Strategic environmental and social assessment of draft Forest Code of Georgia

December 2016
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## Abbreviations and acronyms

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<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ADA</td>
<td>Austrian Development Agency</td>
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<tr>
<td>BSAP</td>
<td>Biodiversity Strategy and Action Plan</td>
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<td>CENN</td>
<td>Caucasus Environmental NGO Network</td>
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<tr>
<td>CFC</td>
<td>chlorofluorocarbon</td>
</tr>
<tr>
<td>CITES</td>
<td>Convention on International Trade in Endangered Species of Wild Fauna and Flora</td>
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<tr>
<td>CNF</td>
<td>Caucasus Nature Fund</td>
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<td>DES</td>
<td>Department of Environmental Supervision</td>
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<td>DFC</td>
<td>Draft Forest Code</td>
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<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>ESD</td>
<td>Environmental Supervision Department</td>
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<tr>
<td>GEL</td>
<td>Georgian Lari (currency)</td>
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<tr>
<td>GHG</td>
<td>Greenhouse gas</td>
</tr>
<tr>
<td>GIZ</td>
<td>Deutsche Gesellschaft für Internationale Zusammenarbeit</td>
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<tr>
<td>IUCN</td>
<td>International Union for Conservation of Nature</td>
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<tr>
<td>IWRM</td>
<td>integrated water resources management</td>
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<td>LEDS</td>
<td>low emission development strategy</td>
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<td>LEPL</td>
<td>Legal Entity of Public Law</td>
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<tr>
<td>MAC</td>
<td>maximum allowable concentration</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>MENRP</td>
<td>Ministry of Environment and Natural Resources Protection</td>
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<tr>
<td>NACRES</td>
<td>Noah’s Ark Centre for the Rescue of Endangered Species</td>
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<td>NEA</td>
<td>National Environmental Agency</td>
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<td>NFA</td>
<td>National Forestry Agency</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
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<tr>
<td>ODS</td>
<td>ozone-depleting substance</td>
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<tr>
<td>SESA</td>
<td>Strategic Environmental and Social Assessment</td>
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<tr>
<td>SIDA</td>
<td>Swedish International Development Cooperation Agency</td>
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<tr>
<td>UNECE</td>
<td>United Nations Economic Commission for Europe</td>
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<td>UNDP</td>
<td>United Nations Development Programme</td>
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<tr>
<td>UNEP</td>
<td>United Nations Environmental Programme</td>
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<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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<tr>
<td>USAID</td>
<td>The United States Agency for International Development</td>
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<td>WB</td>
<td>World Bank</td>
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<td>WWF</td>
<td>World Wildlife Fund</td>
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Executive Summary

From 2012 and onwards, the approach of the Government of Georgia to forest management in general, including its institutional and legal basis and economic underpinning, has significantly altered. The new wave of upgrading forest policy and legislation started with the development of a National Forest Concept (NFC) for Georgia and its endorsement by the Parliament in December 2013. In 2014, a new Biodiversity Strategy and Action Plan (BSAP) was produced for the period of 2014-2020. The Government adopted the plan the same year. Formalizing of the Government’s policy vision in the forest sector allowed drafting of a new Forest Code along the lines established in the NFC and the BSAP.

The Ministry of Environment and Natural Resources Protection agreed with the World Bank to carry out a Strategic Environmental and Social Assessment (SESA) of the new draft Forest Code (DFC) according to the EU environmental directives. The reason for the assessment is to secure that the process behind the drafting of the Forest Code is made in a public and transparent manner and to secure that potential constraints within the new Forest Code are identified and, if possible, dealt with, before the DFC is ratified and implemented at central and local level in Georgia.

A scoping process has been conducted to establish the content of the SESA report, and the relevant criteria for assessment. A pragmatic view was taken on, how much could be achieved, given the time-scale, available resources, and existing knowledge about key issues. The SESA process actively engaged key stakeholders to identify significant issues associated with the proposal and the main alternatives. Based on these issues, and the objectives of the SESA, decision criteria and suitable indicators of desired outcomes were identified.

The SESA predicts the potential environmental impact of a project, plan or programme, or in this case – of the DFC. For the DFC, the central part of the ongoing forest sector reform in Georgia, significant environmental benefits are expected from the new legislation. The DFC has the potential of becoming the turning point, where a bad circle of accelerating forest degradation and mismanagement is converted into wise use of natural resources, based on principles of sustainability. It is clear that the new legislation introduces knowledge based forest management as the basic principle, which rests upon three equally important columns, namely the Forest Management Body, the National Forest Inventory and the Forest Management Plan. Together with the formulated overall objectives of the DFC, which has focus on ecology and long term stability, this setup of forest management has the potential to overcome many of the shortcomings of current forestry practice in Georgia.

The new DFC of Georgia will have an impact on large parts of especially the rural population, loggers as well as Georgia’s biodiversity at a large scale and the forest itself. Needless to say that a comprehensive, participatory and thorough approach to the drafting of the DFC is important as well as the assessment of it.

However, the new DFC will also have an impact on the regions, districts and its municipalities. This is mainly due to that the success of the DFC in large parts will stand and fall with the degree of a successful implementation of the DFC on region, district and local levels, who with the new DFC suddenly will have a much more important role due to the new management setup.

The starting point has been an analysis of the baseline situation, i.e. the impact of the current forestry practice in regards to environmental and socio-economic aspects. Wherever possible the analysis has been based on quantitative data, if such are available.

Given the environmental and socio-economic situation of Georgia today, an assessment has been made for two scenarios. One is the zero scenario, which means a prediction of impacts with status quo
legislation and forestry practice. The reason for including the zero scenario is that it is seen as a more realistic basis for comparison, given the expected dynamic changes of the forest environment and in particular anticipated negative changes and hazards. The zero scenario is thus an intrinsic part of the assessment method applied and seen as a useful tool to measure the reform efforts. Especially in situations where negative effects can accelerate or cumulate, or certain critical thresholds can be exceeded, the zero scenario comprises the more realistic basis for comparison compared with the baseline conditions.

The second scenario includes the DFC, again with a prediction of impacts after implementation of the law. As a first step of the assessment, a screening of the articles of DFC has been done in order to detect major constraints by expert judgement. It will be the major fields of constraints, which will structure the analysis of the DFC in the SESA.

Predictions coming from the assessment are in many cases based on incomplete or unprecise data, as data are scarce or unreliable in some cases. Conclusions from the assessment are therefore formulated as risks, which will be rated as low, middle or high, whenever evidence is available for such rating.

Key stakeholder’s view on the DFC’s setup is important for the further development of the DFC, and a number of interviews have therefore been conducted. The objective behind this is to obtain information on elements of constraints within the contemporary management of the forest sector seen from the municipal and district perspective as well as constraints related to the DFC. The interviews also sought to investigate the municipality and districts’ interest, expectations and engagement in relation to a process of decentralization of parts of the forestry management. Also, one interview with a representative from the private business sector operating within logging has been held.

Results from the interviews reveal that municipalities in Georgia are not yet prepared to take over responsibilities of forest management. This is in full agreement with information received from the NFA and the, at that time, Forest Policy Service (today - Biodiversity and Forest Policy Department). Also, some private logging companies, when contacted were not interested in participating in interviews concerning the DFC and mentioned that it was forbidden to visit their logging sites in the forests. In general it cannot be overseen, that some parts of the forestry sector, especially those profiting from it, have a more restricted interest in participating in interviews, where the topic for debate is the new DFC. The reason for this could be that some people acting within the sector profit illegally from it and may run their business as a part of a larger black economy in the country. Due to this, conduction of interviews with ‘on the ground people’ has to some extent been difficult and leaves important points of views in relation to the new DFC, in the dark.

It needs to be stressed, that the alternative to the DFC, in the sense of abolishing the sector reform, will not lead to status quo of the forest condition. This situation is analyzed in the zero scenario, with the main result that forest degradation and derived loss of ecological functions will proceed quickly leading to multiple negative consequences for the ecosystem and the people living in it. The predicted positive impacts pertains to practically all factors that comprise the forest ecosystem as well as derived ecological functions. Concretely the following processes will be initiated:

• Protection of forests with high conservation value by applying the new system of categories
• Designation of protective forest on slopes and other vulnerable areas
• Recovery of degraded forests through natural rejuvenation and afforestation/reconstruction
• Development of usable forest as matured natural forest stands with close to natural conditions and high productivity
• Balanced extraction of resources applying non-destructive methods
• Mitigation and compensation for inevitable loss or impairment of forest and forest functions

Overall, 55 out of 68 evaluated articles are rated to show significant or moderate positive potential of impact in the sense that they directly or indirectly support processes, which in combination are suitable to improve forest management. 12 articles have potential negative or significant negative impact. Some of the expected negative impacts, however, are not derived from a weakness of the DFC, rather than they are a natural consequence of development. In particular, infrastructure development and urbanization will inevitably lead to conflict with the intrinsic objectives of the forestry. Here the DFC cannot stand alone and has to be seen in the context of other environmental legislation under development, especially EIA related regulations.

Recommendations in brief:

• Dedication of an additional article on the organizational structure;
• Explicit introduction of “ecosystem based forest management” as the target silvicultural method;
• Avoiding overlap with EIA legislation;
• Avoiding overlap with Georgian Law „On State Property“ (2010), and the law on “Forest Privatization”;
• Test and development of private reserves or long term management contracts for conservation purposes;
• Substantiation of preconditions for privatization;
• Reconsideration of the role of Ministry of Economy and Sustainable Development in certain administrative processes;
• Substantiation of public participation;
• Substantiation of the role of environmental supervision, eventually in additional bylaw;
• Extension of obligation to prepare a Management Plan for private forest plots of less than 50 ha;
• Creation of transition regulation for existing commercial felling licenses;
• Substantiation of grazing regulations
• Protection of Kolkheti lowland forest from clear cuts (article 46)
• Deletion of Article 47 on annual allowable cut;
• Further definitions are required for the areas, on which agricultural use can take place.

The monitoring concept aims at describing environmental and socio-economic changes following implementation of the DFC. The approach suggested in this paper is to utilize and systemize data, which is readily available or is expected to be available in the future. It is not recommended to execute separate monitoring exercises, which may be costly, especially when country wide comprehensiveness is required. Thus the concept as a matter of principle utilizes statistics and all kinds of data, which is gathered in different institutions and administrative units of the country. Most of the data is expected to be generated at the central and local level of forest administration.

The applied monitoring method shall be straight forward and measure changes and trends against baseline conditions. For each suggested parameter the expected development will be formulated as monitoring hypothesis, which then ideally should be tested by the data. As described in detail in this report it needs to be noted that the description of baseline conditions for many parameters is insufficient or marked with a high degree of uncertainty, especially with regards to environmental data on forest conditions, but also economic data on annual cuts, the functioning of the firewood supply chain, etc. need to be improved as part of the finalizing of the National Forest inventory.
1 Introduction

From 2012 and onwards, the Government of Georgia’s approach to the forest management in general, including its institutional and legal basis and economic underpinning, has significantly altered. The new wave of upgrading forest policy and legislation started with the development of a National Forest Concept (NFC) for Georgia (MoENRP, 2013). The document was developed in a participatory and transparent manner and was endorsed by the Parliament in December 2013. In 2014, the new Biodiversity Strategy and Action Plan (BSAP) was developed for 2014-2020, in collaboration of the Ministry of Environment and Natural Resources Protection of Georgia (MoENRP), relevant non-state stakeholders and different nationally-based NGOs. The Government adopted the plan the same year.

Formalizing of the Government’s policy vision in the forest sector allowed drafting of a new Forest Code along the lines established in the NFC and the BSAP. This process took off shortly after adoption of the NFC and has received support from the Forest Law Enforcement and Governance (FLEG) II Program since June 2014. In parallel, the association agreement with the European Union (EU), signed in June 2014, has triggered a comprehensive reform of the entire environmental sector and legislation, which is to be in line with major environmental directives of the EU. Development of the NFC is financially supported by the EU and the Austrian Development Agency (ADA) through FLEG Program administered by the World Bank, International Union for Conservation of Nature (IUCN) and the World Wildlife Fund (WWF).

Because forests in Georgia cover about 2.8 million ha, which makes roughly 40% of the territory of this country, the drafting of the new DFC is very important as the forest provide the population with firewood (app. 80% of the rural population use firewood as main heating source), non-food products and grazing lands. About 98% of forests in Georgia are natural, mostly located on steep slopes of the mountains of the Greater and Lesser Caucasus. Beech, Oak, Hornbeam, Chestnut, Ash, Maple, Birch, Spruce, Fir, Yew and Pine are typical forest tree species. Of these, broadleaves represent about 80% of the total forest cover. The share of planted forests is very small – about 60,000 ha in total. The latter mainly consists of Pine.

The state owns nearly all forests. The National Forestry Agency (NFA) manages about 1.9 million ha. The Agency of Protected Areas is in charge of over 450,000 ha of forests, mainly located within Strict Nature Reserves, National Parks and Managed Reserves. The Forestry Agency of the Autonomous Republic of Ajara (located in the south-west of Georgia) manages nearly 140,000 ha. Private logging companies use about 170,000 ha of forests via long-term (up to 20 years) wood harvesting licenses. The state owns these licensed forests too. The Georgian Orthodox Church and municipalities own and manage the remaining forests in Georgia.

In the light of the above mentioned, the new DFC of Georgia will have an impact on large parts of especially the rural population, loggers as well as Georgia’s biodiversity at a large scale and the forest itself. Needless to say that a comprehensive, participatory and thorough approach to the drafting of the DFC is important as well as the assessment of it.

However, the new DFC will also have an impact on the local districts and its municipalities. This is mainly due to that the success of the DFC in large parts will stand and fall with the degree of a successful implementation of the DFC on district and local levels, who with the new DFC suddenly will have a much more important role due to the new management setup.
2 Background

In most countries, use of forest resources is an emotive and politically charged subject where issues of biodiversity and landscape conservation must be weighed alongside community needs and commercial silviculture. Georgia is no exception to this rule.

Elaboration of the new Forest Code is urgently needed in Georgia, because average forest stand density for considerable part of the forests has reached a critical threshold, and such forests have significantly decreased the protective functions and lost the ability to re-generate, which affects the biological sustainability of forests and overall ecological situation in Georgia. Furthermore, it is Georgia’s obligation under the Georgia-EU Association Agreement. The agency in charge of the document is the MENRP. In 2013, the National Forestry Concept of Georgia was prepared as a result of a participatory process. Representatives from different sector ministries, national and international NGOs, donor community, academic institutions, and private business organized in 8 working groups. Process was steered by MENRP. To ensure public participation in the decision-making process and transparency of the forest sector reform, the Ministry involved 160 representatives of 55 organizations and conducted 77 workshops in 2013-2014 and 50 in 2015.

The NFC was adopted by the Parliament on the 11th of December 2013\(^1\). The Concept defines the attitude of the state toward its forests and considers the functions and values of these ecosystems. The document aims to establish a sustainable forest management system that would ensure the improvement of quantitative and qualitative forest indicators, biodiversity conservation, and effective utilization of economic values of forests.

In spring 2013, with the support of the German International Cooperation (GIZ), the MoENRP began the implementation of the National Forestry Programme, which is based upon the NFC and the BSAP. All key stakeholder groups are involved in the process. The programme envisages the implementation of specific activities in several thematic areas. In 2014, the work for the preparation of the new DFC began.

Elaboration of the new DFC started in 2014. Foreign consultants were involved in this project and, with their assistance, a draft was drawn. The new DFC was also discussed in all municipalities of Georgia. The discussion was carried out under the aegis of the Forest Policy Agency. Also, various agencies and ministries were involved in the discussions. After the discussions of the draft project, local and international organizations and representatives of other interested parties made numerous comments. It was decided to work out an improved version under the aegis of the MENRP. Georgian experts was also involved in the elaboration of the new DFC. It was decided to work out an improved version of the DFC under the aegis of the MENRP. However, due to Parliamentary elections in October 2016, the Parliament has not discussed the DFC in 2016. It is expected that the draft will be approved sometime in 2017.

The elaboration of the new Forest Code is supported by the World Bank within the framework of the EU-financed FLEG II Program. The EU, as well as the Austrian and German governments are also financing other projects in Georgia’s forest sector. WWF, IUCN, Caucasus Environmental NGO Network (CENN), and some other entities are involved in the projects’ implementation.

The new DFC will replace the Forest Code adopted in 1999 and the intention is that it will ensure the social and environmental functions of the forest better than the old law of 1999 does. Numerous amendments have been made to the Code adopted in 1999. As a result, the Code in fact became devoid

of its functions and the key regulations were included in the governmental decrees. A crucial reform of the Forest Code and the entire forest sector was launched in 2007. The aim was to outsource forest management to private sector to the extent possible. Long-term forest use licenses were issued. Unfortunately, this process did not envisage the social and environmental functions of forests. This was followed by the introduction of the so-called “social cuts” aimed at subsidized provision of firewood to rural communities.

As mentioned, the new DFC is based on the principles of the NFC approved by the Parliament in 2013 and envisages a number of innovations that will radically change the existing practices in the forestry sector. The new DFC introduces a number of new social, environmental and forest categorical principles which mainly seek to manage the forest in a more sustainable and comprehensive way. The new forest code also envisages the establishment of ecological networks of international significance (Emerald Network, Ramsar Sites, important bird sites) and their management for conservation purposes. This approach is new for Georgia.

There have been continuous efforts from the government and non-governmental sector to address the problem of illegal logging. Until recent years, these efforts were not very successful due to frequent changes in the priorities of the State forestry authorities. The policy recognizes existing problems in the forestry sector and defines priorities for their solution. These include the maintenance and enhancement of the protective functions of forests; greater involvement of local communities in forest management; separation of policy and actual management functions of the state authorities; and improved coordination of the forestry sector with related sectors such as energy, tourism and agriculture.

Other priorities include restoration and rehabilitation of degraded forest ecosystems, rational use of forest resources, defining optimal institutional set up (i.e. the roles of the state and private sector) and enhancement of awareness, in the public sphere, about the importance of sustainable forestry.

In order to support the implementation of the national forest policy, the National Forest Program (NFP) was launched in 2014. The NFP is supported by the German Society for International Cooperation (GIZ). Within the framework of NFP, several thematic groups of experts with various fields of knowledge were established. The thematic areas include forest inventory and management planning, forestry legislation, ownership and tenure, education and research, forest restoration, economic assessment of forest ecosystem services, forest monitoring, etc. These working groups have met several times and has been very productive and fruitful and their recommendations are provided to the key decision-makers.
3 Forest legislation in Georgia

The Georgian legislation on the forest sector comprises environmental laws, international agreements, subordinate legislation, normative acts, presidential orders and governmental decrees, ministerial orders, instructions and regulations. Along with the national regulations, Georgia is signatory to a number of international conventions, including those related to environmental protection.

In 1977 the Foundations of Forest Legislation of the United Soviet Socialist Republics (USSR) were approved, on the basis of which all union republics passed their own Forest Codes. In 1978, the Forest Code of the Georgian Soviet Socialist Republic (SSR) entered in force and all the forests on Georgia’s territory were managed in compliance with it. In accordance with the Code all of the country’s forests – forests subordinate to forest agencies, assigned forests, forests belonging to former collective farms and state farms, nature reserves - constitute a single state forest fund. In accordance with the Code, forests of national importance and collective farm forests in Georgian SSR carried out only water conservation, protection, hygienic and recreational functions and had minor operational functions.

State management in the area of the use, reproduction, and care and protection of forests in Georgian SSR was carried out by Council of Ministers of the USSR, Council of Ministers of Georgian SSR, Councils of Ministers of Adjara and Abkhaz Autonomous Republics, Executive Committees of local Councils of People’s Deputies, as well as forestry State bodies and other state agencies in compliance with legislations of the USSR and Georgian SSR.

In 1992-1999, the Soviet style of management was still in force in the forest sector i.e. an administrative body, at certain instants, performed economic functions too (logging, forestation etc.) and even received financing from the budget. In second half of 90-ties licenses for harvesting licenses were being issued by the Ministry of Environment Protection and Natural Resources, while the State Department of Forestry was issuing licenses for all other types of logging. In March 1995, the Parliament of Georgia adopted the Law of the Republic of Georgia on Changes and Amendments to Forest Code of the Georgian SSR. With this, the Parliament in fact approved the first Forest Code of Georgia. It clearly states that forest in the Republic of Georgia is State property. Unified State fund consists of forests, allocated forests and nature reserves. Care, protection and reproduction of forests were carried out by Forestry Department of the Republic of Georgia.

Depending on the topography forests were divided into mountain forests and lowland forests, which in their turn were divided, depending on functionality, protection and economic regimes, into the following categories: reserve forests, arrays of precious tree species and natural monuments, green zone forests, resort forests of near-field zone, protective and production forests of lowlands. Forest regulation was compulsory for all types of forests, regardless of their subordination. Forest management was carried out by the State forest management organization on the basis of a single system. In March 1995, the Parliament of Georgia also passed Resolution 14, according to which it was decided that a single State Forest Management Body was necessary to be established for improving the grave situation with Georgian forests. Former collective farm forests and the entire related infrastructure should have been passed over to the Forestry Department within two months. This Resolution could not be fully implemented, and part of the forests was not passed over to the state.

In 1999, the law governing relations in the forest sector - Forest Code of Georgia - was adopted. This new Code regulated legal issues related to maintenance of the forest resources, forest protection, restoration and use. According to the Code, the principles of forest protection and sustainable use are based on the Georgian Constitution, Declaration on the Principles of Sustainable Forest Development (adopted during The Earth Summit in Rio-De-Janeiro in 1992) and Article 5 of the Law of Georgia on the Environmental Protection (1996). The latter embraces several significant principles of conservation of biodiversity, mitigation of threats and sustainability. According to the above-mentioned law, one of
the purposes of the protection of Georgia’s forests is to retain the uniqueness of untouched forests and to protect relict, endemic and valuable species of plants. Economic functions were separated from forestry administrations i.e. stock up rights were delegated to private sector. In accordance with the Code denationalization of forests was allowed, provided that special law is adopted. Also, local forest fund, run by self-government was allowed. However, no practical steps have been made in either of these directions (privatization, decentralization) up to the present.

In 1999-2004, State forests were managed by the State Department of Forestry and all appropriate documentation (logging license, agreement, ticket, export permission) were issued by this body. Protected forests (protected areas) were run by the State Department of Nature Reserves, Protected Areas and Game Farms. The Ministry of Environment Protection and Natural Resources participated in general policy making (though it meant nothing in practice), and issued hunting management licenses. Logging remained the main form of forest use, on the basis of 1 year license.

As a result of 2004 legislative changes, the structure of the executive body changed. Cabinet of Ministers, headed by Prime Minister was set up. The number of Government agencies in the sector was significantly reduced, the State Department of Forestry was abolished; the Ministry of Environment Protection and Natural Resources was transformed into the Ministry of Environment and Natural Resources Protection (MENRP). State Department of Forestry got subordinated to MENRP, and State Department of Nature Reserves, Protected Areas and Game Farms was transformed into the Department of Protected Areas subordinated to MEPNR, now the Agency of Protected Areas. Central Administration of Ecological Police under Ministry of Interior was abolished. Environmental Inspection - one of the divisions of MENRP - was entrusted to monitor environmental situation. This division was set up on the basis of special law. The Investigatory Department was established with the same Ministry. This Department was entrusted with preliminary investigation of criminal offence in the field of environmental protection. Ministry’s Department of Licenses and Environmental Permits was tasked with issuing licenses of forest use. In that way all state functions with regard to protection and management of biodiversity (including forest) was fully concentrated at MENRP.

In the years of 2013-2015, relevant stakeholders were involved in the preparation of a strategic document reflecting the national policy in the forest sector. This document was called the National Forest Concept2 and was approved by the Parliament of Georgia in 2013. In 2014, the Government of Georgia adopted Biodiversity Strategy and Action Plan3 for 2014-2020. Alongside with other issues, this document embraces issues, objectives and indicators regarding forests and other related sectors and seeks to act as an overall sustainable environmental strategy for Georgia. These strategic documents describe the problems of the forest sector and related sectors, as well as ways of their resolution, and are described more in detail below.

In 2013-2015 all forest management functions were accumulated with Ministry of Environment and Natural resources and its LEPLs. Along these changes, the Forest Policy Service was established with the Ministry of Environment and Natural Resources Protection in order to support the development and implementation of the forest management national policy. Alongside with other functions, this service have to address issues related to correcting forest borders and changing forest status; and submission of forest management plans to the Minister for approval (Green Alternative, 2016).

The agency in charge of the DFC is MoENRP. The project is financially supported by the EU through ENPI FLEG II Program and Austrian Development Agency (ADA). The new Forest Code and the entire legislation should be based on the National Forest Concept worked out in 2013 and approved by the

3 Decree of the Georgian Government, N343, 08.05.2014
Parliament of Georgia. This concept defines the key directions of development of the forest sector in the country.

### 3.1 Overall forest plans and concepts

MENRP, with participation from the public and relevant national and international organizations, worked out the National Forest Concept and the Georgian Parliament adopted it in 2013. Hereafter, the development of the National Forest Program started. In 2014, the Government approved BSEP for 2014-2020. These strategic documents describe the problems of the forest sector and related sectors. However, no real changes took place with regard to legislation and management practices in 2013-2015 within the sector itself, which meant that the regulation and management of the sector remained at status quo (Green Alternative, 2016).

#### The National Forest Concept

The objective of the Concept was basically to "... establish a system of sustainable forest management which will ensure: improvement of quantitative and qualitative characteristics of the Georgian forests, protection of biological diversity, effective use of the economic potential of forests taking into account their ecological values, public participation in forest management related issues and fair distribution of derived benefits. To achieve this goal the Georgian forests shall be used in a way, and at a rate, that ensures maintenance of ecological wealth and use of their socio-economic potential“ (MoENRP, 2013).

The new DFC seeks to be in line with the Concept, as it is a much more comprehensive and carefully planned law, which seeks to address environmental and social issues in relation to sustainable forest use and management in a more thoroughly and care some manner which, at this stage, appears to be is in line with the Concept strategy.

#### Biodiversity Strategy and Action Plan of Georgia 2014-2020

In 1994, Georgia joined the Convention on Biological Diversity and thus committed itself to the Convention’s three objectives: the conservation of biological diversity; the sustainable use of its components; and the fair and equitable sharing of benefits arising from the utilization of genetic resources. Georgia is also party to other global biodiversity-related conventions such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), The Ramsar Convention on Wetlands of International Importance, the Convention on Migratory Species and the World Heritage Convention of the United Nations Education, Science Culture Organization (UNESCO).

In 2011, the Biodiversity Protection Service of the MENRP began the assessment of various aspects of the state of Georgia’s biodiversity and the progress that the country had made with implementing its first National Biodiversity Strategy and Action Plan from 2005. It was then synthesized into a shorter document - Situation Analysis - that formed the basis of the updated BSAP 2014-2020. The Plan includes an overview of Georgia’s biodiversity followed by the vision and the overall national targets for safeguarding Georgia’s biodiversity (MoENRP, 2014).

DFC is resting on some of the basic commitments mentioned in the BSAP and should be seen as a process wherein the Government of Georgia and relevant ministries seeks to ratify a more comprehensive and sustainable management of the forest sector at different state levels and as a hole.

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5 Also see: http://w3.cenn.org/wssl/uploads/home/National%20forest%20policy%20for%20georgia%20(ENG).pdf
International obligations
Within Georgia–EU Association Agreement, the country has new obligations related to the implementation of the Wildlife and Natural Habitats Protection Convention (Bern Convention). Within the above-mentioned obligation, The Emerald Network is currently being formed in Georgia. The aim is to protect species and habitats under Bern Convention.

3.2 Contemporary legislation of forest sector
The following laws govern forest protection and forest use today:

Forest Code of Georgia (1999)
The law regulates spheres related to functions and use of forest, including protection, management of water catchment basin, wood production, etc. It allows for private ownership of forest and commercial woodcutting. According to the law, Forest Department of Georgia does not executed commercial woodcutting itself, but controls and manages these operations as grants this function to private enterprises. However, the Forest Department is carries responsibility over sanitary woodcutting and forest management. According to the Code, the Ministry of Environment Protection and Natural Resources delegated to the Department a right for issuance a woodcutting license. The Forest Code sets categories of protected forests, including those regulating soil and catchment basins, riparian and sub-alpine forest zones, floral species of the Red List, etc. The Forest Code is a framework law and requires execution of detailed regulations.

The law is often called the "framework law", since it integrates principles and terminology of the documents adopted at 1992 Rio de Janeiro Earth summit and other conventions on environmental protection. This law is general, providing general principles of environment protection and legal terminology. The law applies to the following issues: protection of environment from the harmful effects; improvement of environment quality; sustainable development and sustainable use of natural resources; maintain of biodiversity and ecological balance; protection of unique landscapes and ecosystems; application of certain efforts for solving global ecological problems; determination of rights and obligation of citizens in environmental area; environmental education.

Law of Georgia on the System of Protected Areas (1996)
The law defines aspects of establishing, development and functioning of reserve territories; defines the bodies, responsible for the management on different levels as well as the activities (to be regulated), allowed or prohibited on the territory of different category reserves. Besides, it provides for certain general rules, related to the use of natural resources.

Law of Georgia on Wildlife (1996)
The law regulated legal relations in the field of protection and use of fauna. The law, along with protection of wild fauna proper, also provides for protection of their habitats, migration routes, breeding sites, ensures sustainable use of wild animals and creates legal basis for it in-situ and ex-situ conservation. Until August 2005, this was the only law to regulating hunting and fishing.

The law provides legal definition of the Red List and the Red Book of Georgia (having recommendation and methodic value) listing Georgia’s endangered wild animals and plants. The law defines the structure of Red List, procedures for selecting species, drafting, approving and updating (revising) the Red List. It also regulates the issues related to endangered species, planning and financing the activities for their protection, extraction, restoration and preservation.
**Law of Georgia on Fees for Use of Natural Resources (2004)**
The law aims at conservation of the State-owned resources based on the principles of sustainable development of potentials of the environment through establishing the principle of paid use of nature. Amount of the fee is also defined in the Law (for mammals and birds – per individual, for fish and aquatic animals – per ton, bulbous plants and fir cones – per kilogram, for wood – per cubic meter, for fossil – depending on weight or volume, as well as specifics of the resource). The law provides for fee payment regulations. Fees go to local budget of the region, where resources are extracted from. The amount of fees established by law may be used for calculation of damage from illegal extraction of resources (for penalties). The amount of fee can also be used for establishing starting price of licenses for the use of nature.

**Law of Georgia on Licenses and Permits (2005)**
The law provides full list of activities subject to licensing and permit issuance, as well as types of licenses and permits. Many of the regulations of the Forest Code, as well as of other laws, related to environment protection and use of natural resources became meaningless after the ratification of the on Licenses and Permits. In 2006, NGOs in the country highlighted the conflict between environmental legislation and the Law on Licenses and Permits in different reports (Green Alternative, 2006).

In March 2011, changes and amendments were introduced to this law and it was entitled as the Law on Forest Fund Management (No. 4419). The Law aimed at the creation of the National Forest Agency (to replace Forest Department) defining basic principles of its functioning, organizational and legal structure, authorities and main activities. The objectives of the Agency were to care and restore forest, to ensure sustainable use of biodiversity components on the forest fund territory. The Agency’s functions were: to promote determining forest fund boundaries; control forest fund territory; monitor forest fund and create monitoring data base; prepare projects under licensing; care and restore forest; fighting/prevention of fire; issuance of permit documents for forest use, including logging and hunting (except for migratory birds).

**Law of Georgia on Protection of Environment (1996)**
The law regulates legal relationship between the bodies of the state authority and physical persons/legal entities in the scope of environmental protection and consumption of natural resources on all Georgian territory including its territorial waters, airspace, continental shelf and special economic zones. The law concerns environmental education, environmental management aspects, describes economic sanctions, licensing, standards, environmental impact assessment results. The law considers various aspects of ecosystem protection, protected areas, global and regional environmental management, protection of ozone layer, biodiversity and the Black Sea, as well as discusses international cooperation aspects. The law covers certain aspects of waste management. Management, import, export, re-export and transit of waste is regulated according to the rules stated in Georgian legislation. Determines the ecological requirements regarding the waste, including toxic, radioactive and other hazardous waste disposal requirements and bans their uncontrolled disposal.

