



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Confederation

Federal Office for the Environment FOEN



## United Nations Economic Commission for Europe

### Convention on Environmental Impact Assessment in a Transboundary Context, Espoo (1991)

#### Background materials for a study tour of projects in the Geneva area with transboundary impacts 6 April 2006

The UNECE Secretariat of the Espoo Convention has prepared this informal document with the financial support of the Swiss Federal Office for the Environment.

The findings, interpretations and conclusions expressed in this document are those of the various United Nations staff members, consultants and advisers to the United Nations Secretariat who prepared this document and do not necessarily represent the views of the United Nations or its Member States.

This document is provided for information only and does not constitute formal legal or other professional advice. The authors assume no liability for actions undertaken that rely on the information contained in this document.

## Contents

Introduction .....	3
National EIA system of Switzerland .....	4
National EIA system of France .....	6
National EIA systems in Central Asia .....	8
Principles of transboundary EIA .....	13
Project descriptions .....	15
Chancy-Pougny Hydropower Station.....	16
Geneva International Airport (Cointrin).....	18
Thonon to Annemasse Road.....	20
Lessons learnt from the Geneva region and potential value in Central Asia .....	22
Sources .....	24

## Introduction

Transboundary cooperation has come a long way. Certainly, neighbouring countries did inform and consult each other before the advent of the Convention on Environmental Impact Assessment in a Transboundary Context (the Espoo Convention). But at times, this cooperation may not have been thoroughly systematic.

With its coming into force in 1997, the Espoo Convention brought a well defined system to trans-national information and cooperation related to projects with potential transboundary impacts on the environment. The region of Geneva, where international delegates of the Espoo Convention regularly meet, is characterized by the immediate neighbourhood of France and Switzerland, and the intricate meandering of their common border. It is of no surprise that there are numerous projects in this region that have cross border impacts.

In April 2005—and in line with the workplan of the Espoo Convention—, Switzerland organized a workshop on transboundary projects. A number of projects in the region of Geneva featured as examples in the workshop presentations. Delegates from Central Asian countries indicated an interest in visiting these projects and to hear and learn from the experiences of those actively involved in them.

With the same countries being members of a constituency with Switzerland in the Global Environment Facility (GEF), and with Switzerland intent on further pursuing a (transboundary) EIA capacity building project in Central Asia, it became apparent that organizing such a site visit would benefit this capacity building endeavour. At the same time, we hope that delegates from other UNECE member countries will equally benefit from this site visit.

Our thanks go to the management of the International Airport in Geneva, the project proponents of the new Thonon-Annemasse express road link, as well as to the management of the hydropower plant in Chancy-Pougny, who graciously open their doors to let us learn from their experiences. Our thanks also extend to the UNECE Espoo Secretariat, which has taken on the task to organize the site visit and prepare a concise compendium that shall inform and lead the participants through the day.

It is with great pleasure then that we invite you to join us on this day and we hope it will prove to be a most informative experience for all of us.

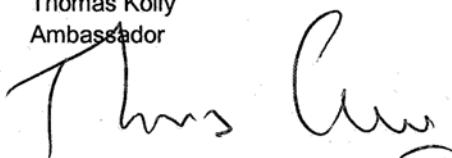
Swiss Federal Office for the Environment

Direction General Administration, Finances and  
International Affairs in the French Ministry of  
Ecology

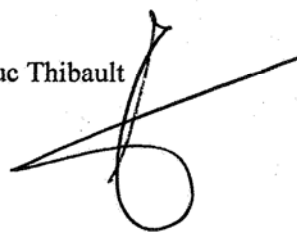
The Head of the International Affairs Division

The Head of the International Affairs Section

Thomas Kolly  
Ambassador



Henri-Luc Thibault



## National EIA system of Switzerland

Switzerland is a federation of states, called cantons. Some policy areas, such as foreign policy, are solely in the hands of the federal government. However, there is limited legal competence in environmental matters at the federal level, with the cantons (and the municipalities into which they are divided) also having legal competence.

EIA was introduced in Switzerland in 1985 by Article 9 of the Federal Environmental Protection Law.<sup>1</sup> The Federal EIA Ordinance came into force in 1989, providing further detail of the EIA procedure and a list of project types subject to EIA.<sup>2</sup> Additional legislation on EIA is provided in other federal laws and ordinances on different sectors. In addition, there are federal guidelines that illustrate further the application of EIA and provide further guidance on the preparation of the Environmental Impact Statement (EIS).<sup>3</sup>

Additional legislation may be provided at the cantonal level. The Canton of Geneva has a Regulation Implementing the Federal EIA Ordinance.<sup>4</sup> The figure opposite illustrates how the EIA procedure works at the cantonal level. A group of cantons—the group of those responsible for EIA in Western Switzerland and Tessin (the grEIE)—has developed additional guidelines on the preparation of the EIS,<sup>5</sup> and these have been adopted as cantonal guidelines by a number of cantons, including the Canton of Geneva.

The EIA system in Switzerland forms part of the permitting system and is intended to indicate whether a proposed activity would satisfy the legal environmental protection requirements.<sup>6</sup> The EIA procedure is intended to optimize projects by assuring that environmental protection requirements are taken into account sufficiently early in project planning. The EIA procedure is not carried out in isolation, but forms part of a permitting procedure. It is the competent authority for the permitting procedure that assesses the project's compatibility with the environment, based on the evaluation of the EIS by the federal and cantonal environmental protection agencies.

EIA is required for the proposed construction or modification of installations that may have a significant impact on the environment. The Federal EIA Ordinance lists over 70 types of installation subject to EIA. Any installation that is not mentioned in the Ordinance is exempt from EIA, but still has to comply with legal environmental protection requirements.

There are three main actors in the EIA procedure: the project proponent, the competent authority and the environmental protection agency.<sup>7</sup> In addition, other authorities (whether cantonal or federal) and the public (and associations, etc) may also participate in the EIA and the decision-making. The competent authority is the decision maker, with EIA being one of the elements to be taken into account in the decision-making. For each installation type, the Federal EIA Ordinance indicates the competent authority. Depending on the installation type, the competent authority is either federal or cantonal.

