vegetable oil (96%), citrus (40%) and tobacco (30%).

Following the collapse of the FSU, Georgia's near monopoly of markets within the Union disappeared and production declined sharply. The conflict in 1993 and 1994, and the ensuing instability to date (March 1998), has had a large and devastating impact on both of the agricultural and livestock sectors in Abkhazia. War damage to infrastructure, population shifts and, in the Gali district, population decreases, disruptions in supplies of inputs, support services and markets, has depressed output to levels above, but close to, subsistence levels. The extent of the collapse is clearly shown in Table 1. Outputs of tea and tobacco plants are less than 2% of pre war levels. For unprocessed citrus output is nearer 10%.

**Table 1 - Output of Processed Agricultural Products
and Numbers of Operational Plants in Abkhazia 1989 & 1997**

Product	Unit	1989 No of Plants	1997 Output	1997 No of PlantsO put/198 %
Black Tea	MT	23	25,200	94401.7
Fermented Tobacco	MT	3	6,600	31302.0
Cigarettes	Bn item	1	3	10.1240.4
Canned juice/jam etc.	Mn Cans/jars	4	31.7	20.6692.
Wine	declit	3	907,000	31.4??
Meat products	MT	4	11,600	214.5~0.
Milk & products	MT	3	40,500	2134.7~0
Vegetable oil	MT	1	14,300	000
Essential oil	MT	3	14.1	000
Animal Feed		1		00

Both the vegetable oil (sunflower) and animal feed mills are located in Otchamchira and were extensively destroyed in the war.

There is no physical inventory or estimate of war damage to agricultural production facilities (farm buildings, machinery and equipment or livestock) nor to the important tea, citrus and tobacco factories and other facilities, but damage clearly is widespread, particularly in Sukhumi, Otchamchira and Gali. According to one unsubstantiated report some 600 ha of tea gardens have been mined and therefore are inaccessible. This is compounded by the results of an almost complete lack of maintenance of plantations and orchards as well as machinery and equipment,

which has been exacerbated by more than five years of difficulties in obtaining spare parts.

The UNHCR Village Survey of a total of 28 villages south of Sukhumi in 1998 indicates that population levels average only 37% of pre-war figures (although this figure ranges from 25% to 62% depending on the rayon). In Gali rayon large numbers of refugees who fled subsequently returned and the population in Gali is nearly half the pre-war level. In all rayons, particularly in those south of Sukhumi, the population structure has changed. A high proportion of young and middle-aged men, who normally would be expected to work in agriculture, now live outside Abkhazia in either Russia or Georgia. Not only is the population smaller, but the population has less capacity for productive work than it had earlier.

Estimates of the per capita consumption of main food items in Abkhazia indicate a steep decline, particularly of meat and milk products between 1990 and 1995. Food security in the region is not considered to be a major concern although international humanitarian organisations supply vulnerable groups in urban areas daily and distribute dry food to some poor rural inhabitants regularly.

Only 40% of the available arable land is used and it is mainly used for food crops. In 1996 and 1997, public sector production of most major crops declined dramatically when compared with production in 1989. Maize production in 1997 exceeded that in 1996 and was relatively close to that in 1989, which indicates that farmers are concentrating on staple crops.

**Table 2 - Output of Main Crops in Abkhazia
1989, 1996, 1997 (Tonnes)**

	Green leaf tea	Citrus	Tobacco	Maize
1989	111,500	24,400	6,600	29,050
1996	1,835	2,476	144	20,650
1997	1,756	2,420	262	25,700

The stock of agricultural machinery has been decimated with fewer than 20% of items now operational when compared with pre-war levels. Also, all equipment is more than seven years old since no new equipment has been delivered since 1991.

**Table 3- Agricultural machinery & Equipment in Abkhazia
Numbers of operational units 1990 & 1996, 1997**

Year	1990	1996	1997
Category			
Tractors	2,442	714	509
Trucks	1,881	438	329
Tea harvesters	-	52	45
Tea clippers		39	49
Ploughs	845	205	183
Cultivators	-	47	7
Seeders	-	18	10

Livestock numbers have fallen to less than half of the pre-war numbers. Virtually all livestock now is held privately or by small family groups. Animal nutrition

levels are very poor and productivity is correspondingly low. Despite this, meat and dairy products are important components of the regional diet.

Veterinary services have all but ceased to function as there are no antihelmintics, drugs or vaccines, operational laboratories, artificial insemination facilities and the number of veterinarians has fallen from 300 to about 30. Two zoonoses, tuberculosis and brucellosis, are known to exist but no major disease problems are recognised.

There is almost no progress on land reform. State and collective farms (sovkhozy and kolkhozy) have been reformed as 'Agrifirmas.' They combine production and processing activities and remain wholly state owned. Very little privatisation of other assets has occurred, or is planned in the foreseeable future.

To ensure a longer-term coherent strategy, the Abkhaz authorities will need to address a number of policy issues including land reform and ownership, the role of government, privatization, agricultural productivity, longer-term strategies for tea and citrus and access to rural finance in the short to medium term.

B. Roads, Railroads, Bridges and Ports

Sector profile

1. The transport systems in Abkhazia adequately corresponded to the transport needs before the collapse of the Soviet Union and the civil war. Most of the road and rail networks in Abkhazia was at the time of the collapse of the Soviet Union of good geometric and construction standard, and some of the substandard sections had new projects under implementation, e.g. the Sukhumi road bypass. The Sukhumi airport was and is the best in the Caucasus. Since then, and because of the blockade, the traffic situation has changed drastically. Critical elements of infrastructure, vehicles

and rolling stock have been damaged in the war. Many road and rail bridges have been temporarily repaired to allow traffic to pass, but overall maintenance of infrastructure has ceased to exist.

Roads.

2. Maintaining a functioning road network is extremely important, as road transport is in general the only functioning mode of transport. M27, the main artery through Abkhazia, is the principal road connecting all major centers of Abkhazia and the only land access to the rest of Georgia and to Russia. Several bridges on M27 were damaged during the war, and long sections of the road pavement, in particular in the Gali district, have been seriously damaged by war traffic and neglect of maintenance. Almost all other roads in the Gali district, in particular along the Inguri river (north and south), are also damaged to a degree that they are hardly passable. This creates serious risks, difficulties, delays and heavy costs for the population in the area and for the UN and CIS forces supervising the cease fire. The poor road conditions are stated as the most difficult problem for the establishment of acceptable health support in the area. The number of kilometers of road in need of full reconstruction, heavy, medium or light repair is available in the survey that is included in the Road Project Annex.

3. The Road Administration Abkhazavtodor, is organized and works in principle as it did before independence. Its problems are exacerbated because of loss of staff, low salaries, very limited funds for road repair and maintenance, and delivery difficulties and high costs for imported bitumen, spare parts and other goods through the blockade. The war traffic and the very limited financial resources

available for road repair and maintenance has caused a very rapid deterioration of the road network. Furthermore, it is impossible for Abkhazavtdor to operate in some areas, e.g. the Gali district, because of the security risks. Its headquarters and only laboratory were bombed, and consequently the road administration presently has no quality control facilities. Specific technical problems include the use of outdated maintenance methods and the use of substandard stone materials for asphalt concrete aggregate and for surface dressing in spite of better materials existing in Abkhazia .

Road Transport

Road transport of passengers and goods is almost completely operated by the state. Experience shows that this is highly inefficient and uneconomic. The available information about the trucking fleet, its condition and commercial operation is poor; however, many of the trucks are not in working condition because of lack of spare parts. Nonetheless there is still sufficient transport capacity for the present needs. An accelerated reconstruction activity would substantially increase the need for truck transport.

Railways

The reopening of the railway is of extreme economic, and therefore social, importance not only to Abkhazia but to the whole Caucasus region and to Russia. The railway, in particular railway bridges and rolling stock, suffered serious war damage. Several bridges have had preliminary repairs, but heavy goods transit traffic is not possible over the bridges in their present condition. The electrical power lines are missing over long sections, and the signaling system is completely damaged. The rails in general are of good to acceptable standard but on sections with wooden sleepers, many are rotten. Preliminary or detailed design and cost estimates for the repair of the damaged bridges exist and the work could be implemented on short notice. Present railway operations include one train a day between Sukhumi and Ocamcire, and up to four trains a day to Gagra. The tariffs are extremely low and not always enforced.

The railway administration seems competent, but operates the railway following the principles of the outdated planned economy.

Ports

In the past **Sukhumi Port** served mainly as a passenger port, but with the war, the passenger traffic disappeared and the port has become important for the importation of goods, mainly food, petroleum products and cement from Turkey. Timber and scrap metal is exported. In 1997, 60 thousand tons of goods and no passengers were transported through the port. Almost all goods used to be imported/exported by rail, and it is not yet clear how much goods will now be shipped even in the short term. It will depend on the possible lifting of the blockade, trade relations with neighboring countries and the reinstatement of railway operations.