**Law of Georgia on Environmental Impact Permit (2007)**
The law defines a complete list of activities subject to mandatory ecological examination. According to the subparagraph “M” of paragraph 1, article 4, chapter 2 of the law, a construction and operation project of a HPP with over 2 MW capacity is subject to ecological examination. The law defines legal aspects for issuance of an environmental permit, implementation of ecological examination, public awareness and public participation in these processes. According to the Law, an Environmental Impact Permit is issued by the MENRP based on the outcome of the expert examination of applicant’s documents.
Law of Georgia on Licenses and Permits (2005)
The law regulates organized activities or actions concerning unlimited circle of persons, is characterized with increased hazard to human life or health, involves especially important state or public interests, or is connected to consumption of the state resources. The law deals with spheres regulated by licenses and permits, defines full list of licenses and permits, and sets rules for granting, amending and abolishing licenses and permits. According to the law, the State regulates an activity/action with a license or permit only when this activity/action is directly associated with increased hazard risks for human life or health, or they incorporate the state and public interests. The state regulates an activity/action with a license or permit only when the licensing/permit issuing can really reduce the mentioned hazards or they incorporate the state and public interests.
In compliance with this law, a license or a permit issued by a foreign country under an international agreement or law can be recognized and its status respected alike a license/permit issued based on the Georgia's national legislation.

The law defines new principles for the license issuance. These are:
- “One-window” principle – a new concept adopted by the law, which obliges a licensing authority to ensure approval of additional licensing conditions by other authorities.
- “Silence gives consent” – a licensing administrative body is obliged to make a decision in due period of time after an application is submitted. Otherwise, if the decision is not announced by the end of this period, a license is deemed issued.
- “Umbrella principle” – a holder of the general license is not obliged to apply for specialized licenses.

Law of Georgia on Ecological Assessment (2007)
The law makes an ecological expertise obligatory for issuance of environmental impact or construction permits. Ecological expertise aims to preserve ecological balance through incorporation of environmental requirements, sound use of natural resources and sustainable development principles. A positive conclusion of the ecological expertise is mandatory to obtain an environmental and/or construction permit. Ecological assessments are regulated by the MENRP.

Law of Georgia on Privatization of State-owned Agricultural Land (2005)
The law regulates privatization of state-owned agricultural lands. Based on this law, either leased or unleased state-owned agricultural land is subject to privatization. However, the categories of agricultural lands listed below are not subject to privatization:
- I - Grazing lands except grazing lands leased before enacting the law;
- II - Cattle-driving routes;
- III - First sub-zone (strict regime zone) of sanitary protection zone of water bodies utilized for water supply;
- IV – Land of the State Forest Fund used for agricultural purposes;
- V - Recreation lands;
- VI - Lands allocated to historical, nature and religious monuments;
- VII - Land of protected areas;
- VIII- Agricultural lands being used by budgetary institutions and legal entities of public law in the form of usufruct.

Privatization of agricultural lands of categories II, III, IV and V is still allowed only for important projects and special decision upon privatization is to be made by Georgian Government if appealed by the Ministry of Economy and Sustainable Development. Sanitary terms shall be adhered when privatizing lands of category III.
3.3 Pressure on the legislative system

Between 2004 and 2012, the forest sector underwent numerous legislative and institutional changes influencing the processes of the sector at a large scale. For example, in the years 2009-2012, the Parliament and the Government of Georgia adopted more than 200 sub-legislative normative acts related to the forest sector.

The period between 2009 and 2012 was characterized by frequent and significant legal changes of the Forest Code of 1999. For example, the Forest Code underwent 17 changes within this period alone. Between 2009 and 2012 the Georgian Parliament and other government bodies passed by about two hundred statutory orders in relation to the forest sector. More than half of those are normative (legal basis regarding reserve areas, as well as some of that related to hunting is not included in this number). Changes of bylaws were frequent too. To the government resolution No.132 of 11 August 2005 on approval of regulations on rules and terms of issuing forest use licenses was made about 60 amendments and 27 amendments have been introduced to the Government Resolution No. 242 of 20 August 2010 on approval of the rules of forest use. These amendments are just a small part in a long line of amendments to the forest legislation made between 2000 and 2012. Often these changes lead to contradicting regulations between the bylaws, laws and statutory orders which seek to regulate the same fields within the forest sector in different manners.

On July 6, 2010, the Parliament adopted a law on the Amendments and Additions to the Georgian Forest Code (N 3346 - RS), which implied large-scale changes in the forest sector. The law affected many important issues related to forests: the rules of State forest fund cadaster and forest management were changed, the system of registration of the forest fund was changed, the definition of sanitary cuts was altered, for certain categories of the forest fund (recreational and green zones, as well as grove forests and the sub-Alpine zone) special protection regime was abolished and so on. According to the above-mentioned law, all sub-legislative normative acts were annulled and new ones were adopted instead, for instance: The Rule of Definition of the Boundaries of the State Forest Fund; The Rule of Planning, Monitoring and Forest Registration; The Rule of Forest Use; The Rule of Forest Maintenance and Restoration, also the Decree of the Minister of Environmental Protection and Natural Resources on The Rule of Issuance of Documents Confirming the Legality and Origin of Timber.

Significant changes were also introduced to the Forest Code of 1999 in accordance with the Law No. 4677 - is on Changes to Georgian Forest Code in 2011. In particular, the definition of social cutting was introduced (implementation of appropriate arrangements of providing wood for noncommercial purposes to population, budget organizations, legal entities of public law and Georgian Orthodox Church). General requirements for transportation and primary processing of round wood (logs) were established, timber labeling – registration of log by means of special electronic marker and entering the data to united database – was legitimized. One of the most important changes was the extension of long-term use of forest from 20 to 49 years.

The legislative system in Georgia is overloaded with initiatives that are to be translated into a law. Such legislative overload appears to arise from the pressure to complete numerous legal reforms in the shortest possible time and carries with it the risk of lower quality legislation. This situation inevitably places enormous pressure on the combined law-making resources of the Government and the Parliament and leaves little time for essential elements of a well-ordered law-making process, such as regulatory impact assessments or proper consultation with civil society. When other normative legal acts (e.g. bylaws and statutory orders) are added, the scale of the problem tend to escalate. Further, the Parliament does not have a comprehensive electronic system to support its functions adequately. Many members of the Parliament and officials experience this overload of the legal system. Also, the Members of Parliament, parliamentary staff and stakeholders do not always have access to updated electronic
versions of documents. The current practice, whereby different versions are distributed in hard copy, falls dramatically short of the informational needs of the actors involved in the legislative procedure (OSCE, 2015).
4 Baseline

The following will outline basic elements of the forest sector, as it is today, which in the context of SESA means the description of the current situation also known as the baseline conditions. Focus here will be forest legislation; forest management; institutional setup; forest environment; forest socio-economy and stakeholder landscape.

4.1 Management system and data

Throughout Georgian history forest management has been regulated differently due to local traditions and shifting governments. In the pre-Soviet period, the state, private persons, churches, communities, families and households owned the forest.

Since 2013, the Government has increased the budget of the MoENRP by 100 per cent to support the ongoing processes of reorganization, including the newly established forest-management-related institutions. Strengthening of forestry functions has been prioritized among the functions of the Ministry, and this reflects in the increased number of staff and in staff salaries (mainly for forest rangers), as well as in the allocation of funds for commencement of the forest inventory.

It should be stressed that standing wood is estimated at 434 million m³ and much of the forest land is located on the slopes of the biodiversity-rich Caucasus mountains and serve a protective function for soil and water in these erosion-prone areas. Only about 20% of the Georgia’s forest area is classified as production forest. Forests thus play a key role in watershed protection. The forest sector is especially complex because of the broader importance forests play in the social, cultural and economic life of Georgia. Many of the country’s historical and cultural sites can also be found in the forest, and therefore the forest also represents historical important sites, which tells parts of the country’s history and development.

Georgia’s forests were intensively harvested for industrial purposes from the 1930s to the 1960s. Forest policy was then changed in 1978 when the Forest Code of the Soviet Republic of Georgia was adopted (based on the forest legislation of the USSR worked out in 1977). According to this Code, the forests were managed largely for protection (72%) and recreation (24%) respectively. Also, Georgian forests constituted a unified State Forest Fund which included forests under forest agencies, forests temporarily given to certain State agencies for specific purposes, forests owned by “kolkhozis” and collective farms, and protected areas. All forests were the responsibility of the State Forestry Department of Georgia.

On the local level, forest management units were both administrative (protection, issuance of permits etc.) and economic (timber production, restoration-renovation, etc.). It should be underlined that, according to the Forest Code issued in 1978, Georgian forests owned by the State mostly fulfilled water-protection, conservation, sanitary and recreational functions. Exploitation of forests was quite restricted. Also, in that period the Georgian wood industry benefited from low-cost imports of timber from remote areas of Russia.

The new Forest Code of 1999 (replacing the one from 1978) redefined the concept of the State forest Fund, which implies the unity of lands and resources owned by the Fund based on current legislation. Production of timber and secondary products of wood was possible based on special permits (licenses, agreements or tickets). These permits were issued by Georgian State Forestry Department based on forest management materials. The categories of the Forest Fund were redefined. The limit of timber
production has been increased based on the angle of slopes from 30° to 35°. As a result, forest territories used for economic purposes have increased.

After the “Rose Revolution” in 2003, the structure of the executive authorities changed. The existing State Forestry Department was abolished. Today the functions of this Department are being performed by the NFA under the MoENRP – which acts as the primary management body of the State Forest Fund. The agency operates with the support of the structural subdivisions of the central office and territorial authorities. The control in the field of environmental protection (including the State Forest Fund) is the responsibility of the Inspection of Environmental Protection also under the MoENRP.

The political changes implemented chaotically in the years of 2004-2013 largely complicated the legislative basis regulating the forest sector. At the same time, the institutional structure of the forest sector remained practically unchanged. Even though it is permanently reformed, it is based on the old Soviet system to a great extent. All the above-mentioned had a negative impact on the state of Georgian forests. Hence, elaboration of a new legislation became a pressing task.

Today the MoENRP is the State regulatory body in the field of environment protection and use. The MENRP implements all policies designed for the protection and conservation of the environment and for the sustainable use and management of Georgia’s natural resources. This includes controlling activities that have a potential adverse impact on the environment and natural resources and issuing environmental licenses and permits.

The Forest Policy Service (FPS) is a structural element of the MoENRP. The tasks of the FPS are mainly related to the development of strategies, policies, legislation, coordination of sector reform etc. FPS led the process of drafting the new Forest Code.

The NFA is responsible for the management of the forest included into the National Forest Fund and is placed under the MoENRP. The agency operates with the support of the structural subdivisions of the central office and territorial authorities. The structure of the Ministry can be seen below as Figure 1.
4.2 Challenges within the forest sector

Georgia’s existing forestry system is not based on sustainable development principles. Absence of a sustainable forestry setup eventually plays a role of system-based problem that causes environmental problems associated with forests. Existing methods and rules for forest inventory and planning do not correspond with sustainable development principles; and the main causes of unsustainable and illegal logging are unsustainable forest management practices and lack of access to alternative energy sources.

Forestry legislation and management standards cannot adequately provide for multipurpose forest management and functional zoning\(^6\). The 3rd National Report to the Rio Convention on Biological

\(^6\) The Forest Code (1999) defines green zone, resort, soil and water protection forests as well as forests with special significance (floodplain and subalpine forests, buffer forests protecting roads and water bodies etc.).
Diversity, 2009, highlights a number of key challenges for the development of sustainable forestry. Those include lack of political will and support, institutional weaknesses, lack of cooperation between departments, lack of interest of the involved parties, lack of knowledge and practice in the field of management based on ecosystem approach and the absence of corresponding legislative, and institutional and financial bases for the sustainable management of forests. Current practices in forest resource management do not correspond to the principles of sustainable management and are chiefly oriented towards exploitation, and lead to the degradation of forest biodiversity.

According to 5th National Report to the Convention on Biological Diversity, 2015, the main causes of unsustainable and illegal logging are unsustainable forest management practices and lack of access to alternative energy sources. Timber resources are mostly harvested for non-commercial purposes, for provision of fuelwood and timber material to the population, public organizations and legal entities of public law. Social logging is characterized by a growth trend and constitutes 80.7% of the total (official) logging registered in Georgia.

Currently, the country’s forests are threatened by unsustainable forest use (logging), overgrazing and environmentally damaging forest practices.

**Lack of data**

Data and assessments on the status of forests are incomplete and based on a sample of inventory or satellite images over limited periods of time. It should be stressed, that as a requirement of the legislation, forest management should have been updated every 10 years, but on the major part of the country’s territory, the forest management plans and data were outdated. A complete forest inventory dates back to 1997, and based on these materials, of the inventory of the State Forest Fund, the annual optimal volume of timber production was defined. Data on the forest are therefore outdated, but are still used in different official estimations.

Inventory (i.e. using satellite imagery and GIS-based analysis) has not yet been conducted which leaves the actual environmental picture, in terms of changes and trends of the forests health, in darkness. The following is therefore mainly based on desktop research and experts filed trips into small part of the forests.

Another issue which is compromised due to lack of accurate data, is the amount of illegal logging. According to official statistics, the volume of illegal logging was 8,262 m³ in 2008 and 20,994 m³ in 2014. Actual numbers are much higher. In 2014, the Department of Environmental Supervision detected 2,489 violations, which produced damage to the environment, such as deforestation and biodiversity loss, which costed more than 4.1 mill. Lari. Illegal operations range from commercial extraction of highly valuable timber to firewood cutting for both local and foreign markets (also known as the social cutting system).

Use of non-timber forest products, is mainly concentrated on collection of bulbs of snowdrops (*Galanthus spp.*) and cyclamens (*Cyclamen vernum*) as well as spruce seeds. Official data on the quantity of these resources licensed for harvesting is available. However, the real levels of harvest are unknown. Therefore, it is difficult to assess their sustainability.

The picture of social cuts gets even more blurred, when looking at actual data. The actual volumes of logging significantly exceed the levels of natural growth capacity of forests located near population centers. Consequently, these forests are severely devastated (MoENRP, 2014). The total official annual logging volumes are about 500.000 m³ on average, while the maximum sustainable potential is about one million m³ (NFA, 2016) (also see 2). Much of this is fuelwood. However, actual annual logging (social felling) is estimated to be between 2.5 and 3 million m³. These figures do not count for logging of wood,
which is used for export etc. There is a general tendency of large gaps between official figures of the forest sector and actual estimates of different types of forest use, which the above also indicates.

The main reason for this is most likely due to lack of monitoring of the forest and lack of (educated) staff in the sector in general, particularly at district and local levels, but it also indicates that the socioeconomic dependency of the forest is much larger than official data estimates. This again has to do with the primary income source in especially rural areas, but it is also closely linked to the country’s lack of a sustainable energy plan and policy, which can substitute the use of firewood as main heating source, particularly in the rural areas.

Overgrazing by sheep, goats and cattle is occurring at all altitudes in 30 per cent of the sub-alpine and alpine pastures, as well as in 50 per cent of the steppe and semi-desert ecosystems in the southeast of the Kura River basin. Currently, there are no data on forest areas affected by overgrazing (UNECE, 2015). Overgrazing in the forests also causes the compaction of soil, which in turn can cause erosion and a decline in the forest’s natural regeneration capability. Lack of data on this issue makes it difficult to assess any potential impact on the environment comprehensively, though experts in Georgia state that grazing is the most threatening human activity in the forest. On the other hand, this is also an issue, where more regulation of grazing pastures potentially can have a large negative impact on rural households, who keep livestock for living i.e. this issue is negative for the environment and positive socioeconomically.

4.3 Forest Environment

Forest ecosystems are extremely significant for the conservation of biodiversity in Georgia, as they cover about 40% of the territory. Furthermore, 97% of the forests are natural and placed in the mountainous areas (98 %), as opposed to plantation. They are also important habitats for many endemic and endangered plants and animals. Virtually intact forest stands, with high conservation value, have been preserved in Georgia and forest ecosystems are found in almost all regions of the country (Butkhuzi, L., 2009).

Pristine forests cover about 500,000 ha according to expert estimates. The forests fulfil very important soil protection and water regulation functions, especially in the high mountains. They reduce the risk of soil erosion and avalanches and contribute to the reduction of greenhouse gas effects and they are a very important source of wood and non-wood products for the population. The main types of forests are broadleaf, coniferous, subalpine thin and crook stem, arid thin and floodplain forests. Broadleaf forests occupy 81% of forest cover, while coniferous forests cover around 19%. As of 2010, around 10% of the forests are within protected areas and special protection is given to riparian forests and sub-alpine forests outside of protected areas.

Forests are the most common habitat type in Georgia, covering 2.75 million of the total area of the country7. Forests are spread all over the country, with the exception of the Javakheti plateau. Over 90 % of the forests are situated on slopes of the Greater and Lesser Caucasus. Some 45 % are located on steep slopes (over 30°) and their exploitation is limited or altogether excluded (their greatest use to humans is of an ecological character).

The development of typological units (forest formation, associations, phytocoenoses) strongly depends on the distance from the Black Sea shore and altitude. Exposition of slopes is an important factor as

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7 Estimated 0.5 million ha is of primary forests, 2.2 million ha of natural modified forests and 60,000 ha of protective artificial plantations (NFA, 2016).
well: Northern exposition always means more abundant forests (here mesophile varieties prevail), than southern, drier slopes (prevailing xero-mesophile and meso-xerophylic variants). This is particularly evident in the forests of East Georgia.

The lower line of mountain forests is situated in West Georgia (Kolkheti) at an altitude of 150-200m, while in East Georgia at an altitude of 450-600m. The upper line of the forests’ hypsometric (altitudinal) limit is at an altitude of 2100-2200m. In the gorges of the main rivers (Inguri, Tskenistskali, Rioni, Liakhvi, Aragvi, and Alazani) forests occasionally reach the upper natural borders of their location (2450-2550m above sea level).

In the same time, as little as 5-10% of Georgian plains and plateaus are covered with woods and here natural forests were cut down long ago. The area is now used for cultivating tea, tangerines, apple and pear trees, vineyards, maize, wheat, etc. Secondary forests and wind-belts of local and foreign species are also found here.

In Georgia, like many European countries, economic development primarily impacts riparian forests, which are one of the most significant components of the biodiversity of Georgia, and represent biological corridors and refuges for many species. Today, riparian forests exist mainly as separate fragments. The arid thin forests widely present in the past, are now only observed in their original form in the Vashlovani State Reserve. The artificial regulation of flow in the river Lori and deforestation have resulted in a decrease of the unique floodplain tugai type forests along the river. Also, Georgian forests have undergone a reduction of canopy cover – of more than 20% between 2000 and 2010 within the forest canopy cover range of 30–80%, as detected by remote sensing (UNECE, 2015).

### 4.3.1 Threats to forests

A number of threats to forests have been identified for the forests in Georgia. Although illegal logging is the most dominating, also other threats have been identified. They are all mentioned here in short, but will be addressed from time to time in the report.

**Climate change**

Some signs of climate change can already be observed in Georgia. These include more frequent and intense rainfalls, increased temperatures, melting of the glaciers, heavier floods and longer droughts. At the global level, major causes of climate change are the greenhouse gases emitted into the atmosphere mainly by the industry, agriculture and transport sectors. Forest degradation and unsustainable management contribute about 10-15% of the total emissions of greenhouse gases.

The exact magnitude of the impact of climate change on forest biodiversity is very difficult to predict. It is, however, likely to be very significant. Georgia joined the Convention on Climate Change in 1994, but there currently there is no special document with an official status addressing the impact of climate change on the country’s forests. However, the Third Environmental Performance Review by UNECE provides a substantive and policy analysis of the country’s climate change adaptation and mitigation measures, and its participation in international mechanisms (UNECE, 2015).

**Pests and diseases**

Pests and diseases, such as chestnut cancer (*Cryphonectria parasitica*, formerly *Endothia parasitica*), pose a significant threat to Georgia’s forests. Currently, there is mass dying of Colchic box trees, and of pine trees in Tusheti and around Tbilisi. Article 10, Part 1, Paragraph (d) of the Forest Code (1999) obliges forest owners (regardless of their status) to conduct forest protection measures against pests and diseases. However, timely detection and effective action against forest pests and diseases require
comprehensive field and laboratory studies and monitoring and active intervention measures, which are very difficult to implement due to the current lack of funding and technical capacity.

**Non-native and invasive tree species**

Forest plantations cover about 110,000 ha in Georgia. Monoculture Plantations are considered as threats, if they are not planned with care without destroying/replacing native forests, because they have hardly any biodiversity and require ongoing human interventions, such as use of fertilizers, herbicides and insecticides. The primary purpose of those plantations was to increase the total forest cover and provide additional socioecological benefits. Presently, these plantations are 50-60 years old monocultures of non-native and poorly adapted species such as Black pine (*Pinus nigra*). The monoculture plantations are much poorer in biodiversity than “close to nature” forests composed of several native tree species. So far, the non-native species used in the forest plantations do not show any signs of invasiveness. The soil chemistry gradually changes in the plantations, however, which may create additional constraints on the restoration of the native forest types in those areas.

Uncontrolled distribution of certain alien tree species such as *Paulownia tomentosa* and *Ailanthus altissima*, on the other hand, poses a threat to the country’s natural (including flood plain) forests. Detailed studies are needed to assess the potential threats from certain invasive tree species in Georgia.

**Forest fires**

In the past, forest fires were relatively uncommon and mainly affected conifer forests. With more frequent and prolonged draughts in recent years, though, forest fires have become a serious problem. Fires cause damage to or completely destroy trees and bushes and hamper the natural regeneration of the affected forest.

In recent years, forest fires have become an annual occurrence, affecting tens and sometimes hundreds of hectares of forest. The largest fire in recent years took place in 2008: a total of 1,000 ha of forest in the Shida Kartli and Samtskhe-Javakheti regions was seriously damaged and in places completely destroyed. In total, an estimated 2,500 hectares of forest were destroyed or seriously damaged due to forest fires in the last 3-4 years.

Forest fires are often caused by irresponsible or careless human behaviour and/or inappropriate management. It is common to set fire to agricultural plots and graze lands; this is often done in an incorrect or highly uncontrolled manner, which results in fire spreading to the nearby forests. While relatively small-scale natural fires may boost species diversity, artificially-induced fires are usually very detrimental to forest biodiversity.

Article 97 of the Forest Code (1999) is dedicated to the prevention of and means of combating forest fires (Part 2, Paragraph “D” and Parts 5 and 6). It describes measures aimed at fire prevention. The law designates the Ministry of Interior as the authority responsible for combating forest fires in coordination with relevant forest management units and tenure holders. The main regulation dealing with forest fires is the Decision of the Georgian Government # 241 (13.08.2010) on the Rules of Forest Maintenance and Restoration. This document contains: (a) general requirements for protection from fires, (b) detailed precautionary measures and (c) measures to combat forest fires and their consequences.

In recent years, the state authorities have gained some experience in forest fire fighting. However, existing fire detection and fire combating systems are not effective. In addition, mountainous terrain, steep slopes and a lack of access roads complicate firefighting efforts. The responsibilities and functions for responding to forest fires need to be more clearly defined and distributed among the relevant authorities (Ministry of Environment and Natural Resources Protection, Ministry of Interior, Emergency Service and local governments).
Infrastructure projects
The degradation or even complete loss of forest cover is often caused by infrastructure projects such as
the construction of roads, pipelines, reservoirs etc. Infrastructure development is a relatively new threat
to the biodiversity of Georgia. Rapid economic recovery and growth has triggered large-scale
infrastructure development. There are plans to construct new pipelines, dams, power lines, mining
facilities, railways and roads. Hydropower development is given a particular emphasis in the economic
policy of the government. Because of the strategically important location of Georgia and its “corridor”
function between Europe and Asia, the existing transportation networks (railways, motor roads, hotels,
etc.) will be modernized and extended. Infrastructure development is important for the development of
Georgia, but represents never the less a threat to the forests of Georgia, if necessary precautions are
not taken to protect the forests.

4.4 Forest socio-economy
The most important socio-economic issues in relation to the forest sector also represent some of the
most threatening activities to the forest. The use of the forests of Georgia is therefore biased, as it is
today. Main use of the forest include unsustainable (often illegal) logging and over-grazing of cattle and
unsustainable silvicultivation. In general, most forest use, in socioeconomic terms, is recognized by an
unsustainable use of forest resources and lack of comprehensive management. The rationale behind
this is difficult to determine, but is very certain that lack of local based knowledge and technical and
educational basis’ of personnel in the sector is suffering from constrains in more than one aspect.
Furthermore, especially the rural population is heavily depending on the forest as it provide the basis
for their livelihood income as it supports them with grazing lands, firewood and non-wood products.
Regulation of the sector can therefore have a huge impact on large parts of especially the rural
population.

Over the last two decades, illegal logging has been a significant problem. Two major types of logging
can be distinguished – for fuelwood and for timber. From the early 1990s until mid-2000s, the volume
of illegal logging was extremely high, amounting to several millions of cubic meters per year. This
exceeded the natural regrowth capacity of the forests. Reliable estimates is too hard to obtain, because
no forest inventory has been conducted in the last 25-30 years. Often trees are selected for felling
without due regard to the conservation values of forests. Improperly conducted logging results in serious
damages to the remaining tree cover, natural regeneration and soils. The density of canopy has been
reduced substantially. The canopy cover has reached critically low thresholds of less than 50% in more
than 55% of forest area. The main causes of these problems include limited financial and technical
capacities of state forestry authorities. Also, there is a lack of foresters with a dequate professional
knowledge. Forest management within private logging concessions also needs to improve a great deal
to reach the levels of sustainability.

Economic problems and the energy crisis were major causes of these problems. The population,
especially in rural areas, could not afford to purchase alternative energy resources for heating their
homes (such as natural gas). It is estimated that 87.1 % of rural households and 17.4 % urban
households depend heavily on wood for cooking and heating. The annual household use of wood is about
2.5 million m³ in the winter season alone. The domestic and, especially international demand for timber
was another driver of excessive logging.

Unsustainable grazing by livestock (cattle, sheep, goats and pigs, owned by local villagers) in the forest
causes greater damage than illegal logging. Main causes of excessive grazing are insufficient control
from the state authorities, rural poverty and improper pasture management (concentration of livestock
in relatively small areas, absence of a rotation system, etc.). For many families, keeping livestock is the sole source of livelihood. The damage caused by wild animals (deer, roe deer, wild boar) is insignificant because of the very limited number of these animals. Their numbers have been reduced over recent centuries due to unsustainable hunting and poaching. No recent and accurate data have been obtained, as the inventory work is on-going by the MoENRP with assistance from various donor agencies, including the German Development Assistance, GIZ.

Legally permitted but improperly implemented silvicultural operations pose additional threats to natural forest ecosystems. Forestry-related legislation requires that logging should follow widely adopted practices such as selective, shelterwood and group-selective cuttings. However, as a rule, no cutting rules are observed. No Continuous Cover Forestry or any other innovative silvicultural methods have been implemented so far.

4.4.1 Forest use in general

The rural population extensively harvests grasses, which are used as fodder for livestock as well as food for self-consumption like wild fruits, berries, mushrooms, nuts, herbs, etc. However, country does not fully utilize the economic potential of forests and there is a gap available for development in terms of increased harvesting on sustainable bases, processing for export and for domestic consumption.

Table 1 outlines the exact uses to which people put forests in Georgia. Many of these do not have clear economic values and have therefore been undervalued. In fact, the rural communities greatly depend on forest resources for subsistence use and the latter provide an essential safety net for the majority of Georgia’s poor. Hence, sustainable management of forest ecosystem is crucial, because it has a direct impact on nature, population and has a spillover effect on the development of other sectors including agriculture, tourism, etc.

Table 1: Different social and economic uses of forests in Georgia.

<table>
<thead>
<tr>
<th>Total Economic Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Use</strong></td>
</tr>
<tr>
<td>Community use and benefits obtained from forests</td>
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<td></td>
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<td></td>
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</table>

Source: (Gakharia, 2014); (Kobakidze, 2015); (UNECE, 2015).

Unsustainable hunting and poaching is also common in Georgia, which negatively affects biodiversity of forest and fauna. At present time, control mechanisms to reduce poaching are ineffective and administrative resources allocated to law enforcement are insufficient. The lack of awareness and
education among sport hunters facilitates violations of hunting regulations to some extent, as written in the National Biodiversity Strategy and Action Plan (MoENRP, 2014).

The actual scale of logging substantially exceeds the rate of natural growth of forests (which is estimated to be 2 m³ pr. ha) especially forest located near human settlements. However, the issue is not the overall level of harvest, but harvesting methods at local levels, especially with widespread uncontrolled harvesting, which are wasteful and do not always follow principles of biologically sustainable management and regeneration. Approximately 77% of the harvest is used for fuel wood and 23% for timber products. As a result, these forests are devastated - the canopy cover has reached critically low thresholds (UNECE, 2015).

There are, however, problems in respect of the collection of other non-timber forest products such as chestnuts, wild fruits, berries and mushrooms. The law allows the collection of these products free of charge for personal consumption. However, while local people often collect them for sale, no harvesting limits are specified beyond which the collection of a given product would be regarded as commercial.

4.4.2 Social cuts and logging

One of the prominent changes to the Forest Code of 1999 is associated with the introduction of “social cuts”, which represents a social policy measure in the face of low incomes and the lack of alternative energy sources in rural areas. Since 2011, the population, State organizations, legal entities of public law, and other entities specified by Government of Georgia are eligible to obtain firewood and timber resources by means of social cuts. The new system was supposed to involve stringent monitoring of logging by rural population; namely, state forestry authorities mark trees in close proximity to populated areas. However, in practice the system is regulated more like a business where “social loggers” sell (often illegally logging) firewood to local households and profits from it. With 2.7 million ha of forest to monitor, the task at hand becomes Sisyphean for local officials as they contain limited means and resources.

Moreover, the existing forest use practices pose challenges for the rural communities. In order to get access to the forest, a villager should buy “ticket” for timber production and pay the GEL 6 ($2.60) per m³ at the Liberty Bank. The price includes the official fee for the natural resource use GEL 3 ($1.30) and the service fee GEL 3 ($1.30). The validity period of the issued forest use ticket is only one month. Then a villager should contact a local ranger. The ranger shows the felling site to those given access and later checks the amount of firewood, which has been processed. Based on the provided forest use documentation (forest use ticket, payment documents, etc.), the ranger issues the certificate as a means of legality of the processed firewood. Besides, it serves as a transportation document and is time-limited (24 hours). Notably, wood harvesting operations and the transportation from forest to the desirable destination are the sole responsibilities of the villager. The transportation costs can range on average between GEL 80 ($35) – 200 ($87) (Gakharia, 2014), (Kobakhidze, 2015), and (CENN, 2015)).

In August 2014, the Georgian Government made amendments to the regulation #242, by which each household can obtain a maximum of 7 m³ of firewood each year and those households living in high mountainous areas, are entitled for 15 m³. All in all, clumsy bureaucratic procedures of legal forest harvesting, belated allocation of cutting areas by rangers, expensiveness of the firewood transportation and a high rural poverty create ground for illegal operations. Hence, the fire wood market has a solid basis for becoming illegal in Georgia. It is notable, that timber resources are mostly harvested for non-commercial purposes, for provision of fuelwood and timber material to the population and it does not intends to generate revenue. However, shadow market exists, where thousands of families purchase firewood and pay from GEL 50 (USD 21) to GEL 150 (USD 65) for one m³ (CENN, 2015).
As such, provision of timber and firewood resources are extremely important functions of the present-day Georgian forests, since fuelwood is basic means of heating for the rural population (42% of the total population and 80% in rural population alone).

Due to low purchasing capacity, rural households are not in a position to reduce the firewood consumption level and/or purchase firewood from a third person source. Use of forests for grazing livestock is largely illegal. State forest management institutions and forest law enforcement bodies lack the financial and material (technical) resources necessary to ensure proper full-scale planning and control of forest resource protection and exploitation.

As mentioned, different sources provide contradictory data related to annual firewood consumption by households; however, there is a common picture – social felling is characterized by the upward trend and it constitutes more than 80% of the total felling registered in Georgia.

Figure 2: Official number of Households and Annual Consumption Level of Firewood*. The last column only represents a quarter, and is therefore not comparable (NFA, 2016).

* Consumption of firewood includes only second-degree timber consumption.