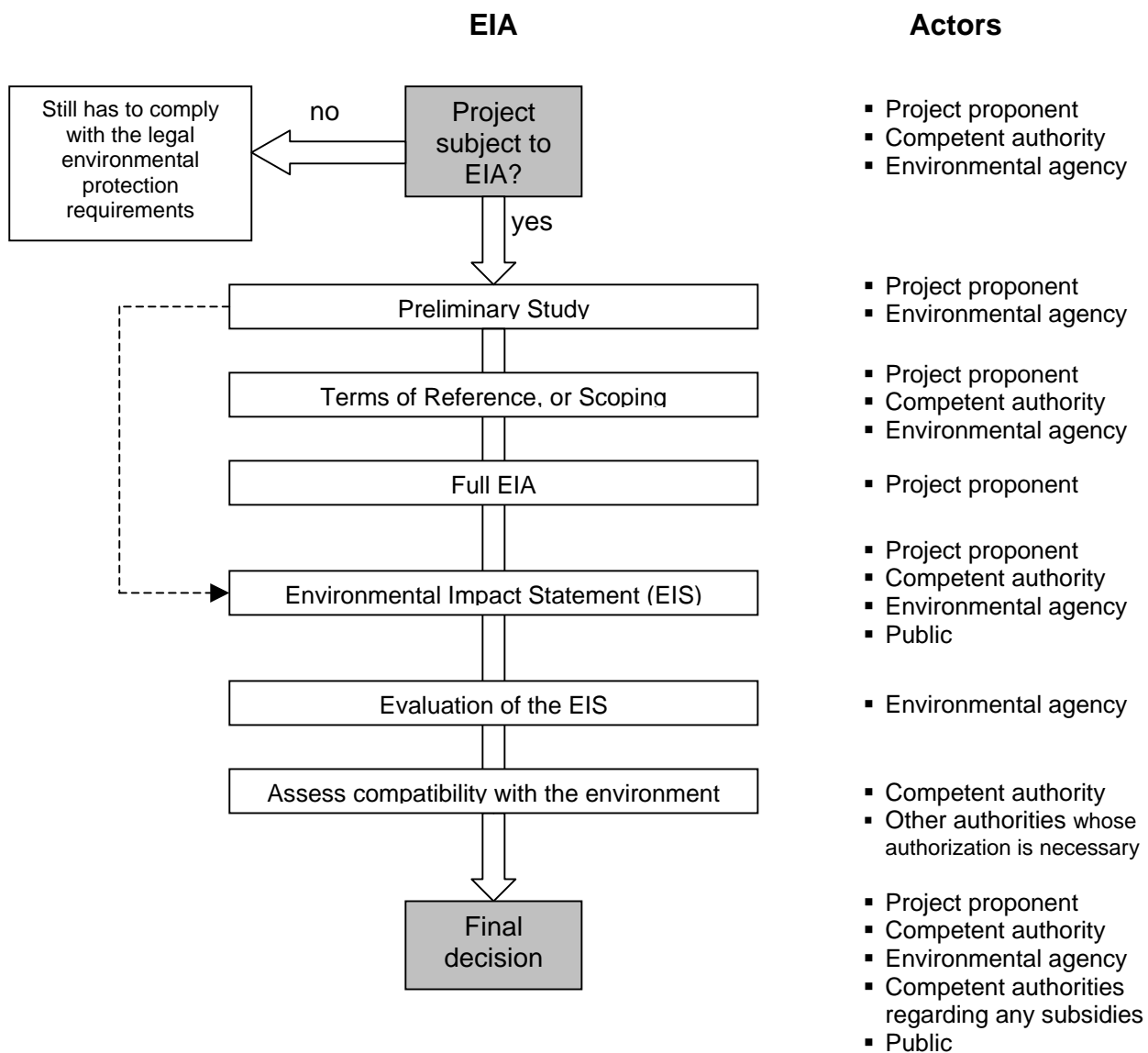
If the competent authority were a cantonal authority, the environmental protection agency to review the EIS would be the environmental protection agency of the same canton. For the canton of Geneva, the environmental protection agency to review the EIS is the Cantonal EIA Service.<sup>8</sup> If the competent authority were federal, the agency to review the EIS would be the Federal Office for the Environment.<sup>9</sup> For certain

installations for which the EIA Ordinance indicates that the competent authority is cantonal, there is nonetheless a requirement to consult the Federal Office.

Both the Federal Office for the Environment and the grEIE group publish statistics on EISs evaluated.<sup>10</sup> These statistics reveal that during the period 1990 to 2003, transport and energy projects represented 90% of the total evaluated at the Federal level. At the cantonal level, and in line with the assignment of responsibilities in the Federal EIA Ordinance, other projects (e.g. agriculture and waste) are more prominent.

The Swiss Federal Assembly approved the Espoo Convention in June 1996 and Switzerland's instrument of ratification was submitted later the same year. The Convention entered into force in Switzerland in September 1997. The competent authority for activities subject to the Convention, as for any project subject to EIA, may be federal or cantonal. Another important feature of Switzerland's application of the Convention is that it seeks to notify any potentially affected Party at the scoping stage. The authorities aim to avoid prolonging the permitting procedure when applying the Convention, by initiating the transboundary EIA procedure early and carrying it out in parallel to the domestic one.

**Figure: Basic EIA procedure at the cantonal level in Switzerland<sup>11</sup>**



## National EIA system of France<sup>12</sup>

EIA was introduced in France in 1976 by article 2 of the Law on Nature Protection,<sup>13</sup> which was followed by a decree outlining the EIA procedure.<sup>14</sup> These regulations have since been integrated into the Environmental Code (art L. 122-1 to L.122-3 and R. 122-1 to R.122-16) and have been supplemented by a series of decrees and circulars providing further details of the procedure.

The EIA procedure is intended to lead to better projects, taking into account environmental concerns, respecting man, landscape and the natural environment, economizing space, protecting species and limiting pollution. It is also intended to help the competent authority in deciding on the project, by informing and guiding the authority and defining measures agreed by the project proponent. Finally, the procedure is intended to inform the public and to involve them in the decision-making.