The berths of Sukhumi Port have a total length of 520 meters with depth varying from 3.5 to 7 meters. Two old tugs, one of 450 hp and one of 300 hp, serve the port, but most ships using the port do not need tug assistance. Two 5 ton tower cranes, one 25 and one 10 ton mobile crane and a very old 100 ton floating crane exist but all need frequent maintenance to remain operational. Two new warehouses have been constructed in the port area. The goods port is in very poor condition, seems poorly organized and is filled with scrap. The port is also poorly protected from the sea. The port suffered limited war damage but two ships were sunk, one of which still lies in the port entrance. The main income of the port is from its commercial activity of importing goods and selling it in Abkhazia. There is no railway connection to the Sukhumi port. Container traffic hardly exists, there are no RoRo facilities, and there are no container port plans or other modern transport considerations.

The **Port of Ocamcire** was not visited because it falls temporarily under the Russian Military Command. The Ocamcire port is designed for coal export and is said to be more modern than Sukhumi port. At **Skurcha**, 25 km south of Sukhumi, there is a man-made lake about 1.0 x 0.5 km

and 10 to 14 meter deep with a short canal to the sea and with an existing railway connection. Plans exist to develop this into a port. Shipping falls under the same authority as the ports. All ships are for coast passenger traffic only and presently there is no activity.

Civil Aviation

The Sukhumi airport has an excellent 3600 m long runway, with appropriate taxiways. The airport statistics indicate that it can be operated 355 out of 356 days a year. It has the best FSU air traffic control facilities in the region and modern landing aid systems for full automatic landing. The passenger hall is modern but the roof is leaking and the hall is in need of some general repairs. The hall has capacity for well developed tourism activity in Abkhazia. Existing fuel storage capacity is 8400 tons, and there is a railway connection for fuel supply. Existing empty factory buildings outside the airport fence can be transformed into large cargo warehouses and can also be used for value added activities. The airport is attractive for refueling of long distance flights and can become an air passenger and cargo hub for the region.

The airplanes belonging to Abkhazia were flown out or blown up during the war. Plans exist to lease airplanes to start a national airline. Air transport services might be better developed at lower cost without Government involvement. France and UK have indicated an interest in supporting the airport operations. The main issue is to start flight operations at the airport as soon as possible.

C. Energy, Power Supply

GENERAL

Prior to the break-up of the Soviet Union and the 1992/93 civil war, primary energy resources in Abkhazia included hydropower, coal and biomass (wood). Natural gas and oil products (including liquefied petroleum gas or LPG) were imported from other FSU republics. Energy infrastructure was well developed. Nearly all households were connected to the electricity network. The Abkhazian power system was well integrated into the regional network through the connections with the rest of the Georgian grid, as well as with the Russian network. There were 17 hydropower plants built, with annual generation ranging between 4000 and 5000 GWh and total capacity of about 1670 MW, of which 5 hydro plants are larger than 40 MW. The largest hydro plant on the Abkhazian territory is the Inguri plant with a capacity of 1300 MW; however, its reservoir is outside Abkhazia in Georgia. The Tkvarcheli thermal power plant, originally built to fire coal but later converted to natural gas, had a capacity of 220 MW. The gas distribution network extended to Sukhumi. Centralized district heating systems, running on gas or fuel oil, were developed in all main cities.

The 1992/93 war in Abkhazia and the ensuing economic decline, compounded by the economic blockade, had a major detrimental effect on energy supply. Imports of natural gas stopped with the war, and coal production also ceased. Oil products are imported in minimal quantities, mainly from Turkey through the port of Sukhumi. District heating systems have been out of operation since 1992. There is no hot water supply. People have been installing electric space and hot water heaters, often improvised. No systematic data is available on the extent to which electric space and hot water heaters are being used. Currently, electricity is the dominant source of energy, substituting for other forms of energy which were used traditionally. Wood (in rural areas), LPG and coal are used in small quantities for heating as well.

POWER SECTOR

Electricity Demand. End-use consumption in 1997 was 456.6 GWh, up from 398.7 GWh in 1996, and 175.8 GWh in 1995; however wholesale electricity supply totalled 677.3 GWh, which

means losses in transmission and distribution totalled a staggering 220.7 GWh. Most of electricity in 1997 was consumed by households (63.6%); industrial and agricultural sectors consumed merely 5.2%, which is in itself quite a telling indicator of the overall level of economic activity. Table 3 in Annex 1 gives a breakdown of end-use consumption in 1997 by sectors. Data on annual electricity consumption prior to 1995 was not made available to the mission, but a rather conservative estimate would put it above 1000 GWh in the years before the break-up of the Soviet Union. Regionally, the city of Sukhumi and the Gagra rayon consumed more than half of all electricity in 1997 (Table 2, Annex 1). Regional consumption shifted after the war. The Gali and Tkvarcheli regions, which used to be the most economically active, consumed only about 15% of electricity in Abkhazia in 1997.

Electricity Supply. Of the five major hydropower plants in Abkhazia, only two (Inguri and Vardnili) now operate. Apparently the Georgian government and the Abkhazian authorities have agreed that 40% of electricity produced at the Inguri plant belongs to Abkhazia. When this share is included, total generation in Abkhazia still exceeds demand, and the surplus is “exported” to Georgia. Imports of electricity from Russia to supply the northwestern parts of Abkhazia, the Gagra region make the surplus even larger. The northwestern areas cannot be supplied from the Inguri cascade due to transmission bottlenecks, and the region is disconnected electrically from the rest of Abkhazia. Imports from Russia represented about 20% of total supply in 1997 (Table 1, Annex 1). Electricity in Abkhazia is nominally available 24 hours a day, although local outages are frequent and sometimes prolonged, especially in remote areas. The quality of electricity supply, in terms of reliability and low voltages, is poor.

Electricity Trade. As described above, Abkhazia has a surplus in power generating capacity, although the amount depends on how electricity generated at the Inguri plant is divided with Georgia. Both the 500 kV Kavkasioni transmission line and the 220 kV line to Sochi pass through Abkhazia and are important elements of the regional power transmission grid, connecting Russia, Georgia, Azerbaijan, Armenia and Turkey. Electricity trade is an important economic link with the rest of Georgia and with the entire Caucasus region. The trade in electricity serves the interest of all parties involved, thus has been maintained with Georgia throughout all hostilities without major interruptions.

Power Sector Infrastructure. Several major hydroplants (Vardnili II-IV, with a total capacity of 120 MW and the Tkvarcheli thermal plant (220 MW)) were damaged during the 1992/93 war and are out of operation. Due to difficulties in traveling through the areas where these plants are located at the time of the visit, the mission has not been able to inspect the plants and assess their conditions. Based on interviews with Abkhazian experts, it seems unlikely that the Tkvarcheli plant is worth repairing, whereas Vardnili II-IV could probably be rehabilitated. It would be necessary to inspect the plants and confirm these assessments. Another hydro plant, Sukhumi (19 MW), has been out of operation since before the war, and its condition would also need to be assessed.

The power transmission network includes 220-kV lines (5 lines with total length of 222.5 km), 110-kV Lines (46 lines with total length of 506.9 km), and 35-kV lines (24 lines with total length of 220.1 km), and corresponding substations (3 substations of 220 kV, 39 substations of 110 kV, and 22 substations of 35 kV). The 500-kV line, connecting the Russian grid with the Georgian network through the Inguri plant, belongs to a Russian/Georgian joint venture. Connections with Russia are through a 220-kV line and a 110-kV line, which are not assets claimed by the Abkhazian authorities, at least at this time. Connections with Georgia are also through 220- and 110-kV lines. The 220-kV network -- a transmission backbone for Abkhazia -- is out of operation due to damage caused by the war. The network operates at 110 kV, which limits its transmission capacity to about 150 MW and significantly increases transmission losses. A number of 110-kV lines and substations have also been damaged. System control and dispatch is rudimentary and is conducted manually using telephone connections with power plants and substations.

Distribution networks include 10-, 6- and 0.4-kV lines with corresponding substations and are quite extensive. Most of the equipment is old and in need of extensive rehabilitation or replacement.

The main problems are: shortages of materials (especially transformer oil) and spare parts, very deteriorated equipment (cables, transformers, breakers) and unprotected equipment (substation cabins). In addition, many parts of the network are overloaded due to increased residential consumption. Most, if not all, consumers are metered, although meters have not been calibrated for a long time. Illegal connections bypassing meters, have also been noticed.

The entire system including all of its segments is dilapidated and deteriorating continuously. Regular maintenance has not been performed for the past 8-9 years and only emergency repairs are undertaken. The parts and materials needed to repair more important sections usually are taken from less important sections, which only accelerates overall deterioration and decapitalization of the system.

