

## 8.0 CONCLUSIONS

### Summary

*The BTC pipeline will allow additional export of one million barrels of oil per day from the Azeri-Chirag-Gunashli (ACG) oilfield in the Caspian Sea to the Mediterranean, for shipping to world markets. Many issues surround the project and BTC Co has made considerable effort to understand them. Management of these issues will reduce adverse impacts and risks to a minimum, and enhance the environmental and social benefits from the project. There will inevitably be some residual impacts, despite the extensive mitigation measures that are planned. It is the opinion of BTC Co that these impacts are outweighed by the benefits the project will bring to the region.*

*The benefits of the project will be to:*

- bring substantial revenue to the economies of Azerbaijan, Georgia and Turkey;*
- provide a model for transparent business in the region;*
- provide direct economic benefits to communities along the pipeline route;*
- invest in environmental protection and community development; and*
- increase the body of knowledge about the environment and society in the region.*

*The residual impacts and risks, of generally short duration, from the project will be:*

- some limited damage to habitats;*
- some landscape changes;*
- disturbance to local communities;*
- loss of some agricultural land; and*
- possibly some unmet expectations of what the project will provide to communities.*

*Understanding of the social and environmental issues surrounding the pipeline will continue to evolve. Detailed plans are in place to ensure that the issues are managed successfully. BTC Co will actively engage in the debate about the issues, and foster constructive dialogue with the broad range of stakeholders to the project. This learning will inform future management of the project.*

## 8.1 Outcomes

The BTC project is a major engineering and commercial undertaking. More than five years of detailed investigation, assessment and consultation have culminated in this \$2.9 billion investment (BTC alone) – one of the largest foreign development projects in the region. The project will enable greatly increased oil revenues for Azerbaijan, and bring income from pipeline tariffs to Georgia and Turkey.

Environmental and social considerations have formed an integral part of the early phases of project development. These have resulted in a large number of modifications to the project, significantly reducing the potential for adverse environmental and social impacts. For the remaining residual effects, mitigation measures have been identified and management plans prepared to minimise any long-term negative impacts.

A range of positive environmental and social outcomes has also been identified. Some of these benefits have already materialised, for example, through the sharing and transferring of information and knowledge associated with the baseline Environmental and Social Impact Assessment (ESIA) surveys and subsequent analyses, many of which involved input from local scientists, NGOs and community groups. Other positive benefits will accrue gradually. Management and monitoring activities are being implemented to ensure that these benefits will be maximised and, where possible, become self-sustaining.

The Environmental Investment Programme will, at a minimum, address the ‘no net loss’ principle by offsetting significant and unavoidable impacts with appropriate self-sustaining compensation measures.

The Community Investment Programme will focus on specific projects aimed principally at the communities affected by project activities and operations, while seeking to include activities that can bring benefits to a broader population base. They will go beyond the direct impact mitigation measures described in the ESIA's (for example, land compensation) by supporting projects that aim to re-establish essential social infrastructure and develop economic opportunities.

## 8.2 Key Benefits from the project

### 8.2.1 Oil revenue

The projects will provide tax revenues and other economic benefits to the host countries, providing the means for much needed investment in the social infrastructure of the states. The total government revenues related to the operation of the BTC pipeline are estimated to be of the order of \$2.4 to \$3.4 billion during the period 2005-2024.

## **8.2.2 Employment and Procurement**

During the construction phase, the BTC project will employ upwards of 2,000 people in each country. These jobs will range from skilled to unskilled. Employment procedures will ensure that local people are given priority in access to jobs, and the project aims to employ a majority of local people. The recruitment process will be determinedly fair and transparent. All employees will benefit from training in health and safety and, where appropriate, technical skills.

Procedures for procurement of supplies will favour local suppliers. Programmes are in development to build local business capacity.

During operations there will be a small number of permanent staff (around 200-300 in each country). The project aims to phase out any expatriate jobs so that all staff are nationals.

## **8.2.3 Transparency and good governance**

The project will serve as a model of ethical business performance in the region. Successful implementation of this project should encourage new foreign direct investment into Azerbaijan, Georgia, and Turkey. The framework established by the Intergovernmental Agreement (IGA), the Production Sharing Agreement (PSA) and Host Government Agreements (HGAs) provides a stable and transparent legal and fiscal regime for the projects investments, which could potentially serve as a model for encouraging other forms of foreign direct investment.

BTC Co has released the IGA, PSA and HGAs to increase transparency for the project, and for the industry in general. BTC Co is actively encouraging discussions with its critics and stakeholders to increase mutual learning about issues of transparency and good governance.