The public inquiry is a public consultation procedure during which the public may express its points of view. The EIA documentation is made available so as to inform the public and to facilitate public participation in the decision-making. The competent authority uses the results of the public inquiry to complete its information on the environmental effects of the project, to indicate its social acceptability and to measure the legal robustness of the project.

The competent authority varies according to the nature of the project, from minister, *préfet* or Regional Assembly, to mayor. At the ministerial level, the Economic Studies and Environmental Evaluation Division,<sup>15</sup> of the Ministry of the Environment and Sustainable Development, participates in the EIA procedure. The Division is also responsible for overseeing the application of EIA legislation and the democratization of the public inquiries.

EIA is required by default for all projects proposed by a public body or requiring authorization or a permitting decision. Exceptions are made for projects not listed in article R. 122-8 of the Environmental Code and either (a) not exceeding 1.9 million euros in value or (b) in a dispensation category in articles R.122-5 and R.122-6 (e.g. campsites and caravan parks with less than 200 places). Even then, an ‘impact notice’ may be required if the project is listed in article R.122-9 (for example, for smaller waste-water treatment plants). The impact notice presents the likely environmental effects of the project and the conditions under which operations would satisfy the environmental concerns—it might be considered a ‘mini EIA’.

When not an exception, a project is subject to EIA as illustrated in the figure opposite. The project proponent is responsible for undertaking the EIA, usually by contracting external consultants, but the State is responsible for assuring the existence and content of the documentation before declaring whether a request for authorisation is complete.

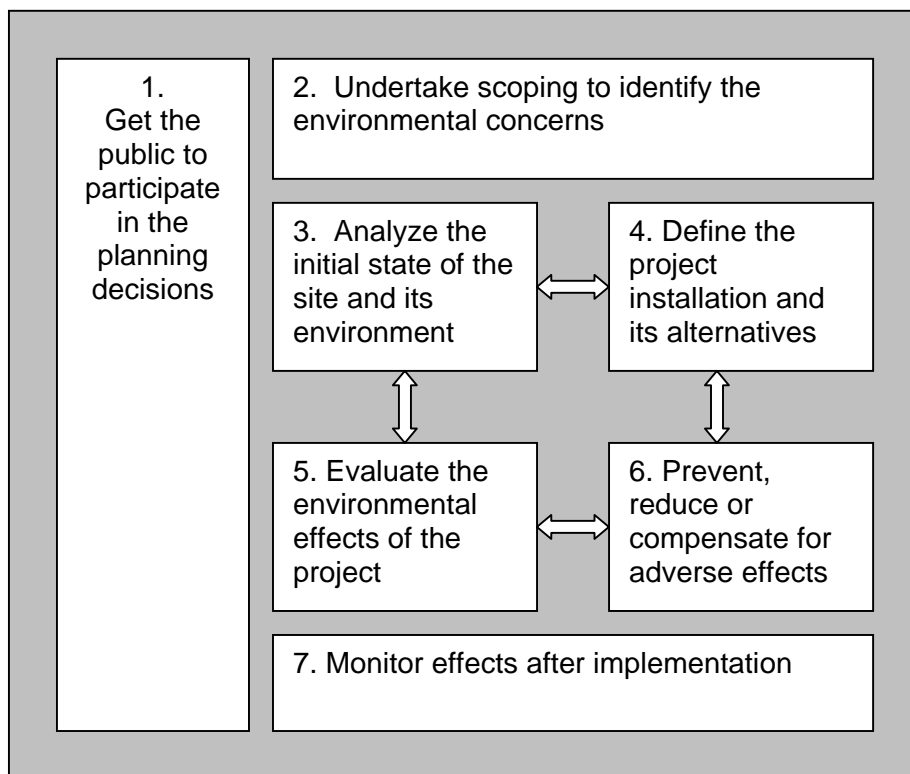
An interesting feature of the French EIA system is that if linked projects are planned at several distinct sites, an EIA must nonetheless address the whole programme of projects. A similar requirement is made for phased projects: the EIA of each phase must include an assessment of the impact of the whole programme of phases. A further feature is the explicit inclusion of human health in the assessment.

Approximately 6000 EIAs are undertaken annually in France, largely supported by 600 specialised engineering and consultancy companies.

France approved the Espoo Convention in June 2001. The EIA regulations have been amended to provide for notification under the Convention: if the competent authority determines that a project is likely to have significant effects on the environment of another Party to the Convention, or if the authorities of that State so request, the competent authority shall, as soon as possible after having opened the public inquiry, transmit the documentation to the authorities in that State, indicating the deadlines for the procedure; the competent authority also informs the French Ministry of Foreign Affairs accordingly; if the competent authority is a local government authority then it transmits the documentation through the *préfet* of the *département*.

Further, procedural deadlines may be extended to allow sufficient time for transboundary consultations, and the competent decision-making authority has to inform the affected Party of the final decision.

**Figure: EIA process in France**<sup>16</sup>



## National EIA systems in Central Asia

The information provided in this section is largely drawn from: (a) draft guidelines on EIA in a transboundary context for Central Asian countries;<sup>17</sup> and (b) a forthcoming publication ‘Capacity Development for Implementing the UNECE Protocol on SEA in the Former Soviet Union Countries in Eastern Europe, Caucasus and Central Asia’, jointly prepared by UNDP, the REC and UNECE.<sup>18</sup>