4.4.3 Grazing

The land in Georgia is divided into two legal categories: land designated for agriculture (crops, meadows and pastures) and land designated for non-agricultural purposes (forests, water bodies and urbanized areas). The total land area of Georgia is 6,970,000 hectares (ha) out of which 3,025,800 ha (43%) is used for agriculture. The total amount of arable land is 801,800 ha (26.5% of the total agricultural land). Hayfields and pastures occupy the largest areas of the agricultural land, namely 1,796,600 ha (59.4%; mostly state owned) due to the predominantly mountainous relief of the country. Since 2005, use of the country’s arable land has been continuously plummeting and the area in use was around 259,700 ha in 2012. The owners have abandoned their lands, neither cultivating the land nor arranging its use by others, leaving it as uncontrolled pastures (UNECE, 2015). In 2014, the area of used arable land rose again to 377,445 ha according to agricultural census conducted by National Statistics Office of Georgia. Half of the population are employed by agriculture (50.2% as of 2014), and the amount has only dropped app. 2% since 2000 (UNECE, 2015), indicating that the sector is still vital for a very large part of the population, as it acts as a main income generating sector. According to
National Statistics Office of Georgia, app. 2.74 million livestock (numbers only including milking cows, heifers, pigs, goats and sheep), were registered in 2014 alone, however actual numbers could be higher.

Administration rights of the state-owned pastureland were handed over to local districts. The local authorities issued to individuals or business operators grazing permits for 10-15 years for pastures on most of these lands. The permit specifies a theoretical number of permitted animals but concrete regulations on those contracts in terms of monitoring and control are not available (UNECE, 2016). As a result, pastures in Georgia have been under an intensive overgrazing pressure. The total amount of livestock has not shrunk over the last several years (2007-2015); however, milk and especially meat production reduced significantly (Geostat, 2016). It suggests that unproductive cattle breeds sustained by traditional free-ranging feeding practices and lack of adequately managed state and communal grasslands has resulted in overgrazed pastures (IBRD/World Bank, 2015).

Improper feeding of animals with a very low use of high concentrate feed is also problematic. Usually, cattle in Georgia feed through natural grazing. Given the limited monetary resources of most farmers, they tend to avoid any additional costs apart from the herder they employ. This creates two major problems. First, dependence on grazing has over the years tended to create a problem of overgrazing and a depreciation of quality pastures. The problem is simple and relates to a typical “tragedy of the commons” case, where individuals acting independently and rationally deplete a share limited resource when it would be in everyone’s long-term interest to maintain a more sustainable use of pasturelands and lands for grazing in general. As one expert put it, since ”no one has the responsibility to take care of these pastures, it keeps degrading. No one uses electric fences to define grazing pastures and rotational grazing is not practiced” (UNDP, 2013).

The root-causes of overgrazing includes but is not limited to high rural poverty, lack of alternative livelihood opportunities, insufficient financial support of the sector, lack of monitoring and rangers and limited awareness among shepherds and livestock owners that impedes the adoption and implementation of more sustainable and efficient practices. Presently, no data exists on forest areas affected by overgrazing or numbers of total population living by livestock alone.

4.4.4 Land ownership and licenses

One reason, but not the only one, for the lack of data on grazing and its impact of forests has do with the poor documentation of land ownership in the country in general which compromises data collection. Land plots have been registered in a range of different ways and have been subject to different forms of traditional usage so that those who feel they have the title may not have the correct title anyway. As people on the ground put it, in an interview made by UNDP in 2012: “even people on the ground do not know whether a plot is private or Government-owned” (UNDP, 2013).

Under article 203 of the current Tax Code of Georgia that came into force in 2011, land ownership is acknowledged registered only if it is entered into the Public Registry (with proper cadastral mapping coordinates). Individuals are not considered as legal owners in the absence of land registration and are not allowed to sell their land, even if they hold older government documents showing title to the property. The amendment was supposed to ease the land owners’ rights, however, it has actually made the situation worse for a range of reasons.

In 2013, about 15% of the land, which was registered in the Public Registry, was shown on the cadastral map. Second, people are not motivated to register their land, because after registration they will be required to pay land property tax on agricultural land-plots, which varies from GEL 56 (USD 34) to GEL 100 (USD 60) per hectare according to different administrative entities (UNDP, 2013). Such a “system”
is hard to monitor in any way – neither in environmental or social terms and indicates that people using land for grazing might not know exactly, whose land they use.

In total during 2007-2009, 160.108 ha of Forest Fund were licensed for long-term commercial use. Another significant commercial activity undertaken within the State Forest fund is the gathering/harvesting of silver fir cones. The quantities legally harvested have increased during 2007-2009.

The adoption of modern approaches to commercial forestry within the State Forest Fund, including the implementation of multi-functional and long-term forests, aligned with a more diverse range of uses for forest products, will result in the improved use of forest resources, product range and quality. Today, only parts of the national forest resource timber is managed in an economically sustainable way. Currently, the main products from the forestry sector are timber and firewood.

4.5 Economic performance of the sector and its official employees

The relative economic contribution of the forestry sector has been decreasing over the years and stays marginal in Georgia. According to available data for 2015, the gross value added from forestry and logging amounts to 86.6 million GEL, which is 0.3 per cent of national GDP. Such reduction of the forestry sector is attributable to an increase in GDP, while the value of forestry operations has remained approximately the same over time (see Table 2 below).

Table 2: Contribution of Forestry Sector to Gross Domestic Product (GDP)*, 2006, 2010 -2015

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</thead>
<tbody>
<tr>
<td>GVA from Forestry and Logging (at basic prices) GEL million</td>
<td>152.0</td>
<td>63.1</td>
<td>82.6</td>
<td>85.8</td>
<td>72.4</td>
<td>77.5</td>
<td>86.6</td>
</tr>
<tr>
<td>GDP (GEL million)</td>
<td>12,046.9</td>
<td>18,014.4</td>
<td>20,975.4</td>
<td>22,505.3</td>
<td>23,335.0</td>
<td>25,095.7</td>
<td>27,404.4</td>
</tr>
<tr>
<td>% of GDP</td>
<td>1.26</td>
<td>0.35</td>
<td>0.39</td>
<td>0.38</td>
<td>0.31</td>
<td>0.31</td>
<td>0.32</td>
</tr>
</tbody>
</table>

Source: National Statistics Office of Georgia (Geostat, 2016). Note: * Figures do not include non-wood forest products and ecosystem services. GVA - refers to gross value added

As mentioned earlier, timber resources are mostly harvested for non-commercial purposes and for provision of fuelwood and timber material to the population, public organizations and legal entities of public law. Even though data differ in different sources, there is a common picture, which shows that social felling is characterized by a growth trend and it constitutes more than 80% of the total logging registered in Georgia (see Figure 3 below).
Currently 961 people (as of 2016) are employed in the forestry sector. This represents a reduction from 2005, when the forestry sector employed 2,107 people. The NFA currently has a staff of 869, of which 83 are based in the central office. The Department of Environmental Supervision (DES), which serves other sectors than the forest sector, has a staff of 348, of which 81 are in the central office and 267 in the territorial units; since 2010, it has benefited from an overall increase of 100 staff members and an increase in their salaries by almost 50 per cent. Challenges are related to the insufficient number of foresters and, in addition, the incumbents are poorly trained at both the theoretical and practical levels and not properly equipped. At present, there are forest units, where a ranger is often responsible for a territory of more than 4,000 ha (UNECE, 2015).
Figure 4: Number of people employed in the forestry sector and their average monthly salary dynamics (2005-2015); Source: (NFA, 2016).
5 Stakeholder landscape

Main stakeholders within the forest sector are very diverse and include ministries and agencies at official levels, municipality and district officers, environmental NGO’s, local households and general users of the forest, private business companies and hunters, people working with (eco)tourism as well as farmers, headers and landowners and scientific and research organisations.

The head of the forest sector is the MoENRP and they manage policies within the sector and monitor the lower departments and agencies of the sector as well. The following are the sub-departments of the MoENRP who oversee monitoring and planning of the forest sector at a large:

- NFA is responsible for the management of state-owned forests
- Department of Environmental Supervision is responsible for inspection and control
- The Biodiversity and Forest Policy Department supports the Ministry in defining strategies and elaboration of policy documents
- The Agency of Protected Areas manages protected areas within the forests
- Restored forest ecosystems within the administrative boundaries of Tbilisi are under management of Tbilisi Municipality

Rural households and farmers are also significant stakeholders in the forest sector. As for the private sector, there are a large number of small businesses engaged in the harvesting and processing of timber for industrial timber and fuel wood markets and a small number of medium to large enterprises, which have the largest share of production for export. There are also a large number of small enterprises, which sell non-wood products primarily at local sites and markets (an exception for this is hazelnuts, which are grown and sold in large quantities for export).

Some NGOs, including NACRES, Green Alternative, CENN, WWF and CNF are involved in forestry activities through implementation of specific pilot projects and are politically active regarding environmental protection and sustainable forestry. Besides a large range of international (donor) organisations like e.g. GIZ, ADA, different supported EU programmes (e.g. FLEG II Program), UN sections, USAID, SIDA etc. operates in the country and participate in a large range of different programmes with different objectives, hereunder within the forest sector. Main concern here is sustainable use of the forest and its resources coupled with different types of development in a societal and transparent manner.

One other key stakeholder is the district and municipal entities within the forest sector. At present, the municipalities or self-governing authorities are not interested in taking over the responsibility of the forest management. This is basically due to the local authorities’ lack of relevant experience and resources, but also lack of (educated) staff and technical equipment. The situation is better within protected areas, where forests are protected well, law enforcement is quite strict and biodiversity conservation and eco-tourism are key management priorities. With the new DFC, officials working at district and municipal levels in all regions of the country will get more responsibility, as large parts of the management of the forest are supposed to be decentralized to those branches of the sector.

Another stakeholder is the hunters’ association. Currently hunters use the forest for hunting at random, as the sector has no regulation at all. This has led to uncontrolled hunting on many different species, which again has led to near extinction of many animals and birds (e.g. red deer, western tur and eastern tur, etc.). The sector desperately needs regulation, and it is anticipated, that most hunters understand and supports this. Legislation in relation to hunting is at present undergoing large changes as well and this takes place as a part of the new bylaws, which are subjected to the new DFC.
General users of the forest count people, who work in different terms in the forest e.g. in national parks and protected areas, where (eco) tourism and general monitoring are a part of the work they occupy. Ecotourism is a sector\textsuperscript{8}, which has a huge potential to develop in Georgia due to the country’s countryside and diverse nature. Some of the country’s 26 protected areas use ecotourism already as a means to support the operation of protected areas and parks.\textsuperscript{9}

Last but least international and national research - and scientific institutions and organizations make important analyses, which can contribute to the development of the forest sector in general terms, but also in terms of implementation of management and monitoring of the forest.

\textsuperscript{8} Please also see: https://www.ecotourism.org/news/ecotourism-and-country-georgia (visited October 2016).

\textsuperscript{9} Also see http://apa.gov.ge/en/protected-areas (visited October 2016)
6 Assessment method

The assessment consists of several consecutive steps, which are shortly outlined below. The starting point will be an analysis of the baseline situation, i.e. the impact of the current forestry practice in regards to environmental and socio-economic aspects. Wherever possible the analysis will be based on quantitative data, if such are available.

Given the environmental and socio-economic situation of today, an assessment will be made for two scenarios. One will be the zero scenario (see details below), which means a prediction of impacts with status quo legislation and forestry practice. The reason for including the zero scenario is that it is seen as a more realistic basis for comparison, given the expected dynamic changes of the forest environment and in particular anticipated negative changes and hazards. The zero scenario is thus an intrinsic part of the assessment method applied and seen as a useful tool to measure the reform efforts. Especially in situations where negative effects can accelerate or cumulate, or certain critical thresholds can be exceeded, the zero scenario comprises the more realistic basis for comparison compared with the baseline conditions.

The second scenario will include the DFC, again with a prediction of impacts after implementation of the law. As a first step of the assessment, a screening of the articles of DFC is foreseen in order to detect major constraints by expert judgement. It will be the major fields of constraints, which will structure the analysis of the DFC in the SESA. The scheme below describes the principles of the assessment method used in this study.

Predictions coming from the assessment will in many cases be based on incomplete or unprecise data, as data are scarce in some cases. Conclusions from the assessment will therefore be formulated as risks, which will be rated as low, middle or high, whenever evidence is available for such rating. Figure 5 below provides an overview of the assessment method.

Figure 5: Principles of the assessment method applied.
6.1 Interviews and participation

Key stakeholder’s view on the DFC’s setup is important for the further development of the DFC, and a number of interviews have therefore been conducted. The objective behind this is to obtain information on elements of constraints within the contemporary management of the forest sector seen from the municipal and district perspective as well as constraints related to the DFC. The interviews also seek to investigate the municipality and districts’ interest, expectations and engagement in relation to a process of decentralization of parts of the forestry management. Also, one interview with a representative from the private business sector operating within logging has been held. The following interviews have been conducted in the summer of 2016:

<table>
<thead>
<tr>
<th>Interview partner</th>
<th>Location/region</th>
<th>Date</th>
</tr>
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<tbody>
<tr>
<td>Lado Silagadze - Head of Forestry Service of Shida Kartli</td>
<td>Shida Kartli</td>
<td>June, 2016</td>
</tr>
<tr>
<td>Goga Razmadze - Gori municipality representative</td>
<td>Shida Kartli</td>
<td>July, 2016</td>
</tr>
<tr>
<td>Malkhaz Rogava - LTD Georgian wood and industrial development company</td>
<td>Tblisi</td>
<td>August, 2016</td>
</tr>
<tr>
<td>Gela Jugashvili and Zurab Murtazashvili, Akhmeta Municipality representatives</td>
<td>Kakheti</td>
<td>July 2016</td>
</tr>
</tbody>
</table>

Results from the interviews reveal that municipalities in Georgia are not yet prepared to take over responsibilities of forest management. This is in full agreement with information received from the NFA and the, at that time, Forest Policy Service (today - Biodiversity and Forest Policy Department). Also, some private logging companies, when contacted were not interested in participating in interviews concerning the DFC and mentioned that it was forbidden to visit their logging sites in the forests. In general it cannot be overseen, that some parts of the forestry sector, especially those profiting from it, have a more restricted interest in participating in interviews where the topic for debate is the new DFC. The reason for this could be that some people acting within the sector profit illegally from it and may run their business as a part of a larger black economy in the country. Due to this, conduction of interviews with ‘on the ground people’ has to some extend been difficult and leaves important points of views in relation to the new DFC, in the dark.

6.2 Zero scenario

As explained above, the zero scenario comprises a prediction of impacts with status quo legislation and forestry practice. In order to be able to understand the impact of the forest sector reform, it is useful to compare the expected outcome with the development that would have taken place without introduction of the new legislation. The zero scenario has as its point of departure the baseline conditions as of today and verbalizes in particular negative trends of development for the coming years. It is not the intention of the zero scenario to be very precise in predicting, what specific kind of ecological damage will happen, and when. The objective is more to exemplify possible developments to make it clear, how a realistic alternative to the new legislation may take shape. The zero scenario is structured by the main adverse factors as done below.

Illegal logging

In agreement with the statements presented in this study the latest investigations confirm the extremely high proportion of illegal logging, which amounts up to 75% of the total consumed fire wood (CENN,
The main reasons are the dysfunctionality of the current legislation and subsidies on social felling, insufficient control and a high demand of fuel wood from side of the rural population. Continuation of this practice will lead to a further rapid degradation of the forest condition. The canopy cover will be further reduced, and the felling area will continuously increase and move towards more remote areas, where currently natural forest is standing. Regarding fire wood supply it is predicted that the resources will be depleted, starting in areas, where forest resources are already degraded or in dry climates with small increment. Prices will become unstable and increase together with an increased need for transport from other parts of the country. The current practice of illegal logging is mostly aiming at harvesting stems of considerable size, which leaves behind a degraded, but not clear cut forest. In the future prices for fire wood may become so high that any timber quality may be demanded, which in the uttermost consequence can lead to complete deforestation of vast areas. This may be caused by local population cutting anything by themselves in their desperate need for fuel wood. A prominent example for this practice can be taken from Tajikistan (GTZ/DED/CIM, 2010).

From an environmental point of view the consequences are very severe and in the long run disastrous. Not only that typical natural forest habitats will disappear, and with them parts of the outstanding Caucasus biodiversity, but practically all ecological functions are affected. This pertains to:

- water retention
- groundwater formation
- flood protection
- soil protection
- soil formation
- erosion protection
- landslide protection
- mudflow protection
- avalanche protection
- local climate moderation, air temperature, humidity, precipitation, wind speed
- fresh air formation
- habitat for biodiversity
- migration corridors for biodiversity
- carbon sink/ global climate

Further predictions:

- Along with the degradation of the forest the frequency of natural disasters will increase, in particular flash floods, mudflows, landslides and avalanches.
- The loss of water retention capacity will lead to a higher tendency of rivers to dry out in the summer, while the risk of flooding events increases during rainy season.
- In parallel with degradation of forests the productivity decreases, which accelerates the adverse mechanisms described above and reduces the possibilities to satisfy energy demand from the forest resources. Depending upon the degree of degradation, restoration of forest productivity can take many decades.
- Degradation of forests will reduce the forest’s resilience to climate change, which is maximum in natural or close to natural forests, where selection of young trees happens among thousands of saplings per ha every year, which comprise a broad genetic variability.

Legal logging
Following current practice as described in chapter 4.3.3 logging is performed through indication of the felling area through state forest authorities, normally represented by a ranger. However, the ranger has no solid inventory background for his selection, neither are silvicultural targets formulated in order to
give guiding principles in what way, the selection of timber has to be planned. As a result legal felling is contributing to uncontrolled use of the forest and thus to the predicted effects as discussed above under “illegal logging”.

**Efficiency of resources use**
Several factors of inefficiency contribute to maintain a high demand on fuel wood, which could be significantly smaller, if it was done correctly. First of all there is no quality selection of wood quality, meaning that only the logs are taken and tree crowns and side branches are left behind. Given the estimation by CENN (CENN, 2015) that the annual fuel wood consumption is 2,400,000 m³, the actual harvested volume must be approximately 40 % higher, which amounts to 3,400,000 m³. In addition, fire wood is normally not stored and dried properly. E.g. beech wood contains 50 % water directly after felling, which goes down to 10%, when chopped and dried under the right conditions. The fuel value increases by 75 % from 1200 kWh/m³ to 2100 kWh/m³ during the drying process. Thus, without reducing the number of households depending on fire wood, the demand can be reduced ideally by 82 % and realistically by over 50 %. It is predicted for the zero scenario that the inefficiency harvesting fire wood will continue as it is found today with the consequences as described above under “illegal logging”.

**Grazing**
As discussed above in chapter 4.3.4, grazing comprises one of the important factors of forest degradation. For the zero scenario, there is a high degree of uncertainty on the future development of the number of life stock in the rural area. One trend is definitely rural-urban migration, which in recent years has been leading to reduced grazing pressure in particular in high mountain areas. To date few examples are known, where the upper tree line has started to move upwards because of starting natural growth of trees. However, outside of certain high mountain ranges, grazing pressure will continue to be high and in many cases be beyond the carrying capacity of the forests. It is predicted that this situation will continue. The consequences will be that natural recovery of forest stands will not take place in areas with high grazing pressure. Where overgrazing already has caused erosion, these effects will enhance increasing the risk of natural disasters and at the same time reducing the potential of recovery.

**Extraction of NTFPs**
At present little data is available on the effects of extraction of Non Timber Forest Products (NTFPs) from the Georgian forest. However, it can be predicted that emerging markets generally bare the risk that demand on certain products evolve, while in parallel rural population are seeking income options or commercial enterprises are seeking resources. Without a strong forest administration collection rates for certain products easily can get out of control. The risk may be highest for medicinal plants, mushrooms and ornamental plants.

### 7 Assessment

#### 7.1 Introduction to environmental assessment

In the following the articles of the DFC will be assessed one by one, and the expected impacts are expressed. The assessment explains in more detail the background, upon which the conclusions are drawn. The authors are aware of the fact that some of the conclusions may be more speculative or disputable than others, and the amount of data or background information to support the conclusions varies considerably. However, the overall results of this report are quite clear cut and are not challenged by uncertainties in certain details.
In the following only those articles, which are found relevant for the environmental assessment, are assessed. For each article the results of the expected impact are summarized using a scoring table. Herein the impact is rated on a 5 step scale as follows:

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
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<tbody>
<tr>
<td>++</td>
<td>potential significant positive impact on forest condition on large scale</td>
</tr>
<tr>
<td>+</td>
<td>potential moderate positive impact on forest condition</td>
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<tr>
<td>\approx</td>
<td>no impact</td>
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<tr>
<td>-</td>
<td>potential negative impact on forest condition</td>
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<tr>
<td>--</td>
<td>potential significant negative impact on forest condition on large scale</td>
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</tbody>
</table>

The term "impact" in this report is used for both loss of forest and impairment of forest. The former is linked to cases, when forest is physically removed and replaced by something else. The latter is a more differentiated term, in the sense that impairment can be scaled from minor to very severe. The consequence of impairment is always a change in "forest condition" to a certain degree, which is the general term used for rating in the table above.

Change of "forest condition" means that the deviation from the target condition as defined by the forest management plan decreases or increases. Concretely, the parameters that capture the change of "forest condition" would be the standard forest inventory parameters, such as structure, age distribution, naturalness, ground vegetation, deadwood, regeneration.

Most of the articles concern the forest as a whole, and the assessment below does not attempt to make separate predictions for each of the parameters, and refers to "forest condition" in general terms. In these cases the expected changes will affect all "environmental factors", meaning all components the forest environment is comprised of including ecological functions.

It is important to stress that even though the articles are rated separately below, the new legislation is acting as a whole with each article contributing to the overall result.

The likelihood for predicted positive or negative impact to happen is considered very high under the presumption that the legislation is implemented in the way it is formulated. The assessment below also makes a short indication of the implementation risk of the respective articles. In this context a high "risk" is normally connected with complex issues that require time and resources for implementation (e.g. forest inventory, forest categorization).

### 7.2 Environmental Assessment of the Draft Forest Code

**Article 1: Area of Regulation of the Code**

*Description:* This article defines the general overarching goals of the new Forest Code. It contains a clear commitment regarding sustainable forest management including protection of biodiversity and support of ecological, social and economic functions.

*Analysis:* These statements are general and do not have a direct implication, they provide an adequate framework and guiding principle of the Code and are in line with the National Forest Concept from December 2013.

*Conclusion:* The expected impact on environment (all factors) is positive in general terms.

<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>1</td>
<td>all</td>
<td>+</td>
<td>overall implementation risk</td>
</tr>
</tbody>
</table>
Article 2: Not assessed

Article 3: Legislation of Georgia Governing Forest Sector

*Description:* This article defines the relation to other Georgian environmental legislation, part of which is currently subject to reforms.

*Analysis:* Of decisive importance is the hierarchy expressed in this article in relation to the Law of Georgia on Environmental Impact Assessment. By stating that any activity, which requires environmental impact assessment, will be realized in accordance with this law, current major constraints of the forest code in forth with regards to "special use of the forest lands" and giving license to this special use (regulated under the current Forest Code Article 33 and the Government Resolution No.242 of 20.08.2010, Article 27) can be overcome. Examples of the negative implications regarding these regulations can be found in Green Alternative 2016.

Increasing demand for the realization of infrastructure developments along with economic growth puts an increasing pressure on the natural resources including the forest lands, and thus this consolidation of legislation is advisable. Since the Law of Georgia on Environmental Impact Assessment is currently modernized and aligned with EU legislation, and other instruments of spatial planning are being developed, it is expected that these regulations in combination will help improving the environmental compatibility of future development.

*Conclusion:* The expected impact on environment (all factors) is positive in general terms.

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<thead>
<tr>
<th>Article of DCF</th>
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<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>3</td>
<td>all</td>
<td>+</td>
<td>Specific risks are coming from actual high pressure of development/infrastructure. Realizing sector reforms and implementation of instruments that can deal with the development, takes time, stability and lasting public and political support.</td>
</tr>
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</table>

Article 4. Principles for Forest Management

*Description:* This article defines in general terms overarching goals of forest management. It emphasizes clear priority on sustainability regarding biodiversity, ecological, social and economic functions (as Article 1).

*Analysis:* An important general statement of article 4 is that forest management planning shall be respectful of forest functions, so that receipt of one type of benefit from the forest does not cause degradation of its other functions. Thus forest management must be understood as the management of forest functions, and benefits as the result of this management. Any kind of overexploitation of resources would violate these principles.

Article 4 states that methods of forest management must provide for the preservation and improvement of its biodiversity, productivity, regeneration and viability. While this statement names the overall ecological targets, it does not explicitly name, which silvicultural method shall be chosen to achieve these goals. It is considered relevant in this context to mention that the majority of forest should be managed by “ecosystem based forest management” (equivalent to close to nature forestry), if a management should be chosen that would not further degrade the forests. A suggestion to integrate this into the code is made in Chapter 10. In the Georgian context applying this method is connected with multiple benefits both environmentally and economically.
The article makes a general statement on compensation requirements, in case national or public interest is overruling forestry interests and the envisaged activity causes loss or impairment of forest. In general this will be an important step meaning that unavoidable loss or impairment must be compensated. However, the expression “appropriate compensation” is fuzzy. Compensation is normally the last option, when all possibilities of avoidance and mitigation are exploited. Insofar the requirements of compensation must be regulated within the approval procedure of the project or activity, which leads to the loss of forest. Compensation in the European practice may cover three different options: (1) establishment of identical or similar biotopes elsewhere; (2) improvement of ecological conditions of (degraded) identical or similar biotopes elsewhere; and (3) compensation payment. The latter is only applicable, when the first two options are exploited (see also below under Article 64). As of today, compensation is in certain cases also foreseen under current Georgian legislation (e.g. Governmental Resolution No. 425 of 17 August 2015), but has not been functional or enforced (Green Alternative, 2016). The risk of poor enforcement continues, and is independent of the DFC.

**Conclusion:** Applying the principles of article 4 through the instruments set forth in this code will in the long term perspective lead to significant positive impact on forest environment (all factors). The general risk of poor implementation of this code is high. There is a specific risk of poor enforcement regarding requirements of compensation.

**Recommendations:** It is recommended to make a cross reference to EIA legislation, which must provide for the appropriate regulations, where the principal priorities (1. Avoidance, 2. Mitigation, 3. Compensation) are applied (see suggestion in Chapter 10)

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<th>Expected Impact</th>
<th>Risks</th>
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<tr>
<td>4</td>
<td>all</td>
<td>++</td>
<td>High general risk of poor implementation; specific risk of poor enforcement regarding requirements of compensation</td>
</tr>
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</table>

**Article 5. Forest Ownership Rights**

**Description:** Pursuant to article 5 of the DFC property rights to the Georgian Forest may be held by the State, by a Municipality and by a private owner.

**Analysis:** As discussed in chapter 5.1 socio-economic benefits are expected from this pluralistic approach, where local ownership and capacity increase may contribute to long term rural development. However, at the time being the capacity and willingness to engage in forest management is not present (see results from interviews and discussion in chapter 5.1), and nothing is known about the capacity of future private owners. It is therefore likely that during the process of implementation of this law, different standards of forest management may evolve as a consequence of varying capacity from local self-governments and private owners. Different owners are also likely to experience different demand or pressure on the forest resources depending upon various factors, such as local demand for fire wood, degradation of local forest, market prices, tradition etc. From this originates a general risk of mismanagement and overexploitation of forest resources with potential negative impacts on all environmental factors.

From the strategic point of view, the reluctance of the Municipalities is seen as a favorable starting point for implementation of the DFC in the sense that a stepwise approach can be chosen. In the first step forest management is established by the state according to the provisions of this law. In this period all standards for Forest Management Bodies (FMBs), management plans, inventories etc. are being developed. In a second step pilot forest transfer projects may be conducted in cooperation with self-
governing bodies or private owners accompanied by the required capacity building. As experience grows, the program can be expanded.

**Conclusion:** Different models of forest ownership are elements of international best practice. However, forest management requires professional skills, which may vary among different owners and lead to different management standards and in the worst case to mismanagement and thus environmental damage in some instances. A stepwise approach is recommended in order to give room for gaining experience. In areas with high conservation value and high proportion of forest qualifying for the protection forest category private reserves or long term management rights for NGOs may be an option of site management.

**Recommendations:** Article 5 is restricted to the three described ownership forms. However, one further option suggested by the authors would be to allow transfer of forest to NGOs following the same procedure as with transfer to the patriarchy. The only purpose of this transfer would be conservation or restoration of areas with high or potentially high conservation value. While there are good experiences with private reserves owned by NGOs from Latin America and also from Denmark, this kind of ownership would be completely new to the country and should be developed as pilot projects. An alternative option would be granting NGOs a long term right for the management of an area, again with the objective of conservation or restoration (common in European countries). The management of these ‘private reserves’ will have to follow relevant legislation for protected areas and biodiversity.

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<tbody>
<tr>
<td>4</td>
<td>all</td>
<td>-</td>
<td>Significant risk of heterogeneous management standards among different types of ownership</td>
</tr>
</tbody>
</table>

**Article 6. Not assessed**

**Article 7. Division of Forests into Categories**

*Description:* This article specifies new principles of division of forests into categories and defines the main management goals for all categories. Georgian forests will be divided into the following categories:

a) Protected forest;
b) Protective forest;
c) Resort and recreational forest;
c) Utilization forest.

Division of forests according to their functional designation will be carried out in accordance with the “Rules of Categorization and Management of the Forest of Georgia” (in preparation).

*Analysis:* Article 7 comprises an essential part of the new legislation, which creates far reaching possibilities to create differentiated management and protection regimes. Implementing and enforcing these principles have the potential of significant environmental benefit for large parts of the forest. Given the country’s topography a rough estimate from the authors arrives at 1,5 mio. ha, which out of the total of 2,7 ha would qualify as utilization forest, leaving roughly 1,2 mio. ha to the other categories. In practice establishment of different zones is cumbersome in the beginning (agreement on delineation, inventory data, GIS, acceptance by stakeholders, etc.), and there is a general risk that categorization is based on insufficient knowledge or may be subject to dispute among different interests or stakeholders. In addition, there is a high risk of low capacity to control the protected categories and prevent unauthorized activities.
As part of DFC it is planned to elaborate a rule of „categorization of Georgian forests“, which defines the key principles of categorization. In cooperation with WWF Caucasus Office and NGO „Green Alternative“, a draft of the above document has been worked out under the title „National Framework Document of High Conservation Value Forests of Georgia“.

**Conclusion**: Significant environmental benefits are expected from meaningful forest categorization (all factors). Risks relate to insufficient knowledge for proper delineation, conflicting interests from different stakeholders and the lack of power and capacity to exercise control.

**Recommendations**: It is recommended to consider the content of the „National Framework Document of High Conservation Value Forests of Georgia“ as basis for the regulation or by-law of „categorization of Georgian forests“.

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<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>7</td>
<td>all</td>
<td>++</td>
<td>Insufficient knowledge for categorization; conflicting interests, lack of control</td>
</tr>
</tbody>
</table>

**Article 8. Protected Forest Category**

*Description*: This Article gives the definition of “Protected Forest Category”. This category may be established in connection with existing protected areas (nature reserves, national parks, natural monuments, sanctuaries), ecological networks of international significance (Emerald Network, Ramsar Sites, important bird sites), as well as in any other territory with high conservation value. The latter provision creates the necessary flexibility to differentiate forest management with respect to conservation needs, and forests under this category can comprise potential protected areas.

*Analysis*: As formulated under article 7 the environmental benefits are significant and have the potential to establish a net of well-preserved forests over the entire country and thus securing forest biodiversity and essential ecological functions. The risks are formulated in article 7.

*Conclusion*: Significant environmental benefits are expected from establishment of “Protected Forest Category” (all factors). Risks relate to insufficient knowledge for proper delineation, conflicting interests from different stakeholders and the lack of power and capacity to exercise control.

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<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>8</td>
<td>all</td>
<td>++</td>
<td>Insufficient knowledge for categorization; dispute of interests, lack of control</td>
</tr>
</tbody>
</table>

**Article 9. Category of Protective Forest**

*Description*: This article provides the definition of “Protective Category Forests”. The category determines “Protective” forests as forest that protects settlements, farm lands, infrastructure and endangered ecosystems from natural disasters.

*Analysis*: Since these forests will mostly serve a clearly defined function, respected and supported by the management plan, it is argued that the article thus shall make a general statement on the management of these forests and refer to the respective regulation („The Rule of Categorization of Georgian Forests“), which further specifies the regulations valid for this category (see also suggestion in Chapter 10). It is obvious that restrictions can be introduced in relation to the specific functions and sensitivity. The risks are described under article 7.
Conclusion: Significant environmental benefits are expected from establishment of "Protective Forest Category" (all factors). Risks relate to insufficient knowledge for proper delineation, conflicting interests from different stakeholders and the lack of power and capacity to exercise control.