Institutional Organization. The generation, transmission and dispatch functions are performed by “ChernoMorEnergo” (CME), which is registered as a closed joint stock company, 100% publicly owned. Distribution is separated from generation/transmission. Eight regional distribution companies, owned by the seven administrative rayons plus the Sukhumi municipality, service their respective rayons (the Sukhumi company serves the rayon of Sukhumi). Electricity tariffs are set by the Cabinet of Ministers. Currently, there are nine tariffs for the nine categories of consumers, ranging from 12 (old) rubles (about 0.2 USc) per kWh (for households) to 30 rubles (about 0.5 USc) per kWh (for industry) for domestic consumers. Foreign organizations (primarily Russian military bases) are charged tariffs set at 220 rubles (about 3.7 USc) per kWh. There are also some discounts for certain categories of consumers. The wholesale tariff, i.e., the tariff at which CME sells energy to the distribution companies, is not explicitly set, but there is a regulation that obliges the distribution companies to transfer 65% of their collections to CME, which in effect sets the wholesale tariff at 65% level of the average retail tariff.

Financial Situation. Clearly, tariffs are far too low (by a factor of at least 10) to cover the cost of supply. Moreover, payment collections are also extremely low, generally below 50% and as low as 20% depending on the region and the year. Collections are not enforced, and non-paying customers are not disconnected for non-payments. Despite this, reportedly many illegal connections bypassing meters exist. Total CME’s receivables on January 1, 1998, stood at 7,694.1 million rubles (about US\$1.3 million). Total CME’s billings in 1997 were about 6 billion rubles. End-users were billed about 8.1 billion rubles in 1997 for consumption of 456.6 GWh of electricity, which implies an average end-user tariff of about 17.7 rubles (about 0.3 USc) per one kWh consumed. Since system losses are about 50% of end-use consumption, the average retail tariff was only about USc 0.2 per kWh of electricity produced. As result, maintenance and operation of the system are largely financed by capital consumption and payment arrears.

D. Water, Wastewater, Solid Waste

General Findings

The mission made an effort to evaluate sector issues in Abkhazia within a period of time shorter than originally planned. The results presented below should be viewed as preliminary, since the mission did not have the time to verify the information received on villages across the country and on major towns in the Eastern part of the republic. This report is based on the observations, interviews, field trips and the questionnaire completed by sector counterparts and local administrations during the visit (see Annexes 1 and 2). It is necessary to verify and complete the data presented in this progress report by a follow-up mission to Abkhazia.

Abkhazia is blessed with easily available, good quality water, as well as with a long sea shore. However, the state of the water supply, waste water collection and treatment, and of the solid waste collection and disposal is more than critical. The administrations of at least half of the cities of Abkhazia consider water supply and waste to require urgent intervention as a first priority.

Today, after years of war and border blockade, all Abkhaz cities still have more or less functioning water supply systems. The condition of these systems is deplorable, with operations done on a shoe string. It is only due to the dedication of a few highly motivated professionals that none of the systems has broken down totally. Yet it is clear that a major crisis may happen at any moment. The following cities are at greatest risk: Ochamchira, Pitsunda, Gudauta, as well as the large settlements of Agudzera and Bzyp. The water system in the capital city Sukhumi enjoys more support from the republic's authorities than others, but the system's condition is not much different from the others. Next in terms of priority based on need would be the cities of Gali and Tkvarcheli.

Sewage collection systems now carry wastewater directly to the outfalls bypassing wastewater treatment plants. Clogging of collection systems causes frequent sewer floods, including in downtown areas. Wastewater treatment does not function anywhere across Abkhazia. The worst damage to the wastewater treatment facilities is reported to be in Tkvarcheli and Ochamchira. Facilities in Gagra, Pitsunda and Gudauta are believed to be more easily recoverable than others.

Due to the low-level of industrial production and the decrease of population, the observed mixture of the fecal storm sewage outfalls was within 30 mg/l BOD, making it borderline, which may create problems in the summertime for swimming. While this quality of wastewater outfall may be acceptable elsewhere, it is severely damaging Abkhazia's hope for economic revival, as the republic historically has had a resort oriented economy.

Most villages are reported to have individual water wells and septic tanks. Since the population is taking precautions to prevent cross contamination of water with sewage, water is available and the population is sparse, in general the villages of Central and Western Abkhazia may not experience urgent problems; however, the mission believes that the situation in Eastern Abkhazia, especially in the Gali region, may be more complicated and needs further investigation.

Solid waste is a major issue across the republic. Waste consists primarily of scrap metal, old cars, plastic and glass. While most landfills are located within the city boundaries, or in recreational areas, there is no control at all over garbage dumping. Since landfills are not regulated, they are spreading quickly and creating health problems due to storm runoff and injuries to the general population, especially children. The worst situations are in Gagra, where the landfill is located near the city center; in Gudauta, where the landfill is located along the sea shore in the recreational area, and in Gali.

Total damage to the water and sanitation sector infrastructure is now running in the hundreds of millions of dollars.

Given the poor condition of the sector, the risk of a major epidemic is always present and this risk rapidly increases in the summertime, when the temperature of tap water increases and many people swim. Clearly short- and medium-term measures to lower health risks to the population, for example cholera, are urgently required.

Technical Issues

The water and sewer systems in Abkhazia were typical for the FSU. Before the war, all city residents were provided with running water and most also had access to sewer services. The development of sewer services lagged behind the population increase. In Sukhumi the sewerage collection network was built about 50 years ago and has not been modified since.

In the past, sewage treatment was limited to mechanical treatment, although three Eastern cities (Tkvarcheli, Ochamchira and Gali) reportedly did not have any sewage treatment at all. Due to the excellent water quality, tap water still is chlorinated only as was the case in earlier years.

Abkhazia's subtropical climate meant people were used to taking great precautions against

humidity related corrosion. Equipment aging was an ever greater problem here than elsewhere in the FSU. Systems and facilities, which were already quite aged, were not used for a year and a half during the war. As a result all piping, pumping and checking equipment deteriorated enormously. Most major well fields, surface water intake facilities, pumping stations, waste water treatment plants were extensively damaged by warfare. In Eastern Abkhazia the situation is likely to be especially bad. Intermittent terrorist acts continue to add to the extent of the devastation.

Sukhumi residents now receive water according to a schedule, with one region being served after the other and the main pumps working 24 hour a day. About 20 percent of the city residents do not have water at all. This number is expected to grow since the utility is trying to salvage those parts of the system that still function. Sukhumi's population is now about half of what it was before the war. Many buildings and systems have been damaged, deserted and vandalized. The utility's task of providing services is daunting. Similar or worse situations are found in the other cities. The amount of installed equipment is 1/3 to 2/3 of the amount required to run the systems. Practically all still functioning equipment is in a critical state. Since imports of equipments are banned, utilities mechanics are reassembling pumps, engines and transformers from whatever scraps they can find. Operations are also hindered by other technical problems including uneven voltage (spare parts for transformers are unavailable) and resultant equipment breakdowns and the constant danger of flooding of well fields and pumping stations since protection measures against river bank erosion has been nonexistent in recent years.

Total losses due to water leakage and waste may be as high as 95 percent. No leakage control is in place. Utilities simply try to fill the systems with water to avoid cross contamination with sewage. There is no capacity to fight indoor leaks. For the most part, water connections to abandoned buildings remain open. The hydrants are in very bad shape. The mission did not have time to verify the percentage not in use, but it is reported to be very high.

While water services and sewage collection still function, wastewater treatment has completely stalled throughout Abkhazia. Toxic wastewater effluents, such as those from the tuberculosis hospital in Gulripshi, are now discharged untreated.

Fortunately for the northern part of the republic, by 1990 the cities of Sukhumi, Gugauta and Gagra were equipped with sewage outfalls stretching along the sea bottom for one to two kilometers to the anoxic zone, which takes care of the pollution and explains the lack of any major epidemic so far. The condition of these outfalls is considered to be critical. The outfalls are reported to have gross deficiencies due to the poor quality of construction. This, when taken in conjunction with a complete absence of maintenance for the past ten years, explains their current critical condition. All other municipal sewers, both fecal and storm, are badly clogged and need cleaning.

Most buildings and structures owned by the sector were heavily damaged during the war. They are unsafe to use and do not provide adequate protection from the elements.

Laboratories (both those in the water utilities and those belonging to the regulatory units), lack basic chemicals and equipment. Due to the absence of any external support, the reliability of their work is plummeting, and they soon may not be able to protect the public from future violations. Utilities and laboratory crews often find themselves unable to carry out their duties because of shortages of operable vehicles and because fuel is now used as currency.

The technical base for waste collection services in Abkhaz cities is nearly completely eroded. Sukhumi still has two functioning waste collection trucks. Other items ranging from residential waste containers to bulldozers to operate the landfills are absent.

Financial

Water utilities and waste collection units continue to charge user fees. The level of collections is extremely low, with the highest response from the elderly--younger and better off people virtually ignore the bills. The fees are set by local authorities and differ in each city. In some cases utility workers visit users to collect fees directly. In some cases the utilities collect from the Housing Maintenance Units (DJEKs), which, in turn, collect from the users. The level of collections for water utilities may not exceed 30 percent. Collections are complicated by mobility as residents move into better housing or move to another town or village. The utilities maintain records on domestic customers, but the records are very outdated. The utilities do not have a consistent database for industrial customers.

The government is pursuing a policy of subsidizing electricity for water utilities. In addition, old debts for electricity are periodically forgiven. About half of the water and sewer sector's revenue is spent on electricity, while the other half is spent on salaries.