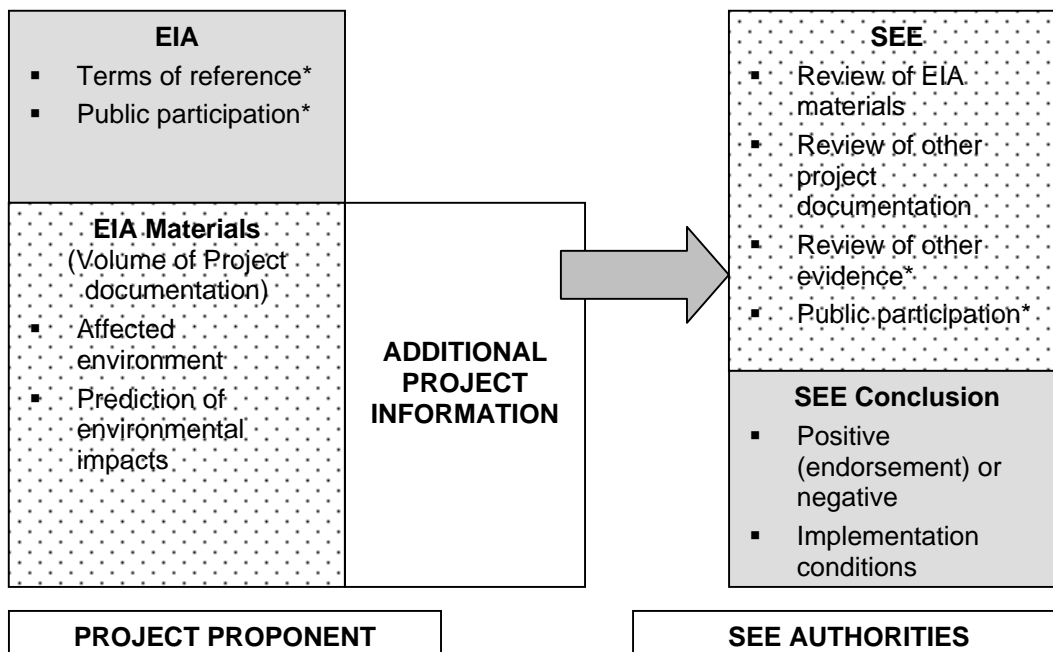
The former Soviet Union countries in Eastern Europe, the Caucasus and Central Asia (EECCA) have operated environmental assessment systems since their independence in the early 1990s. These systems were inherited from the Soviet Union, but are now regulated by specific national legislation introduced over the past 15 years.

Environmental assessment is required for projects but also plans, programmes and most other decisions that may have significant environmental impacts. These systems are largely based on the State Environmental Expertise (SEE) mechanism formally established in the Soviet Union in the second half of the 1980s.<sup>19</sup> SEE is a legacy of the centrally planned economies when its prototypes served as coordination mechanisms in the highly sectoralized and standardized system of economic planning.

Over the past 15 years, the SEE systems in Central Asia have evolved along different pathways in different countries, most importantly to incorporate elements of EIA international good practices, such as screening and public participation. Nonetheless, SEE provisions are still similar across the Central Asia region, which justifies common approaches to their analysis and reform.

The main features of the SEE systems in relation to their overall purpose, the role of key actors, and specific procedural requirements are outlined in the figure below, summarized in the table opposite and described in the following text.

**Figure: Typical Simplified Content of and Relationship between EIA and SEE**



\* element not always legally required and/or rarely implemented



**Table: Key features of SEE/EIA systems.**

Overall purpose	Determining environmental acceptability of proposed activities in order to stop ‘unacceptable’ activities from occurring.
Key actors	SEEs are conducted by state environmental authorities or committees appointed by them. Proponents submit materials for SEE including EIA for project-level activities. The public plays a limited but growing role.
What projects are covered?	EIA is mainly required for selected project-level activities, but also for certain plans, programmes and most other decisions that may have significant environmental impacts.
Scope of the assessment and resulting report	SEE is carried out consultation with expert divisions of other departments—such as ministries for public health, education and science, energy and mineral resources, agriculture—on water, fish, wood resources and other issues, when needed, on the basis of sectoral regulations, standards, rules, etc.
Consultations with the relevant environmental authorities and the public	A proposed project normally has to be ‘coordinated’ with relevant (including environmental and health) authorities. This coordination does not require preparation of an environmental assessment report. SEE Conclusions are normally public documents, but public availability of the project document itself and its environmental assessment (if such exists) is not generally required.
Decision-making	Environmental concerns should be considered in the SEE Conclusion. This conclusion can be ‘negative’ (which means that the proposal cannot go ahead), ‘positive’ or ‘positive with conditions’. In practice negative SEE conclusions are rarely issued in relation to projects.
Post OVOS monitoring	Legally regulated, but not implemented in practice.

*Purpose and key actors in SEE/EIA*

The general purpose of the SEE is to verify the environmental acceptability of a proposed activity, which in practice often means checking compliance with norms and standards in order to identify and proscribe ‘environmentally harmful’ activities. Such use of SEE is influenced by its legacy as an instrument of centralized and technocratic planning. This approach may work at the project level, but is largely unacceptable when dealing with plans and programmes that do not result in clear ‘black or white’ impacts but must rather be judged based on the totality of their (often uncertain) environmental implications as weighted against social and economic effects. On the other hand documentation and disclosure of information, which is central in the French and Swiss EIA systems, only plays a marginal role in the SEE system.

In most Central Asian countries, the SEE legislation includes requirements for the project proponent to submit ‘materials concerning the assessment of impacts on the environment’ to the SEE body. At the project level, these ‘materials’ are often known by their Russian acronym of OVOS (meaning EIA in English) and are generally similar to EIA reports, though they are more standardized, often incorporated in technical project documentation and not always publicly accessible.

SEE/EIA procedures are—due to their use as regulatory instruments—dominated by environmental authorities that not only direct the SEE process, but may also review EIA materials, assess project documentation and issue mandatory decisions.

#### *Determining whether a project requires SEE/EIA*

Though only required for selected projects, it is estimated that there are thousands of SEEs conducted annually in the larger EECCA States (Ukraine, Belarus) and hundreds in the smaller ones (Republic of Moldova, Georgia).

#### *Scope of the assessment and resulting reports*

SEE legislation does not normally contain any scoping provisions. In practice, project proponents often consult SEE bodies informally prior to submitting documentation in order to clarify legal or administrative requirements concerning environmental assessment materials.

In relation to EIA, i.e. primarily for project-level activities, some EECCA countries have recently introduced scoping provisions. For example, in Belarus, the project proponent has to prepare EIA terms of reference that cover the major impacts and alternatives to be investigated, the plan for consultation and public participation, as well as some other issues. These terms of reference have to be endorsed by SEE authorities before the EIA process proceeds. Some other EECCA countries do not have explicit scoping requirements.

A typical EIA report is prepared without scoping, based on the standard content specified by sectoral or general instructions. This is often adequate for small or medium-size projects, but may not always work for larger ones. Typical EIA reports concentrate on the sources of environmental impacts.