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<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>9</td>
<td>all, in particular water retention, groundwater formation, flood and soil protection, soil formation, protection from erosion, landslides, mudflows and avalanches</td>
<td>+ +</td>
<td>Insufficient knowledge for categorization; dispute of interests, lack of control</td>
</tr>
</tbody>
</table>

Article 10. Category of Resort Forest

Description: This article gives the definition of "Resort Forest Category" and determines it as forests located in the sanitary protection zone of resorts. Management of resort forest aims at the preservation of its curative, health giving and resort-sanitary features, the landscape, important natural elements and cultural values. Any activity that may negatively affect these natural elements is strictly prohibited. The category includes forest located within 1 km radius area around medical institutions and mineral water springs.

Analysis: The Article does not contain information on the principles of management of forests of this category. It is argued that the article thus shall make a general statement on the management of these forests and refer to the respective bylaw ("The Rule of Categorization of Georgian Forests") which further specifies the regulations valid for this category (see also suggestion in Chapter 10). This will help in the process of elaboration of sub-legal act ("The Rule of Categorization of Georgian Forests").

Conclusion: Local environmental benefits are expected from establishment of "Resort Forest Category" (all factors). Risks relate to insufficient knowledge for proper delineation, conflicting interests from different stakeholders and the lack of power and capacity to exercise control.

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<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>10</td>
<td>all</td>
<td>+</td>
<td>Insufficient knowledge for categorization; dispute of interests, lack of control</td>
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</table>

Article 11. Category of Utilization Forest

Description: This article gives the definition of "Utilization forest" as forests, where all types of forest use are allowed in accordance with the rules set forth in this Code.

Analysis: Given the fact that this category comprises the largest fraction of Georgian forest with an estimated size of 1.5 mill. ha, the management of this category is decisive for the future condition of the forest and the entire development of its ecological functions.

Article 11 formulates the general targets which include utilization of forest in a sustainable manner; protection of forest and the land under it and protection of fertility of the soil in order to receive long term benefits. However, as with article 4, the silvicultural method is not explicitly mentioned.
Over all multiple large scale environmental benefits will result from implementation of this rule, while at the same time the productivity of the forest is maintained at a high level.

The implementation risk is particularly high for this part of the forest, since it requires the successful establishment of local Forest Management Bodies with strong mandate, professional staff and local acceptance, and in particular mechanisms to satisfy the energy demand of the local population without compromising forest integrity.

**Conclusion:** Establishment of sustainable forest management within this category will have far reaching positive impact on the forest condition (all factors). Risks relate to insufficient knowledge for proper management, conflicting interests from different stakeholders and the lack of power and capacity to exercise control.

**Recommendations:** In connection with comments made for article 4 it is argued that beyond the ecological targets, also the most important tool to achieve these targets should be mentioned (see also suggestion in Chapter 10). In this way the law will as suggested by the authors in article 4 secure that ecosystem based forestry is introduced as the general silvicultural method, while other methods are either restricted to lowland plantations and energy forests or must be especially justified in the local context, e.g. revitalization of traditional coppice methods. It is also expected that this issue is further specified in the new version of the Resolution No. 242 “On Forest Use Rules” (in preparation), but DFC should be explicitly setting the framework.

<table>
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<tr>
<th>Article of DFC</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>11</td>
<td>all</td>
<td>++</td>
<td>Multiple risks in relation to management, establishment and capacity of FMB, conflicting interests, and lack of power and capacity to exercise control.</td>
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</tbody>
</table>

**Article 12. Setting up Forest Status**

**Description:** This article defines new principles of setting up procedures for the forest status. According to the article the status of forest will be assigned by the decision of the Government which is based on the solicitation of the Ministry of Economy and Sustainable Development. Equally, municipal forest is assigned by the decision of the Government based on the solicitation of the representative body of the municipality.

**Analysis:** The article is unclear regarding several aspects, which are explained in the following:
- public participation: in line with recommendations given in this report for article 17, assigning status of forest is a process that potentially affects people locally and thus requires public involvement
- soliciting body: The MoENRP would be the most competent entity to solicit forest status. Thus those paragraphs describing the involvement of the “Minister” should refer to the Minister of Environment. It is also recommended to include elements of public participation into the work of the commission, either through the composition of the commission or through obligatory hearings
- self-governance: article 12 is unclear or contradictory to provisions of the Organic Law of Georgia “Local Self-government Code” (2014). According to Article 16 herein (“Own powers of municipality”) the municipality’s own powers include management and disposal of local natural resources, including forest resources. The exclusive right to use forest resources by a self-governing body requires the transfer of the management rights and obligations in accordance
with the DFC, provided the self-governing body fulfills the conditions. Alignment of DFC with the Local Self-government Code is required.

- private forest: Another unclear issue is related to the granting of the status of private forest. The procedures and motivation for granting this status are not clearly defined (see also article 15). Issues like the initiation of the process and decision-making procedure should be outlined more clearly. At the same time, the above-mentioned Article of the Code defines conditions, where a private owner can „justify“ the impossibility of the decision (paragraph 7). In this situation, the owner justifies the need to use the forest for agricultural purposes. Under these circumstances the decision regarding the granting of the status cannot be taken. Hence, in case of forestation of agricultural lands, it is necessary to take a decision, and the owner may influence the decision of the State Committee. In cases where forests are existing on private land, paragraph 7 would allow the owner to convert forest into agricultural land.

There are no clear predictions regarding the expected impact from implementation of this article. Granting forest status in itself may increase the territory of the forest and thus increase the area, where management according to the DFC is obligatory. On the other hand transferring existing forest on private land into arable land would mean a loss of forest. In addition, it is expected that the management of forest transferred to local self-governance will differ depending on the capacity of the municipality.

**Conclusion:** no clear prediction regarding the expected environmental impact. Many different private owners or Municipalities will lead to various interpretations of the forest code in practice, and management quality may differ.

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<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>12</td>
<td>all</td>
<td>≈</td>
<td>Conversion of private forest into agricultural land; development of different management standards among different owners</td>
</tr>
</tbody>
</table>

**Article 13. Termination of Forest Status**

*Description:* This Article reflects the conditions of the decision for termination of forest status. The decision will be made through the resolution of the Government of Georgia with public administrative procedure and based on the substantiated solicitation of the Ministry or a government of an autonomous republic. Procedure of applying for the termination of forest status and adjustment of boundaries is initiated through the request of a concerned party. Decision must be derived through comparison of alternatives.

*Analysis:* The article is critical in the sense, that it is exactly here, where the right administrative balance has to be found between setting up insurmountable bureaucratic hurdles for the development of nationally important infrastructure on the one side, and on the other side protecting the forest from avoidable destruction. Insofar careful attention has to be paid to the procedure of forest termination. It is argued that the legal mechanism of justification of State and public interest is not described clearly enough and may need further reflection and definition, as well as public participation must be secured in this process.

It is expected that termination of forest status will, in most cases, be connected with urban or infrastructure development projects. Insofar the procedure of forest termination must be aligned with the EIA and approval process for these projects, where concluded EIA and approval are prerequisites for termination of forest status.
From an environmental point of view, the termination of forest must be rated as a loss and as a negative impact as such. However procedures will contribute to prevent unnecessary damage and introduce planning instruments, where environmental considerations are included into planning processes right from the start. In the coming decades, it is expected that large infrastructure projects, in particular hydropower and transport, will lead to some, if not significant loss of forest.

**Conclusions:** Negative impact is expected from termination of forest status, part of which is unavoidable in the course of necessary development. Conflicts of interests are natural in this field. There is a risk that the balance between protection and development is not always found.

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<th>Risks</th>
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<tbody>
<tr>
<td>13</td>
<td>all</td>
<td>--</td>
<td>Conflict of interests, prevailing economic interests</td>
</tr>
</tbody>
</table>

**Article 14. Not assessed**

**Article 15. Transfer of State Forest to Private Ownership**

*Description:* This article defines new principles for transfer of a state forest to private ownership. The main factors of decision-making on transfer of a state forest to private ownership is acceptability of the reasonable grounds for expecting improvement of quantitative and qualitative characteristics of the forest and its resources required for its ecological, social and economic functioning.

The Government of Georgia takes decisions based on the substantiated solicitation of the Ministry of Economy and Sustainable Development or the government of an autonomous republic. Decision on the expediency of transferring state forest to private ownership is taken upon consent of the Ministry. Transfer of state forest to private ownership is governed by the Law of Georgia on Forest Privatization.

*Analysis:* This Article regulates issues of privatization of State forests. One of the preconditions for this process is the improvement of qualitative and quantitative characteristics of forest resources with the aim of implementation of the ecological, social and economic functions of forests. At the same time, the Article states that the decision regarding the above-mentioned should be taken by the government of Georgia, based on the justified recommendation of the Ministry of Economy and Sustainable Development of Georgia or the Government of the Autonomous Republic.

It is unclear, how the Ministry of Economy and Sustainable Development can deal with the improvement of the ecological function of forests, as they do not have this expertise. In case the focus of the Ministry of Economy lies more on “the improvement of qualitative and quantitative characteristics” negative environmental impact must be expected, in particular conversion of natural forest into plantations.

Issues regarding justification of the privatization of forests should be dealt with by the Ministry of Environment and Natural Resources Protection in order to maintain the principles under Article 4 of DFC. The quantitative indices and owner’s obligations related to forest privatization are so far unclear. Although forest privatization is regulated under a separate law, the DFC should define the principles of privatization as well as the obligations of private persons in the privatization process.

According to the Georgian Law „On State Property“ (2010), it is possible to privatize forest areas that were formerly owned by collective farms and Soviet farms within the borders of residential areas. Privatization of this kind should be based on public auction. Alongside with the adoption of the DFC (or prior to this process), privatization of forests under the Law on „State Property“ should be abolished in order to avoid a situation, where the entry point for one procedure is found in different legal acts.
From the strategic environmental assessment point of view, the impact of privatization depends on the owner’s obligations according to DFC and other legislation, the professionality of the owner and the effort of control and support by the state. There is a general risk that the forest management capacity may vary among different owners.

Conclusions: Varying capacity of private owners may lead to shortcomings of forest management on some of the private plots with negative impacts on the forest condition (all factors). Regular control is needed and at the same time professional consultation of private owners. Consolidation of legal framework in relation to the Georgian Law on State Property (2010) and law on “Forest Privatization” is needed, so it is in line with DFC.

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<tbody>
<tr>
<td>15</td>
<td>All, in particular forest composition, biodiversity</td>
<td>≈</td>
<td>Unclear justification and obligations for privatization; development of different management standards among different owners; lack of control</td>
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</tbody>
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**Article 16. Increase of Public Awareness in the Forest Sphere**

*Description:* This article envisages the development of scientific and educational programs for informing the population of Georgia on the importance of forests and their resources.

*Analysis:* Such activities are considered essential for a successful implementation of the DFC. A broad understanding of forest ecology and forestry will in the long run improve the balance between utilization and conservation of the forest. It is recommended to engage in public awareness already from the beginning of the sector reform in order to make the process transparent and create understanding for the necessity of the envisaged measures in the DFC.

*Conclusion:* Increasing public awareness and scientific knowledge will support conservation and management of the forest in the long term perspective. It is recommended to accompany the sector reform with a specific awareness program.

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<th>Expected Impact</th>
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<tbody>
<tr>
<td>16</td>
<td>all</td>
<td>+</td>
<td>no specific risks</td>
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**Article 17. Public Participation**

*Description:* This article envisages the participation of stakeholders in decision processes pertaining to forest management and regulates public access to information on forest management.

*Analysis:* While public participation is in general of major importance in order to create ownership and transparency, the article is not precise enough with regards to the sphere of participation. Participation in the decision process of regular forest management might prove problematic. Any FMB should have the right to implement its Management Plan, once approved, without outside interference. However, there are many other processes concerning the forest, which may call for public participation, especially for those processes, which may affect people directly. Examples of such processes are:

- Transfer of areas of the forest fund to municipalities, patriarchy, private owners or NGOs
- change of boundaries /termination of forest
- introduction of zoning according to this law
• any EIA/SEA process affecting forest
• introduction of restrictions/ management regimes for protection (e.g. grazing, collection of NTFPs, fire wood)
• revitalization of traditional forest management in certain areas (e.g. chestnut high coppicing, low coppicing)

Conclusion: Public participation is an important part of forest management leading to ownership and increasing the possibility to influence non-sustainable practices and thus will have a general positive effect on the forest condition in the long term perspective. It is recommended to express the stakeholders to be consulted with more accuracy (see Chapter 10).

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<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>all</td>
<td>+</td>
<td>no specific risks</td>
</tr>
</tbody>
</table>

**Article 18. Competence of the Ministry**

**Description:** Article reflects the Competence of the Ministry of Environment and Natural Resources Protection of Georgia in the Forest Sector. The competence of the Ministry includes different forest-related activities, such as: formulation of Georgia’s forest management policy and control of its implementation; initiation and drafting of legal acts in the forest sector; arrangement of the tending, protection, restoration and use of Georgia’s forest, and organizing the forest inventory system; definition of a unified scientific-technical policy in for the management of Georgia’s forest; development and approving normative and methodological documents; organize scientific research work; maintain the “Forest Registry of Georgia”; approval of forest management plans and signatory to international agreements regarding forestry; conduct national forest inventory and etc.

Additional competences may be added in relation to the above articles 12, 13 and 15 dealing with forest status, privatization and termination of forest status.

**Analysis:** Some competences like approval of management plans may not be the responsibility of the Ministry and could be decentralized to the regional level, even though the Ministry should have an oversight role. However, DFC is not clear about the setup of the forest administration on the local and regional level (see also remarks in chapter 8). It is recommended that an administrative framework is outlined for the entire forest administration. Roughly, given the amount of 1.5 ha of forest covering the “utilized forest” category, the administration could consist of 40 regional subdivisions and 400 FMUs. Regional subdivisions may develop the competences to take over tasks from the Ministry. Regional subdivisions may develop the competences to take over tasks from the Ministry.

**Conclusions:** With key competences gathered at the MENRP a basis for improvement of the forest management is presented, with potential positive effects on the forest condition in the long term perspective (all factors). The list of competences is large and requires considerable professional resources in the Ministry. There is a risk of discontinuity within Ministry staff and inadequate manpower. It is recommended that DFC outlines a framework of the entire forest administration set up. Some competences of the Ministry may be decentralized.

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<tr>
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<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>18</td>
<td>All</td>
<td>+</td>
<td>Lack of professional resources in the Ministry</td>
</tr>
</tbody>
</table>
Article 19. Not assessed

Article 20. Not assessed

Article 21. State Forest Managing Body  
*Description:* This article defines the duties and responsibilities of the State Forest Managing Body.

*Analysis:* The FMB is the decisive player in the entire forestry with the role of implementing the DFC in practice in the field. While article 21 readily describes the basic tasks of the FMB, more details of the FMBs’ operation are stipulated in the regulations, in particular the regulation on the Forest Use Rules, which is currently under revision in parallel with DFC.

The administrative framework is not clear enough, in particular the hierarchical setup and quantity of administrative units. According to DFC the entire forest area must be divided into forest management units, each of them managed by a state owned, private or municipal forest management body. As estimated in the comments to article 18, a rough number of 400 FMBs may have to be established on average responsible for about 4,000 ha of forest.

The establishment of the FMBs is the most important part of the forest sector reform, and proper implementation bears the potential to overcome the most prominent shortcomings of current forestry practice, and thus may lead to significant positive changes for the forest condition and the sustainability of forest utilization. At the same time multiple risks exist, which may influence the results of the FMBs. Among these are:

- insufficient capacity and man power
- insufficient mandate
- insufficient political support
- insufficient acceptance by local population

*Conclusion:* Establishment of FMBs for the entire forest area will lead to significant improvement of forest management and consequently positive impacts on the forest condition (all factors). Multiple risks can influence the results of the FMBs.

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<th>Article of DCF</th>
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<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>21</td>
<td>All</td>
<td>++</td>
<td>Multiple risks regarding capacity of future FMBs</td>
</tr>
</tbody>
</table>

Article 22. Controlling Authority  
*Description:* Article reflects the conditions of the state control authority. According to the DFC’s State control in the forests of Georgia is exercised by the Environmental Supervision Department (ESD), including forests situated within the boundaries of protected areas.

*Analysis:* While environmental supervision is a very important element of control, the article is unclear regarding the following aspects:

- the article does not define the purpose of the supervision, and what should be covered. It was expected that article 22 defines briefly the framework, and an additional bylaw may regulate the operation of forestry supervision in detail.
• Paragraph 3 is confusing. It is unclear, why the supervision right is exercised by NFA. This should be the competence of ESD. In addition, according to DFC, the physical protection of forest is managed by the FMBs, not NFA.
• Paragraph 4 is unclear. It does not contain a statement on the environmental supervision. Private and municipal forest owners must be supervised by ESD as well. A supervision by legal persons in contractual relationship to the owner – if that was the intention – would create conflict of interest.

Conclusion: Environmental supervision is an essential part of the forest management, which in the long term perspective will be beneficial for the forest status (all factors). Major risks lie in the capacity, strength and mandate of the ESD. It is recommended that supervision of ESD also pertains to private and municipal owners.

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<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>22</td>
<td></td>
<td>++</td>
<td>Low capacity and weak political mandate of ESD; high risk of conflict of interests for private and municipality forest, when the inspection is contracted under the forest owner.</td>
</tr>
</tbody>
</table>

Article 23. Rights of a Private Owner
Description: This article defines principles of Private Ownership of forests, as well as the basic rights and obligations.
Analysis: The article ties the private owner strictly to the provisions of the DFC and entitles the authorized controlling body to interfere with the private owner’s actions and require management adjustments. Application of article 23 comprises potential benefits for the condition of the private forest areas. In practice there is the risk that many different forest owners may differ in capacity and willingness to follow the legal provisions. Insofar regular supervision is needed. In addition, it is suggested that professional state forestry shall be involved in consultations with private owners. Depending on the future proportion of private forest, capacity building programmes for private owners should be developed in response to the actual needs.

Conclusion: Tying private forest management to the provisions the DFC, the article will help to preserve or improve conditions of the private forest stands. Risks are linked to potentially varying capacity among private owners and a potentially weak mandate of the authorized supervising body. Supervision and education may be needed.

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<th>Risks</th>
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<tbody>
<tr>
<td>23</td>
<td>All</td>
<td>+</td>
<td>Capacity and management skills may differ among private owners;</td>
</tr>
</tbody>
</table>

Article 24. Not assessed

Article 25. Forest Monitoring
Description: This article defines goals and principles of forest inventory with the main goal of reflecting the state of Georgia’s forest.
Analysis: Forest inventories comprise an essential tool to provide the knowledge basis on the forest condition to qualify decisions of the forest management plan and the annual action plan. Forest management based on solid inventories is one of the major weaknesses of the current forestry practices.
It is expected that a functional forest inventory will lead to a significant improvement of the management of the forest and thus improve the forest conditions.

Article 25 is unprecise with regards to the differentiation between national forest inventory and forest management inventory, which it is recommended to be amend (see suggestion in Chapter 10).

Forest inventories require considerable human resources and professional skills, and the risk that the resources will not be made available is high. Accordingly the quality of the forest management would suffer. At present the system of forest inventory is under development with international support, including the elaboration of the respective regulation (Regulation on Rules and Inventory System of Georgian Forest).

**Conclusion:** Application of forest inventory has the potential of providing significant benefits for the forest condition (all factors). Risks lie in the high demand for human resources and skills which may not be available.

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<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>25</td>
<td>All</td>
<td>++</td>
<td>High demand of human resources and skills</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The connection between these regulations (forest monitoring, forest settlement, special research of forests, forest registry) and categorization of forests is vague.</td>
</tr>
</tbody>
</table>

**Article 26. Forest Planning**

*Description:* This article defines new principles of Forest Planning, herein among other issues the role of the Forest Management Plan.

*Analysis:* The fields of planning identified in this article are essential elements of new knowledge based management practices to be implemented and form the backbone of the sector reform. The success of DFC implementation will be measured against the capacity of the forest administration to apply proper planning and the quality of the planning processes and documents.

The obligation to work out forest management plans does not refer to private forests or forests managed by self-governance authorities, the area of which does not exceed 50 hectares. 50 hectares is quite a large territory for Georgia. This may lead to negative results such as defragmentation of habitats. The position of the Ministry is to make a management plan obligatory for all private and municipal forests, as soon as they are used for production, irrespective of size of the plot. Only users, which do not intent to use their forest for exploitation, are exempt from this obligation. This should be reflected in the article (see suggestion in Chapter 10)

**Conclusion:** Forest planning applied according to article 26 will have significant positive effects on the long term condition of the forest (all factors). Risks refer particularly to the shortage of human resources and capacity within the entire forest administration.

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<th>Article of DCF</th>
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<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>26</td>
<td>All</td>
<td>++</td>
<td>Needs a lot of resources and capacity. Risk of restricted resources and capacity is high.</td>
</tr>
</tbody>
</table>
Article 27. Registry of the Forest of Georgia

Description: Registry of the forest of Georgia should contain systematic documentation with information on the forest of Georgia, forest use, its protection and regeneration. The Registry of the forest of Georgia is maintained by the Ministry using information received from relevant forest management bodies, and Information held in the Registry of the forest of Georgia is public.

Analysis: The registry comprises the essential tool to store, handle and evaluate a large spectra of forest related data feeding policies and practical management. As such the registry contributes to achieve the overall objectives of DFC with benefits for the forest and its functions. Risks are related to potentially restricted human and financial resources that are necessary to maintain and update the registry.

Conclusion: Positive impact in the forest condition is indirectly implied from maintaining the registry through qualified management based on sound data. The risk of restricted resources to maintain and use the registry is high.

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<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>27</td>
<td>All</td>
<td>++</td>
<td>Risk of restricted resources to maintain and evaluate the registry is high.</td>
</tr>
</tbody>
</table>

Article 28. System and Rules for Forest inventory of Georgia

Description: This article defines the system and Rules for Forest inventory of Georgia mainly by referring to the bylaw "Regulation on the Rules and Inventory System of Georgian Forests" which is supposed to be developed by the Ministry and submitted to the Government of Georgia for approval.

Analysis: These regulations are currently under development under the auspices of the Ministry supported by the international community. Once completed the regulation will support the implementation of DFC in practical terms in particular through knowledge increase and thus indirectly contribute to improved forest management. Preparing the forest inventory in the Georgian context is a complex process, which requires financial and human resources, professional skills and time. Insofar there is an intrinsic risk that exactly these factors may be insufficient, meaning that the quality of the inventory may suffer.

Conclusion: It is expected that the regulation on forest inventory will support the improvement of the forest management with benefits for the forest conditions (all factors). Risks are related to potential restriction of human and financial resources, which are necessary to conduct and evaluate the inventory.

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<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>28</td>
<td>All</td>
<td>++</td>
<td>Risk of uncompleted or in other way insufficient data base is high. High demand on resources and capacity.</td>
</tr>
</tbody>
</table>

Article 29. Special study of forest

Description: This article defines rules for Special study of forest.

Analysis: Special studies can contribute to bring about specific knowledge on actual questions, which may not be covered by the forest inventory. They will thus support to qualify management decisions and overall contribute to conserve forest functions.
Conclusion: special studies will have a general positive impact on the forest ecosystem. Risks relate to restriction of financial resources and capacity to conduct such studies.

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<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>29</td>
<td>all</td>
<td>+</td>
<td>Risk of underfinancing; lack of capacity</td>
</tr>
</tbody>
</table>

**Article 30. Annual action plan**

*Description:* This article deals with the elaboration and content of the annual action plan.

*Analysis:* The annual action plan is one of the four essential instruments in forestry, being 1. FMB, 2. NFI/FMI, 3. Management plan, and 4. Annual action plan. By building up forest management on these four elements, the most important prerequisites of sustainable forestry are in place. Insofar article 30 is one of the central parts of the entire forestry concept, and implementation will lead to significant improvements in particular regarding the degradation of forests. The potential of environmental benefit from proper implementation of this article is specifically large.

Formally, since the annual action plan is prepared by a professional forest administration within the framework of an approved management plan, it is not necessary that the FMB has to approve its own action plan (see also suggestion in Chapter 10).

*Conclusion:* The potential environmental benefit of applying article 30 is particularly high. Illegal construction will continue, but may be mitigated through multiple measures and programs.

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<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>30</td>
<td>all</td>
<td>++</td>
<td>High risk of continuing practice for illegal felling</td>
</tr>
</tbody>
</table>

**Article 31. Entering and Moving Inside the Forest**

*Description:* This article regulates the access to the forest. In agreement with international best practice there is generally free access to all forests, and restrictions can only be imposed under certain circumstances.

*Analysis:* While free access to the forest is a very basic right, it is always connected with environmental impairment such as disturbance of wildlife, uncontrolled extraction of non-timber products, waste disposal, and in many countries illegal extraction of timber, in particular in the periphery of forest roads. Also in Georgia degradation of the forest is highest along forest roads and other country roads. One measure that to a certain degree could reduce this pressure would be to restrict motorized vehicles on forest roads (see suggestion in Chapter 10). Good experience with this regulation is coming from the majority of European countries. In addition, education and awareness as foreseen in article 16 will support the process.

Some of the access restrictions, which the owner can implement, should only be temporary (see suggestion in Chapter 10). In paragraph 2 d hunting farms should be replaced by game enclosures. The concept of hunting farms is abandoned in the new hunting law, and access to areas with hunting management areas should not be denied totally (maybe only on certain hunting days).

*Conclusion:* Free access to the forest is an important right for the citizens of Georgia, but is in any case connected with environmental impairment. One way to reduce the pressure would be to close forest
roads for motorized vehicles except for authorized traffic. Education and awareness programmes should always support the process.

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<tr>
<th>Article of DCF</th>
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<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>wildlife, biodiversity, forest integrity</td>
<td>-</td>
<td>risk of wildlife disturbance, overexploitation of resources, illegal felling, waste disposal</td>
</tr>
</tbody>
</table>

**Article 33. Not assessed.**

**Article 33. Grazing in the Forest**

*Description:* This article sets the general rules on grazing in the forest.

*Analysis:* Grazing in the forest is one of the central conflicts and together with illegal logging the major reason for forest degradation. Visible consequences can be found in almost any forest in the vicinity of settlements. Typically around villages a continuous transition can be seen from pasture land towards mixed land with bushes and finally degraded forest, where the degree of degradation decreases with distance to the settlement. The most prominent impact from grazing is elimination of natural rejuvenation, reduction of undergrowth and herb coverage. At the same time grazing is also an important socio-economic factor as discussed in chapter 7.3. While article 33 allows grazing in specifically assigned places, and also provides for regulations to restrict grazing, it does not express any upper limit, nor give a clear framework or target, as to what proportion of the forest may be used for grazing. Furthermore criteria need to be developed, which help to determine, which forest parts qualify for grazing, and where restrictions are necessary. It is considered necessary that grazing shall be regulated through a detailed regulation (see also Chapter 10). In addition, in order to avoid conflicts with the grazing needs of local population, supporting programmes need to be developed to improve pasture management and production of winter forage.

*Conclusion:* Grazing is one of the major factors that cause degradation of forests. The impact concerns especially the capability of natural rejuvenation, and in severe cases all environmental factors are affected. A multiple approach is necessary in order to reduce grazing pressure.

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<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>33</td>
<td>natural rejuvenation, forest integrity, ecological functions</td>
<td>- -</td>
<td>high risk of weak control, socio-economic conflicts</td>
</tr>
</tbody>
</table>

**Article 34. Making fire**

*Description:* This article sets the general rules for making fire in the forest and establishes a generally restrictive regime for this issue.

*Analysis:* Since forest fires are a major threat and destroy large areas every year, such restrictions are essential. Insofar it may be considered, if paragraph 2, which allows burning of waste from logging may be changed (see Chapter 10). This exception may not be required. If ecosystem based forest management with selective cuts as the predominant method for timber extraction is established to some degree, less needs will arise to remove logging residues. Secondly, the risk of fires getting out of control too high in relation to the uncertain benefits from burning logging residues.
While article 34 puts clear restrictions on fire making, this may prove difficult to control. Thus, besides control, also proactive measures can support fire prevention. In particular it is necessary to provide easy accessible and safe fire places for campfire and barbequing in sufficient numbers. In addition, forest fire prevention shall be supported through education and public awareness.

**Conclusion:** Restrictions of forest fires as foreseen in article 34 together with proactive measures of fire prevention will help to reduce man made fires and thus reduce the overall impact from that threat.

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<th>Risks</th>
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<tbody>
<tr>
<td>34</td>
<td>all</td>
<td>+</td>
<td>control is difficult by nature</td>
</tr>
</tbody>
</table>

**Article 35. Extraction of Forest Resources**

*Description:* This article regulates private household level extraction of NTFPs from the forest.

*Analysis:* While extraction of NTFPs is an important general right for the public, it is always connected with a certain degree of impairment in the forest, such as disturbance of wildlife and possible overexploitation of certain resources, e.g. medicinal plants. Insofar it is important that restrictions can be imposed as foreseen in paragraph 3 of the article. Like with other restrictions, these are of course difficult to control, and must be accompanied by a long term education and awareness program.

**Conclusion:** Extraction of NTFPs leads to minor or moderate impact on the forest resources. Education and awareness is seen as the long term tool to mitigate the effects.

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<th>Risks</th>
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<tbody>
<tr>
<td>34</td>
<td>wildlife, biodiversity</td>
<td>-</td>
<td>control is difficult by nature</td>
</tr>
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</table>

**Article 36. Extent of Right for General Use of the Forest**

*Description:* This article imposes some general obligations on the forest user in the sense that the user is responsible for avoiding harmful activities and is obliged to report such activities when encountered.

*Analysis:* In combination with the education and awareness program this will in the long term perspective help to create public ownership and responsibility.

**Conclusion:** The provisions of article 36 will help to reduce impact from private forest users in the long term perspective.

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<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>36</td>
<td>wildlife, biodiversity</td>
<td>+</td>
<td>control is difficult by nature</td>
</tr>
</tbody>
</table>

**Article 37. Types of Special Use of Forest**

*Description:* This article lists types of special use of forest.

*Analysis:* The article is not evaluated as such. However, the types of special use are not clearly defined and may give rise to misinterpretation. Clarification is needed for the following:

Paragraph 1c: generally agricultural activities are to some extent detrimental to tree and shrub vegetation, where such vegetation is absent, they prevent their establishment. Insofar the activities may require the termination of forest status according to article 13.
Paragraph 1d: “production” must be replaced by “collection”

Paragraph 1f: the terms animal shelters and breeding facilities may need some further explanation about their purpose. If it is hunting facilities, then this is regulated in paragraph 3.

Paragraph 1g: installation of telecommunication infrastructure is mentioned as special use category. We consider telecommunication being equal to any other permanent infrastructure, which is subject to EIA legislation, also in accordance with articles 3 and 70 of DFC (see suggestion in Chapter 10).

Paragraph 1h: the term “use of the forest for special purposes” needs definition.

**Article 38. Right for Special Use of Forest**

*Description:* This article gives far reaching competences to the FMB, which holds the right to conduct special use of forest or grants the right of special use to physical persons or legal entities.

*Analysis:* This is part of the decentralized approach for the entire forest administration and is an important step towards a more professional and efficient forest management.

With regards to installation of telecommunication being defined as special forest use see remark under article 37.

In the second sentence of the article the term “conducted” shall be replaced by “authorized” (see suggestion in Chapter 10).

The article also contains - in combination with article 49 - a continuation of the social felling system (see also chapter 4.4.2), which according to article 92 will be phased out 2 years after enactment of this code. However, article 38 does not mention the restricted timeframe for issuing the logging tickets. In order to avoid confusion and make this clear, it is recommended to include the deadline of article 92 here also (minus 2 month to give room for using the ticket, see suggestion in Chapter 10, see also article 49).

From the environmental perspective the actual practice of social felling may well be the most important single reason for mismanagement and forest degradation. Terminating this practice is a prerequisite to develop sustainable alternatives. In the long term perspective this will reduce the pressure on the forest resources and lead to significant positive development of the forest condition. As discussed above under article 30 it is expected that positive effects will evolve slowly in parallel with other supporting measures.

Several types of special use of forest are connected with environmental impairment of different degree. Most of the activities may cause disturbance of wildlife (e.g. leisure, recreation, sports), others can lead to overexploitation of forest resources (e.g. collection of NTFP). Within the responsibility of the FMB, potential impact can be avoided or mitigated, and special conditions can be imposed on the user.