Cost recovery for solid waste operations is even worse than for water and sewer services. Despite the requirement to pay for services, waste collection and removal for residents is provided virtually as a public good.

Institutional

Both water and wastewater utilities and waste collection units belong to municipalities. Due to low salaries these units are understaffed and existing staff have few incentives to work hard. A number of individuals, particularly utility and departments chiefs, perform very well out of a sense of duty and in an effort to prevent a major disaster.

The republic-wide questionnaire (see Annex 1) revealed a uniform interest on the part of water utilities and municipalities in changing the system to "corporatize" water and waste services by making them legally independent entities, which would cover all operating, maintenance and capital costs by efficient tariff collection. Water utilities and municipalities expressed interest in using international technical assistance to help develop and establish independent, more efficient and client oriented units.

Municipalities are responsible for solid waste collection and removal. Residents are responsible for collecting domestic waste and disposing of it in waste containers on the streets. The municipalities do not have the base needed to conduct proper waste services fee billing and collection.

Heads of the utilities and of the local authorities have expressed an interest in centralizing capital, labor or know how intensive operations in water and sanitation sectors to achieve economies of scale.

Other

The well fields of pumping stations Nos. 2 and 4 in Sukhumi are not completely de-mined. As a result, a total of nine staff from Sukhumi utilities lost limbs while servicing well fields around these pumping stations, even after de-mining. There may be similar or worse situations in the Eastern Abkhazia, where mining was done on a larger scale.

Providing for the security of the facilities from militant acts is another challenge for operations. This is a major problem all over the republic, including Sukhumi, and is expected to be especially bad in the eastern part of the republic.

E. Housing, Public Facilities

General

Design and construction methods for state-built housing and public buildings in Abkhazia follow Soviet typologies. Recent state-built housing is usually not considered desirable due to location, design and condition. Social sector facilities, particularly hospitals, have excess capacity. Structures in general are “maintenance hungry” and have been especially neglected since the breakup of the Soviet Union because of tight budgets; in the case of Abkhazia this has been exacerbated by the conflict.

Perhaps less typical of most FSU countries is the proportion of private housing--overall about 70% of the stock in 1989 (43% in urban and 91% in rural areas). This substantial stock of private housing is of local, traditional design, generously sized and well-built, provided by a population that is apparently able to look after its housing needs without external direction.

After limited site visits and discussions with local officials, no serious space needs--for housing or public facilities--are noted that could not be met with moderate rehabilitation work. This, however, is largely due to depopulation and reduced demand--presumably a temporary situation. NGOs are currently involved in integrated programs to alleviate the suffering and poor living conditions of vulnerable groups, and to render schools and health facilities useable.

Discussions with local and state officials during the mission suggest that they have not yet focused on the need for systematic damage assessments or inventories of needs--particularly for housing--nor have they begun to draft plans to meet needs in the short or long term. NGOs have made damage assessments of health and educational facilities. This data appears in the relevant sections of the UN mission report.

Housing

War damage affected the stock in a number of areas, both rural and urban, but damage assessments have not been undertaken for housing. Local authorities have agreed to develop rough estimates of damaged and destroyed housing, but these data are not yet available. Officials in Sukhumi, considered among the worst affected urban areas, estimate very informally that about 30% of its housing stock was rendered uninhabitable by the war. Damage to housing includes direct war damage (mostly artillery and small arms fire) and damage resulting from the conflict's aftermath (burning and looting). Political uncertainty combined with uneasy post-conflict ethnic sentiments are at present the greatest obstacles to return of IDPs and the repair of housing stock (see issues below).

Need. Because of population shifts due to the conflict and resulting in a ____% population depletion in Abkhazia, housing supply appears at present to exceed demand (further study is required to confirm this); quality and condition of habitable units, however, is in many cases quite poor because of years of maintenance neglect and light to moderate damage. Even where housing stock lost to war damage is quite high, as in Sukhumi, there is virtually no homelessness. While depopulation is seen as the main reason; doubling up with relatives is also cited, but the extent of this has not been documented.

Local officials give housing *per se* at present a low priority. The more urgent immediate shelter need seems in fact to be utility services. This is confirmed by local authorities and the mission's other sector analyses: water, sewer and electricity services are erratic and sometimes absent. This should, however, not obscure the fact that there is a need for preventive repairs to building envelopes--some minor, but also in some cases structural work, if only to prevent serious deterioration of buildings that are at present under-utilized, but will with certainty in future be needed.

Emergencies are being addressed by NGOs, but whether there are gaps in coverage has not been verified. Among the vulnerable, old and isolated women are felt by NGOs to have the most difficulty maintaining decent living conditions--even though they may still occupy their flats--due to maintenance problems and damage. However, except for minor repairs required to make their

apartments safer and healthier (window glass, doors, and fixtures) addressing the needs of this group appears to be more of a social assistance problem than one of housing.

As might be expected in the current environment of scarcity and political change, attention to public safety issues has been largely neglected by urban building authorities. In view of potential seismic risks, seriously weakened structures should be identified and reinforced or razed, and other potentially dangerous conditions resulting from war damage, such as open building shells, should be addressed.

In addition to utilities, preventive repair, and public safety, the urban environment needs general rehabilitation. This is more an issue of renewing civic spirit and hope than immediate, and involves cleaning up debris and mending basic amenities such as pedestrian ways, neighborhood roads and drainage to the extent they are not being addressed under the transport sector.

Public facilities

Local authorities cite schools, and sports and cultural facilities rehabilitation as the main need under their responsibility in the area of public facilities. The UN mission health sector team as well as NGOs see both schools and hospitals as priorities. The NGO Accion Contra el Hambre (ACH) estimates a need to rehabilitate about 80 schools, and to consolidate existing health facilities to respond to over-capacity that existed before the war, and to the currently low population. The health and education teams are collecting data on schools and hospitals and addressing the needs of those sectors. Emergency work in these sectors has been tackled by NGOs and UN agencies, and there is a consensus that it is time to move to longer term sector development.

Existing activity

UNHCR and several NGOs are implementing--or are about to start--housing repair programs for people who have remained in place or near their original place of dwelling. UNHCR's roof kit program (self-help) is targeted at private houses, mainly in villages (about 250 of 800 completed to date at \$1300 each.) These are appropriate and cost-effective activities that harness local group and individual initiative. *Premiere Urgence* is about to start an apartment repair program for isolated women, focusing on window glass and internal water and electricity problems. ACH has made nearly 50 schools useable in the past 3 years through minimum repairs designed to protect and enclose damaged structures and put to use the minimum space required at this time. Several hospitals and clinics have also been put into service through this program, funded by UNHCR.

Technical issues. No serious technical issues became apparent during the mission. Engineering assessments are required for any structure that suffered artillery or fire damage, but this is routine and can be carried out by local engineering institutes. Seismic conditions need addressing. Determining the cost-effectiveness of repair vs. demolition and rebuilding is also required. Low prevailing costs of construction are likely to favor repair. The construction industry remains state-owned and organized along vertical lines as under the Soviets, but can be expected to be *defacto* financially and managerially autonomous due to state incapacity. One large state enterprise does 80% of the work, and has the capacity to handle large building and infrastructure jobs. Small *brigads* able to handle small repair programs emerge where demand exists. Reconstruction activities for housing and public facilities will require small to medium scale enterprises: flexible brigads responding to small but wide demand, and daughter companies spun off from the state enterprise for larger jobs. Building skills in the villages are very good. Basic building materials are not blockaded; NGO's are able to bring required materials from Turkey, and timber is locally produced.

Socio-economic issues

Three issues complicate the design of a rehabilitation strategy, particularly for housing:

Occupation: many housing units vacated because of ethnic tension have been occupied by people who remained behind, usually belonging to the opposing side. The untangling of this situation and the establishment of housing rights must be addressed on the political level.

Scope and pace of reconstruction: The question of how much housing should be rehabilitated, and in what increments, is complicated by the prevailing under-population and the ethnic complexities attached to refugee returns, the stagnation of local economic activity, and the spatial-economic factor (location and asset value, which might preclude rehabilitation of certain apartment structures until well into the future). While demand for habitable space might at present be limited, this would change radically if the political and economic environments allow displaced citizens to return. The lack of decent housing can be a disincentive for people to return, but increasing the amount of habitable space should parallel rather than precede softening of ethnic tensions and the development of opportunities for young people who have left for economic reasons.

Village-to city migration: the reasons for this phenomenon need study. Lack of educational and health facilities is cited by one NGO, but the potential role of housing and facilitates rehabilitation in stemming rural-urban migration should be assessed.

Institutional issues

Ownership of apartments remains with municipal authorities and enterprises. While some privatization of enterprise and state housing has taken place, further progress does not seem likely in the near future. Sustainable operations and maintenance of public and enterprise housing, as well as other public building assets, is therefore a serious issue. Local authorities and the state lack staff and financial resources to repair and maintain housing under their budgets. The position of enterprises has not yet been verified, but it is expected that it is similar. Local security is a prerequisite for serious rehab work; as long as vacant apartments can be occupied or stripped, investments are risky.