#### *Consultations with the relevant environmental authorities and the public*

The SEE procedure inherited from the non-transparent and technocratic Soviet planning system has been often criticized for the inadequacy of its public participation provisions. Formal public consultations were not mandatory and the only document accessible to the public was the SEE Conclusion (and in some systems not even that).

A specific feature of SEE/EIA systems was a provision for Public Environmental Expertise (PEE), a parallel Environmental Review process that could be organized by a citizens' group. The PEE initiators had mandatory access to the EIA and project documentation and a PEE Conclusion had to be considered by the SEE. However, a PEE could only proceed if initiated by a registered non-governmental organization and endorsed by the authorities. Very few PEEs were organized and effective.

In recent years, especially following the ratification of the Aarhus and the Espoo Conventions, several formal public participation requirements were introduced in EECCA, most importantly requirements for mandatory public consultations and for public disclosure of EIA reports. For example, public hearings are required for certain types of planned activities in Belarus and the draft EIA report should be present at such

hearings. However, as with any other recently introduced EA requirements, the extent of their practical implementation remains unclear.

### *Decision-making*

In EECCA, the findings of environmental assessments are normally used only in one type of decision-making, namely, the issuing of an SEE Conclusion. This conclusion can be 'negative' (which means that the proposal cannot go ahead), 'positive' or 'positive with conditions'. SEE Conclusions are normally available to the public, but there is no clearly regulated mechanism by which these could be adjusted or changed in response to public concerns.

### *Monitoring*

In most EECCA countries there are systems of environmental monitoring, but these are rarely explicitly linked to environmental assessments. Many SEE systems incorporate procedures for environmental inspections by which competent environmental authorities determine whether economic activities are undertaken in line with SEE Resolutions. Conditions imposed by the SEE often also incorporate monitoring requirements.

## **International agreements and transboundary EIA**

When the Central Asian States were part of the Soviet Union, a number of interstate agreements provided for the identification and prevention of transboundary environmental impacts for proposed activities that clearly would have such impacts, thus satisfying some of the Espoo Convention's requirements.

Kazakhstan and Kyrgyzstan acceded to the Espoo Convention in January and May 2001, respectively. Tajikistan has indicated that it acceded in 2004.<sup>20</sup> These three States, together with Turkmenistan, have also ratified or acceded to the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, in which there are concrete references to the Espoo Convention. The Central Asian States are also Parties to conventions on biodiversity, on persistent organic pollutants and others, which include provisions for EIA. Obligations under international agreements often have precedence over national legislation in the Central Asian States.

However, in almost all the Central Asian States there is no concrete mechanism for carrying out EIA in a transboundary context, covering all aspects and satisfying all the requirements of the Convention. Generally, there are no regulated procedures for submitting information on planned activities to the public and to relevant state bodies. It is possible to draw a conclusion that the existing legislative base is insufficient for the resolution of interstate environmental problems, among which are the participation of the public, consideration of alternatives, a means of making decisions by comparison, review of the EIA documentation, the definition of environment impacts and the estimation of risk, the mitigation of impacts and monitoring.

The Central Asian States are working to overcome these difficulties, initiating pilot studies, such as that involving Kyrgyzstan (as Party of origin) and Kazakhstan (as

affected Party), and developing guidelines—including draft guidelines for the Central Asian States and adopted guidelines for the Caspian Sea region.<sup>21</sup>

Finally, the economy of the Central Asian States has received a boost in recent years resulting in increased investment in development projects, so the consideration of transboundary environmental effects is becoming increasingly important.

## Principles of transboundary EIA

The main principles of transboundary EIA under the Convention are set out in the Convention's preamble, including:

*“Aware of the interrelationship between economic activities and their environmental consequences,*

*Affirming the need to ensure environmentally sound and sustainable development,*

*Determined to enhance international co-operation in assessing environmental impact in particular in a transboundary context,*

*Mindful of the need and importance to develop anticipatory policies and of preventing, mitigating and monitoring significant adverse environmental impact in general and more specifically in a transboundary context,*

*Commending the ongoing activities of States to ensure that, through their national legal and administrative provisions and their national policies, environmental impact assessment is carried out,*

*Conscious of the need to give explicit consideration to environmental factors at an early stage in the decision-making process by applying environmental impact assessment, at all appropriate administrative levels, as a necessary tool to improve the quality of information presented to decision makers so that environmentally sound decisions can be made paying careful attention to minimizing significant adverse impact, particularly in a transboundary context,”*