*Conclusion:* Abandoning current practice of social felling has a very high potential of benefit for the overall forest condition. Positive effects will materialize in the long term perspective. The risk of continued violation of regulations is high. Special use of forest is inevitably connected with some impact, which can be reduced to a minimum by proper management.
### Article 39. Forest Use for Sustainable Forest Management Purposes

*Description:* This article describes in general terms the responsibility and obligation of the FMB to exercise forest use in accordance with the sustainable forest management purposes and within the responsibilities under this code and forest management plan and/or annual action plan.

*Analysis:* As stated above under article 21 the establishment of professional FMBs together with clear mandate and management objectives comprises the element of the DFC, which has the highest potential of benefit for the forest environment with secondary positive effects also on socio-economy. The implementation risk is discussed under Article 21.

Article 39 could be appropriately merged with article 21.

*Conclusion:* In the DFC are formulated clear targets as to the sustainability of forest management, and the administrative elements are described, which are necessary to reach these targets. Implementation of these principles will lead to significant positive impact on all factors of forest environment. The implementation risk is, however, very high.

### Article 40. Planned Use of Forest

*Description:* This article describes the general principles of planning in the forestry.

*Analysis:* These principles are of fundamental importance for the entire setup of this code and allow developing a stable knowledge based forestry. In this context it is recommended to add the linkage between Forest Management Plan and forest inventory as basic principle in the article (sees suggestion Chapter 10).

*Conclusion:* Professional forest management planning is expected to have a significant positive impact on the forest environment (all factors). The implementation risk is high.
Article 43. Rights and Obligations of Forest User
Description: This article describes the rights and obligations of the forest user, when executing his right for general or special use.

Analysis: Obeying these rules will contribute to prevent additional damage in the forest which otherwise may be connected with inadvertent behaviour. In practice, however, this rule needs to control the capacity of the Forest user, especially in the transition period, when a more thoughtful handling of forest needs be learned by both professional and private users. The education and awareness program can support the process.

Conclusion: Fulfilling rights and obligations as foreseen in article 43 will have positive impact on the forest environment (all factors). There is an intrinsic risk, that the capacity for control is low.

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<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>43</td>
<td>all</td>
<td>+</td>
<td>low capacity for control</td>
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Article 44. Logging
Description: This article makes a general statement on the principles of logging, which is based on individual selection of trees in mature or over-mature stands.

Analysis: This is one of the key elements of ecosystem based forest management and may comprise the most important tool to establish healthy and stable forests in Georgia. By applying these principles forest stands can develop into highly productive near-natural stands with an overall large volume of wood per area. By doing this the productivity is kept on a high level and will not be interrupted by longer periods, as it would be the case with clear cutting. At the same time natural rejuvenation is secured, and many ecological functions of the forest can be maintained at optimal conditions (e.g. soil and erosion protection, water retention, etc.). Another important consequence of the high level of natural rejuvenation is that the genetic variability of the saplings creates a natural pool for climate adaption.

Precondition for the suggested method of logging is the correct selection of trees and amount that can be taken. Forest Management Inventory is therefore a key prerequisite for the functioning of this method.

It is recommended to have minor changes in the wording of article 44. It is considered important to explicitly name “individual selection of trees” in the text (see suggestion in Chapter 10).

Conclusion: Implementation of this article will lead to significant improvement and conservation of the forest environment (all factors).

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<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>44</td>
<td>all</td>
<td>++</td>
<td>Proper selection of the trees to cut and the allowable volume depends on the quality of the forest management inventory and its interpretation in the forest management plan and annual action plan.</td>
</tr>
</tbody>
</table>

Article 45. Logging between Slope Gradients of 31° and 36°
Description: This article specifies special conditions for logging on slopes as regards the allowable cut and the method for timber transport.
Analysis: Generally, the DFC has a preventive approach by fully restricting logging activities on slopes steeper than 36°. In the transition zone between 31° and 36° article 45 allows a restricted amount of logging. However, given the targets of ecosystem based forest management, forest conditions shall be maintained in a condition which is close to a natural mature forest. Following the development of a mature forest one would expect older trees falling and decaying and creating holes in the canopy, which would occupy 20% of the area at maximum. In ecosystem based forest management logging is executed through selection of individual trees or small groups, and canopy cover shall not be reduced to lower than 0.7. It is therefore recommended applying the same target in article 45 also, given the vulnerability of steeper slopes.

Conclusion: Special conditions for logging on the slopes between 31° and 36° will help to maintain important ecological functions, in particular soil and erosion protection. It is recommended increasing the density limit for these slopes to 0.7 (see suggestion in Chapter 10).

<table>
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<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>all</td>
<td>+</td>
<td>Extracting timber on the slopes requires special skills and equipment, which might not be available.</td>
</tr>
</tbody>
</table>

Article 46: Forest Felling

Description: In this article the principle ways of logging are described.

Analysis: Given the targets of the ecosystem based forest management clear cuts are restricted to plantation forest only, while selective cut is foreseen for the vast majority of the forest. Since the felling method is decisive for the silvicultural method applied, this article is one important element of the overall approach in the DFC.

In paragraph 2 plain forests of Kolkheti are not considered as eligible for clear cuts. Parts of these forests are comprised of unique wetland forests with very high conservation value (see suggestion in Chapter 10).

Conclusion: the methodological approach of allowing clear cuts in lowland plantations only and applying selective cuts in the rest of the forest, will contribute to an overall improvement of forest environment. Native Kolkheti forests shall be protected.

<table>
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<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td>all</td>
<td>++</td>
<td>no specific risks</td>
</tr>
</tbody>
</table>

Article 47: Annual Allowable Cut

Description: Article allows the Ministry to establish the optimal volume of annual allowable cut.

Analysis: This article is not in line with the general decentralized approach of the DFC. The AAC needs to be calculated for individual FMUs in reference to their net-production area and further parameters, including growing stock and increment on the basis of the approved forest management plan.

Conclusion: The article is assigning competences to the Ministry, which should exclusively be lying with the individual FMBs. It is recommended to delete article 47 or to rewrite it (see suggestion in Chapter 10).
### Article 48. Not assessed

### Article 49: Legal Basis for Logging
*Description:* In combination with article 38 this article deals with a continuation of the social felling system (see also chapter 4.4 and 8.2)

*Analysis:* The same constraints as mentioned above under article 38 are valid here. As with article 38 it is recommended including a statement that this regulation is intermediary and will be phased out (see suggestions in Chapter 10).

*Conclusion:* Abandoning current practice of social felling has a very high potential of benefit for the overall forest condition. Positive effects will materialize in the long term perspective. The risk of continued violation of regulations is high.

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<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>49</td>
<td>all</td>
<td>++</td>
<td>High risk of continuing practice for illegal felling.</td>
</tr>
</tbody>
</table>

### Article 50. Wood origin document
*Description:* This article describes the general principles of documentation for authorized timber transport.

*Analysis:* In principle this comprises a very important regulation, which together with measures of control can reduce the amount of unauthorized timber production. Since there is an intrinsic risk, that systems can be bypassed (e.g. double use of timber chips has been reported, see chapter 4.2), it is recommended that the regulations frequently are reviewed for their effectiveness and revised upon demand.

*Conclusion:* Clear regulations for documentation of timber transport and subsequent control contribute to the reduction of unauthorized timber production. The risk of misuse is significant.

<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>50</td>
<td>all</td>
<td>+</td>
<td>Misuse (e.g. double use of timber chips)</td>
</tr>
</tbody>
</table>

### Article 51. Purpose of the Forest Use
*Description:* The article describes the general provisions for the establishment of plantations.

*Analysis:* In general terms establishing plantations is a tradeoff, where even-aged/single-story monocultures are created, and priority is given to production, while other (potential) ecological functions are subordinated. It is therefore important to specify precisely, under what conditions the establishment of plantations may take place.

In paragraph 2 it is mentioned that plantations can be established on forest land without specifying, if this is restricted to hitherto non-forested areas or means the conversion of natural forest into plantations. The DFC should provide safeguards against the transformation of natural forests into more...
commercially attractive plantations. In addition, regulations are required regarding the eligible tree species for plantations, where priority shall be given to native species. While plantations are always connected with reduced ecological forest functions, in a given complex context they can contribute to cover special needs of the population and thus reduce the pressure on the areas with higher ecological value.

In paragraph 3 it is not considered necessary to introduce a Farming Management Plan as separate category. Plantations, once established, qualify as forests within the purview of the forest code and can be integrated into the regular Forest Management Plan of an individual FMU.

In the English version of DFC the term “plantation” would be more appropriate instead of “Farming” (see also suggestion in Chapter 10).

Conclusion: Forest plantations are principally connected with reduced ecological functions, e.g. biodiversity, storm and climate change resistance, soil and erosion protection. Transformation of native forest into plantations results in a loss of important ecological functions. Establishment of plantations on idle land (as long as this does not concern biotopes/habitats of high conservation value) may contribute to satisfy actual energy needs of the population.

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<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>51</td>
<td>all</td>
<td>-</td>
<td>Conversion of natural forest or habitats of high conservation value into plantation</td>
</tr>
</tbody>
</table>

Article 52. Grounds for Making Decision

Description: This article outlines the administrative act necessary for establishment of plantations.

Analysis: From the environmental perspective the expected impact is identical to what is stated under article 51. In addition, the article contains some unclear formulations, which may lead to misinterpretation and need to be clarified. Paragraph 2 states that the area selected for the plantation is to be selected based on the FMP or AAP, which means among areas that are under administration of the FMB. In paragraph 3 the prospective forest user is obliged to submit certain documentation to the FMB for the decision. Since it is not explained, who the prospective user is, it actually means that a physical person can apply to establish a forest plantation on the territory of the state forest. If this is the intention of the article, than – as above under article 51 - a safeguard is necessary to restrict transformation of natural forest into plantations.

Conclusion: Forest plantations are principally connected with reduced ecological functions, e.g. biodiversity, storm and climate change resistance, soil and erosion protection. Transformation of native forest into plantations results in a loss of important ecological functions. Establishment of plantations on idle land (as long as this does not concern biotopes/habitats of high conservation value) may contribute to satisfy actual energy needs of the population. Clarification is needed as to the “prospective forest user”

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<tr>
<th>Article of DCF</th>
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<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>52</td>
<td>all</td>
<td>-</td>
<td>Conversion of natural forest or habitats of high conservation value into plantation</td>
</tr>
</tbody>
</table>

Articles 53/54. Purpose of the Forest Use/Legal basis

Description: These articles outline the general framework for the use of forest for agricultural purpose.
**Analysis:** However, clarification is needed with regards to the area, where this activity may take place. Any “use as a hay land, pasture or arable land” is to some extent detrimental to tree and shrub vegetation, where such vegetation is absent, it prevents its establishment. Thus the article 53 is contradictory in itself. The conversion of forest into arable land would require following the procedure set forth in Article 13 of this law.

**Conclusion:** No conclusion is drawn for this article. Further definitions are required for the areas on which agricultural use can take place.

**Articles 55/56. Purpose of the Forest Use/Legal basis**

**Description:** These articles outline the general framework for the commercial use of non-timber products and secondary wood products.

**Analysis:** By setting up a legal procedure for this kind of forest use the basis is created for proper management of these resources. In this way the intrinsic risk of overexploitation can be reduced. The risk is specifically high for medicinal plants and eventually edible mushrooms, decorative plants and spruce seeds. As discussed in the baseline regarding socio-economy, it is not known to what extent, overexploitation of certain NTFPs is taking place. But emerging market opportunities can have an immediate impact on the intensity of extraction of certain products.

From an environmental point of view, commercial collection of NTFPs is always linked to some negative impact on the forest environment, such as wildlife disturbance, damage of vegetation, creation of access path or even roads, waste disposal and in severe cases shifts of ecological balance, such as relative dominance of plant species and changes of the food chain.

**Conclusion:** The articles allow regulating forest use activities, which otherwise would be going on informally. In the long term perspective this can reduce the pressure on those resources that may be overexploited. There is an intrinsic risk of insufficient control capacity.

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<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>55/56</td>
<td>biodiversity, forest integrity</td>
<td>+</td>
<td>Insufficient control capacity, insufficient knowledge on the abundance of certain resources or species</td>
</tr>
</tbody>
</table>

**Articles 57/58. Purpose of the Forest Use/Legal basis**

**Description:** These articles outline the general framework for forest use as a resort and for recreational, sporting and cultural and health improving purposes.

**Analysis:** Regulating these activities on a legal basis will help to mitigate negative impact of these activities on the forest environment. Typical impact from such activities would be disturbance of wildlife, creation of trails or access ways, damage of vegetation and waste disposal. In order to avoid foreseeable impact on forest environment linked with eligible activities under this article the Forest Management Body can impose conditions on the permission for the activity. It is recommended making this more explicit in article 58 (see suggestion in Chapter 10).

In addition, article 58 could be supplemented the competence of FMB to give permission to the activity by administrative act does not cover activities, that require permanent installations. A cross reference to EIA legislation would be adequate (see suggestion in Chapter 10).

**Conclusion:** The articles allow regulating forest use activities, which otherwise would be going on informally. This contributes to reduce negative impact from these activities. There is an intrinsic risk of insufficient control capacity.
**Articles 59/60. Not assessed.**

**Articles 61/62. Purpose of the Forest Use/Legal basis**

*Description:* These articles outline the general framework for the permission of installing telecommunication facilities under the competence of the FMB.

*Analysis:* Telecommunication facilities are permanent installations and are as such subject to the Law of Georgia on Environmental Impact Assessment. Within the approval procedure under EIA legislation the forest administration must be involved as key stakeholder in order to find the appropriate placement, alignment or in other ways contributing to avoid or mitigate impacts on the forest environment.

From an environmental point of view such installations – depending on their size – are inevitably connected with loss or impairment of environmental factors (e.g. transmission tower with access road, cable corridor for connections, frequent maintenance).

*Conclusion:* Licensing telecommunication facilities is not the competence of the FMB. Revision of the article is recommended.

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<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>61/62</td>
<td>all</td>
<td>-</td>
<td>conflict between the needs for improvement of telecommunication infrastructure and forestry interests</td>
</tr>
</tbody>
</table>

**Articles 63/64. Purpose of the Forest Use/ Basis for the decision**

*Description:* Articles 63/64 are dealing with the administrative procedure of granting the right of special use of the forest, which covers large infrastructure projects and other measures likely to have significant impact on the forest environment. The decision lies within the competence of the Ministry and requires the compliance with other legislation like the General Administrative Code of Georgia and the Law of Georgia on Environmental Impact Assessment.

*Analysis:* In this procedure the forest administration (on all levels) is only one of the concerned parties that need to be involved into the approval process – including the public. In so far the articles are not forest specific, even though the activities may take place within the forest territory. A conflict of interest between Georgia’s needs of economic growth and development of infrastructure and the objectives the forestry cannot be avoided. This conflict cannot be solved within this code, it requires both solid legislation for EIA and approval procedures, and, in the case of large scale development (e.g. hydropower, highways, pipelines, power lines etc.) strategic planning together with SEA. Together with this code new legislation for SEA and EIA is under development and may be adopted in the same timeframe as this code.

The linkage to EIA legislation is mentioned in article 64. We recommend integrating this statement also in article 63 (see suggestion in Chapter 10).

From the environmental point of view the activities, which fall under special use of forest, are in all cases detrimental for the forest and mostly associated with large scale loss of forest or forest functions.
However, the predicted consequences from implementation of this article are ambiguous. On the one hand will any new large infrastructure project have a negative impact on the forest environment? On the other hand, is the development of large infrastructure part of the zero scenario in the sense that this development is ongoing and is likely to accelerate in the future. Insofar will the new forest code in interaction with other legislative tools, which are being developed at the same time, contribute to improve the quality of planning and thus help to avoid at least some damage to the environment? With regards to compensation mentioned in article 64, reference is made to the statements under article 4 (see suggestion in Chapter 10).

**Conclusion:** Large infrastructure development is connected with large scale loss or impairment of forests (all factors). Articles 63/64 can in interaction with other environmental legislation contribute to avoid and mitigate impact from these activities. The risk of overall poor strategic planning, e.g. in the energy or transport sector, is high, meaning that the potential of avoiding impact is not realized.

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<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>63/64</td>
<td>all</td>
<td>+</td>
<td>Overall high risk of poor strategic planning, e.g. in the energy or transport sector; the potential of avoiding impact may not be realized.</td>
</tr>
</tbody>
</table>

**Articles 65/66. Carrying out of the activity / Legal Basis**

*Description:* Articles 65/66 are regulating the use of forest for educational purpose and scientific use.

*Analysis:* Both activities will in the long term perspective contribute to the collection and distribution of knowledge on the forest ecosystems and help to improve the forest management. The article requires some active control routines from the Forest Management Body in order to assure that the activities adhere to the permission given under this article.

Clarification is needed regarding paragraph 4 of article 66. It is not clear, what the article is about.

*Conclusion:* Research and education have positive effect on forest management in the long term perspective.

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<th>Article of DCF</th>
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<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>65/66</td>
<td>all</td>
<td>+</td>
<td>Minor risk of misuse.</td>
</tr>
</tbody>
</table>

**Articles 67/68. Purpose of Protecting Forest of Georgia / Forest Protection Measures**

*Description:* Articles 67/68 are regulating measures that may be applied to protect the forest from adverse effects, such as pests, fires, illegal felling, etc.

*Analysis:* Article 68 includes control functions of the responsible person, which in particular will come into play in connection with the prevention of illegal felling. Thus article 68 contains one of the crucial elements of forest management, which up to now have not been functioning effectively. Full implementation of the provisions of this article will therefore be one of the key milestones of implementation success of the DFC. Insofar the responsibility is more clearly defined in article 68, paragraph 5, where it says "responsible person". Concretely this is normally the Forest Management Body itself, but can also be the Department of Environmental Inspection or the police (see suggestion in Chapter 10).
**Conclusion:** The potential of positive impact on forest condition by implementing this part of the DFC is considerably high (all factors). At the same time the risk of failure is also particularly high. Competence and power of FMB is decisive.

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<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>67/68</td>
<td>all</td>
<td>++</td>
<td>High risk of insufficient competence and power within the FMB for the control of illegal felling and other detrimental activities</td>
</tr>
</tbody>
</table>

**Article 69. Prohibition of Forest Destruction**

*Description:* Article 69 lists in general terms activities, which are considered detrimental to the forest and therefore prohibited.

*Analysis:* The article plays its important role in combination with the control function of the future Forest Management Body, and thus is depending on the mandate and power of this unit. The list of prohibitions should be extended covering also other ecological functions beyond soil/erosion as well as biological components of the forest (see suggestion in Chapter 10).

*Conclusion:* Prohibition of destructive activities will lead to improvement of overall forest condition (all factors). The risk of insufficient control is high.

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<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>69</td>
<td>all</td>
<td>++</td>
<td>High risk of insufficient capacity and power within the FMB for the control of detrimental activities</td>
</tr>
</tbody>
</table>

**Articles 70/71/72. Forest Protection Regime/ Legal Basis for Forest Protection/ Financing for Forest Protection Measures**

*Description:* Articles 70/71/72 provide the basis for the establishment of protection regimes within forests belonging to the protection, resort and protective categories.

*Analysis:* These provisions substantiate the categorization system set forth in articles 6-11. In this way individual protection regimes can be created depending on the features that need to be protected. Establishing individual protection regimes requires specific knowledge on the territory’s special features, which may not be available. In this case standard protection regimes for the different categories can be a starting point, which can be developed further, as knowledge increases. Overall, this article allows for a differentiated protection approach, which in the long term perspective will help to preserve natural forests or improve their condition.

*Conclusion:* Individual protection regimes support the protection of natural forests and the improvement of their condition. There is high risk of low control capacity within the FMB.

<table>
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<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>70/71/72</td>
<td>all</td>
<td>++</td>
<td>High risk of insufficient capacity and power within the FMB for the control of protection regime</td>
</tr>
</tbody>
</table>
Articles 73/74. Purpose of Forest Restoration and Afforestation/ Planning and Implementation of Forest Restoration and Afforestation

**Description:** Articles 73/74 provide the basis for afforestation and forest restoration. These measures will in some instances become necessary, when forest stands have been destroyed and need to be regenerated, or when non-forested areas shall be transferred into forest.

**Analysis:** The strength lies in paragraph 8 (article 74), which grants priority to natural regeneration in line with the principles of ecosystem based forest management. In many instances this will be the surest and most cost-efficient method leading to the development of stable forests in close to natural conditions.

Article 74 would have to specify, that forest restoration and afforestation in general requires the use of local or regional seeds or saplings of natural occurring tree species and which are planted in a site-specific manner. Non-native or non-site-specific tree species would have to be restricted to lowland plantations and energy forests (see suggestion in Chapter 10).

**Conclusion:** Prioritizing natural rejuvenation of damaged forest will support the development of stable, close to natural forest stands.

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<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>73/74</td>
<td>all</td>
<td>++</td>
<td>Restriction for non-native species is required</td>
</tr>
</tbody>
</table>

**Article 75. Forest seed production**

**Description:** Article 75 provides the basis for forest seed production with the overall objective to create highly productive, targeted forests and plantations through forest restoration and afforestation.

**Analysis:** It is argued that the target formulated in article 75 may not be adequate. In line with the principles of ecosystem based forestry the target could be to conserve local and regional genetic variability of native tree species and thus being able to provide vital and well adapted reproduction material, when restoration or afforestation measures are executed (see suggestion in Chapter 10).

**Conclusion:** Forest seed production will help to conserve the genetic variability of native tree species and provide valuable reproduction material.

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<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>75</td>
<td>biodiversity, forest composition</td>
<td>+</td>
<td>Use of non-native species; selection of trees not site-specific</td>
</tr>
</tbody>
</table>

**Article 76. Forest Tending and its Purpose**

**Description:** The article describes the general provisions for forest tending and its purpose, including in the first paragraph a) maintaining and improving social and ecological functions of the forest, b) improving composition, structure and productivity of forest species, c) improving sanitary condition of the forest, and d) increasing volume of timber available for harvesting per forest unit. Paragraph 2 mentions that Forest tending measures shall be planned according to the rules established by this Code. Paragraph 3 specifies that the FMB is responsible for planning and implementing forest tending measures.
Paragraph 4 specifies that tending measures, including cleaning, tending, and sanitary and reconstruction cuts, are undertaken according to the age, function and conditions of forest stands.

Analysis: It should be stressed that tending measures are specific for the silvicultural method applied. Insofar the key document directing tending measures is the approved Forest Management Plan (see suggestion in Chapter 10). The following environmental benefits may be linked to tending measures: increase of tree species richness, increase of structural diversity, increase and maintenance of genetic variation within tree species, increase of resistance of individual tree to biotic and abiotic stress, replacement of high-risk stands.

There is a general risk that important tending measures may be neglected as a consequence of restricted human or financial resources within the FMB that has the responsibility for planning and implementing the forest tending measures. The FMBs may be understaffed and with limited resources and eventually lack of professional skills.

Conclusion: Forest tending can improve forest integrity, richness, and structural diversity, and help to reach target condition of the forest. Risks are linked to limited human and financial resources as well as specific knowledge.

<table>
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<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>76</td>
<td>all, , in particular forest integrity, richness, structural diversity</td>
<td>+</td>
<td>Risk of limited human and financial resources within FMBs</td>
</tr>
</tbody>
</table>

**Article 77. Cleaning Cuts**

*Description:* The article specifies how cleaning cuts should be done in the forests, as part of the tending procedures. Cleaning cuts are carried out in the stands below maturity age and with density of 0.7 and more, in three rounds, with the purpose of achieving even distribution of valuable and economically appealing species typical for the local area; providing sufficient sunlight for these species; creating (improving) conditions for full formation of the stem and the canopy, and increasing the growth of timber.

*Analysis:* For cleaning cuts the same is true as for forest tending (see article 76). It is part of keeping the forest healthy and should be done in accordance with the applied silvicultural method. It can also be feared that it is neglected, because the FMB has the responsibility for planning and implementing the forest tending measures.

*Conclusion:* The cleaning can improve forest integrity, richness, structural diversity and help to reach target condition of the forest. Risks are linked to limited human and financial resources as well as specific knowledge.

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<th>Article of DCF</th>
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<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>77</td>
<td>all</td>
<td>+</td>
<td>Risk of limited human and financial resources within FMBs</td>
</tr>
</tbody>
</table>

**Article 78. Sanitary Cuts**

*Description:* The article specifies, how sanitary cuts should be done in the forests, as part of the tending procedures.
Analysis: In Paragraph 1 it is mentioned that sanitary cuts do not belong to the systemic forest felling category. This is a forest management measure aiming at the improvement of sanitary condition of forest. Sanitary cuts imply felling and extraction of dry, hollow, and pest invaded trees within a certain territory and timeframe, as well as removing trees uprooted or broken by natural disasters. It is part of keeping the forest healthy and should be done on a regular basis. However, it should be kept in mind that it is true that impending pest infestations necessitates sanitary cuts, a certain amount of deadwood (standing trees in particular) should be retained for its ecological value (biodiversity conservation and risk mitigation). Paragraph 2 specifies that sanitary cuts which are expected to reduce stand density to less than 0.3 are allowed only in case of a special need. Such type of sanitary cuts shall be properly justified and represent part of a set of measures. It is not mentioned that the unit for stand density is stand density index, which it should be. It is expected that sanitary cuts in general contribute to maintain the forest in a healthy condition. However, intensity of measures need to be balanced in relation to biodiversity, especially as regards the amount of dead wood and hollow trees.

Conclusion:
Sanitary cuts can improve forest health and general condition. Risks are linked to limited human and financial resources as well as specific knowledge. Furthermore, it should not be forgotten that a certain amount of deadwood (standing trees in particular) should be retained for its ecological value (biodiversity conservation and risk mitigation).

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<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>78</td>
<td>all</td>
<td>+</td>
<td>Risk of being neglected because of lack of resources in form of staff and funds. Also a risk that it will be forgotten that a certain amount of deadwood (standing trees in particular) should be retained for its ecological value (biodiversity conservation and risk mitigation).</td>
</tr>
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</table>

Article 79. Reconstruction Cuts
Description: The article specifies in paragraph 1 that reconstruction cuts are carried out in the stands of low value and low productivity with the purpose of improving their species composition, structure and productivity through the extraction of undesired trees and/or removal of perennial understorey, and facilitation of natural regeneration and/or planting forest cultures. In paragraph 2 it is specified that in recreational forest, reconstruction cuts may be carried out for landscape (open, closed, semi-closed) formation.

Analysis: For this to be carried out the FMBs need staff that can undertake the mentioned duties. Reconstruction cuts are expected to have a positive impact on the forest development

Conclusion:
Reconstruction cuts help to redirect forest development into the direction of the silvicultural targets. For this to be carried out the FMBs need staff that can undertake the mentioned duties.

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<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>79</td>
<td>in particular forest integrity, richness, structural diversity, productivity</td>
<td>+</td>
<td>Risk of being neglected because of lack of resources in form of staff and funds</td>
</tr>
</tbody>
</table>
Article 80. Forest Tending

*Description:* The article specifies in paragraph 1 that forest tending in the designated territory is carried out by the forest managing body or physical or legal person in accordance with the regulation “on the Rules of Forest Tending, Restoration and Protection”.

*Analysis:* It is specified in paragraph 2 that forest tending results in a corresponding amount of timber resources being obtained. This implies that private owners and municipalities have the same obligation. In general there should be more provisions regarding private forests in this forest code. Again, this activity requires resources in the form of staff and funds (operational budgets). The overall environmental benefit of tending measures is positive, because it contributes to maintain the forest in the target condition.

*Conclusion:*
Forest tending helps to reach and maintain the forest in accordance with the silvicultural targets. This activity requires resources in the form of staff and funds (operational budgets), which means there is a risk of underfinancing.

<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>all</td>
<td>+</td>
<td>Risk of underfinancing</td>
</tr>
</tbody>
</table>

Article 81. Financing of Forest Tending Measures

*Description:* The article envisages that Forest tending measures are financed from the State and local budgets. Other sources of funding may also be used for this purpose in accordance with the national legislation of Georgia.

*Analysis:* The capacity of the forest administration to manage the forest will, of course, among other factors depend upon the financial resources available for management. The public budgets are in general low, so the financing of the activities will be accordingly with a risk of negative consequences for the forest condition.

*Conclusion:*
While the expected outcome of tending measures is positive regarding forest condition, the public budgets are in general low, so there is a risk that financing of the activities will be accordingly.

<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>81</td>
<td>all</td>
<td>+</td>
<td>Risk of underfinancing</td>
</tr>
</tbody>
</table>

Article 82. Mandatory Participation of a Forester and Forest Worker

*Description:* The article describes that the FMB is obligated to undertake forest management with the mandatory participation of persons having the status of forester and forest worker.

*Analysis:* Formal qualifications are specified for foresters and forest workers in article 86. More importantly, it should specify the maximum number of hectares, each forester should oversee. Obligatory involvement of professional stuff is an essential prerequisite for the entire forest management, which will have a positive overall impact on the forest condition.

*Conclusion:*
Positive impact on forest condition is expected from professional forest management. As the article only specifies qualifications and not maximum number of hectares per forester, it bares the risk that FMBs may be overtaxed with the area under their administration.
Article 83. Forester

*Description:* It is described in paragraph 1 that a forester is a person who meets appropriate qualification requirements and is in employment relations with the FMB in accordance with the Labour Code of Georgia. In paragraph 2 it is specified that decision of an authorized person on the appointment of a forester shall specify the territory falling under the responsibility of this forester and his/her powers.

*Analysis:* As stated under article 82, obligatory involvement of professional stuff is an essential prerequisite for the entire forest management, which will have a positive overall impact on the forest condition. Again the risk may relate to the overall size of area for one forester, which may overtax the capacity.

*Conclusion:* Positive impact on forest condition is expected from professional forest management. As the article only specifies qualifications and not maximum number of hectares per forester, it bares the risk that FMBs may be overtaxed with the area under their administration.

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<thead>
<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>83</td>
<td>all</td>
<td>++</td>
<td>Risk of too large area per staff</td>
</tr>
</tbody>
</table>

Article 84. Forest Worker

*Description:* The article describes that a forest worker is a person who, under the supervision of a forester, carries out physical activities for forest protection, tending and restoration, performs logging and harvests non-timber forest resources, and secondary wood parts of timber species. Formal qualifications are specified for forest workers in article 86.

*Analysis:* It is expected that more professional staff will become available, since from 2017 a two years vocational education “Forest Work Specialist” will be launched at two vocational colleges (Akhalzikhe and Kakhreti). However, even though income for public employees has been growing significantly in the recent years, the wages are still low and may not be attractive especially for young people that are in the process of choosing education.

*Conclusion:* Obligatory involvement of professional staff will in general help to improve the forest management in practice with potential positive impact on the forest condition (all factors). Risks relate to potentially too large area per staff and low salaries in general for state employees on the level of a “worker”.

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<thead>
<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>84</td>
<td>all</td>
<td>++</td>
<td>Risk of too large area per staff; risk of low level of salaries</td>
</tr>
</tbody>
</table>

Article 85. Special Requirements

*Description:* It is specified in paragraph 1 that while on duty, foresters and forest workers shall wear respective uniforms and carry identification badges. In paragraph 2 it is specified that special requirements pertaining uniforms of forester and forest worker as well as requirement of a safe workplace are set forth in the regulation of the Minister “on the Uniforms for Forest Personnel”, while
in case of an autonomous republic – in a normative administrative act of the government of the autonomous republic.

**Analysis:** In order for the personnel in the forests to be visible, it is a good idea that they wear easily recognizable uniforms.

**Conclusion:**
No environmental impact as such, but supportive for the work of the forestry staff.

<table>
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<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>85</td>
<td>all</td>
<td>+</td>
<td>No risks identified. However, the referred regulations should be updated.</td>
</tr>
</tbody>
</table>

**Article 86. Qualification Requirements for Specialists**

**Description:** It is envisaged in paragraph 1 that a forester should be a person who holds a university degree (at least a bachelor’s degree). In paragraph 2 it is specified that a forest worker should be a person, who has received a relevant formal or informal vocational education. In paragraph 3 it is specified that qualification requirements are established by this Code, the law of Georgia “on Vocational Education” and other legislative acts.

**Analysis:** It might be difficult to attract foresters to the more remote forest districts, so in practice professionalization of the sector may fall behind.

**Conclusion:**
Obligatory involvement of professional staff will in general help to improve the forest management in practice with potential positive impact on the forest condition (all factors). It might be difficult to attract foresters to the more remote forest districts, so these districts in practice will be supervised by persons without proper knowledge of forestry.