The project is of such a scale, that it is setting new standards for the global oil industry for cooperation and dialogue between investors, operators, regulators, civil society and affected communities.

## **8.2.4 Development of increased knowledge base**

The BTC project has required the collection and analysis of a wide range of environmental, social and related technical data. This effort has involved the close collaboration between international and national consultants and NGOs, government organisations and community groups. The result is a greatly expanded understanding of environmental, social, economic and archaeological conditions along the pipeline route. The data collected during the baseline assessments will be shared with the academic, aid agency and NGO community and are expected to have benefits beyond the scope of the project.

The preparation of the ESIA's has required the application of international best practices and has resulted in a transfer of technical skills to the local consulting, academic and government community, as well as assisting environmental capacity building in the region, and the transfer of local knowledge into the international scientific community.

The ESIA process has also raised public awareness of environmental and socio-economic issues in the region, on an international, national and community level, through publication of documents and consultation.

### **8.2.5 Environmental and Community Investment**

BTC Co has developed Project Environmental Investment Plans (PEIP) and Community Investment Plans (CIP). These plans go beyond reduction of impacts identified in the ESIA's, and will bring additional benefits to those brought by the project. To date, approximately \$9 million and \$25 million have been committed by the project to the PEIP and PCIP respectively.

The project is committed to the principle of 'no net loss' in relation to environmental resources. The PEIP will help to balance some of the unavoidable ecological loss from the project.

The government currently has a limited ability to pass the economic benefits on to the directly affected settlements. The overall effects of the direct benefits from employment and procurement will be limited. The PCIP will help to ensure that benefits from the project are enjoyed by the same people that may be adversely affected by the project.

## **8.3 *Key residual issues for the project***

### **8.3.1 Significant environmental impacts**

#### **8.3.1.1 *Biodiversity***

The most sensitive ecological areas have been avoided wherever possible. Despite extensive redesigning and rerouting of the pipeline, there will be some permanent environmental impacts. The most significant impacts are summarised in Table 8.1.

**Table 8.1: Significant residual biodiversity impacts**

<p><b>Gobustan</b></p>	<p>The extensive nature of the Gobustan desert and the proposed Gobustan State National Park, and their proximity and position that has them substantially surrounding the Sangachal Terminal, means that it is not possible to completely avoid these areas with any pipeline route originating at the terminal. The general mitigation measures outlined in Section 6 will considerably reduce impacts on the habitats and soils of the desert, but the residual impact on the Gobustan desert habitat is classified as 'high' as it is expected to take over 10 years to fully reinstate.</p>
<p><b>Borjomi</b></p>	<p>The Borjomi area is of great importance to Georgia for tourism and its mineral water resources. The pipeline routing means that the risk of any oil spill contaminating the mineral water aquifer is extremely low. Design measures will reduce the risk of any oil leak in the area to minimal levels, and extra mitigation measures mean that in the highly unlikely event of an oil spill, damage will be minimal. BTC Co is, however, aware that concerns will still remain over the protection of such a valuable natural commodity.</p>
<p><b>Tetritskaro &amp; Tsikhisjvari forests</b></p>	<p>The two most important areas in Georgia where high-ranking residual impacts to flora will occur owing to clearing of the ROW are Tetritskaro (KP84-92) and Tsikhisjvari/ Sakire (KP182-204). The overall area of continuous forest encroached by the ROW at the two locations is approximately 55ha. The forest is also an important habitat for a range of animals.</p> <p>The clearance of forest along the ROW will necessarily mean that a large number of trees of high conservation value will be lost. Mitigation of impacts will only be partially achievable through conservation, with net losses being compensated through the EIP described above.</p>

**8.3.1.2 Seismic risk**

The pipeline will pass through areas where the risk of seismic activity is high. The project has undertaken extensive risk assessment of the impact of seismic activity on the pipeline and facilities. Detailed routing studies to avoid geological faults and best practice structural design have been applied to ensure that the pipeline will not be compromised by any seismic activity.

**8.3.1.3 Landscape impacts**

At the locations along the route where extensive grading is required to provide a level working area, the residual impact of pipeline construction on topography is classified as high as it is a permanent change. In Azerbaijan, this particularly applies to the Mud Volcano Ridge area (KP26-28), the approaches to the Tovuzchay and Asrinchay Rivers (KP375.6-377), and the approaches to the Hasansu River (KP395.9-398). In Georgia, high significance landscape impacts owing to the permanent modifications of high value landscapes are predicted to occur at the five locations. In Turkey there will be some obvious visual scarring, however this will fade and disappear in five or six years.