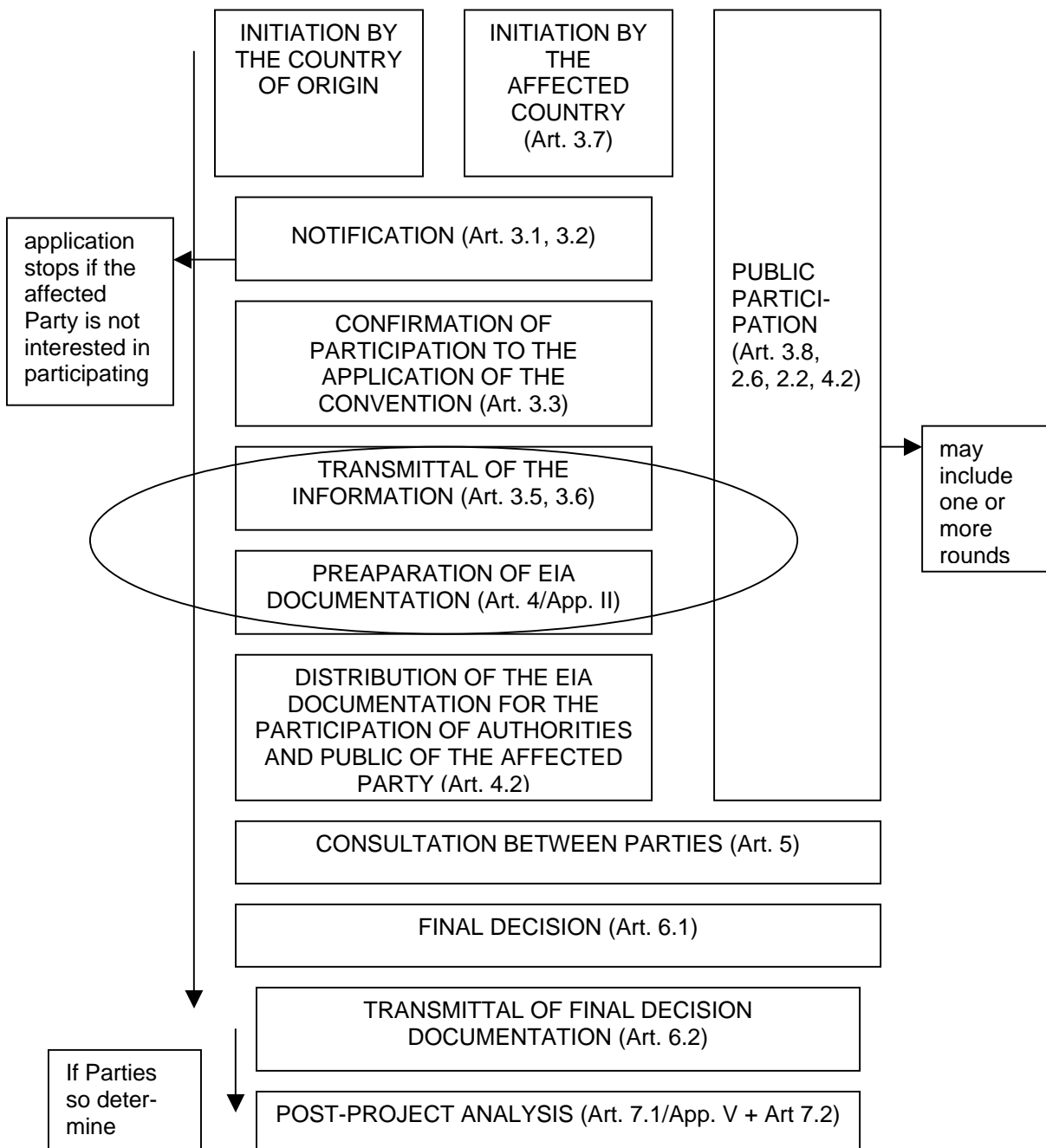
In addition, Article 2 (General Provisions) of the Convention, identifies the following key requirements (for listed activities):

- Taking all appropriate and effective **measures to prevent, reduce and control** significant adverse transboundary environmental impact from proposed activities. (para. 1)
- Establishing an **EIA procedure** that permits public participation and preparation of the EIA documentation (para. 2)
- Undertaking **EIA prior to a decision** to authorize or undertake a proposed activity that is likely to cause a significant adverse transboundary impact (para. 3)
- **Notifying affected Parties** of a proposed activity that is likely to cause a significant adverse transboundary impact (para. 4)
- Discussing whether **other** (unlisted) **proposed activities** are likely to cause a significant adverse transboundary impact and thus should be treated as if it or they were so listed (para. 5)
- Providing an **opportunity to the public** in the areas likely to be affected to **participate** in relevant EIA procedures regarding proposed activities. (para. 6)

- Ensuring that the opportunity provided to the public of the affected Party is **equivalent** to that provided to the public of the Party of origin. (para. 6)
- Endeavouring to apply, to the extent appropriate, the principles of EIA to **policies, plans and programmes**. (para. 7)
- Giving, to the extent appropriate, the affected Party the **opportunity to participate** in any procedure for the purposes of determining the content of the EIA documentation, i.e. **scoping** (para. 11, as amended)

These principles translate into a transboundary EIA procedure presented in the figure below.

**Figure: Stages of an assessment according to the Convention**

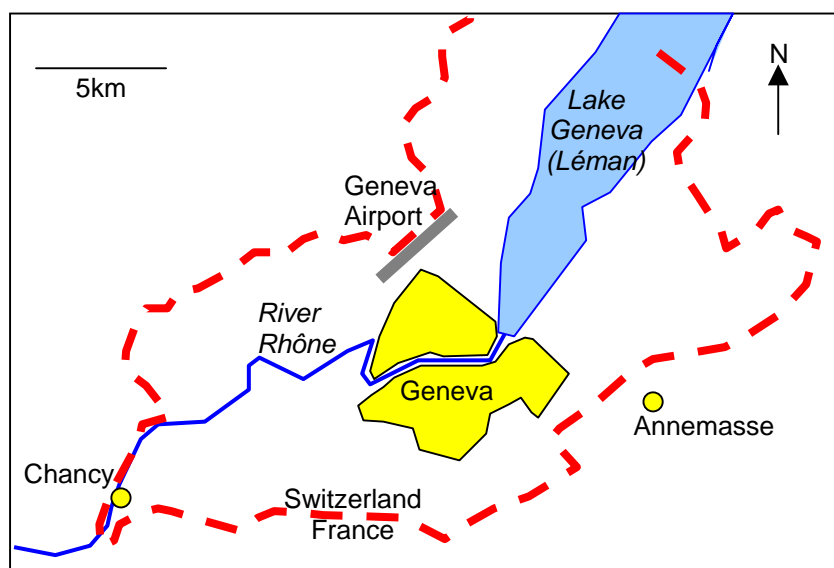


## Project descriptions

This section provides a series of descriptions for the three projects to be visited, each of which has France and Switzerland as the parties concerned, and each likely to cause significant adverse transboundary impact:

- Renewal of the operating licence for the Chancy-Pougny Hydropower Station, in 1996, when neither France nor Switzerland was yet a Party to the Convention
- Renewal of the concession licence for Geneva International Airport, in 2000 and 2001, when France was not yet a Party to the Convention
- Consent to build a new road between Thonon and Annemasse, in France, on-going, with both France and Switzerland being Parties to the Convention

The projects locations are presented in the indicative map below.



*Note: The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.*

## **Chancy-Pougny Hydropower Station**

The Chancy-Pougny hydropower station is part of the hydroelectric system of three dams along Geneva's main river, the Rhône. The station is owned and operated by the *Société des forces motrices de Chancy-Pougny* (SFMCP), a company jointly owned by the *Services Industriels de Genève* (SIG, of Switzerland, majority share-holder) and by the *Compagnie Nationale du Rhône* (CNR, France).