<table>
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<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>86</td>
<td>all</td>
<td>++</td>
<td>It might be difficult to attract foresters to the more remote forest districts, so these districts in practice will be supervised by persons without proper knowledge of forestry.</td>
</tr>
</tbody>
</table>

**Article 87. Authorized body**

**Description:** It is specified in the article that ranking and qualification requirements of a forester and forest worker are established through the regulation of the Ministry “on the Establishment of Position Ranking and Qualification Requirements for Forest Personnel”, while in case of the autonomous republic – through the regulation adopted by the government of the autonomous republic.

**Analysis:** As mentioned before all regulations / bylaws mentioned in this forest code should be ideally adopted at the same time as the forest code, so an “empty” draft code is not approved by Parliament.

**Conclusion:**
As mentioned before all regulations/bylaws mentioned in this forest code should be adopted at the same time as the Forest Code, so that an “empty” DFC is not approved by Parliament.
All regulations/bylaws mentioned in this forest code should be adopted at the same time as the forest code, so that an “empty” draft code is not approved by Parliament.

Article 88. Rewarding Forest Personnel

Description: The article specifies, how rewarding of forest personnel can take place. In paragraph 1 it is specified that a forester is rewarded by conferring the title “Distinguished Forester of Georgia” in accordance with the rule specified in Georgian legislation. In paragraph 2 it is specified that forest personnel with work experience of 10 years and over are rewarded by granting a Special Lapel Pin for the Successful Performance. In paragraph 3 it is specified that other forest personnel may be rewarded by formal extension of gratitude. Paragraph 4 mentions that the rules for the establishment of the “professional Day of Forester” in Georgia and for rewarding forest personnel are defined by the order of the Minister.

Analysis: It is considered that a rewarding system is supportive element of human resources management for forest personnel, as there is a risk that each forester will have an enormous area to look after. Rewarding systems may make the jobs more attractive.

Conclusion:
It may be a good idea to establish a rewarding system for forest personnel, as there is a risk that each forester will have an enormous area to look after. Rewarding systems may make the jobs more attractive.

Article 89. Legal Basis for Responsibility

Description: The article specifies in paragraph 1 that responsibility for violating of Forest Code of Georgia is defined in accordance with the national legislation of Georgia. In paragraph 2 it is specified that bringing a person to justice for an offence does not relieve the offender from the obligation to pay compensation for the damage to the forest. Grounds and rules for compensation are defined by the national legislation of Georgia.

Analysis: Given the amount of illegal activities in Georgian forests, the article is of great relevance. Georgia may introduce considerable punishment to the offenders and set the fines high. If not, they may not be respected by offenders, as the price of timber is high compared to their salaries. Further risks are related to the high effort of control necessary and the mandate and power of the controlling entities. Another complication of the control mechanisms in general is, that currently many people depend on fire wood, which is harvested illegally (see socio-economic assessment in chapter 6.1). In this way control and fining of offenders must go together with creating alternatives for the rural population.
Conclusion:
Control and fining will reduce damage from illegal activities with overall positive impact on the forest condition. Risks relate to the potentially weak mandate and power of controlling entities and too low fines. In addition, socio-economic complications are to be considered (chapter 6.1).

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<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>89</td>
<td>all</td>
<td>++</td>
<td>Weak power of controlling entities; low fines; socio-economic considerations</td>
</tr>
</tbody>
</table>

Article 90. Transitional Regulation of Forest Use Licenses and Designated Uses

Description: The article specifies that a forest use license for a particular type of activity issued prior to enactment of this Code remains valid till its ending date.

Analysis: This article should be reformulated, as it means that e.g. licenses that have shown to degrade the environment will just continue. It should rather specify that all licenses are automatically not valid anymore and should be reassessed in light of the spirit of the new Forest Code. The expected environmental impact from implementation of this article is negative. License holders have already been fined for not following the regulations and this is likely to continue (see suggestions in chapter 10).

Conclusion:
Continuation of existing license is expected to cause further degradation of the forest condition in the licensed area (all factors). The article should be reformulated, so all licenses should automatically not be valid anymore, when the new forest code is enacted, and should be reassessed before a new license is issued. Else potentially harmful activities will just be allowed to continue.

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<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>90</td>
<td>all</td>
<td>÷÷</td>
<td>If licenses for all kind of activities are just continued, activities harmful to the environment will automatically be continued without reassessment, which is not desirable</td>
</tr>
</tbody>
</table>

Article 91. Normative Acts to be Adopted/Issued for the Purposes of this Law

Description: In this article it is specified, which normative acts should adopted/issued for the purpose of this law. In paragraph 1 it is mentioned that by January 1, 2017, the Government of Georgia shall develop and approve the regulations on: "the Rules of Releasing Information from the Forest Registry", "the Rules of Compilation and Issuance of Forest Use Documents", and "Log Originating Document and Rules of its Issuance " should be enacted. In paragraph 2 it is mentioned that by January 1, 2017, the Government of Georgia shall develop and approve the regulations on: "the Rules of Development and Approval of the Forest Management Plan", "the Rules of Defining Format, Content, and Use of Information Signs Restricting Entry to the Forest and Movement inside It", "the List of Non-timber Forest Resources", "the Rules of Forest Use", "the Rules of Forest Tending, Restoration and Protection", "the Uniforms for Forest Personnel". In paragraph 3 it is mentioned that by January 1, 2017, the Government of Georgia shall develop and approve the regulations on: "the Establishment and Adjustment of Forest Boundaries" and "the System and Rules of the State Forest Registry". In paragraph 4 it is specified that by December 1, 2016, the Ministry shall develop draft law on "Denationalization of the Forest Territory". In paragraph 5 it is specified that before enactment of by-laws set forth in this article, current by-laws shall be in force, if they are not in collision with the requirements of this Code.

Analysis: As mentioned before, ideally all regulations and bylaws mentioned in this forest code should be approved at the same time, in order not to create a period, where the forest code cannot be
implemented. This could create a vulnerable situation where the new rules do not apply and the old rules are not respected. An additional general risk relates to the content of the by-laws. In this study it is anticipated that the new normative acts of the forest sector, which are currently under preparation, are supportive regarding the overall targets of the forest code and provide the necessary details to implement the code in practice. Insofar the assessment expects positive consequences for the overall forest management from the by-laws. However, there is still a risk that contradictions will occur.

Conclusion:
As mentioned before, all regulations and bylaws mentioned in this forest code should be approved at the same time, or the forest code will be an empty framework law.

<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>91</td>
<td>all</td>
<td>++</td>
<td>Risk of delayed elaboration of bylaws; risk of contradictions between DFC and by-laws</td>
</tr>
</tbody>
</table>

**Article 92. Necessary Measure for Enacting This Code**

*Description:* This article envisages in paragraph 1 that based on the article 12 of this code, the Ministry of Economy and Sustainable Development should elaborate and submit a solicitation of setting status of state forest to state-owned land parcels. Paragraph 2 specifies that based on the article 12 of this code, before July 31, 2018 the following should be done: a) Representative bodies of municipalities should elaborate and submit a solicitation to the Commission on setting status of municipal forests to forests, situated on the territories of respective municipalities, b) The Ministry should elaborate and submit a solicitation to the Commission on setting status of private forests to forests, situated on the territories under private ownership. In paragraph 3 it is specified that logging rights transferred to physical persons for their social interests in accordance with the article 50 of this Code based on logging ticket remains valid till December 31, 2018. In paragraph 4 it is mentioned that the Ministry creates the Commission till December 31, 2016, set forth in the article 12 of this code and ensures its operation. In paragraph 5 it specifies that the Ministry should ensure legal and organizational arrangement of a legal person, set forth in the article 22 of this code before December 31, 2017.

*Analysis:* It is argued that the most competent entity for the solicitation of forest status may be the MoENRP rather than the Ministry of Economy and Sustainable Development has this responsibility, whose priority might be the economy and not ecologically healthy forests.

**Conclusion:**
It may prove problematic that the Ministry of Economy and Sustainable Development has this responsibility, as their priority might be the economy and not ecologically healthy forests. The responsibility should lie with the MENRP.

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<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>92</td>
<td>all</td>
<td>÷÷</td>
<td>The Ministry of Economy and Sustainable Development should not have this responsibility, as their priority might be the economy and not ecologically healthy forests</td>
</tr>
</tbody>
</table>

**Article 94. Entry into Force**

*Description:* In this article it is specified that this Law shall enter into force on January 1, 2017.
Analysis: As the law has not been approved by Parliament yet, this will not happen. Furthermore, all the bylaws/regulations should be drafted and approved at the same time, if the Forest Code should make any difference immediately.

Conclusion:
All the bylaws/regulations should be drafted and approved at the same time, if the Forest Code should make any positive difference.

<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Environmental factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>94</td>
<td>all</td>
<td>++</td>
<td>Risk of delayed elaboration of bylaws</td>
</tr>
</tbody>
</table>

7.3 Introduction to social assessment

The ongoing reform of the forest sector will have an impact on the population of Georgia, since they are considerably dependent on biological resources and ecosystem services, which the forest provides, like supply of timber, firewood, drinking water, grazing lands and non-wood products, as well as protection from soil erosion, floods, etc.

The following socioeconomic assessment of the DFC is intended to illustrate the broad scope of the issues that have to be addressed when finalizing the DFC. The assessment of the DFC will consider its potential social impact and the DFC’s associated risks. Finally, relevant recommendations and conclusions are drawn.

Unsustainable forest management practices make the livelihoods of the poor people that depend on forest resources vulnerable. Forests are an important safety net for the rural population and in this regard, the new DFC puts sustainable management of forest resources (basis is precautionary principle), integration of local population’s interests into forest management practices, as well as access to forest for its general use at the heart of the forestry sector reform (Chapter 1, Article 4).

Within the framework of the present analysis, few semi-structured interviews (non-representative) have been carried out with key stakeholders in order to determine their views in relation to the new DFC. These stakeholders included: regional forestry service, self-government (municipalities) and private sector. Due to the limited time and financial resources other important stakeholder’s (households, pastoralists, communities lying immediately adjacent to conflict zones (Abkhazia, South Ossetia), NGO’s, etc.) views have not been studied. Key gaps in the DFC, identified by the interviewed stakeholders, will be discussed in the assessment of relevant articles in the following.

Induced changes through implementation of the DFC can be positive or negative, or there might be an imminent risk that intended positive changes do not materialize. This chapter intends to reveal those risks and describe the constraints, as well as expected positive developments. Furthermore, potential gaps i.e. between the baseline findings and the code’s ability to address the listed key issues in socio-economic terms will be touched. The following assessment only assesses those articles of the DFC, which potentially can have a negative or positive impact on socioeconomic parameters within the forest sector.

There may be an overlap between the social and environmental assessments of the DFC, and some comments might be biased. This is mainly due to the fact that environmental protection of the forest comes with a price for the social issues in relation to forest use and vice versa. Balancing those two issues within the Code will be the most challenging part of the finalization of the Code.
Overall, the DFC is assessed as a positive initiative, which sets forth a more sustainable use of the forest, so that future generations also can benefit from it. The switch to a more sustainable use of the forest and its management will thus have a positive impact on future generations’ access and use of forest provided products.

In the following only those articles, which are found relevant for the social assessment, are included in the assessment. For each article the results of the expected impact are summarized using a scoring table. Herein the impact is rated on a 5 step scale as follows:

<table>
<thead>
<tr>
<th>++</th>
<th>potential significant positive impact on social issues on large scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>potential positive impact on social issues</td>
</tr>
<tr>
<td>≈</td>
<td>no impact</td>
</tr>
<tr>
<td>-</td>
<td>potential negative impact on social issues</td>
</tr>
<tr>
<td>--</td>
<td>potential significant negative impact on social issues on large scale</td>
</tr>
</tbody>
</table>

It should be emphasized that the above rating only is made for those articles, where it is possible. Some articles are either too vague to make a proper assessment on them, or their impact on social factors is based only on a successful implementation of a regulation, which is still in development.

### 7.4 Social Assessment of the Draft Forest Code

**Article 1 and 2: Not assessed**

**Article 3. Legislation of Georgia Forest Governing Forest Sector**

*Description:* This article defines the relation to other Georgian environmental legislation, part of which is currently subject to reforms.

*Conclusion:* Correct references to actual national laws and bylaws is recommended.

<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Not relevant</td>
<td>+</td>
<td>overall implementation risk</td>
</tr>
</tbody>
</table>

**Article 4. Principles for Forest management**

*Description:* The article describes principles for forest management.

*Analysis:* The article is very vague in its descriptions of different management principles, an example: “In case forest is used for the national or public interests in a way that is different from forest use/aim, appropriate compensation measures must be provided.”

“Appropriate compensation” is very unprecise. A more comprehensive reference/term would be preferred, which indicates more specific, how compensation is calculated and to whom. A reference to the relevant regulation could also be used. The article also use the term “sustainable use.” In general, such terms should be defined more comprehensively in the article.

*Conclusion and recommendations:* Reference to actual EU EIA and SEA law should be made instead (EIA Directive 2014/52/EU of 16th of April 2014 with amendments and SEA Directive 2001/42/EC of 27th of June 2001), as well as relevant national law on transparency and public participation in relation to official planning and development. A more thoroughly description or reference to regulations on topics like “sustainable” and “appropriate compensation” is recommended.
### Article 5. Forest Ownership Rights

**Description:** Property rights to the Georgian Forest may be held by the state, by the municipality or a private owner.

**Analysis:** This article suggests a greater decentralization of forest management, which will have a positive impact on the development of local organizational capacity and can potentially ensure effective management of forest resources. However, there is a risk of development of different standards of management under different ownership. Interviews held with officials at municipal levels also tells that they currently are not interested in the handling of such a task. Main reason being that they lack educated staff, economic resources, and technical skills and equipment.

**Conclusion:** The conclusion here will be that the degree of efficient implementations at district and municipal levels in the future will determine the actual impact in socioeconomic terms. Also, as mentioned in the baseline, there is a lack of registered landownership in Georgia. This could indicate that determination of what land belongs to who is difficult to outline. Furthermore, there is a tendency for the landowners not to register their land, as they then will have to pay taxes of the land based on the number of hectares, they own. Also, the taxation system suffers from different levels of management depending on the local/district official system. An overall mapping of the forest (based on GIS data), which shows different types of ownership, would be recommended to ease management of forest ownership.

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<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>Not relevant +</td>
<td></td>
<td>Overall implementation risk</td>
</tr>
</tbody>
</table>

### Article 6: Not assessed

### Article 7: Division of Forests into Categories

**Description:** The article describes potential categorization of forest into either protected, protective, resort/recreational, or utilization forest.

**Analysis:** The impact of this article will stand and fall with the comprehensiveness of the formulation of the bylaw "Rules of Categorization and Management of the Forest of Georgia". Furthermore, there will be a challenge with the actual categorization of the forest into the 4 categories due to lack of baseline data of the forests’ actual composition and condition, e.g. correct categorization is hampered by this. Registration and mapping of the categorization is also a challenge, as the official state apparatus lack knowledge, equipment and resources to undertake such a task. It is not clear either, who will do the registration and on what background, the registration is made.

**Conclusion and recommendations:** It is recommended, that this article is discussed more, and that the responsible body for making this categorization is stipulated (preferably the FMB at local levels should make the categorization). Actual principles for making the categorization must be very clear and stipulated in the regulation on "Rules of Categorization and Management of the Forest of Georgia". This article is very easily hampered by lack of efficient implementation, lack of implementation of the FMB and an unstable political landscape. As many of the coming articles are based on the categorization of forest, an actual plan/programme for implementation of this article is recommended. Consider revision
so that the Code only allows for 2 types of forest – protected forest and forest, which can be used for commercial purposes.

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<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>7</td>
<td>Not relevant</td>
<td>+</td>
<td>Overall implementation risk. Lack of resources, educated personnel and technical equipment</td>
</tr>
</tbody>
</table>

**Article 8, 9, and 10: Not assessed.**

**Article 11: Utilization Forest Category**

*Description:* Utilization forest category is assigned to a forest which serves the functions of soil protection and regulates water balance. All types of forest use is allowed in this category of forest.

*Analysis:* The article is contradictory, as it says that “all type of forest use is allowed”, and then later on refers to “in a sustainable manner”.

*Conclusion and recommendations:* It should be written specifically, what kind of “forest use” is allowed within this type of forest. Words like “sustainable manner” are not specific enough.

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<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>11</td>
<td>Not relevant</td>
<td>+</td>
<td>Overall implementation risk</td>
</tr>
</tbody>
</table>

**Article 12. Setting up Forest Status**

*Description:* The article stipulates a governance structure of the forest sector and seeks to place responsibility at higher government and ministerial levels. The article refers to that the Ministry of Economy and Sustainable development should solicit for the status of forest to be state forests. This suggests that the primary priority regarding state forests is related to economy. It also defines procedures for setting up municipal and private forest status. In order for a forest to be assigned status of a municipal forest, the representative body of the municipality should apply. A commission appointed by the Minister will decide, whether the solicitation will be approved.

*Analysis:* It is not clear, if the municipality should provide staff or funds to run the forest. Private forest owners should also apply to the ministry, which will present the solicitation to the same commission. The same article states that in case private forest owner substantiates higher interest to use the territory for agricultural purposes, the territory shall not be assigned as private forest. In this regard there is a risk that many different private owners and municipalities will lead to various interpretations of this article in practice, and management quality will differ. Some of the paragraphs are unprecise: “If private forest owner substantiates higher interest to use the territory of agricultural purposes, the territory shall not be assigned a private forest status.” Does this mean that the private forest owner will not get private ownership of the forest or does it mean that the owner will get permission to use the forest for agriculture purposes? The sentence is very unclear. If it means that private forest can be used for agricultural purposes, then it will have a negative impact on the forest. On the other hand, this has a positive effect on the socioeconomic conditions of the landowner, who owns the forest.

*Conclusion and recommendations:* The solicitation should rather be done by MoENRP, as this would signal that the environmental status is most important. Ideally, the ownership should not have an impact on the socio-economic functions of the forests. The timeframe of 10 years for the municipal forests are
not necessary. If management of the forest sector is to be decentralized to local municipalities then it should be so without a timeframe, and with staff and financial resources allocated.

Given the rural population's dependency on agricultural land and activities, the possibility to use private-owned forest for agricultural purposes is positive. However, it is recommended that the exact meaning with "agricultural purposes" is defined.

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<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>7</td>
<td>Landowners and farmers</td>
<td>+</td>
<td>Overall implementation risk. Lack of resources, educated personnel and technical equipment</td>
</tr>
</tbody>
</table>

**Article 13: Termination of Forest Status**

*Description:* The article stipulates that the government of Georgia takes decision on the termination of forest status based on the substantiated solicitation of the Ministry or an autonomous republic. It also sets procedures for this.

*Analysis:* As long as the public has access to the forest regardless of its status, public participation here should not be necessary. However, if large parts of the forest is determined as protective or protected and grazing/social felling is not allowed in these parts of the forest, it may have an impact on especially the rural population. As there are no data available on the range of grazing, and the annual number of m\(^3\) of collected firewood is most likely highly underestimated (official numbers says an average says 600,000, however unofficial numbers have been estimated to be as high as 2,5-3 million m\(^3\) p.a.) in the forests, the exact impact is difficult to determine.

*Conclusion and recommendations:* Forest status should be determined only by the MoENRP on the basis of baseline studies. Public participation in relation to forest status determination will only make this kind of decisions more difficult and inefficient. Government's decision in terms of this may prove devastating for the population and the forest. If the Government wishes to expropriate parts of a forest for commercial purposes, reference to the EIA legislation and other relevant legislation on the subject should be made. In case expropriation is needed, it is important that actual regulations on compensations are clear.

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<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>All</td>
<td>-</td>
<td>Overall implementation risk. Lack of resources, educated personnel and technical equipment</td>
</tr>
</tbody>
</table>

**Article 14: Adjustment of Forest Boundaries**

*Description:* the article regulates the setting of forest boundaries.

*Analysis:* The article’s actual meaning is unclear. Why is regulation of forest boundaries needed? If infrastructure projects have to be placed in the forest, the national EIA legislation should take over the procedure. Please also see discussion of this article in the environmental assessment. Negative social impact here could be present depending on regulation of forest boundaries to the extent that boundary changes affect rural (mountainous and forest) peoples’ households and private property areas as well as their surroundings. Conflict of interest is likely to occur here between local population and state investments/external investors interests in termination/changes of forest boundaries.
**Conclusion and recommendations:** Delete the sentence: "In case of termination of the forest status or adjustment of forest boundaries, present Code does not govern the excluded area." In case of long processing time at ministerial or governmental level this will leave the forest unprotected for, potentially, a very long time. Consider carefully the need for listing this article at all in the DFC.

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<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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</thead>
<tbody>
<tr>
<td>14</td>
<td>Rural population</td>
<td>--</td>
<td>Clash of interests and bad implementation. Termination of boundaries could have negative social impact on rural population</td>
</tr>
</tbody>
</table>

**Article 15: Transfer of State Forest to Private Ownership**

*Description:* According to this article, transfer of a state forest to private ownership is acceptable in case there are reasonable grounds for expecting improvement of quantitative and qualitative characteristics of the forest and its resources required for its ecological, social and economic functioning. The law of Georgia on Forest Privatization governs transferring of state forest to private ownership.

*Analysis:* Similarly, as in article 12, many different private owners and municipalities will lead to various interpretations of this article in practice, and there is a risk that management quality will differ. However, the term “improvement” is difficult to determine, and how is this settled? Clear definitions of this should be stated, so it is clear, what is meant by this term. Leaving this type of decision to the Government is not desirable. This type of decision should be left to the MoENRP, as it is expected that the Ministry is the one, which will be most capable of making the right decision of, whether a state forest can be transferred to private forest. Leaving such a decision to the Ministry of Economy and Sustainable development or the Government makes lillites sense.

Also, as mentioned in the environmental assessment under this article: “The quantitative indicators and owner’s obligations related to forest privatization are unclear. Although forest privatization is regulated under a separate law, the Code should define the principles of privatization as well as the obligations of private persons in the privatization process.” In practice, there should be no difference between ownership obligations in relation the management of the forest, and the forest’s status may still be protected or protective, even though the ownership is private.

The article also refers to “the law of Georgia on Forest Privatization”. What exactly this means in practice is unclear, but as the article refers only to this law, comprehensive reading and perhaps adjustment of this law is needed in order to avoid contradictions of this and the DFC’s articles. There is a general tendency in the DFC that reference made to other laws may prove inappropriate in the long run, as some of these laws are flawed, too old and therefore need amendments as a result of the DFC. However, there is a risk that transference of ownership type from state to private will may have n negative environmental impact, but a positive social one.

*Conclusion and recommendations:* it should be checked if adjustment of relevant regulations/bylaw is needed especially “the law of Georgia on Forest Privatization”. The term “improvement” should be defined. Ownership type should be left to the MoENRP and not the Government. Please note that implementation of this article could have a biased effect: positive on social issues in terms of private ownership, but potential negative on environment.

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<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>15</td>
<td>Positive for landowners</td>
<td>+</td>
<td>Overall implementation risk.</td>
</tr>
</tbody>
</table>
**Article 16: Not assessed.**

**Article 17: Public Participation**

*Description:* This article envisages the participation of stakeholders in decision processes pertaining to forest management and regulates public access to information on forest management.

*Analysis:* The idea of public participation is good, but the article is not precise enough. The article states that stakeholders have a right to participate in the decision making process related to forest management. Moreover, the forest management plan is approved through public administrative procedure. Here participation is of course essential, and it will have a positive impact on socio-economic functions, however it is not clearly defined, how participation shall take place. Any forest management Body (FMB) should have the freedom to implement its management plan, once approved, without further outside interference. A challenge is that interviews conducted with municipal officials tell that the officials at this point are not interested in handling such a task, which the Forest Management Plans require. So, even though the article is positive, there is a risk that actual implementation will be hampered by lack of skills, equipment, personnel and perhaps most important, lack of interest in getting extra tasks at the municipal levels undertaking such processes.

*Conclusion and recommendations:* In 2015, Georgia finalized the draft Environmental Assessment Code, stipulating inter alia the legal framework for SEA. It is expected that the Code will be adopted by the country in 2017. Therefore, a reference should be made to the new Environmental Assessment Code, which already stipulates the process of public participation.

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<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>17</td>
<td>Not relevant</td>
<td>+</td>
<td>Overall implementation risk. Lack of resources, educated personnel and technical equipment</td>
</tr>
</tbody>
</table>

**Articles 18, 19, and 20:**

*Description:* The articles define the competences of the MoENRP, Autonomous Republics and Self-governments. The most important competences of a local-governing body in the sphere of municipal forest management include developing and implementing measures for the forest protection, tending, restoration and use, establishing a municipal forest management body (FMB), developing forest management plan and submitting it to the Ministry for approval, developing and approving forest annual action plan, etc.

*Analysis:* There is a risk of diverging standards depending on competence, resources available, tradition etc. at local municipality level. In addition, the key gaps in the new DFC identified by the interviewed regional forestry and municipality officials with regard to owning forest located within the municipal boundaries are the following:

- **lack of financial resources:**
All the respondents emphasized that no financial resources are available for the establishment of forest management body that will take responsibility of all procedures required by the DFC like tending, protection, thinning and other related activities. Even though some municipalities may express their willingness to own forest, still they may resist transfer of the state forest to municipal forest due to financial challenges and lack of support from central budget.
• **lack of professional/qualified staff:**
The respondents stated that in case they establish municipal forest management body, there would be a problem in terms of employing qualified staff. There is a shortage of qualified personnel in the forestry sector, and this gap is a result of the education system, which has produced quite few foresters.

• **absence of up-to-date forest inventory data:**
In order to make the right decisions, municipalities need to have detailed information regarding what kind of timber resources are available within their territories, what is the quality of the forest, composition, density, stock, etc. Considering the fact that hardly no updated inventory data is available, municipalities are hesitant to make decisions without knowing what their costs and benefits will be in case of owning forests. Hence, there is a need for up-to-date inventory data based on which, they can conduct a cost/benefit analysis for correct decision-making.

• **low interest in other type of forest services like hunting, recreation, etc.:**
The respondents show low interest in using forests for other purposes like recreation, hunting, tourism, etc. According to them, forests are mainly used for timber production and fulfilment of social needs of local people. In case municipalities will obtain ownership rights and manage their forests, still their main priority will be supplying firewood to the local population.

• **Infrastructural problems like absence of forest roads, mechanization, etc.:**
According to the interview results, there are no forest roads and adequate mechanization in order to carry out required forest management activities and monitoring.

• **high potential cost/benefit ratio:**
All the respondents fear that the potential costs associated with establishment and management of the forestry unit will be much higher than potential revenues gained due to the above-mentioned issues. Hence, without financial support from the central budget, they will not express interest to own forests and establish management bodies on a voluntary bases.

Again article 18 refers to the Ministry of Economy and Sustainable development, it should rather refer to MoENRP, as this Ministry might be more capable of handling the forest sector. Overall article 18 seems to contradict the decentralization of the sector to the local municipalities. Control of municipal plans by the Ministry will also leave the ministry with too much work and potentially damage a decentralization process.

*Conclusion and recommendations:* It is recommended that decentralization is carried out fully in the sector and not partially, as the article states currently. Furthermore, the article will, in an implementation process, require large changes and new resources of the current municipalities and some of the challenges with this is listed above.

Responsibility and process/method of monitoring and forest inventory is not clear either. It is recommended that it is listed in article 20 by who and how this is done, or the article should make a reference to a regulation/bylaw which outlines monitoring process and inventory of forest (timeframe, responsibility etc.). Such a bylaw/regulation will need participation from municipal officials and local stakeholders before finalization in order to be comprehensive and fulfilling and to minimize potential negative social impacts.
<table>
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<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>18, 19, 20</td>
<td>Not relevant</td>
<td>++</td>
<td>Lack of interest at municipal level to monitor and develop forest plans and bodies and more forest management in general. Overall implementation risk. Lack of resources, educated personnel and technical equipment at different official levels.</td>
</tr>
</tbody>
</table>

**Article 21: State Forest Managing Body**

*Description:* Pursuant to article 21 which states that: “except for the forests located within protected areas and within territories of the autonomous republics, management of state forests is carried out by a legal entity of public law National Forest Agency, which has an authority to establish legal entity of private law for ensuring forest management.”

*Analysis:* This means that the National Forest Agency should establish Forest Management Body at central level, even though it might seem more logic that the National Forest Agency could itself be the Forest Management Body, instead of creating yet another entity under the Ministry. This leaves an uncertainty within the management framework of the forest sector.

In relation to private forest, the MoENRP or the NFA should prepare inventories and monitoring of the private forests too. Given the situation the NFA is in currently, careful consideration of the placement of the responsibility of the inventory and monitoring of the forest has to be done. Inventory and monitoring in this context will be a large, expensive and very important task. The process and the method behind this type of task (monitoring and inventory) need to have a chance to develop and settle in order to be comprehensive, and therefore the placement of the responsibility has to be within a body, which will be both competent and lasting.

The FMB is the decisive player in the entire forestry, even though it should be a legal entity of private law. While its establishment will have a positive impact on socio-economic functions concerned at the same time, any weakness within this body may result in negative effects. However, the potential of improvement is also maximum here.

*Conclusion and recommendations:* The article also states that the creation of a database with information on the forests condition should be carried out by the FMB. It is recommended that such a task is taken care of by the MoENRP (establishment of database), however the FMB could have responsibility for providing the database with updated baseline data on the forests’ conditions.

As a footnote to this article, it should be clear to the FMB what is meant with Forest Annual Plan and Management Plan Projects. Guidelines for these should be listed in regulation(s).

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<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>21</td>
<td>Not relevant</td>
<td>++</td>
<td>Overall implementation risk. Lack of resources, educated personnel and technical equipment</td>
</tr>
</tbody>
</table>

**Article 22: Controlling Authority**

*Description:* According to article 22 the Department of Environmental Supervision exercises state control on the legal requirements in Georgian forests and the state control on forest located within the boundaries of protected areas, is carried out by the respective body as set out in the Law on System of
Protected areas. In contrast, an authorized legal entity under contractual relationships with the forest owner is responsible for physical protection of municipal and private forests.

**Analysis:** The legal and political mandate of the inspection is decisive for the power of this unit. Bylaws are necessary to regulate the operation of the inspection, the provisions of the forest code are not sufficient. There is a high risk of conflict of interests for private and municipality forest, when the inspection is contracted under the private forest owner. Parts of the article is contradictory to article 21. The MoENRP, the NFA and the FMB should be capable of taking care of the all types of inspections except when violations of the law is present, and in such cases the police takes over (as would be the case with e.g. illegal logging, illegal grazing etc.).

**Conclusion:** Fruitful implementation of the management of protected forest will then stand and fall with the comprehensiveness of “the Law on System of Protected areas”, and so will its potential impact of social issues of the forest sector. Proper assessment is therefore difficult to make on this article.

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<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>22</td>
<td>Not relevant</td>
<td>-</td>
<td>Risk of contradictory management within the forest sector</td>
</tr>
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</table>

**Article 23: Rights of a Private owner**

**Description:** Article 23 defines private forest owners’ rights. According to it, private forest owner has a right to conduct forest management activities or to grant such rights to a third person, as long as they do not run counter to the requirements for forest protection set forth in this law. Private owner is responsible for developing Forest Management Plan and Annual Action Plans and submit them to the Ministry for approval.

**Analysis:** Management of the forest should be based on the forest categorization and not on type pf ownership. This means that the different plans be they annual or ten-year planning, should follow standards based on the type of categorization (protected, protective or utilization). Guidelines/regulations for these has to be made also and referred to when necessary. Private owners should therefore also be subjected to such regulations/guidelines. However, there is a risk in capacity and management skills, which may differ widely among private owners, which might put obstacle to proper management of the private forests.

**Conclusion and recommendations:** It is therefore recommended that all private forests will have to be subject to annual inspection by either the NFA or the FMB, which is also locally based. As the percentages of private ownership of forest is not known, this could be a very resource-heavy post for the NFA/FMB to undertake, unless the relevant underlying regulation implies fees for payment of inspections by the private forest owners. Leaving private forest uninspected might pose a threat to the forest itself in terms of misuse or overexploitation in different environmental ways, which then never will be discovered.