III. FRAMEWORK FOR ASSISTANCE

A. Constraints and Opportunities

1. General

At this early stage, the Bank's involvement in Abkhazia's reconstruction is limited to providing a preliminary operational framework leading from humanitarian assistance to basic reconstruction and, finally, investment in economic development. Because Abkhazia is not a member of the United Nations, the Bank is unable to directly play a key role in the territory's development at this time. However, the present UNDP framework permits the Bank to immediately help in developing the rationale for the involvement of other donors, support the peace process, and establish the legal basis for the Bank's potential future involvement under Georgian auspices.

Through a *short-term* program, the Bank will be in a position to assist by extending relevant activities now underway in Georgia to the Abkhazia territory. Funds could be rapidly mobilized under current implementation arrangements and cover a wide spectrum of needs, from micro-projects in the social and community development areas (through the Social Investment Fund Project), to investment in the repair and development of municipal infrastructure, particularly in Sukhumi (through the ongoing Municipal Development and Decentralization Project) and provision of micro-credits to small farmers (through the Agriculture Development Project).

Medium-term involvement by the Bank could cover several sectors critical to post-conflict economic development. A rehabilitation operation, including priorities listed in the various sector action plans presented below, could be an appropriate response to provide support for the economic development of the Abkhase territory and yield substantial and mutual benefit for the Caucasus region.

Although *long-term* cooperation activities between Abkhazia and Georgia could be designed only at a later stage, some preliminary proposals are already listed. Further analysis and more permanent arrangements, however, will be required before preparing an adequate and well tailored portfolio.

The sector-specific preliminary assistance strategies outlined below adhere to the phased approach above. **For each sector, phased project proposals are provided in the respective annexes.**

2. Potential Priorities for Bank Involvement

Assuming that the Bank is invited to support Abkhazia's development, its top operational priorities should include the following, consistent with the institution's general post-conflict assistance strategy:

- a. assist in reconstruction and development of the region by facilitating capital investment for productive purposes, thus contributing to restoration of an economy destroyed/disrupted by war;
- b. promote private foreign investments in the region by means of guarantees or participation in loans made by private investors, thereby contributing to a smooth transition from a wartime to a peacetime economy;
- c. promote long-term balanced growth of international trade and maintenance of balance of payments equilibrium by encouraging international investments in the region's productive resources, thereby assisting in raising productivity, standards of living, and labor conditions throughout the territory.

3. Pre-Conditions

To achieve the above objectives, four key factors should be taken into account by the Bank when deciding whether to proceed with an assistance program in a politically unstable area such as Abkhazia, namely:

- a. the expected monitorable benefits of a given project;
- b. the borrower's repayment credibility;
- c. the borrower's ability to effectively carry out the project; and
- d. the Bank staff's ability to regularly visit the project areas in safety for supervision purposes.

Moreover, preserving the Bank's neutrality at all times should be a key concern, and special monitoring mechanisms would be needed to ensure that IDA funds do not contribute to financing military activities in even the most indirect way.

None of the above conditions is fully satisfied at present, making direct assistance by the Bank premature. However, the present report could provide a useful framework to place the current immediate humanitarian relief operations into a broader medium/long-term development strategy.

B. Agriculture

1. General

Abkhaz agriculture is at a low ebb as it is deprived of inputs (including credit), the means of production and the incentive of markets and market mechanisms for its products. Agriculture and agriprocessing have in the past and potentially will in the future provide the main source of employment in Abkhazia. The recovery of the sector will underpin the recovery of the region's economy as a whole, it will also provide a strong incentive for refugees to return and communities to be re-built. Whilst the border blockade is not full proof - with limited amounts of agricultural products being exported both legitimately and informally - it is effective in disrupting orderly supplies of goods and marketing and therefore depressing economic activity.

Provision of international development assistance presupposes satisfactory progress in the political process and the removal of the blockade. However the lifting of the blockade will not per se ensure the recovery of the Abkhaz agriculture. As noted earlier Abkhaz agriculture lacks finance, structure and the experience and knowledge of the modalities and operation of a market economy. This shortage of expertise is reflected throughout the regional economy which lacks the basic infrastructure of a banking system or adequate communications to support a rapid upturn in activity.

It needs to be emphasised that whilst humanitarian assistance is currently essential and initiatives to distribute garden vegetables seeds and agrochemicals are important to address food security concerns, expansion of such activities will not stimulate economic recovery. This will be achieved, in the short term by

concentrating on the rehabilitation of the production, processing and export of the region's traditional products.

2. Short-Term Intervention

Objectives:

- a. the immediate objective is to restart the engine of agricultural production. This will be achieved by securing inputs of seeds, fertilisers, agrochemicals, machinery and fuel oils and vital veterinary and artificial insemination requisites;
- b. to stimulate the market "demand pull" for products through the agro processing plants and product collection mechanisms.
- c. to identify and develop export market outlets.
- d. to introduce village credit unions to selected areas.

The underlying rationale is to recreate rural employment and to encourage the return of refugees and IDPs and thereby rebuild - probably in new forms - the communities destroyed by the war. The interventions proposed will require funds to finance emergency procurement of inputs and investments coupled with TA for project implementation and management and for investigation and further programme development. It is probable therefore that a number of donors may become involved - stressing the need, as ever, for co-ordination.

3. Medium and long-term intervention

Abkhaz agriculture and the agroprocessing enterprises are faced with the consequences of:

- several years of under-investment in the latter part of the Soviet period, followed by
- neglect and damage of investment and
- disruption of raw materials, input supplies and markets
- a decision to change the basis of production from central planning and central state funding to some form of, as yet undefined, private ownership and a market oriented economy.

The ways in which these needs are addressed in the medium and longer term will be determined by the nature of the regions relationship with the rest of Georgia.

Please see **Annex 1** for specific project proposals.

C. Roads, Railroads, Bridges and Ports

1. Broad Intervention Priorities by Sub-Sector

Roads. A top priority is for road repairs required to initiate a return to normal life and economic recovery in the cease-fire supervision zone. The medium term priorities include safeguarding existing road investments by repairing roads, many of them already in critical condition, and at the same time reducing transport costs. The long term priority is to improve roads and construct

new road sections which are economically well justified and required for the economic development of Abkhazia.

The *short-term* highest priorities are to (i) repair the worst sections of M27 between Zugdidi and Ocamcire, (ii) reconstruct the four M27 road bridges that were damaged during the war and are in need of immediate repair, and (iii) reconstruct/repair priority sections of road, most of them in the Gali district. The short term road and bridge repair project is estimated US\$5.9 million. The *medium-term* road project is estimated US\$3 million. The *long-term* project includes US\$ 16 million for the completion of construction of Sochumi road bypass and US\$ 7.8 million for various bridge components. See Road project attachment. The priority program should include identifying and opening up new quarries to produce stone aggregate that can better withstand heavy traffic, including the military tanks.

Road construction in the conflict zone is presently extremely difficult. UNOMIG has let contracts to local state-owned contractors, but with poor results. The contractors quit because of land mine accidents, threats or because each village allows only its own people to work within its boundaries, retaining the advance contract payments. UNOMIG has proposed that Russia to add a fifty man Engineering company to the present Russian forces with the task of repairing the roads in the cease-fire supervision zone. UNOMIG has been able to raise some funds from its own budget, possibly up to US\$ 500,000, to pay for the Russian road repair services. This proposal should be supported, particularly as it would solve the serious problems related to the execution of the work. However, additional funds are required to convince Russia to establish the Engineering company in Abkhazia and to repair the priority road sections. Efforts should be made to identify additional funding that can be used for this purpose. Widening of bridges and completion of road projects started several years ago fall under the long term program. The completion of the previously planned new activities described above are proposed for the longer term plan. An existing project plan to construct a new road across the Caucasus mountain range might also be justified in the long term when the economy of Abkhazia has recovered.

Road Transport. The trucking fleet should be privatized as soon as possible, and support should be given to the Government to help expedite this privatization. However, it is unlikely that the government is able to privatize the fleet in time so that it can be operational under private ownership and meet the need that arises when reconstruction and other short term activities start. It is therefore necessary to help to make part of the fleet operational by providing spare parts at an estimated cost of US\$ 1 million. Support would also be needed to ensure that the transport tariffs are appropriate and comparable with the cost of privately operated trucking.

Railways. It is strongly recommended to repair the electrical power system without delay even if diesel engines can be used temporarily. The loss of traction and rolling stock due to the war is not expected to be a serious limiting factor in the early stage of opening the railway traffic, but lack of repair and maintenance is expected to create problems. The repair of the railway track, bridges, signaling and the electric power system is estimated to cost \$ 36.4 million, all of which is required for the opening up of the railway for international goods transit traffic. For the safe operation of the existing traffic only an investment of \$ 6 million would be required. Provision of spare parts for traction and rolling stock is also a short term high priority. The railway administration will need support to help transform the organization and its operations to meet market economy conditions.