#### 8.3.1.4 *Cultural Heritage*

The project has been designed, and management plans are in place, to avoid all significant risk to cultural heritage. The residual impact on the Gobustan Cultural Reserve in Azerbaijan is not predicted to be significant. Nevertheless, BTC Co has recognised the public interest in the reserve, which has already been severely degraded by human activity. The routing process has insured that there are no important archaeological sites on the pipeline corridor itself and the project is liaising with the Azerbaijan Ministry of Culture regarding support for the management of the reserve.

### 8.3.2 *Impacts on communities*

#### 8.3.2.1 *Disturbance*

The most widespread impact will be the general disturbance to settlements that will occur due to nearby construction work and associated activity. These impacts will be of a low intensity, and for the majority of settlements will be restricted to approximately a two to three month duration of pipeline construction activity in any particular location. It is considered that these disturbances will not result in loss of livelihood or significant impact on the health of local communities.

The promotion of tourism within the Borjomi region is a priority for local people. It is not expected that the pipeline will have any long term impacts on tourism, but concerns remain.

#### 8.3.2.2 *Land-take and compensation*

Most of the pipeline will be buried under land currently used by communities as their main source of livelihood. Through careful pipeline alignment and facilities siting, the BTC project will minimise impacts on livelihoods and avoid the need to physically relocate any households along the entire length of the pipeline, including those located near the above ground installations (AGIs). While the residual impact associated with land compensation is not expected to be significant, there is high public interest in this issue.

Land impacts in each country are summarised as follows.

In **Azerbaijan**, the only land that will be permanently acquired will be for AGIs and associated access roads (about 26 hectares in total). The remaining 2,189 hectares will be temporarily used only for the construction period of the BTC and SCP projects (nominally three years<sup>1</sup>). It will be secured by the State through leases, and sub-granted to the project for pipeline construction purposes. Ownership of this 2,189 hectares of land will remain vested with existing land owners. After construction, land owners will be able to resume use of their land subject to some restrictions.

In **Georgia**, BTC Co. will purchase (obtain ownership rights) for the full 44-metre wide construction corridor as well as AGI sites and their access roads. With the exception of

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<sup>1</sup> Provision has been made in land agreements for additional compensation to be paid in the event the construction period is protracted beyond three years.

the 70 hectares required for AGIs and access roads, BTC Co. will allow ex-land owners (and long term lessees) to use their former land (the balance 1,118 hectares) free of charge, but subject to some restrictions of use.

In **Turkey**, the 8-metre wide pipeline corridor and land for AGIs and access roads will be purchased (ownership title). Land in the 28 metre construction corridor will be leased for the pipeline construction period. With the exception of the land required for AGIs and roads (about 101 hectares), land owners and users will be able to resume use of the remaining 3,003 hectares of land, subject to some restrictions of use.

Overall, 197 hectares of land will be permanently alienated from agricultural use. Existing owners and users will be able to resume most agricultural activities on the balance 6,310 hectares subject to some restrictions of use (see Part A Section 3.10).

### *8.3.2.3 Infrastructure*

The project will not place an extra load on already strained local supplies of water, electricity and telephone. Roads will be restored to at least as good a state as they were before the project. In some places infrastructure will be improved by the project.

### *8.3.2.4 Unmet expectations*

The project will not provide all of the benefits that stakeholders hope for. It cannot solve problems such as the dilapidated state of energy infrastructure in parts of the region. It will not provide as many long-term jobs as communities would like. BTC Co is using its extensive programme of community consultation to ensure that false hopes are not raised.

## **8.3.3 Social and Economic Impacts**

### *8.3.3.1 Regional Conflict*

This issue is largely beyond control of the project, and thus remains a concern. BTC Co aims that its activities will not cause conflict, by ensuring that operations respect local society, engaging in stakeholder dialogue and placing controls on contractors' activities.

### *8.3.3.2 Oil wealth*

BTC Co recognises the role it can play in helping avoid the 'resource curse' syndrome for economies with oil wealth. BTC Co is doing this by sharing information on projects, and by engaging, as stakeholders, in the formulation of public policy.

### 8.3.3.3 *Corruption*

BTC Co is applying the most rigorous standards of transparency and ethical conduct to all of its operations. This will ensure that there is no corruption as a direct result of the project. BTC Co recognises that the problems of corruption are more complex than this, and involve many forces beyond the control of the project. By sticking determinedly to a model of exemplary conduct, BTC Co hopes that this will provide a model for the way to do business in a fair and transparent way. This project can never solve the problems of corruption on its own, but it will be a part of the solution.