It is therefore generally recommended that the article is re-worked, so that it is clear, who does inspections of private forests and at what timeframe. It should also be clarified that different plans need to follow the categorization of the forest and not type of ownership. This also indicates that private forest can be protected, which may hamper implementation of the private owners’ ideas on forest use.
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<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Private owners of forest</td>
<td>-</td>
<td>Overall implementation risk. Lack of resources within the inspection authority and education of the private forest owner will compromise the actual management of the forest</td>
</tr>
</tbody>
</table>

**Articles 24-30**

*Analysis:* Actual assessment of these articles have been carried out in the environmental part of the assessment of the DFC. However, the overall effectiveness of these articles will stand and fall with a successful implementation of the so called Forest Management Bodies at state level and at the municipalities.

*Conclusion and recommendations:* As the small survey with municipal officials has indicated, municipalities are not interested in taking over this task at this point, which also indicates some resistance to the establishment of the new FMBs. More interviews are therefore needed (national stakeholder interviews with officials) in order to find a possible solution to, how the decentralization of the sector could be implemented. Pilot projects could be used to test different solutions to this problem, as mentioned in the chapter on conclusions and recommendations. Decentralization of the sector as a whole will have a huge positive impact on the management of forest per se, but this is also, where one of the largest risk lies in terms of implementation of the DFC.

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<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>24-30</td>
<td>Not relevant</td>
<td>++</td>
<td>Overall implementation risk. Lack of resources, educated personnel and technical equipment at municipal levels</td>
</tr>
</tbody>
</table>

**Articles 31, 32 and 35**

*Description:* These articles regulate rights to enter and freely move in the forest for the purpose of leisure and entertainment as well as to freely extract secondary wood products and non-timber forest products for personal consumption. In certain cases, moving inside forest and free use of secondary wood products and non-timber forest products may be restricted through the decision of a forest owner or a forest managing body (FMB), or it may be forbidden because of conservation issues.

*Analysis:* The overall objective with the articles are positive, as access to forests is crucial for the general population and especially for those living in rural areas close to forests, which may want to use the forests for different purposes, such as collection of non-timber forest products for personal consumption, etc. However, on one hand, there is a risk of uncontrolled extraction of non-timber products and on the other hand, there is a risk of rights’ misuse i.e. restricting access where not necessary. Moreover, some of the access restrictions, which the owner can decide, should only be temporary. In addition, hunting farms should be replaced by game enclosures. The concept of hunting farms is abandoned in the new hunting law, and access to forest within hunting management areas should generally not be denied (except maybe on certain hunting days). Also, there seems to be a tendency that license owners for commercial logging tend to ban public access from large parts of the forest. However, this part of the forest sector seems to operate in a more informal atmosphere, and actual conclusions cannot be drawn on the available data.

*Conclusion and recommendations:* It is recommended that article 31 and 32 are rewritten, so that it stipulates that there is free entry for the public to all types of forest – no matter ownership, type, or
categorization of the forest. Access by motor vehicles though should not be allowed, unless specific permission is given by the FMB. As it is now, the two articles may very well lead to misinterpretation, which could have a negative impact on the rural population living by the forest in terms of restricted access to large parts of the forest. In case of fear of wild fires, denied access to forest will do no good, it is much better to ban the making of fire in the warm periods of the year or during dry seasons.

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<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>31,32 and 35</td>
<td>Forest users and farmers</td>
<td>+</td>
<td>Overall implementation risk. Lack of resources, educated personnel and technical equipment at municipal levels. Difficult to control.</td>
</tr>
</tbody>
</table>

**Article 33: Grazing in the Forest**

*Description:* Article 33 states that special territories are allocated for grazing in the state and municipal forests based on the needs of the local population. The basis for establishment of grazing places and quotas is determined in the Forest Management Plan or Annual Action Plan. Pursuant to this article, appropriate information signs shall be installed on the territory designated for grazing. Importantly, temporary restrictions may be imposed within the territories designated for grazing, based on the decision of a forest owner or a FMB.

*Analysis:* The article itself is very general, and it neither says anything about specific measures for reducing pressure from overgrazing nor specifies any sustainable grazing methods to be employed like vertical grazing and pasture rotation practices, etc. Moreover, one should be very careful, while imposing restrictions on grazing, since rural populations (especially poor people with lack of alternative livelihood opportunities) are highly dependent on livestock as a main source of income in many regions of Georgia. Moreover, there is a high risk of overgrazing, and use of forest areas not designated for grazing.

As about 50 % of the population in Georgia are occupied within the agricultural sector (hereunder livestock owners), the ratification of this article can potentially have a huge impact on this part of the rural population. However, as there are no baseline data available on the actual amount of grazing taking place in the forest, a more precise assessment is difficult to make. Experts have estimated that the consequences for the forest due to grazing is far more devastating than illegal logging. However, regulation of grazing in a too strict manner could have devastating consequences for large parts of the rural population, who owns livestock. If the two plans mentioned above are the ones, which set actual regulations for the grazing methods and areas, inclusion of local farmers opinions into the plans are needed. Controlling grazing in this manner also means that the FMBs need basic knowledge on actual grazing’s impact on the different types of fauna and flora and especially recovering of forest and access to thorough baseline information on the forest’s condition.

*Conclusion and recommendations:* A pilot project could be a start to find out, how actual regulation of grazing could be done, however one should recognize that grazing regulation will have to vary from district to district depending on type of forest, actual numbers of herders/livestock owners, geography etc. Using one pilot project as representative for the whole sector will therefore most likely lead to mismanagement of the grazing issue indicating the need for a context specific approach. It is also recommended that an actual slope gradient limit for grazing is listed in article 33, even though this will be difficult to control in practice.

Overall implementation of this article will need more investigations and data on actual grazing patterns and condition of the forest in the country, so that actual impacts posed on environment or/and socioeconomic factors can be balanced in the best possible way. Regulation of grazing in the forest will
contribute to a more sustainable use of the forest and its resources, however as it is now too strict regulation of grazing could compromise livestock owner’s income.

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<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>Livestock owners who uses forest as pasture lands</td>
<td>++</td>
<td>Overall implementation risk. Lack of resources, educated personnel and technical equipment at municipal levels. Too strict regulation will most likely have a devastating impact on livestock farmers.</td>
</tr>
</tbody>
</table>

**Article 37: Types of Special use of Forest**

*Description:* This article lists types of special use of forest.

*Analysis:* The overall intention with the article is positive, however all the paragraphs are unprecise. Forest use should be determined on the basis of the forest categorization and stipulated carefully in the Forest Management Plan and Forest Annual Plan. Logging and agricultural use in protected and protective forest should not be allowed. Please also see assessment of the environmental part on article 37 for more recommendations. Moreover, harmonization is required with hunting law and Environmental Impact Assessment (EIA) law, and references should be made to those in a proper manner in the article.

*Conclusion:* The articles’ impact in social terms will depend on the actual categorization of the forest and the management plans definition of forest use in the specific area.

**Article 38: Right for Special Use of Forest**

*Description:* This article gives far reaching competences to the FMB, which holds the right to conduct special use of forest or grants the right of special use to physical persons or legal entities.

*Analysis:* Actual impact on social terms in relation to this article will depend on the paragraphs set forth in the two regulations “Forest Use Rules” and “Compilation and Issuance of Forest Use Documents”.

*Conclusion and recommendations:* The rights for special use should be stipulated more thoroughly in the regulation on “Forest Use Rules” and the “Compilation and Issuance of Forest Use Documents” which, first of all, has to be based on the forest categorization. It is highly recommended that both regulations mentioned above are made by the MoENRP.

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<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>38</td>
<td>People using firewood as main heating source</td>
<td>~</td>
<td>Overall implementation risk. Lack of resources, educated personnel and technical equipment at municipal levels.</td>
</tr>
</tbody>
</table>

**Article 43: Rights and Obligations of Forest User**

*Description:* the article defines the rights and obligations of the forest user.

*Analysis:* Overall, the article will have a positive impact in social terms, as long as the forest users are acquainted with rights and obligations listed in the DFC. The risk is that the obligations could contradict old methods and traditions of handling the forest by current forest users. As mentioned in the environmental assessment under this article, education of forest users will help implement new ways of using the forest.
**Conclusion and recommendations:** Even though the article specifies well-defined rights as well as respective obligations of forest users, there is a risk of improper forest use, lack of capacity and violation of rules, which ideally requires control. The article’s first part 1) is in some places very unclear, and all references made to the “Forest Use Documents” should be replaced with “Forest Management Plan and Annual Management Plan”. It should be avoided using brackets in the paragraphs.

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<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>43</td>
<td>Forest users</td>
<td>+</td>
<td>Overall implementation risk. Clash between old (cultural) defined methods/ways of forest use and new regulations in the DFC. Lack of awareness amongst forest users of the new regulations in the DFC.</td>
</tr>
</tbody>
</table>

**Articles 44-48:**

*Description:* the articles stipulate overall rules in relation to different types of logging.

*Analysis:* Overall, the social impact from these articles will be positive, as they will contribute to a sustainable forest use in terms of logging, which will keep the forest for the many next generations to use and secure a more natural growth and commercial use of the forest.

*Conclusion and recommendations:* In terms of actual implementation, the “Forest Use Rules” should outline the actual methodologies in terms of logging methods. In this process, consultations with relevant (environmental) experts are needed, and here it becomes pivotal that the “Forest Use Rules” is made as a regulation as suggested in the DFC.

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<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
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<tbody>
<tr>
<td>44-48</td>
<td>Forest users/loggers</td>
<td>++</td>
<td>Overall implementation risk. Clash between old (cultural) defined methods/ways of forest use and new regulations in the DFC. Lack of awareness amongst forest users/loggers of the new forest code and regulations.</td>
</tr>
</tbody>
</table>

**Article 49: Legal basis for Logging**

*Description:* Article 49 specifies the legal bases for logging. It states that the FMBs, within its competence, carry out logging based on forest management interests. Importantly, logging ticket is issued with consideration of individual social needs of physical persons and is in force within a specific cutting area allocated by the FMB. Bases for issuance of “logging ticket” are lists compiled by a Governor, indicating (name, surname, personal number) of the representative of an actually residing household (family). Furthermore, a person applying for a logging ticket submits to the forest managing body receipt proving payment for the sought service as well as receipt in accordance with the Law on Fees for Using Natural Resources, and the FMB promptly issues the ticket based on a simple administrative proceeding. In case the logging is not performed within the timeframe and of the volume indicated in the logging ticket, the ticket becomes void, and the FMB does not reimburse the paid service fee.

*Analysis:* Several authors emphasized that procedures of legal forest harvesting (obtaining logging ticket) have been identified in the previous research as one of the causes of illegal logging. Especially for those households living in high mountainous areas, it is hard to follow all the steps for obtaining firewood legally (Gakharia, 2014) and (CENN, 2015). This is partially due to the system, as it runs now, where obtaining the ticket is difficult and requires payment on the site instead of a process, where digital
transfer of money is provided. Also, the actual need for firewood is most likely underestimated, as the baseline study also showed, indicating that actual logging for firewood is much higher, than sustainable management of the forest prescribes.

The social felling issue is not easily solved. The system is prone to corruption, and often illegal cutting takes place in many districts if not all. Ideally, the FMB will do the cutting and then keep the wood at large storages, until it is dry and then distribute it on command to the consumers. This requires a lot of resources and personnel within the FMB. Unless alternative methods for heating is provided by the government of Georgia, the system of social felling as it is now, will most likely continue. It is recommended that the system is more investigated, and that alternative methods concerning distribution of firewood is analyzed in order to settle the most comprehensive and sustainable use of the forest. Changes of the system as it is now, can potentially have devastating consequences for large parts of the population, if it means restriction of access to firewood. Implementing sustainable changes in the social felling system will also require large amounts of personnel, technical equipment, and resources at municipal levels.

**Conclusion and recommendations:** What actually provides the basis for logging should be the Forest Management Plan and the Annual Forest Plan. At present there is a need for additional clarifications, which stipulates how in the future social felling shall take place. In relation to article 92 paragraph 3, logging rights for social felling is phased out on December 2018. Does this mean, that the forest managing body is organizing the felling afterwards? Phasing out social cuts two years after enactment of the new code calls for a statement of an alternative solution, otherwise it will materialize as a social issue, as a large part of the population (80% of the rural population alone) needs access to firewood for heating. Paragraph 8 states that logging ticket is issued by the regulation of the Forest Use Rules. Again, if this is the case, there should also be a guideline on, how the ticket system is provided and maintained after 2018.

<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>43</td>
<td>Loggers and social felling users</td>
<td>++</td>
<td>Overall implementation risk. The need for firewood is much higher than annual official data shows, hence the system of social felling needs rearrangements. Old practices of felling and use of firewood needs changes, these might not be easily implemented into firewood users practices.</td>
</tr>
</tbody>
</table>

**Article 50: Wood origin document**

*Description:* Article 50 states that Log Originating Document shall be issued to each unit of transportation moving out timber logged in the forest of Georgia in conformity with this code. It proves timber ownership based on strict accounting and is issued by the forest managing body. Notably, timber transportation without wood originating document is forbidden, and this document shall be provided upon request to a controlling body authorized by the legislation of Georgia. In relation to what is proposed in this article, high level of control is needed to minimize the risk of illegal timber transportation.

*Analysis:* The article is positive, as it seeks to control the transportation of wood, however it will require a technical system within the forest managing body or at the ministerial level, which is swift and efficient, i.e. resources, technical equipment and educated personnel are needed. Also, the procedure for attaining such a document should be digitalized in order to avoid corruption. Furthermore, a guideline is needed, so the forest management body know, what process they have to follow in order to issue the document.
Conclusion and recommendations: Concerning implementation of the article, it is recommended that the regulation on the “Log Origination Document and Rules of its Issuance” is developed by the MoENRP and approved by the Minister and not developed and approved by the government, as is says now. Furthermore, the issuance should follow guidelines stipulated by the FSC (Forest Stewardship Council). Also, it is recommended that the electronic system for registration should be developed by the MoENRP and not the FMB at state or municipal level.

<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>Not relevant</td>
<td>++</td>
<td>Overall implementation risk due to lack of institutionalized procedures and technical equipment</td>
</tr>
</tbody>
</table>

Article 51: Purpose of the Forest Use

Description: Pursuant to article 51 FMB is authorized to establish forest farm under its competence and in compliance with this law. The purpose of establishing a forest farm through planting of forest species on forestland in the framework of a long-term forest use right is to arrest erosion and landslides, increase energy potential of the forest, and without prejudice to natural forest to extract wood resources and products of woody plants.

Analysis: Arrangement of plantations will have a positive impact on timber production, firewood production, commercial use of non-timber products, household use of non-timber products and employment / job opportunities. The article will therefore have a positive social impact if implemented.

Conclusion: it is not clear, what is meant by “Forest Farming Plan” and “Forest farm”. Both needs clarification.

<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>51</td>
<td>Forest users</td>
<td>+</td>
<td>Overall implementation risk. Clash between old (cultural) defined methods/ways of forest use and new regulations in the DFC. Lack of awareness amongst forest users of the new regulations coming with the DFC.</td>
</tr>
</tbody>
</table>

Article 53: Purpose of the Forest Use

Description: According to article 53 forest may be laid out for agricultural purposes, which means its use as a hayland, pasture or arable land, for arranging temporary shelter for bees and cattle, and other supporting premises, as well as the use of existing orchards and vineyards in the forest.

Analysis: This will have a positive impact on the development of agricultural sector, as well as it will create employment opportunities for the population. The conversion of forest into arable land would require that the procedure set forth in article 13 of this law, is followed. Please also see assessment of this article in the environmental part.

Conclusion: The conversion of forest into arable land would require that the procedure set forth in article 13 of this law, is followed.
Article 55: Purpose of the Forest Use
Description: Article 55 allows use of forests for non-timber forest products and secondary wood products for commercial purposes.

Analysis: On one hand, this article creates business incentives, and this could have a positive impact on business development, job creation, etc. On the other hand, there is a risk of overexploitation of resources, and strong control mechanisms are required.

Conclusion: There is a clash between old (cultural) defined methods/ways of forest use and new regulations in the DFC. There could be a lack of awareness amongst forest users of the new regulations coming with the DFC.

<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>Forest users</td>
<td>++</td>
<td>Overall implementation risk. Clash between old (cultural) defined methods/ways of forest use and new regulations in the DFC. Lack of awareness amongst forest users of the new regulations coming with the DFC.</td>
</tr>
</tbody>
</table>

Articles 57-58: Purpose of the Forest Use and Legal basis
Description: Pursuant to Article 57 forest use as a resort and for recreational, sporting and other cultural and health improving purposes implies arrangement of facilities essential for exercising this right, including catering and supporting facilities and sport equipment, viewing sites based on respective permitting document.

Analysis: This type of forest use will have a multiple positive impacts on tourism, recreation, employment/job opportunities, etc. However, there is a need for control and safeguard - construction of sports facilities need to follow EIA legislation and Law on permits and Licenses.

Conclusion: There is a need for control and safeguard - construction of sports facilities need to follow EIA legislation and Law on permits and Licenses.

<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>57-58</td>
<td>Forest users</td>
<td>+</td>
<td>Overall implementation risk.</td>
</tr>
</tbody>
</table>

Articles 59-60: Purpose of Forest Use and Legal basis
Description: The articles stipulate how animal shelters and breeding refuges is to be placed. There is a chance that the actual implementation of the article can affect rural population, which holds livestock as main income generating source.

Analysis: As the baseline picture of the grazing and livestock dependency is not clear, actual assessment of these articles is difficult. It is good that the Forest Management Plan/Annual Management Plan for the actual district/municipality determine the location of this type of activities specifically.

Conclusion and recommendations: to minimize actual social impact, inclusion of the local farmers when drafting this part of the plan would be necessary unless baseline data is provided pre-hand to the drafting of the plans.
<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>59-60</td>
<td>Forest users</td>
<td>+</td>
<td>Overall implementation risk.</td>
</tr>
</tbody>
</table>

**Articles 61-64: On Placement of telecommunication facilities and special purpose use of Forest**

*Description:* the articles regulates telecommunications placement in forests and special use of forest.

*Analysis:* Stipulating this type of activities here is misplaced. These types of activities should be regulated by the EIA legislation of corresponding national law. The EIA legislation sets forth processes and methods for the establishment of this type of activities. Actual environmental impact assessments and screening processes will have to be conducted before any permission for this type of activities are given.

*Conclusion and recommendations:* It is therefore recommended that both chapters are erased from the DFC. Please also see environmental assessment of the articles for more comments.

<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>61-64</td>
<td>Not relevant</td>
<td>~</td>
<td>Overall implementation risk.</td>
</tr>
</tbody>
</table>

**Articles 67-68:**

*Description:* regulates forest use for scientific and educational purposes and forest protection.

*Analysis:* The articles are positive in the sense that they seek to regulate/stipulate measurements of forest protection. However, it should be clear who will do the actual inspections, this is not described in any of the articles. Therefore, there is a risk that actual implementation in terms of inspection of these forests listed especially in article 67 may be blurred in the process of developing the plan.

*Conclusion:* It should be clear who will do the actual inspections, this is not described in any of the articles.

<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-68</td>
<td>Not relevant</td>
<td>++</td>
<td>Overall implementation risk.</td>
</tr>
</tbody>
</table>

**Articles 76-81:**

*Description:* the articles outline forest tending.

*Analysis:* In accordance with these articles, the forest managing body has responsibility for planning and implementing forest-tending measures (cleaning cuts, sanitary and reconstruction cuts) with the main goal of maintaining and improving social and ecological functions of the forest. These tending measures will enable FMB to obtain additional volumes of firewood, to satisfy better the population’s needs and limit pressure on high quality timber harvesting.

*Conclusion:* These tending measures will enable FMB to obtain additional volumes of firewood, to satisfy better the population’s needs and limit pressure on high quality timber harvesting.
<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>76-81</td>
<td>All</td>
<td>++</td>
<td>Overall implementation risk.</td>
</tr>
</tbody>
</table>

**Articles 82- 88:**

*Description and analysis:* the articles stipulate different requirements of different personnel within the forest sector. The articles will not have any impact on social issues within the forest sector.

**Article 89: Legal basis for responsibility**

*Description:* The article sets forth basis for penalty in case of violation of the Forest Code.

*Conclusion and recommendations:* It is recommended that the article stipulates, which articles and paragraphs of the Code are subdue to penalty and eventually timeframe for penalty and sets a minimum level of fine. Reference to relevant national legislation (mentioned by name and number) is also recommended, e.g. the Penal Code.

<table>
<thead>
<tr>
<th>Article of DCF</th>
<th>Social factors concerned</th>
<th>Expected Impact</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>89</td>
<td>Not relevant</td>
<td>++</td>
<td>Overall implementation risk.</td>
</tr>
</tbody>
</table>

88
8 Monitoring Concept

8.1 Introduction

DFC is the result of a reform process, which took its start in 2011, when the preparation of the forestry strategy was initiated. It represents an important milestone of the entire sector reform and serves both as tool to fulfill the obligations of the association agreement and to overcome shortcomings and weaknesses of current and past forestry practice.

The implementation of the DFC, once ratified by the parliament, is supposed to induce far reaching changes in forestry practice, with expected consequences on all levels, i.e. central administration, local administration and the forest itself. Last but not least changes are also expected for the final users of the forest, the Georgian citizens.

The monitoring concept presents an approach, how expected changes from implementation of the DFC could be captured. It is intended to provide the data background, towards which the forestry policy can be oriented and help to improve the forestry practice.

From the SESA point of view focus for monitoring lies on socio-economic and environmental factors. However, in order to be able to relate changes of these factors to the forest administration, it is necessary to look into the forest management and how the DFC is being implemented. Thus the monitoring concept consists of three groups of parameters: environment, socio-economy, and management. The latter group concretely follows the implementation process, while the former two groups consider expected consequences of the implementation.

Method suggested

The monitoring concept aims at describing environmental and socio-economic changes following implementation of the DFC. The approach suggested in this paper is to utilize and systemize data which is readily available or is expected to be available in the future. It is not recommended to execute separate monitoring exercises, which may be costly, especially when country wide comprehensiveness is required. Thus the concept as a matter of principle utilizes statistics and all kinds of data, which is gathered in different institutions and administrative units of the country. Most of the data is expected to be generated at the central and local level of forest administration.

The applied method shall be straightforward and measure changes and trends against baseline conditions. For each suggested parameter the expected development will be formulated as monitoring hypothesis, which then ideally should be tested by the data. As described in detail in this report it needs to be noted, that the description of baseline conditions for many parameters is insufficient or marked with a high degree of uncertainty, especially with regards to environmental data on forest condition, but also economic data on annual cut, the functioning of the firewood supply chain etc.

Responsible for the monitoring is the National Forestry Agency. Here the monitoring process is managed and data is retrieved and compiled from many different sources. In order to avoid bureaucratic processes it is recommended to link monitoring and reporting to the forest inventory, at least in the long term perspective. The results of the monitoring would then lay down the basis for a 10 years national forest status report, which contains the latest results of the 10 years forest inventory (national inventory and management inventory), supplemented with socio-economic and forest administration related issues. However, in the first period after ratification of the DFC it will be crucial to monitor parameters that
reflect the implementation process and thus give the possibility to adjust forest policies. Here the forest management related parameters play a major role. It is recognized that some of the data also in the future will be difficult to get, e.g. the amount of illegal cut, but quality of the monitoring system may improve over the years.

*Environmental parameters (forest data)*

The overall hypothesis is, that implementation of sustainable management throughout Georgia’s forest will lead to an improvement of forest condition in the utilized forest areas and a better conservation of the protected fractions of forest. The expected changes are long-term (decades) and thus this monitoring does not reveal short term feedback of the implementation process. Main sources for the environmental data are both the national and the management inventories. Selected parameters are those of the inventories with focus on overall status of the forest condition. At the time being the inventory system is being developed and the final set of parameters is not fixed yet. The suggestions in the table below are somehow tentative and have to be adjusted and supplemented once the system of inventory is established.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Baseline Condition</th>
<th>Expected Outcome</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Structure, e.g. tree dbh; tree height; number of trees/ha; coordinates of the measured trees; distance to the nearest neighbour tree; tree social position; number of crown layers, species distribution in the crown layers; area with gaps; information on the forest edges; stage of development</strong></td>
<td>Results of first NFI</td>
<td>Overall increase in complexity of structure</td>
<td>10 years</td>
</tr>
<tr>
<td><strong>Age distribution</strong></td>
<td>Results of first NFI</td>
<td>Increase in average age</td>
<td>10 years</td>
</tr>
<tr>
<td><strong>Naturalness</strong></td>
<td>Results of first NFI</td>
<td>General development towards higher categories of naturalness (but: depends on the silvicultural methods and targets chosen)</td>
<td>10 years</td>
</tr>
<tr>
<td>- Primeval, pristine, virgin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- near-natural</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- intact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- semi-natural</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- conventionally managed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- plantation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ground vegetation</strong></td>
<td>Results of first NFI</td>
<td>General decrease in areas of degraded forest</td>
<td>3 years</td>
</tr>
<tr>
<td>- coverage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- species composition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- number of forest type specific plant species</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Deadwood (e.g. Deadwood volume; Species or group of species; Spatial position (standing/laying); Decompositional stages)</strong></td>
<td>Results of first NFI</td>
<td>General increase of volume</td>
<td>10 years</td>
</tr>
<tr>
<td><strong>Regeneration</strong></td>
<td>Results of first NFI</td>
<td>Decrease in degraded or</td>
<td>10 years</td>
</tr>
</tbody>
</table>

10 Naturalness may be commonly defined as ‘the similarity of a current ecosystem state to its natural state’.
- density of regenerating trees/bushes
- fraction of seed versus asexual regeneration
- fraction of natural versus artificial regeneration

**Socio-economic parameters**

The general hypothesis is that implementation of the DFC will have both economic and socio-economic effects. One of the central issues is the supply of the rural population with firewood.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Baseline Condition</th>
<th>Expected outcome</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of rural households receiving/purchasing official fuel wood (in accordance with newly established subsidy system)</td>
<td>10-15 %</td>
<td>Increasing</td>
<td>2 years</td>
</tr>
<tr>
<td>Total value of harvested wood</td>
<td>Results of first NFI</td>
<td>Increasing</td>
<td>Yearly</td>
</tr>
<tr>
<td>Value of NTFPs</td>
<td>Results of first NFI</td>
<td>Increasing</td>
<td>Yearly</td>
</tr>
<tr>
<td>Number of people employed in the forestry sector</td>
<td>Results of first NFI</td>
<td>Increasing</td>
<td>Yearly</td>
</tr>
<tr>
<td>Ownership of forests</td>
<td>Results of first NFI</td>
<td>More forest to be owned by municipalities</td>
<td>2 years</td>
</tr>
<tr>
<td>Percentage of forests set aside for recreation and social functions</td>
<td>Results of first NFI</td>
<td></td>
<td>2 years</td>
</tr>
</tbody>
</table>

**Forest management parameters**

The hypotheses is, that the entire forest administration will undergo significant changes after enactment of the DFC. The parameters that describe these changes are in most cases straight forward.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Baseline Condition</th>
<th>Expected tendency</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of FMUs established</td>
<td>0</td>
<td>increasing according to implementation plan</td>
<td>yearly</td>
</tr>
<tr>
<td>Total number of employees in the forest sector</td>
<td>• Central administration: ?  • Regional Forestry Service: ?  • FMU: 0</td>
<td>increase</td>
<td>yearly</td>
</tr>
<tr>
<td>Number of educated foresters employed in FMU</td>
<td>0</td>
<td>increasing according to implementation plan</td>
<td>yearly</td>
</tr>
<tr>
<td>Number of educated forest workers employed at FMU</td>
<td>0</td>
<td>increasing according to implementation plan</td>
<td>yearly</td>
</tr>
<tr>
<td>Fraction of forest with approved designation of forest categories article 7</td>
<td>0</td>
<td>0-100% according to implementation plan</td>
<td>yearly</td>
</tr>
<tr>
<td>Category</td>
<td>Value</td>
<td>Details</td>
<td>Timeframe</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>-------</td>
<td>--------------------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Fraction of forest covered by national inventory</td>
<td>0</td>
<td>According to inventory</td>
<td>To be determined</td>
</tr>
<tr>
<td>Fraction of forest covered by management inventory</td>
<td></td>
<td>According to inventory</td>
<td>To be determined</td>
</tr>
<tr>
<td>Fraction of forest with implemented management plan based on inventory</td>
<td>0</td>
<td>0-100% according to implementation plan</td>
<td>yearly</td>
</tr>
<tr>
<td>Fraction of forest transferred to private ownership</td>
<td>0</td>
<td>very slow in the first years, mid-term increase, pilot sites recommended</td>
<td>5 years</td>
</tr>
<tr>
<td>Fraction of forest transferred to Municipality</td>
<td>0</td>
<td>very slow in the first years, mid-term increase, pilot sites recommended</td>
<td>5 years</td>
</tr>
<tr>
<td>Number of by-laws passed/amended/consolidated</td>
<td>?</td>
<td></td>
<td>5 years</td>
</tr>
</tbody>
</table>
9 Conclusions and recommendations

In the following chapter the main findings from the assessment are collected and discussed. The chapter will begin with an overarching conclusion on environment and socio-economy, followed by a section which takes up the most important topics one by one to discuss the findings together with recommendations as relevant. Finally the most important recommendations will be summarized in a third section (or table). In addition, many of the discussed findings have been used to elaborate concrete suggestions for amendments of the respective articles of the DFC, which are shown in Chapter 10 of this report. For a smaller number of articles we have refrained from elaborating amendments, because we consider it necessary to reflect on the content more in depth.

All conclusions are based on the assumption that the DFC will be adopted and implemented.

9.1 Overall conclusions on environment

The strategic environmental and social assessment predicts the potential environmental impact of a project, plan or program, or in this case a Draft Forest Code. For the DFC, a central part of the ongoing forest sector reform in Georgia, significant environmental benefits are expected from the new legislation. The DFC has the potential of becoming the turning point, where a bad circle of accelerating forest degradation and mismanagement is converted into wise use of natural resources based on principles of sustainability. It is clear that the new legislation introduces knowledge based forest management as the basic principle, which rests upon three equally important columns, namely the Forest Management Body, the inventory and the Forest Management Plan. Together with the formulated overall objectives of the DFC, which has focus on ecology and long term stability, this setup of forest management has the potential to overcome many of the shortcomings of current forestry practice in Georgia.

The predicted positive impacts pertain to practically all factors that comprise the forest ecosystem as well as derived ecological functions. Concretely the following processes will be initiated:

- Protection of forests with high conservation value by applying the new system of categories
- Designation of protective forest on slopes and other vulnerable areas
- Recovery of degraded forests through natural rejuvenation and afforestation/reconstruction
- Development of usable forest as matured natural forest stands with close to natural conditions and high productivity
- Balanced extraction of resources applying non-destructive methods
- Mitigation and compensation for inevitable loss or impairment of forest and forest functions

Overall 56 out of 72 evaluated articles are rated to show significant or moderate positive potential of impact in the sense that they directly or indirectly support processes which in combination are suitable to improve forest management. 12 articles have potential negative or significant negative impact. Some of the expected negative impact, however, is not derived from a weakness of DFC, rather than it is a natural consequence of development. In particular, infrastructure development and urbanization will inevitably lead to conflict with the intrinsic objectives of the forestry. Here the DFC cannot stand alone and has to be seen in the context of other environmental legislation under development, especially EIA related regulations.
It needs to be stressed that the alternative to DFC, in the sense of abolishing the sector reform, will not lead to status quo of the forest condition. This situation is analyzed in the zero scenario of chapter 7 with the main result that forest degradation and derived loss of ecological functions will proceed quickly leading to multiple negative consequences for the ecosystem and the people living in it.

9.2 Conclusions by subjects

There are several issues, which from the strategic assessment point of view may need additional attention, either because they may be directly connected with negative impacts, or they may be misunderstood or indicate any other kind of weakness in the law text. The most important issues are presented in this section.

It should be emphasized that the overall risk with DFC is its implementation process. The articles laid forth in the DFC are wide and require a large quantity of educated personnel, resources and technical equipment at different administrative levels. Add to this a lasting and strong political will to maintain the implementation process and its existing and upcoming challenges. Otherwise, the implementation will be too dire to ever materialize within the forest sector. This said the new DFC calls for some positive and highly recommended changes within the forest management whether that be at forest users’ level or at the administrative level.