Ports. There is an urgent need for the development of an Abkhazia Port Master Plan. This plan should identify the transport needs based on modern competitive trade and transport practices, analyze how the ports can best be transformed into efficient, commercialized, and possibly privately operated ports, and propose a port development program. It is expected that the short term transport needs expected to develop through reconstruction and other immediate activities will require increased port capacity and more reliable port functions, in particular in Sochumi. Therefore, it is

proposed to improve the Sochumi port operations by providing one modern mobile crane, 2 forklifts, ensure the completion of the ongoing berth works, and by providing part of the port areas with asphalt pavement. All of it to be included in the short term program. A detailed assessment of the needs is required once the transport flows can be better estimated. The preliminary cost estimate is US\$ 2 million.

Civil Aviation. Short term support would include support for Abkhazia's efforts to open up the operations at the airport, and to help finance various airport repair works. Estimated cost is \$ 500,000.

Please see **Annex 2** for specific project proposals.

D. Energy, Power Supply

The proposed assistance strategy addresses both the priority investment needs and the policy, institutional and financial issues. The strategy is divided into the immediate/short term and the medium term priorities. Long term outlook is also briefly discussed at the end.

1. Immediate, Short-Term Intervention

The main objective for this stage is to arrest (or at least slow down) deterioration of the power system and restore or improve basic services in priority areas. It is proposed that the investment component of the assistance consists of two projects: (i) restoration of the 220-kV and selected 110-kV transmission lines and substations; and (ii) performance of urgent maintenance, repair and rehabilitation measures in distribution networks.

The *first* project would consist of the following components: (a) overhaul of the Tkvarcheli 220/110-kV substation, and rehabilitation of the Sukhumi and the Bzib 220/110-kV substations; (b) construction of a 14-km section of the "Bzib" 220-kV transmission line, damaged during the war; (c) reconstruction/rehabilitation of a 19-km section of the "Lyhny" and a 21-km section of the "Afon" 110-kV transmission lines; and (d) technical assistance for project preparation and implementation. A preliminary estimate of project cost is about US\$ 12 million; the estimates are, however, subject to re-evaluation on the basis of a more detailed engineering inspection and analysis to firm-up the project scope. The benefits of the project include: significantly improved reliability of supply; a major improvement of the transmission capacity from the current 150 MW to about 250 MW, which would allow the entire territory of Abkhazia to be supplied from domestic generating resources and would also strengthen regional interconnections; and major reduction in the transmission losses.

The *second* project would include the priority measures in distribution systems: (a) procurement of construction materials needed to repair or build protective cabins for distribution substations; (b) procurement of transformer oil; (c) procurement of medium (10- and 6-kV) and low (0.4-kV) voltage power cables and power lines; (d) rehabilitation, repair and replacement of 10/0.4-kV and 6/0.4-kV transformers and switchgear; and (e) technical assistance for project preparation and implementation. It was not possible in the course of a 3-day visit to quantify the needs of all distribution companies. The priority areas should be the city of Sukhumi and the Gali region, where the destruction was the most extensive, and where the economic activities should be particularly intensive. On the basis of discussion with the management of the Sukhumi city distribution company, it is estimated that about US\$5 million would be necessary to address the most critical needs in the distribution subsector.

It would also be necessary during this phase to assist the authorities of Abkhazia in developing and implementing the institutional organization and policies which would improve the financial situation in the sector and harmonize energy sector policies with those in Georgia. Although it will take some time to achieve full cost recovery in the power sector, a major adjustment of tariffs

and increase in collection of payments would be necessary even in the initial stages. An agreement on main features of the legal and regulatory framework in the sector, on corporate organization of the sector and privatization program will also be needed. An action plan on developing and implementing such agreement should be agreed during the preparation of this stage.

2. Medium-Term Intervention

The main objectives over the medium term are to further improve the quality and reliability of power supply, reduce technical and commercial losses, integrate the Abkhazian system into the regional network, improve the financial situation of sector enterprises and commercialize their operation, and implement institutional policies in line with the development of market economy based on private ownership.

The investment priorities in generation subsector could include rehabilitation of the three hydro plants on the Inguri river, Vardnili II-IV, downstream of the main Inguri plant. This would complete rehabilitation of the entire Inguri cascade. Rehabilitation of the Sukhumi hydro plant could also be considered, since it is directly linked to the Sukhumi area and could be a major stabilizing factor in electricity supply to the city. In transmission, further rehabilitation of transmission lines and substations will be necessary, although the scope of such projects would have to be determined through a comprehensive feasibility study. In addition, it would be necessary to build a communication and dispatch control systems, and improve both commercial and system control metering. Similarly, in distribution subsector, more investment will be necessary to improve the operation of the system, reduce losses and improve metering.

The generation and transmission projects would be important not only for Abkhazia, but equally so for the rest of Georgia. The projects would also have regional significance, as they would enhance regional trade and thus, in addition to the economic benefits, provide additional incentives for a constructive resolution of the political problems. Participation of private sector in financing the projects should be strongly encouraged through the adoption of appropriate policies, as the financing needs would likely exceed funds available from domestic public sources and international financing and donor agencies. The total investment needs in the power sector for this stage could easily exceed US\$50 million, not counting the EBRD-financed Inguri project.

On the policy front, development and implementation of legal and regulatory framework and commercialization of the sector should be completed during this stage. Electricity tariffs should reach full cost-recovery level, and payment discipline should be fully enforced. Financial management, accounting and auditing practices should be brought in line with international standards. The authorities should actively pursue privatization of the sector, particularly in distribution and generation subsectors. It is expected that the policies would be harmonized with those adopted by the Georgian Government, with some possible modifications (particularly in timing) to account for the specifics of the Abkhazian economic situation and political status, depending also on the outcome of the political negotiations.

3. Long-Term Developments

In the long term, assuming political stability, Abkhazia should be able to maintain sufficient electricity supply even from local resources (hydropower), especially since its main economic activities (agriculture, tourism, transport) are not among the most energy intensive. Proximity of Abkhazia to the region with the world's major energy producers should enable diversification of energy supplies (imports of natural gas and oil products) and their long term availability. Moreover, electricity could be a major export commodity in the regional context, since there could be significant potential for new hydropower developments.

[An annex (**Annex 3**) with specific project proposals will be added to the final version of the report]

E. Water, Wastewater, Solid Waste

1. General

Needs. In order to provide basic and safe living conditions for the population of Abkhazia, there is urgent need to sustain and improve the water supply, sewage disposal and solid waste collection throughout the territory. Annex 4 illustrates the scope and the character of the needs. While important areas and hot spots justify immediate attention, the proposed program may need correction, for the population statistics are uncertain at the moment. Due to enormous population shifts, some cities, especially in the South, may now be less populated than certain settlements in the North. Before finalizing the proposed plan of action, it would be appropriate to double check actual population numbers in the targeted municipalities.

Solutions. Abkhazia authorities seem unlikely to be able to solve the sector crisis on their own. Targeted and immediated help by the donor community to rehabilitate inoperable facilities and to provide necessary supplies is the only way to improve the current situation and make these improvements sustainable. Currently, some NGOs, such as Médecins Sans Frontières (MSF) are providing assistance in improving the alarming situation. Over the last two years their work has now shown practical results, particularly in Sukhumi where three pumping stations still have operating chlorination units. However, considering the enormous need for supplies necessary to run and maintain water and sanitation services, as well as qualified technical assistance to improve management and operations and training for efficient methods of handling the sector, more substantial sources of funding would be required. It is recommended that the import of the various priority items listed below (such as chlorination units and pumps) be authorized despite the economic blockade.

See **Annex 4** for specific phased intervention priorities and project proposals.

F. Housing, Public Facilities

1. General

A housing reconstruction strategy in Abkhazia must accommodate the uncertainties surrounding the re-population of damaged areas. In the short term (up to 18 months) limited return is likely, so the protection of assets from further deterioration by the elements may be the primary focus, along with small programs to repair housing for those who have not moved from the area, focusing on the private stock (which is most often also linked to small agricultural holdings). As return of IDPs picks up, housing rehabilitation can proceed, but it should in general go forward in parallel with, rather than precede, the return of displaced people. Health and education facilities are addressed by their respective sector reports. Other public facilities should be handled on the basis of locally determined priorities, and can be implemented under SIF-type microprojects.

2. Short-Term Priorities

The following presume that IDP return is not likely soon.

Institutions and policy.

- a. Undertake systematic country-wide damage assessment;
- b. Government to start drafting prioritized reconstruction plans;
- c. Government to address problem of housing occupation, including the drafting of a legal framework for the systematic return of property, or compensation for its transfer;
- d. Consolidate demographic survey data and fill gaps;
- e. Support continuation of existing NGO programs, introducing assistance to gain broader impact, refined procedures and management, and to develop strategies to ease their

integration into medium- to long-term development activities.

Other data to be collected as part of a short-term program:

- seismic risk, by areas
- structural assessment of potentially dangerous structures
- verify absence of remaining shelter emergencies

Technical and structural. The rehabilitation of housing stock should be accompanied by repair of utilities and streets associated with the repaired buildings, and so requires coordination with initiatives in other sectors. Expand UNHCR roof kit program to include “roof and one room” for houses that are more seriously destroyed and where one room will enable re-occupation, to enable non-displaced persons (those still living in original neighborhood or city) to move back to original home.