### 8.3.3.4 *Human Rights*

BTC Co will uphold BP's principles on promoting and protecting human rights. Through the RAP, the project will ensure that vulnerable groups do not suffer because of the project. BTC Co is engaged in careful working relationships with governments, communities, and individuals over matters such as land acquisition and security. The host governments have recently published a joint declaration which includes specific commitments to uphold international standards of human rights protection in provision of security arrangements. As in any country, sovereign governments will hold the responsibility for safeguarding their people and ensuring their human rights are respected.

### 8.3.3.5 *Legal framework*

BTC Co has worked with the host governments to agree robust legal frameworks for the project in the form of HGAs and the IGA. These agreements are seen as a starting point for the environmental and social performance of the project, and BTC Co is committed to adhering to the highest international standards. The project, and the host governments, are aware of criticism that the HGAs could be used to diminish the human rights and legal redress of citizens, but firmly disagree with this interpretation. The joint statement produced by BTC Co and all three governments in May 2003 reinforces this, and includes specific commitments from all parties to international norms on environmental, labour and social practices.

BTC Co welcomes healthy debate on this issue, and is determined that the project becomes a model of best practice in setting legal environmental and social standards for a project of this nature. BTC Co hopes that making the artefacts of the discussions publicly available will help to spread good practice to other projects around the world.

## 8.4 *The way forward*

The formal stages of the environmental and social investigations resulted in the preparation of draft ESIA's for each of the three countries directly affected by the project. These documents were released for public comment during a formal disclosure period that commenced in May/June 2002 and lasted for two months. During this time the ESIA's and various supporting documents, prepared in local languages, were disseminated in each country through a variety of publicly accessible government and community outlets. Public meetings and workshops with environmental and social

specialists and NGO groups were arranged to ensure that all interested parties had the opportunity to participate in the review process.

Information gathered during the disclosure period was assessed and incorporated in Addenda to the final ESIA's. These documents have since received formal approval from the governments of Azerbaijan, Georgia and Turkey.

International Financing Institutions (IFIs) now require further disclosure of the project's environmental assessment documents for a period of 120 days in public places in-country and the World Bank Infoshop, including a non-technical summary in the local language to the local stakeholders.

BTC Co will continue to engage in debate with stakeholders and critics of the project, and will continue to distribute information about the project.

#### **8.4.1 Environmental and social management during the life of the project**

The environmental and social programme does not conclude with the submission of the Final ESIA's. The mitigation and management measures identified in them, and enhanced as appropriate as a result of feedback obtained during the public disclosure period, will be applied throughout the life of the project. The implementation of various management plans, contractor control plans and an Environmental Management System (EMS) during the operations phase of the project will ensure that the level of effort remains appropriate, and opportunities for continued improvement exploited. The EMS will be subject to external verification and the results made available to the public.

The PEIP and PCIP will compensate for residual adverse impacts, and provide further positive benefits for the environment and society in Azerbaijan, Georgia and Turkey.

The BTC Co environment and social management team will conduct routine monitoring on all issues. This will include internal auditing of the construction contractor, and routine internal reporting on all issues

Stakeholder consultation will be ongoing throughout the construction of the pipeline. A Communications Plan is being developed as part of the Community Relations Programme. BTC Co intends to publish periodic summaries of on-going consultation activities during the life of the project in appropriate languages.

In addition, independent verification/monitoring will be conducted on key issues of public concern such as:

- recruitment and employment (including working conditions);
- grievance procedures;
- community safety;
- community relations;
- land acquisition and compensation; and
- relations between construction workers and the communities.

## **8.5 Conclusion**

In conclusion, careful planning of the BTC Co project has already achieved a range of significant accomplishments in minimising possible impacts on the bio-physical and social environment. Some potential environmental and social risks remain but every effort is being made to reduce them. These efforts are underpinned by ongoing commitments to continual improvement and consultation with stakeholders.

The major benefits that the project will bring to Azerbaijan, Georgia and Turkey outweigh the residual impacts and risks that remain after mitigation.

<b>Further information</b>
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Further information can be found in:

- *Joint Statement on the BTC Pipeline Project, May 16 2003.* The Governments of Azerbaijan, Georgia and Turkey and the BTC Co.

This can be accessed via the project's website  
[www.caspiandevlopmentandexport.com](http://www.caspiandevlopmentandexport.com).