The Chancy-Pougny dam and power plant are located partly in Switzerland and partly in France, 20 kilometres downstream of Geneva. Both countries licensed SFMCP to operate the installation and both licences expired on 9 April 1998. SFMCP took the opportunity of the licence renewal to modernize its equipment and to adapt it to recent changes in its operating conditions. (The recent licence renewal of the Verbois installation upstream of Chancy-Pougny had allowed an increase in its discharge, thus increasing the water supply to Chancy-Pougny and its potential power output.)

The Chancy-Pougny dam and power plant were built between 1920 and 1924. The power plant and two of the five generators are located in Switzerland, while the other three generators are on the French side of the river. Seventy-two percent of the electricity output is allocated to Switzerland, and 28% to France.

Before the Chancy-Pougny licence renewal and renovation, the five hydraulic generators had a total power of 37 megawatt electrical (MWe) and were able to produce 210 gigawatt-hours per year. Although the authorised production discharge was 550 cubic metres per second ( $\text{m}^3/\text{s}$ ), this discharge could not be used in full because the hydraulic equipment was only able to exploit  $490 \text{ m}^3/\text{s}$ .

Under the new licence, the five radial-flow turbines were replaced by axial-flow 'Kaplan' turbines. Each new turbine allows power production from up to  $125 \text{ m}^3/\text{s}$  of water flow and can be adjusted to increase efficiency with lower discharges. The total power increased to 49 MWe. In 1999, the principle of 'double current modulation' was accepted in Geneva to make the power supply less vulnerable to failure, requiring further equipment changes. In addition, measures were taken to stop the erosion of the Rhône streambed downstream from Chancy-Pougny, which was eroding (by incision) at a rate of about 25 millimetres per year. The new installation also includes a pool-and-drop fish-way, as no fish pass had been built before.

Another concern for SFMCP was the duration of the concession licence. At the time of its renewal, France and Switzerland had rather different policies for hydroelectric concessions. France used to give licences for approximately 40 years. From the Switzerland's point of view, a significantly longer concession period (80 years) was possible, which is obviously more advantageous for the company (investments returns, etc.). In the end, France and Switzerland agreed a 60-year licence for SFMCP.

A preliminary study is the first step of the Swiss EIA procedure. It was completed in January of 1994. The preliminary study report contained the terms of reference of the EIA. The terms of reference were presented to the Swiss federal and cantonal authorities and to the French competent authorities. Their observations were taken into account in the final version of the terms of reference (end of April 1994).

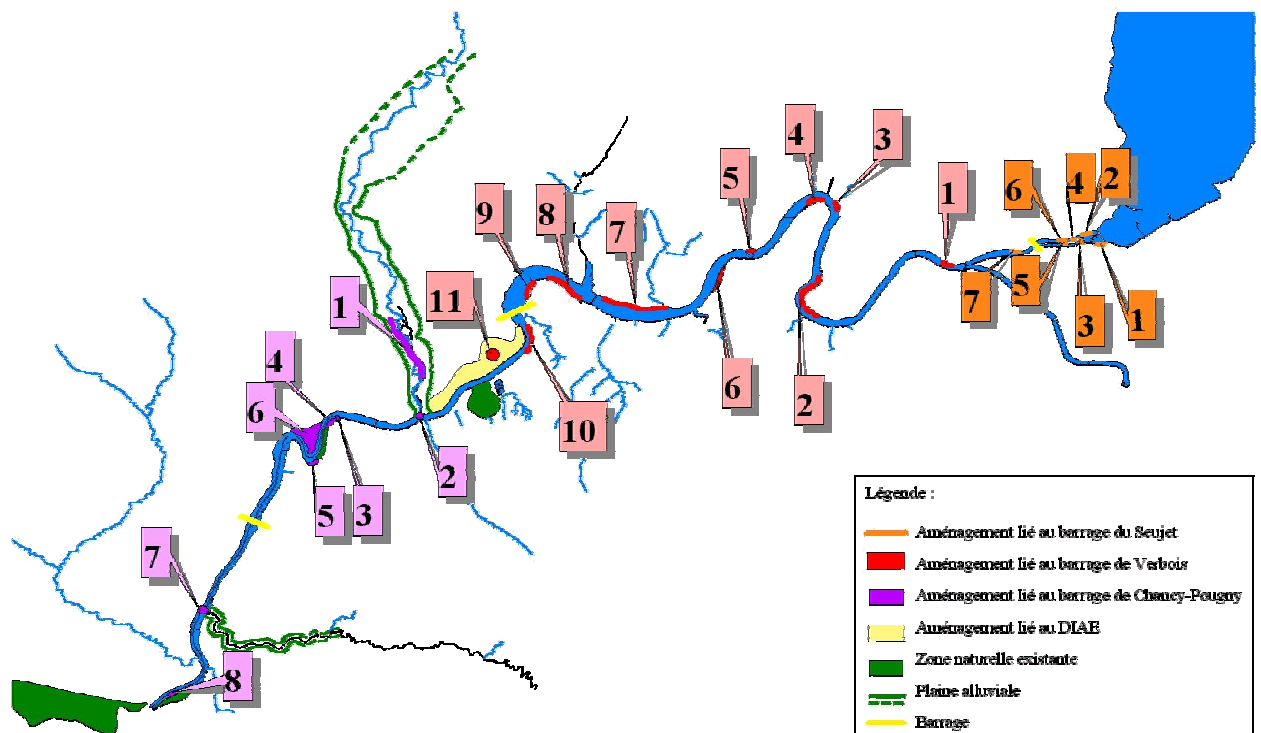


The EIA was conducted from 1994 to 1996. Two versions of the report were prepared: the main Swiss report and an adaptation to meet the requirements of French legislation. Both reports contained the same impact assessment and the same compensatory measures. Subsequently, some modifications were made to the renovation project and compensatory measures leading to a revision of the EIA reports. The final versions were completed in September 1998.

The main impacts on the Rhône ecomorphology related to the building of the dams in the first half of the twentieth century, which lead to a loss in the biodiversity of the Rhône alluvial hydrosystem that could not be compensated for.