Rehabilitation of least damaged buildings that are substantially inhabited;

Protection of selected damaged buildings from further deterioration by repairing roofs and sealing building envelope; address needs of vulnerable citizens (increase volume and extend time frame of NGO activities);

Rehabilitation of urban environment: labor intensive, involving cleaning up debris and mending basic amenities.

3. Medium-Term Priorities

These assume lifting of the blockade, and the beginnings of local government accountability and fiscal sustainability. A prerequisite would be a property rights framework that governs return or compensation for property affected by the conflict (see *Short Term Priorities*).

Evaluate the potential for IDP return in different areas and select those with highest likelihood, on which to base programs to ease return, such as:

- building materials loans for private housing,
- assistance to municipalities for repair and neglected maintenance, and repair of utilities,
- credit for families for housing improvement purposes.

Promote government involvement in addressing problems of sustainable housing reconstruction, including reforms such as privatization;

Begin reform of construction industry to encourage the development of small, independent and flexible firms;

Institution-building for local government

See **Annex 5** for specific project proposals.

ANNEX IV

SUMMARY PROFILES OF SHORT TERM PROJECTS¹

Project Title	Proposed Budget	Page Number
Transport infrastructure		
Emergency road and bridge repairs	6,300,000	67
Power supply		
Generation and transmission infrastructure repair	8,200,000	69
Meter installation programme	100,000	70
Water supply and sanitation		
Emergency action for water supply and sanitation systems	3,100,000	71
Health		
Assisting the health reform process	500,000	73
Maternal and child health care support	570,000	74
Education		
Basic supplies for primary education	150,000	75
Capacity building for psycho-social assistance to children	75,000	76
Agriculture		
Emergency procurement of machinery and equipment	4,000,000	77
Export crop market development	250,000	78
Options for improving the productivity of cattle	55,000	79
Protection of animal health and productivity	943,000	80
Re-establishment of veterinary diagnostic and disease surveillance	380,000	81
Rehabilitation of Export Crop Production and Processing	2,000,000	82

¹ Listed project outlines are subject to review and approval by agencies represented on the Mission. The budgets proposed constitute preliminary estimates.

Supply of fertiliser and pesticide for citrus plantations 1,500,000	83	
Tea quality improvement 254,500	84	
Village credit unions 750,000	85	
Housing and shelter Shelter rehabilitation programme 16,000,000	86	
Food Security Promoting the return of IDPs and refugees 305,000	88	
Revitalizing communities 400,000	89	
Mine action Mine action 1: Locating, marking and fencing mined areas 750,000	90	
Mine action 2: Augmenting the capacity of the HALO Trust 342,000		91
Mine action 3: Mine awareness training 100,000	92	
Civil society Community police training 45,500	93	
Human rights capacity development for NGOs and the media 24,000	94	
Human rights education 92,000	95	
Local administration in a multi-ethnic society 86,000		96
NGO capacity building 37,000	97	
<hr/>		
TOTAL 47,309,000		

ANNEX V

SUMMARY PROFILES OF MEDIUM AND LONG TERM PROJECTS

Project Title	Page Number		Proposed Budget
Multisectoral			
Area-based rehabilitation and development million	99		23.0
Transport infrastructure			
Road and bridge reconstruction 6.9 million	101	(medium term)	
		(long term)	23.8
Power supply			
Generation and transmission repair follow-up million	103		12.0
Water supply and sanitation			
Upgrading water supply and sanitation systems million	104		13.6
Education			
Basic repairs for primary schools million	106		3.0
Agriculture			
Long term rehabilitation of the tea industry million	107		60.0
Total million		(medium term)	118.5
		(medium and long term)	142.3
		million	

Title:	Area-based Rehabilitation and Development
Total budget:	US\$ 23 million (of which \$ 20 million are in programme funds)
Sector:	Multisectoral
Agency:	Bilateral
Duration:	3 years

Background

The economic decline and stagnation that followed the break-up of the Soviet Union, coupled with the destruction caused by the Georgian/Abkhaz war in 1992-93, has brought economic activity in Abkhazia to a virtual standstill and is inflicting severe hardship to its people. Once one of the most prosperous regions of the former Soviet Union, with its export-oriented output of goods and services, mainly of agricultural crops and tourism, Abkhazia's economy has been reduced to subsistence levels. Recovery is impeded by the continuing political stand-off with Georgia, by the inability of most displaced people to return to their villages of origin, by a CIS-imposed regime of trade restrictions, and by an almost total lack of capital.

As a first step towards addressing these issues, for the short and medium term, the Mission has recommended a dual approach, comprising on the one hand a series of sectoral interventions, and secondly two area-based rehabilitation and development schemes, one covering the southern districts and the other the northern four districts.

Objectives

The aim of the project is to help revitalise village life in Abkhazia through targeted activities in the production and social sectors. The project would establish the operational framework in each of the two areas for carrying out community-driven programmes, to be financed from prospective contributions by donors that will initially be targeted at US\$ 10 million for each scheme. These resources will be applied in close proximity to beneficiaries and integrate the various sectoral interventions at the village level with the full participation of existing elected village councils and district assemblies, and where these do not yet exist, through ad hoc mechanisms of consultation with the beneficiary communities.

A second important objective is to strengthen the capacity of host communities to receive displaced people who wish to return to their place of origin and to facilitate their reintegration and resumption of normal life.

Activities

- Establish operational structures, based in locations appropriate for securing the best possible geographic and functional coverage for the two area-based schemes, adequately staffed in terms of management and technical personnel, and equipped with transportation and office facilities;
- Institute, in consultation with district and community authorities, the operational mechanisms for community participation in making decisions on the nature, scope

and scale of the support activities selected and on their implementation, applying to the extent possible the self-help potential of assisted communities;

- Prepare and initiate the implementation of a range of area-based rehabilitation and reintegration programmes, with a view to reactivating local production systems, mainly in the agricultural area (citrus, tea, hazelnut, tung, livestock) including marketing mechanisms, village physical and social infrastructure, local educational and health services, and addressing environmental and human rights issues.

Expected outcomes

By selecting specific geographical areas for programme implementation, making no distinction between categories of beneficiaries, whether established residents or displaced returnees, the programmes will help launch the reconciliation process and provide concrete support to broader policies of promoting the consolidation of peace and social solidarity.

With the planning of resource allocation and management seen as a local responsibility, the area-based schemes will be instrumental in furthering the decentralisation of administrative practices that has been declared to be official policy, establishing at the same time linkages between local-level institutions and corresponding bodies at district and regional levels.

The revival of economic activity and the rebuilding of community assets damaged by war or suffering from prolonged neglect are essential prerequisites for restoring the social fabric of communities. Through the repair of physical and social infrastructure, the provision of micro-credit to jump-start recovery in the production sectors and through labour-intensive public works projects, the implementation of area-based programmes will make a significant contribution to the improved welfare of the population and to sustainable human development.

Budget

Area-based management structure:

Personnel costs (2 x \$ 1 million)	US\$ 2 million
Equipment and supplies (2 x \$ 0.5 million)	US\$ 1 million
Programme funds (2 x \$ 10 million)	US\$ 20 million

Title:	Road and Bridge Reconstruction
Total budget:	US\$ 6.9 million (medium term) US\$ 23.8 million (long term)
Sector:	Transport infrastructure
Agency:	IBRD/Bilateral
Duration:	Four years

Background

The main road axis running through the length of Abkhazia, along the Black Sea coast, is well placed strategically to serve land transport needs in the entire region. It is accordingly important that this section of the east-west trunk road connecting Russia, Georgia, Armenia, Azerbaijan is well maintained and upgraded as appropriate for the transport needs of the future. A programme of emergency repair to meet immediate needs in the short term has been proposed (Annex IV). This should be followed up with a maintenance and reconstruction programme for the medium and long term.

Objectives

Medium and long term repair and reconstruction of trunk and secondary roads are necessary not only to safeguard existing infrastructure investments, but also to stimulate economic recovery by facilitating the movement of persons and goods and access to internal and external markets. The programme encompasses not only ongoing maintenance, upgrading and new construction, but also the completion of works that commenced several years ago. In terms of objects selected for repair or reconstruction, the medium and long-term programme merges with that foreseen for the short term.

Activities

- Study and design work to be pursued as warranted by the projects selected;
- The road stretch along the Inguri River to the Inguri power plant has been washed out in several places and will need to be completely reconstructed over a length of 18 km;
- About 90 km of secondary roads in the Gali rayon need attention in the form of heavy patching and/or reconstruction in the medium term;
- In the Kodori valley, 85 km are in need of repairs, 60 km of which as a result of frequent landslides blocking the existing gravel road. A road works unit will need to be set up, equipped with a bulldozer, a front-end loader, two trucks to assist people living on both sides of Lata;
- Secondary roads, (i) leading to Lake Ritsa, (ii) around Nowy Afon, (iii) around Dranda, and (iv) in the vicinity of Ochamchira need attention in the form of pot-hole patching and culvert replacements;
- Plan the reconstruction of the bridges over the rivers Psou and Kodori, and the completion of the by-pass around Sukhumi.