9.2.1 Organization structure of forest administration

The DFC omits to describe the overall organizational structure of the forest administration. The only entity which is introduced is the FMB, and roles and responsibilities are readily described in several articles. However, FMB’s position within the administrative system remains unclear as well as there is no information in what way the administration is branched on the central, regional, district and local level. Furthermore there is no information on the expected size of FMBs/FMUs and superior entities. The new system would require an estimated need for roughly 400 FMUs covering 1,5 mill ha of usable forest, and maybe 40 regional units (e.g. Forestry Service) with responsibility for 10 FMUs and 40,000 ha of usable forest. On the background of the recent history of the forestry, which was characterized by constant change of institutional setup and exchange of competences, in particular on the central level, it is recommended that an administrational structure is described which defines the entities and ensures that these entities are independent from political changes on the central level. The recommendation is therefore to dedicate a distinct article to the framework organizational structure.
9.2.2 Silvicultural targets
The DFC formulates the general targets which include utilization of forest in a sustainable manner; protection of forest and the land under it and protection of fertility of the soil in order to receive long term benefits (articles 4 and 11). It is recommended that the most important tool to achieve these targets is mentioned (see also suggestion on article 11 in Chapter 10). In this way the law will secure that ecosystem based forestry\(^{11}\) is introduced as the general silvicultural method, while other methods are either restricted to lowland plantations and energy forests or must be especially justified in the local context, e.g. revitalization of traditional coppice methods. This issue should be further specified in the new version of the Resolution No. 242 “On Forest Use Rules” (in preparation), but it is recommended that the DFC should set the framework.

9.2.3 EIA processes and legislation
One of the returning issues, which have been addressed in this study is the interaction of the DFC with legislation concerning EIA and licensing processes. The DFC shall be cleaned from any responsibility of consenting permanent structures or activities, which should be placed under EIA legislation, e.g. installation of telecommunication infrastructure (articles 37, 38, 61, 62). It is expected that the forest administration, both on local and central level, will be included in the approval process through the provisions of the EIA legislation (hearing and agreement of concerned parties). It is further expected that this part of the legislation will play a very important role within the country’s dynamic development and high demand for infrastructure improvement. Insofar the entry point for the development should always be the EIA legislation, not the forest code. Suggestions for amendments of the respective articles can be seen from Chapter 10.

9.2.4 Self-Governance (municipal) forest
As stated under article 5 in the assessment at present municipalities’ capacity and willingness to engage in forest management is low. From the strategic point of view the reluctance of the Municipalities is seen as a favorable starting point for implementation of the DFC in the sense that a stepwise approach can be chosen. In the first step forest management is established by the state according to the provisions of this law. In this period all standards for FMBs, management plans, inventories etc. are being developed. In a second step pilot forest transfer projects may be conducted in cooperation with self-governing bodies or private owners accompanied by the required capacity building. As experience grows, the program can be expanded. The timeline for the solicitation of the Municipalities, as envisaged in paragraph 2 of article 92 may need to be revised in this context.

In Article 12 it is unclear or contradictory to provisions of the Organic Law of Georgia “Local Self-government Code” (2014). According to Article 16 herein (“Own powers of municipality”) the municipality’s own powers include management and disposal of local natural resources, including forest resources. The exclusive right to use forest resources by a self-governing body requires the transfer of the management rights and obligations in accordance with the DFC, provided the self-governing body fulfills the conditions. Alignment of the DFC with the Local Self-government Code is recommended.

9.2.6 Private ownership
In the context of forest privatization, mainly under articles 12 and 15, further discussion and clarification may be needed in regard to the following aspects:
- Preconditions for privatization remain unclear. What are the reasons for privatization in general and what are the conditions the prospective owner shall meet?

\(^{11}\) Ecosystem-based management is one of the key ways to respond to environmental concerns and to manage forests in a sustainable manner. The main idea behind this approach is as follows: to use the natural forest as a model and to keep managed forests close to its characteristics.
• General targets are missing defining to what extent privatization of forest is envisaged
• It remains unclear, why Ministry of Economy is involved in the solicitation process. Consider the MENRP being the competent authority of this
• In cases where forests are existing on private land, paragraph 7 of article 15 would allow the owner to convert forest into agricultural land. It needs to be clarified, if this is the intention
• There is overlap with regulations under Georgian Law on State Property (2010), and the law on “Forest Privatization” and consolidation may be needed.

It is recommended that more discussions on these issues are made, and that amendments are made accordingly.

9.2.7 Additional ownership models
Article 5 is restricted to the three described ownership forms. However, one further option would be to allow transfer of forest to NGOs with sufficient capacity following the same procedure as with transfer to the patriarchy. The only purpose of this transfer would be conservation or restoration of areas with high or potentially high conservation value. While there are good experiences with private reserves owned by NGOs from Latin America and also from Denmark, this kind of ownership would be completely new to the country and should be tested and developed in pilot projects. An alternative option would be granting NGOs a long term right for the management of an area, again with the objective of conservation or restoration (common in European countries). Ideally, these areas would combine forest and none-forest areas. The management of these ‘private reserves’ will have to follow relevant legislation for protected areas and biodiversity.

9.2.8 Public participation
In the assessment of article 17 the sphere of public involvement is not defined clearly enough. Participation in the decision process of regular forest management might prove problematic. Any FMB should be at liberty to implement its Management Plan, once approved, without further outside interference. However, there are many other processes concerning the forest, which may call for public participation, especially for those processes, which may affect people directly. Suggestions for amendments of article 17 are shown in Chapter 10.

9.2.9 Environmental Supervision
While environmental supervision is a very important element of control, article 22 is unclear regarding the following aspects:

• The mandate of the supervision is unclear and the sphere of control is not defined
• There are confusing statements regarding supervision rights and physical protection
• Supervision of private owners and municipalities remains unclear and conflict of interests may occur.

The findings are further specified in the assessment of article 22. Discussions of these issues are needed and amendments accordingly. A new bylaw regulating the supervision in detail may be considered.

9.2.10 Forest management plan
Article 26 exempts private forests of less than 50 ha from the obligation to prepare management plans. The management plan should be obligatory in case the forest is used for commercial purposes.

9.2.11 Transition regulation for social felling and commercial felling licenses
Article 49 regulates the affairs of social felling more or less unchanged as it has been until now. In article 92 it is stated indirectly that the social felling is phased out, but only by stating that the logging tickets have a restricted validity until Dec 2018. The DFC could be more explicit in stating that social felling is
abolished, e.g. in article 49. However, while abolishing the social felling system would be a start towards a more sustainable use of the forest, it will have devastating consequences for large parts of especially the rural population, as this system provides more than 80% of the rural population with their main heating source (firewood). Solving this will require a new energy policy and strategy for the rural parts of the country or at least low cost energy sources that may supplement the use of firewood as heating source.

Also, the existing licenses should be suspended and subsequently negotiated again with the purpose to adopt them to the provisions of DFC. If this is not done, bad practices might continue long after, the DFC has been approved, with strongly degraded forests as the result.

9.2.12 Grazing
Pursuant to article 33 grazing is allowed in specifically assigned places. While it also provides for regulations to restrict grazing, it does not express any upper limit, nor give a clear framework or target as to what proportion of the forest may be used for grazing. Furthermore criteria need to be developed, which help to determine which forest parts qualify for grazing and where restrictions become necessary. It is considered necessary that grazing shall be regulated through detailed sub-law (see also Chapter 10). In addition, in order to avoid conflicts with the grazing needs of local population, supporting programs need to be developed to improve pasture management and production of winter forage. Given the use of the land for grazing as it is today, awareness of a more sustainable use of pasture lands among headers and forest users would contribute to the development of a more sustainable culture in terms of this. Also, actual baseline data on the subject (grazing) would help in finding and addressing the issues in a more comprehensive manner in the DFC. Regulation of the grazing lands may have a very large impact on large parts of the rural population, however as actual data on this issue is not available, it is difficult to assess article 33 comprehensively and its potential social impact. However, it should be highlighted that almost 50% of the population keeps livestock for a living, hence the potential social impact of article 33 should not be underestimated.

9.2.13 Annual allowable cut
Article 47 contains a provision that entitles the Ministry to establish the optimal volume of annual allowable cut. The article is not in line with the general decentralized approach of the DFC. The AAC needs to be calculated for individual FMUs in reference to their net-production area and further parameters, including growing stock and increment on the basis of the approved forest management plan. It is recommended to delete this article.

9.2.14 Forest Felling
Article 46 contains a provision restricted clear cuts to lowland plantations including Kolheti Lowland Forests. Plain forests of Kolkheti is not eligible for clear cuts. Parts of these forests are comprised of unique wetland forests with very high conservation value. (Please also see suggestion in Chapter 10).

9.2.15 Forest plantations
In the assessment of article 51 the law text is lacking to describe the preconditions for the establishment of plantations. As it is now, the article could be an opening to confirm existing (natural) forest into plantations. The forest code should provide safeguards against the transformation of natural forests into more commercially attractive plantations.

9.2.16 Agricultural use of forest
Articles 53/54 outline the general framework for the use of forest for agricultural purpose. However, clarification is needed with regards to the area where this activity may take place. The conversion of forest into arable land would require following the procedure set forth in Article 13 of this law. Further definitions are required for the areas on which agricultural use can take place.
9.2.17  **Forest seed production**
Article 75 provides the basis for forest seed production with the overall objective to create highly productive, targeted forests and plantations through forest restoration and afforestation. In line with the principles of ecosystem based forestry the target would be to conserve local and regional genetic variability of native tree species and thus being able to provide vital and well adapted reproduction material, when restoration or afforestation measures are executed (see suggestion in Chapter 10).

9.3  **Recommendations in a nutshell**
- Dedication of an additional article on the organizational structure
- Explicit introduction of “ecosystem based forest management” as the target silvicultural method
- Avoiding overlap with EIA legislation
- Avoiding overlap with Georgian Law „On State Property“ (2010), and the law on “Forest Privatization”
- Test and development of private reserves or long term management contracts for conservation purposes
- Substantiation of preconditions for privatization
- Reconsideration of the role of Ministry of Economy and Sustainable Development in certain administrative processes
- Substantiation of public participation
- Substantiation of the role of environmental supervision, eventually in additional bylaw
- Extension of obligation to prepare a Management Plan for private forest plots of less than 50 ha
- Create transition regulation for existing commercial felling licenses
- Substantiation of grazing regulations
- Protection of Kolkheti lowland forest from clear cuts (article 46)
- Deletion of Article 47 on annual allowable cut
- Further definitions are required for the areas on which agricultural use can take place

**Lapses in the DFC**
The screening has already revealed some key issues that will be addressed in the SESA in this way:

- Several articles in the DFC regulate the approval of activities or constructions, which must be regulated according to the EIA legislation
- The determination of the annual allowable cut by MENRP at central level is in sharp contradiction to the otherwise decentralized approach and principles of forest management of the DFC
- The DFC is insufficient in defining the overall silvicultural framework of the forestry as regards to forest type targets, silvicultural methods to be applied, tree species, etc.
- Forest auctions missing
- system of quality classification missing

In the context of making a SESA of a Draft Forest Code, mitigation measures are limited to changes of DFC itself. The following should be considered:

- Articles should be amended to something, which will not do irreversible damage to the forests;
- Specific articles of the DFC could be removed from the draft, if they clearly worsen the identified threats to the forests and the society as a whole;
- Preparation of adequate bylaws, which prevent the degradation of the forests in Georgia, should be proposed to diminish negative impacts by the DFC;
- The DFC should be proposed together with proposals to increase the number of staff (rangers) to inspect the forests and monitor their environmental status;
• Fines of substantial size should be issued to perpetrators of the DFC by e.g. illegal logging, or hunting/disturbance of endangered species, activities harming biodiversity and protected areas, etc.
10 **Suggestions for amendment of articles**

10.1 **Recommended corrections of the Draft Forest Code**

Many of the discussed findings have been used to elaborate concrete suggestions for amendments of the respective articles of DFC, which are presented in this chapter. Suggested changes are indicated by blue color in the text. Since deleted parts of the DFC are not indicated in this Chapter, it is necessary to read the original DFC version from 2 June 2015 in parallel. For a smaller number of articles amendments have not been elaborated by the authors, because it is considered necessary to reflect on the content more in depth. This is also indicated in the assessment chapter and below in this section.

**Article 3:**

Legislation of Georgia governing forest sector consists of the Constitution of Georgia, international conventions and agreements signed by Georgia, the National Forest Concept, this Code, other laws and bi-laws and normative acts adopted based on those laws.

Issues related to protection of species and habitats, as well as accessibility and fair distribution of genetic resources are regulated by the respective legal act, unless otherwise provided for in this Code.

Issues related to forest situated on protected areas are regulated by this Code unless otherwise provided in the Law of Georgia on the System of Protected Areas and other conservation related legislation (e.g. Biodiversity Act in preparation).

Forest use that is subject to environmental impact assessment, should be realized in accordance with the provisions of the Law of Georgia on Environmental Impact Assessment.

**Article 4. Principles for Forest Management**

Forests shall be managed with respect of their ecological, social and economic functions and according to the following principles:

- **ecosystem based forest management is applied to** provide for the preservation and improvement of its biodiversity, productivity, regeneration and viability;
- forest management planning shall be respectful of forest function so that receipt of one type of benefit from the forest does not cause degradation of its other functions;
- a) integration of local population’s interests into the forest management planning shall be based on the principle of sustainable management. Access to forest for its general use must be allowed irrespective of forest ownership;
- in case forest is used for the national or public interests in a way that is different from forest use/aim, compensation measures must be provided in accordance with the provisions of the Law of Georgia on Environmental Impact Assessment and subordinated regulations, as well as the Regulation on Forest Use Rules.

**Article 9. Protective Category Forest**

Protective category forest is forest that protects settlements, farm lands, infrastructure and endangered ecosystems from natural disasters.

Protective forest category includes:

- forest strip with up to 200 meters width located along permanent paths of avalanches and mudflows;
- forest located within 100 meters radius area around water intake headworks.

*Forests under this category are managed with the purpose of supporting or restoring the specific ecological functions in accordance with the management plan and rules set forth for this category in the respective bylaws.*
**Article 10. Resort Forest Category**
Resort forest category includes:
Forest located in the sanitary protection zone of resorts;
Forest located within 1 km radius area around medical institutions and mineral water springs.

Management of resort forest aims at the preservation of its curative health-giving resort-sanitary features, the landscape, important natural elements and cultural values in accordance with the management plan and rules set forth for this category in the respective bylaws. Any activity that may negatively affect these natural elements is strictly prohibited.

In the forests belonging to the category defined in this Article, sites of the Emerald Network may be established which will be managed in compliance with the corresponding rules.

**Articles 12, 13 and 15. Setting up Forest Status/ Termination of Forest Status / Transfer of State Forest to Private Ownership**
It is recommended revising these articles based on further discussion and considering the conclusions on these articles expressed in this report in the assessment chapters.

**Article 11. Utilization Forest Category**
Utilization forest is a category of forest which does not fall under other categories of forest defined in Articles 8-10 of this Code.
Utilization forest category is assigned to a forest which serves the functions of soil protection and regulates water balance. All types of forest use is allowed in this category of forest in accordance with the rules set out in this Code. The general silvicultural method to be applied is ecosystem based forest management on the territory of natural forest. Exceptions from this clause may be granted for lowland plantations and energy forests, as well as traditional silvicultural methods in clearly defined areas in accordance with the management plan and rules set forth for this category in the respective bylaws.
Utilization forest should be used in a sustainable manner; forest and the land under it should be protected; fertility of the soil should be preserved to receive long term benefits from it.
Based on the management goal for a part of forest falling under this category, and depending on the circumstances, forest use may be temporarily prohibited and/or certain limitations to forest use may be introduced, including establishment of an Emerald Network site or a natural monument that will be managed accordingly.

**Article 17. Public Participation**
Stakeholders have a right to participate in the decision making process pertaining forest management. The identity and culture of communities residing in the vicinity of forests as well as traditional ways of forest management, use and protection shall be recognized and supported.

Participation shall be ensured for processes, which are likely to bring about changes for forest users and local population, such as
- Transfer of areas of the forest fund to municipalities, patriarchy, private owners or NGOs
- Change of boundaries /termination of forest
- Introduction of zoning according to this law
- Any EIA process affecting forest
- Introduction of restrictions/ management regimes for protection (e.g. grazing, collection of NTPs, fire wood)
- Revitalization of traditional forest management in certain areas (e.g. chestnut high coppicing, low coppicing)

Routine forest management according to the approved Forest Management Plan does not require public participation.
Government agencies involved in legal relations associated with forest shall ensure publicity and access to the information on forest management.

Forest Management Plan is approved through public administrative procedure.

**Article 21. State Forest Managing Body**
Except for the forests located within protected areas and within territories of the autonomous republics, the leading management of state forests is undertaken by the legal entity of private law National Forestry Agency, which is obliged to establish local Forest Management Bodies as legal entities of private law for ensuring forest management.

**Article 22. Controlling Authority**
We recommend revising this article based on further discussion and considering the conclusions on this article expressed in this report in chapter 7.

**Article 25. Forest Monitoring**
The goal of forest monitoring is to reflect the ecological state of Georgia’s forest; for the purpose of improving them, to submit the results of analysis to the state entities and to inform the population.

Forest monitoring is undertaken by forest management bodies on their territories, by their territorial divisions and by other authorized entities and forest users.

Forest monitoring on the national level is conducted through national forest inventory on a grid of permanent sample plots and on local level through Forest Management Inventory on a stratified set of sample plots. The applied methods are defined by Rules and Inventory System of Georgian Forests act.

**Article 26. Forest Planning**
Forest planning on district or action area of the forest management body is undertaken once in every 10 years.

Forest planning actions are:

... Obligation to develop a Forest Management Plan applies to all private or municipal forests in case they are used for production, irrespective size of the plot.

... 

**Article 30. Annual Action Plan**
1. Annual Action Plan is elaborated based on the Forest Management Plan and/or outcomes of special study of the forest, and provides detailed description of the activities planned for a year.
2. Annual Action Plan shall include at least the following information:
   a) location and area of territory within which the planned activities will be carried out;
   b) volume of forestry activities and methodology of their implementation;
   c) types and scope of activities to be performed within the planning period.
3. Prior to the preparation of the Annual Action Plan, forest user has not right to undertake felling with the purpose of timber extraction.
4. Annual Action Plan is elaborated by a forest managing body.

**Article 31. Entering and Moving Inside the Forest**
1. Any person has a right to enter and freely move in the forest for leisure and entertainment. This right does not imply use of those forest resources for which special authorization is required according to the legislation.
2. Entering forest and/or moving inside it may be limited through the decision of a forest owner or a forest managing body in the following cases:
   a) If required for undertaking fire prevention or fire-fighting activities;
   b) If required for the implementation of forest protection, tending and restoration measures;
   c) If required for ensuring safety of authorized timber extraction, based on law;
   d) in forest areas where there is located arboretum of forest species, seed stands, game enclosures, fish farm, nursery, stockpile of logs, parking of machinery, timber transportation route (except forest roads);
   e) in the forest restoration area where the height of plantation has not reached 3 meters;
   f) any other reasons provided in the Forest Management Plan or Annual Action Plan.

3. Access limits imposed under paragraph 2 shall be suspended as soon as the reason for such limits is not valid anymore.

4. Entering forest and/or moving inside by vehicle is allowed on forest roads except in cases where a forest user has had this right restricted.

**Article 33. Grazing in the Forest**
1. Taking into account needs of the local population, special territories are allocated for grazing in the state and municipal forests, except for the cases when it is impossible due to the function and condition of a forest. **Grazing is further regulated through subordinated normative acts.**
2. Grazing places and quotas are established based on the Forest Management Plan or Annual Action Plan. Appropriate information signs shall be installed on the territory designated for grazing.
3. Grazing within designated territories may be temporarily restricted based on the decision of a forest owner or a forest managing body if this is necessary to allow the implementation of forest protection, tending or restoration activities.

**Article 34. Making Fire in the Forest**
1. Making fires in the forest is allowed only in specially allocated location where corresponding information signs are placed.
2. **Forest managing agency is allowed to make fire in the forest in order to clean it from pests and diseases if there is a justified confidence in this activity not carrying threat for the forest and the quality of soil under it, and not having high likelihood of spreading the fire.**
3. Forest owner and forest managing body are authorized to limit the right of making fire in the specially designated forest areas for a certain period, if this is deemed relevant for avoiding forest fire.

**Article 37. Types of Special Use of Forest**
1. Types of special use of forest allowed in the forest of Georgia are:
   a) logging;
   b) tending, thinning, other measures of forest maintenance and protection
   c) use for agricultural purposes;
   d) collection of non-timber forest products and secondary wood product;
   e) use of the forest for leisure, recreation, sports and other cultural / recreational purposes;
   f) arranging animal shelters and breeding facilities;
   g) use of the forest for special purposes;
   h) Scientific research and training.
2. Exercising special use of forest simultaneously in several ways. Granting a right of special use of forest is prohibited if it interferes with the exercise of an already given right of special use. The forest uses defined in paragraph 1 of this article can be conducted in utilization forest. No forest use can be conducted in protected forest, except production of non-timber forest products and secondary wood product and scientific research and training. The forest uses defined in paragraph 1 of this article, except logging can be conducted in resort and protected forests. The forest uses defined in paragraph 1b of this article can be conducted in any category of forest according to the provisions of the management plan.
3. Arranging hunting and fishery facilities is regulated by respective legislation.

**Article 38. Right for Special Use of Forest**
Right for special use of forest may be held by a forest management body.

Special forest use, as well as scientific research and training uses of forests can be authorized by a forest management body after relevant application of a concerned person based on individual administrative act.

Logging is conducted by physical persons after timber production ticket is issued by the forest management body. No timber production ticket can be issued after 22 month from enactment of this code.

Forest Use Document identifies at least:
- location assigned for forest use and area;
- type of forest use;
- duration of forest use;
- amount of forest resource permitted for extraction;
- allowed forms and methods of forest use;
- resource fee and other payments;
- other rights and responsibilities of a forest user.

5. Rules of forest use in compliance with this Code are set forth in the regulation on the Forest Use Rules developed and approved by the Minister.

6. Rules of compiling and issuing Forest Use Documents are set forth in the regulation "on Compilation and Issuance of Forest Use Documents" elaborated by the Ministry and approved by the Government of Georgia.

**Article 40. Planned Use of Forest**
Forest use shall be based on planning.

Main requirements for forest use planning are derived from the principles stipulated in this Code.

In forest use planning, preference is given to the patterns of long term and integrated use that provides for the exercise of several types of forest use simultaneously.

Forest use planning shall recommend the use of such methods that are not harmful for the natural environment, biodiversity, fauna, and historical and natural monuments.

For forest use planning a Forest Management Plan and/or annual activity plan is prepared. These plans are based upon the results of the FMI.

**Article 44. Logging**
1. Logging is performed under the conditions allowing steady and permanent flow of the output without compromising natural beneficial characteristics of the forest.

2. Logging is performed in the mature or over-mature stands through individual selective cutting or group cutting. Predominantly aging trees are extracted thus facilitating natural rejuvenation (regeneration) of the stand.

3. Slope gradient limit for timber extraction from Georgia’s forest is 35°.

**Article 45. Special Requirements for Logging between Slope Gradients of 31° and 36°**
1. Density of timber extracted on the slopes with the gradient between 31° and 36° cannot be lower the 0.7.

2. Transporting timber extracted on the slopes with the gradient between 31° and 36° is allowed only with cable ways, air transport or animal power;

3. Special conditions for logging on the slopes with the gradient between 31° and 36° are established on the basis of the Forest Management Plan and are mandatory for forest users.

**Article 46. Forest Felling**
1. Forest felling for timber extraction from the forest of Georgia is performed through clear cuts and selective cuts.
2. Clear cut means total simultaneous felling of timber species in a particular section of the forest which may be performed in low land plantations and energy forests. Clear cutting may be prohibited in plantations if it is likely to:
   a) significantly damage soil water regime;
   b) cause erosion and loss of topsoil;
   c) weaken protective function of the forest.
3. Selective production cut is performed in a particular section of the forest and means selective felling of timber species. The volume of wood cut considering the rotation period shall not exceed forest productivity/increment.
4. Optimal commercial utilization production felling age of forest forming main timber species is established by the regulation on Forest Use Rules.

**Article 47. Annual Allowable Cut**
1. For the purpose of long-term forest use, the AAC is calculated for individual FMUs according to their management plan in reference to their net-production area and further parameters, including growing stock and increment.
2. The AAC will be specified in the annual action plan for individual FMUs. Not realized extraction can be accumulated and transferred to subsequent Annual Action Plans.

**Article 49. Legal Basis for Logging**
1. Forest managing body exercises forest management for the interests of sustainable forestry interests.
2. Logging ticket is issued in accordance to the approved Forest Management Plan with consideration of individual social needs of physical persons and is in force within a specific cutting area allocated by a forest managing body.
3. Logging ticket is a document issued by the forest managing body to a particular resident of the municipality authorizing its holder to perform logging.
4. Logging ticket is issued on the basis of lists compiled by a Governor indicating identity (name, surname, personal number) of the representative of an actually residing household (family).
5. A person applying for a logging ticket submits to the forest managing body receipt proving payment for the sought service, as well receipt in accordance with the Law on Fees for Using Natural Resources, and the forest managing body promptly issues the ticket based on the simple administrative proceeding.
6. Logging ticket carries the following information: ticket number; number of the felling area, location of the felling area, species, quality and volume of trees for felling; and period of ticket validity;
7. If logging is not performed within the timeframe and in the volume indicated in the logging ticket, the ticket becomes void and the service fee is not reimbursed the management body.
8. Logging ticket is issued according to the regulation on Forest Use Rules. No logging ticket can be issues after 22 month from the time of enactment of this code.

**Article 51. Purpose of the Forest Use**
1. For the interests of forest management, in accordance with the law plantations are established by the forest management body under its competence.
2. Purpose of establishing a plantation through planting of forest species on hitherto non-forested areas in the framework of a long-term forest use right is to arrest erosion and landslide, increase energy potential of the forest, and without prejudice to natural forest to extract wood resources and products of woody plants.
3. Selection of timber plant species for forest farms and use of their resources is carried out based on the Forest Management Plan. Priority shall be given to native tree species. Non-native species shall only be admitted in exceptional cases with permission of the Ministry.
4. Only temporary buildings are allowed on the forest territory allocated for forest farming

**Article 58. Legal Basis**
1. Administrative proceeding towards the issuance of a license for the use of forest as a resort and for recreational, sporting, and other cultural and health improving purposes is initiated by the forest managing body.
2. Forest area is selected by the forest managing body based on the Forest Management Plan and/or the Annual Action Plan. The decision contains the following information:
   a) area assigned and its boundaries (cadastral drawing);
   b) location (forest management unit, quartile compartment, liter, elevation from the sea level, slope gradient, exposition, etc.);
   c) existing roads and those to be constructed and other infrastructure;
   d) taxation data of the plants on the plot;
   e) general characteristics of the area around selected plot.
3. The forest management body elaborates a perspective plan for the use of forest as a resort or for recreational, sporting or other cultural and health improving purposes compiled on the basis of the regulation on Forest Use Rules.
4. The forest management body may impose conditions on the license for the use of forest.

Article 67. Purpose of the Forest Use
1. Special Purpose Use of Forest is performed for the following purposes:
   a. operating, constructing, reconstructing (rehabilitating) or decommissioning of energo-generation objects, hydraulic structures, water channels, pipelines, power transmission lines and roads or undertaking design, engineering and geological works required for this infrastructure.
   b. implementing fire-fighting fire prevention measures and responding to flooding damage;
   c. reconstructing (rehabilitating) cultural heritage monuments, performing archeological operations, archeological surveys and excavations;
   d. performing oil and gas operations;
   e. implementing infrastructural projects of the national and/or public importance or interventions required for addressing constraints to the operation or a damage of such infrastructure.
2. The Ministry takes decision on granting the right of special use of forest through a public administrative procedure.
3. For the purpose of taking the decision stipulated in Point 1 of this Article the Ministry ensures the involvement of other administrative bodies and concerned parties into the administrative proceeding in accordance with the requirements of the General Administrative Code of Georgia and the Law of Georgia on Environmental Impact Assessment.
4. An individual administrative act issued by the Ministry is sent to the applicant and the forest managing body.
5. Based on the administrative act defined in Point 3 of this Article, the forest managing body concludes an Administrative contract with the prospective forest user on the special use of forest. A standard format of such agreement is established through the regulation on Forest Use Rules.

Article 64. Basis for the decision
1. The right for the special use of forest is granted based on the application of a prospective forest user.
2. Application of a prospective forest user (including attachments) shall meet the requirements of the Law of Georgia on Environmental Impact Assessment, this Law and the regulation “on the Rules of Forest Use”.
3. Rules of compensation by forest user are set forth in the Law of Georgia on Environmental Impact Assessment (in preparation) and subordinated regulations, as well as the Regulation on Forest Use Rules.
4. If forest felling is required for exercising the right for special use of forest (logging through special felling), transportation and sale is carried out by the forest managing body and financed by the forest user on the basis of a relevant agreement concluded between these two parties.

Article 68. Forest Protection Measures
1. Forest protection is undertaken with consideration of biodiversity and other properties of the forest of Georgia and comprises forest management, biological, chemical and mechanic methods and
organizational, legal and other tools for sustaining forest of Georgia and protecting it from destruction, damage, pollution and other negative impacts.

2. Chemical method of forest protection is applied under the circumstances specified in the regulation “on the Rules of Forest Tending, Restoration and Protection” and according to the established regulations.

3. Forest protection measures include:
   a) optimizing forest resilience by applying ecosystem base forest management
   b) forest zoning (into low, average and high risk zones) according to the threat of pests and diseases spreading;
   c) pathologic monitoring and study;

5. Responsible person in accordance with this law is the Forest Management Body, the Department of Environmental Inspection and the Police, which is entitled to
   a) inspect the forest according to the established rules in order to exercise state control in the sphere of forest protection;

Article 69. Prohibition of Forest Destruction

1. Activities causing forest destruction are prohibited.
2. An activity is considered destructive for the forest if it:
   a) causes average or more than average changes of abundance and distribution of all species naturally occurring in the forest;
   b) causes average or more than average changes of the naturalness of the forest stands;
   c) causes average or more than average changes of natural ecological forest functions;
   d) causes average or more than average degradation of forest soil;
   e) poses an obvious risk of landslides or erosion of forest soil;
   f) prevents timely regeneration of the forest;
   g) exposes forest to widespread risks such as wind, fire, biologic and chemical agents, pests and diseases, and any type of pollution.
3. Regulations for cleaning the forest from household, industrial and other types of waste are set forth in the regulation “on the Rules of Forest Tending, Restoration and Protection”.
4. Compensation for the damage caused to the forest and responsibility for causing damage are defined based on this Code and other legislative acts.

Article 74. Planning and Implementation of Forest Restoration and Afforestation

1. Forest managing body plans annually forest restoration and afforestation measures with consideration of available resources and based on the Forest Management Plan and/or Annual Action Plan. Based on the restoration and afforestation plan, a restoration and afforestation project is developed for a specific territory.

9. Forest restoration and afforestation will be considered completed if the area subject to restoration carries sufficient number of naturally proliferating and/or planted seedlings, and there are no circumstances preventing their growth and development.

10. Forest restoration is performed by using local or regional seeds or saplings of natural occurring tree species and which are planted in a site-specific manner. Non-native or non-site-specific tree species can be admitted in lowland plantations and energy forests, authorized by the Ministry through individual administrative act and documented in the Forest Management Plan.

11. Forest restoration is performed by using reproduction materials certified according to the regulation “on the Rules of Import, Export and Production of Forest Reproduction Materials” developed and approved by the Ministry.
Article 75. Forest Seed Production
1. Forest seed production serves for the conservation of local and regional genetic variability of native tree species and supply of well adapted reproduction material for restoration and afforestation.
2. For the purpose of organizing and developing forest seed production following measures are conducted.

Article 84. Forest Worker
Forest worker is a person who, under the supervision of a forester, carries out physical activities for forest protection, tending and restoration, performs logging and produces or harvests non-timber forest resources, and secondary wood parts of timber species.
A Forest Worker should be educated as "Forest Work Specialist" or equivalent vocational education.

Article 90. Transitional Regulation of Forest Use Licenses and Designated Uses
1. Forest use license for a particular type of activity issued prior to enactment of this Code are suspended and reassessed with the purpose of issuing updated license in accordance with this Code.
2. Designated use rights issued prior to enactment of this Code are suspended and reassessed with the purpose of issuing updated use rights in accordance with this Code.
11 Referencer


CENN Assessment of the firewood dependence reduction based on existing studies and reports [Rapport]. - [s.l.] : Caucasus Environment NGO Network (CENN), 2015.


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