Expected Outcomes

Systematic attention to the land transport infrastructure, in an effort to compensate for many years of inability to provide normal maintenance, is a prerequisite for economic and social recovery in the Abkhaz region

Proposed Budget Breakdown

Road along Inguri River north to Inguri hydro-power plant	\$ 1,000,000
Secondary roads within Gali district (90 km)	\$ 1,520,000
Kodori Valley Road (85 km)	\$ 1,100,000
Other Secondary roads:	
Lake Ritsa (35 km)	\$ 665,000
Nowy Afon	\$ 30,000
Dranda	\$ 30,000
Ochamchire	\$ 75,000
Subtotal secondary roads	\$4,410,000
City Roads:	
Sukhumi	\$ 2,320,000
Gudauta	\$ 80,000
Pitsunda	\$ 100,000
Subtotal city roads	\$2 500 000
Roads and bridges:	
Bridge over Psou, construction of a new bridge	\$ 600,000
Bridge over Kodor, replacement of metal span by concrete construction	\$ 200,000
47 bridges, periodic maintenance, repair and widening	\$ 7,000,000
Completion of reconstruction of Sukhumi by-pass	\$ 16,000,000
Total long term road and bridge reconstruction	\$ 23,800,000
Total medium term road repair and reconstruction	\$ 6,910,000

Title:	Follow-up to the Generation and Transmission Repair Project
Total budget:	US\$ 12 million
Sector:	Energy
Agency:	Bilateral
Duration:	3 years

Background

The electrical system has suffered war damage and deferred maintenance. As a result the system is unreliable, under capacity, and suffers large losses. A lack of funds prevents the restoration of service to the level needed to meet economic recovery needs.

Objective

To improve reliability, reduce losses, increase capacity, reduce equipment overload and support the economic and social recovery of Abkhazia.

Activities

- Upgrade of high voltage lines throughout the *rayons*;
- Upgrade of transmission lines throughout the *rayons*;
- Construction of enough small hydroelectric plants to increase capacity by 28MW.

Expected outcome

By the end of the project, it is expected that the region's infrastructure will have been significantly upgraded by building on the previous critical repairs. It is anticipated that the project will have taken significant steps towards the creation of a system of reliable energy generation and transmission.

Budget

Installation of high voltage lines	US\$ 4.4 million
Installation of transmission lines	US\$ 4.4 million
Construction of small hydroelectric plants	US\$ 3.2 million

Title:	Upgrading Water Supply and Sanitation Systems
Total budget:	\$ 13.6 million
Sector:	Water Supply and Sanitation
Agency:	IBRD/Bilateral
Duration:	4-5 years

Background

Existing systems for the supply of water, for the collection and treatment of sewage, as well as for the collection and disposal of solid wastes in Akhazia are on the verge of breakdown, as a result of destruction suffered during the 1992-93 hostilities and a lack of resources that has led to a pervasive neglect of the infrastructure and ability to obtain supplies for ongoing operations. The potential for large-scale contamination is such that a major intervention is called for to avert possibly catastrophic consequences for the health of the population. An emergency programme comprising the most urgent actions necessary for the short term has accordingly been proposed.

Objectives

The proposed medium and long term interventions are designed to consolidate the results of the short term projects in the areas of civil works and the supply of equipment, spare parts, and chemicals for chlorination and for laboratory work. Priority should be given to continuing and concluding these short term measures and to initiate the institutional and management reforms that will be necessary to tackle the long term constraints.

Activities

- In the area of water and sewage services, there will be substantial additional needs in terms of equipment and supplies, such as trucks and tractors, transformers including spare parts, submersible pumps, hydrants and items needed for the rehabilitation of damaged water mains and treatment facilities;
- In terms of civil works, there will be a continuing need to repair pumping stations and laboratory structures, to build protection banks where river erosion is threatening wells and pumping stations, to protect distribution systems, and to drill for new wells;
- In tackling organisational issues, it will be necessary to create a data base of private, industrial and institutional consumers, to institute incentive-based mechanisms for the collection of rates, as well as to set up a emergency brigades to repair equipment and leaks, and to calibrate and maintain laboratory equipment;
- In the area of solid waste collection and removal, there is equally a case for providing equipment, such as waste collection trucks and trucks to haul sand to landfills for waste burial;
- Organizational and institutional issues will need to comprise the elaboration of landfill maintenance procedures and standards, the closing down of landfills within city limits and the opening of new sites;
- Public information campaigns will be appropriate, engaging the population in the separation of waste, and studies conducted to devise and initiate methods of recycling different categories of waste.

Expected Outcomes

Once the reconstruction effort is well advanced, it will be necessary to mobilize additional funding to upgrade water and sewage services and solid waste disposal to satisfactory and sustainable levels. A very preliminary estimate shows that some \$ 24 million would be needed to accomplish this objective over the longer term.

Proposed Budget Breakdown

Equipment and supplies:	
Provision of tractors and trucks (16 units)	\$ 600,000
Transformers for pump stations	\$ 500,000
Submersible pumps for well-fields (70 units)	\$ 2,000,000
Rehabilitation of damaged water mains & hydrants	\$ 2,300,000
Rehabilitation of selected water treatment facilities	\$ 3,000,000
Civil works:	
Repair of pump stations and laboratories	\$ 500,000
Construction of protection walls	\$ 1,000,000
Protection of distribution systems	\$ 300,000
Drilling operations	\$ 100,000
Organisational requirements:	
Data base and development of fee collection system	\$ 1,000,000
Creation of repair brigades	\$ 100,000
Training and planning	\$ 750,000
Subtotal Water and Sewage Services	\$ 12,150,000
Equipment and supplies:	
Waste collection and other trucks	\$ 300,000
Landfill operations and elaboration of procedures	\$ 50,000
Organisational requirements:	
Establishment of central waste collection and disposal	\$ 100,000
Closing old landfills and opening new sites	\$ 300,000
Public information campaign	\$ 200,000
Study on waste separation and recycling	\$ 500,000
Subtotal Solid Waste Removal	\$ 1,450,000

Title:	Basic Repairs for Primary Schools
Total budget:	US\$ 3 million
Agency:	UNICEF
Sector:	Education
Duration:	5 years

Background

The conflict in Abkhazia had a severe impact on the education system. Almost all school buildings were destroyed or damaged or, as in many cases, looted. After the war, some of the schools were made functional but in many cases remain without heating, lights, water supply and operating sanitary facilities. To address these needs is not very easy as many supplies needed are not readily available (quantity and quality) in the market. Many schools need a rather comprehensive overhaul to assure a proper functioning. A more detailed assessment is necessary, especially in the light of sound population figures.

Objective

To make basic repairs and renovations of schools, including water supplies, sanitation and hygiene facilities and heating, to assure a normal environment for a good primary education for all children. To support a technical inspection of the physical condition of the structures (buildings), used as schools. To have a more detailed assessment, school by school (85, according to the department of education, Sukhumi), to define more clearly the material and financial needs.

Activities

- Support a technical inspection of all buildings used as schools at the moment on their physical condition, to avoid accidents with loss of lives;
- Support a more detailed assessment to define clearer the material, work and financial needs;
- Support and supervise, together with the parent committees, the repair and renovation work, and assure that basic facilities, like water supply, sanitation facilities and heating, are working.

Expected Outcomes

All schools are in physical condition to assure good quality education for all primary grade pupils. This guarantees attendance of all pupils and helps to prevent drop-out of children from primary grades.

Title:	Long Term Rehabilitation of the Tea Industry
Total budget:	US\$ 60 million
Sector:	Agriculture
Agency:	FAO
Duration:	5 years

Background

Until the early 1990s, tea plantations had a vital role in the economy of the area. Georgia produced 120,000 mt of tea annually, 98 % of which was exported to the CIS countries. After the disintegration of the Soviet Union, the tea industry came to a complete halt. Due to the economic crisis, coupled with the effects of civil strife, a fundamental danger arose to the basis of the tea industry—its plantations. There is a danger, for example, of losing approximately 1,200 ha of land in Abkhazia used for tea growing, and according to the Georgian government, since 1990, 10,000 ha of tea plantations have been destroyed. Also, 14 tea factories have been lost. Considering the economic importance of tea—especially for the rural economy, and the suitability of the area for tea crops—a rehabilitation project for plantations and factories is suggested.

Objective

To increase tea production; to produce tea of export quality; to increase the relative income of the rural communities involved in tea production; to revitalize the capacities of existing tea plantations and factories.

Activities

- Introduce a suitable pruning cycle;
- Establish and maintain a drainage system for plantations;
- Distribute fertilisers to improve the organic status of the soil;
- Introduce a standard plucking system;
- Complete a market survey and identify a reliable market position for teas produced.

Expected outcomes

By the project's end it is expected that production will have increased, that the plantations will be rehabilitated and bushes rejuvenated by proper pruning and agronomical activities, that village incomes will increase, and that land utility will increase.