The only environmental impacts directly linked with Chancy-Pougny renovation project in the late 1990s were: (i) transient impacts related to the works; (ii) impacts linked to the construction of the fish pass; and (iii) positive impacts linked to the presence of a fish pass and to the stabilization of the Rhône riverbed downstream from Chancy-Pougny. The impact assessment of the renovation and licence renewal was thus neutral.

However, the ecological situation of the Rhône River in the Geneva region is not satisfactory, and this is partly a result of the hydroelectric power production. SFMCP asked ECOTEC to design compensatory measures (protection and restoration) in order to minimize the overall impact of the hydropower installations. The figure below shows the overall compensation concept for the three Geneva hydropower plants. The compensatory measures specifically linked with Chancy-Pougny are shown in purple (numbered 1-8 on the left of the figure).



***Geneva International Airport (Cointrin)***



## Thonon to Annemasse Road

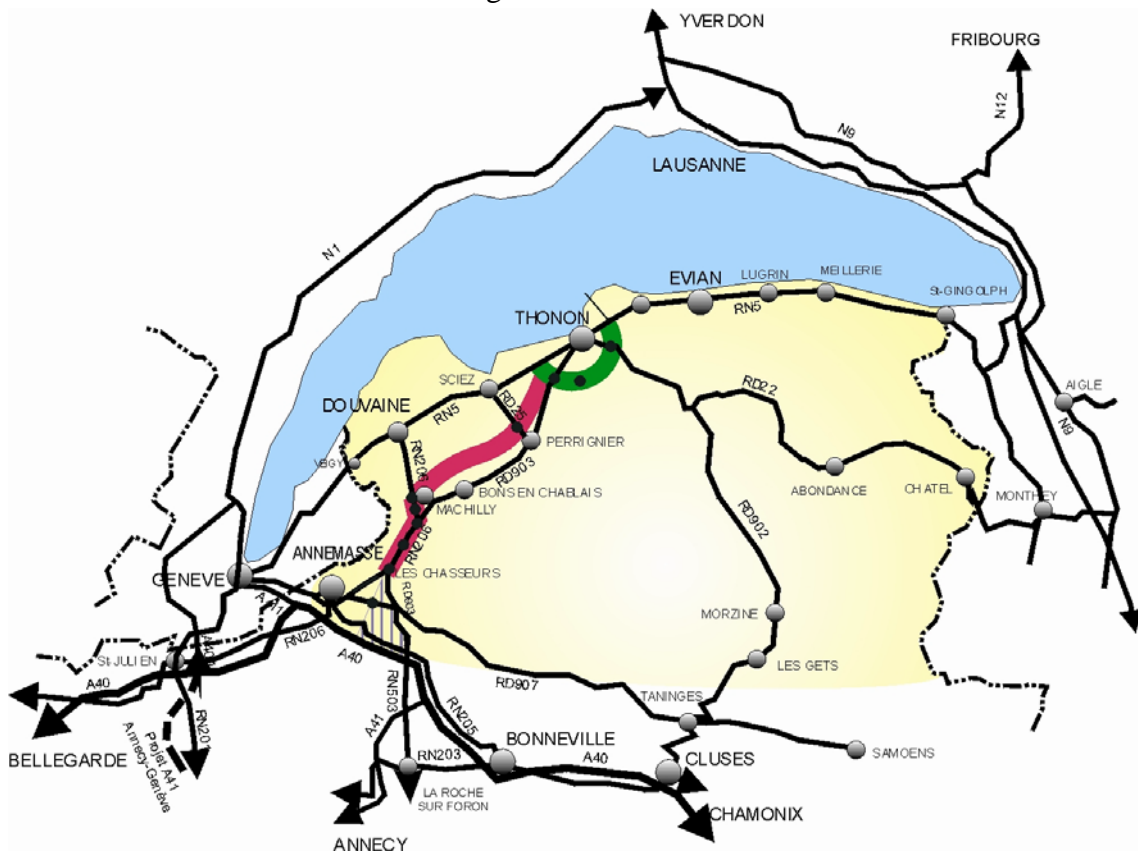
### Background

For many years, steps have been taken to open up the Chablais, a mountainous area between Lake Lemman (Geneva) to the north, the Swiss border to the east and the Chablais hills to the south. The demographic, economic and tourism dynamism that this region has experienced since the beginning of the 1980s, has led to a significant increase in road traffic in the area. To respond to the resulting transport difficulties, a multimodal scheme for opening up the Chablais was approved in 1999. It comprises a € 192-million road link and a €25-million rail link, the former being the subject of this section.

### The project

The road link will eventually consist of a dual-carriageway road between a point south of Annemasse, to join the existing A40 motorway, and a point east of Thonon. The link is to comprise three sections:

- A section between the A40 motorway and the Chasseurs crossroads, which would, along with the A40, provide a by-pass around Annemasse. This section is at the preliminary study stage.
- A section between the Chasseurs crossroads and the Thonon by-pass. Pre-project feasibility studies have been completed and a 'declaration of public interest' is awaited shortly. This declaration is needed to allow for detailed studies and for land acquisition. It is at that stage that consultations with the Swiss authorities took place.
- The Thonon by-pass, with the General Council of the Haute-Savoie *département* being the project proponent. The declaration of public interest was made in 2004 and construction works have begun.



### **Consultation of the Swiss authorities within framework of the Espoo Convention**

The Espoo Convention was ratified by Switzerland in 1996 and by France in 2001. The Convention requires the notification of the affected Parties for an activity likely to have a significant transboundary impact (art. 3).

The Roads Department of the French Ministry for Transport, Infrastructure, Tourism and the Sea transmitted the documentation to the Swiss federal authorities by post on 2 December 2004. The Cantonal EIA Service of Geneva and the Swiss Federal Office for the Environment confirmed by post, on 14 and 17 January 2005, respectively, their wish to participate in the EIA of the project and to organize a public inquiry. A public inquiry was held by the Canton of Geneva between 19 January and 2 March 2005. The public of Geneva made no comments. The competent Swiss authorities carried out an evaluation of the environmental impact and sent a summary of their opinions, by post on 16 March 2005, to the French Roads Department.

The Cantonal EIA Service of Geneva gave a favourable response to the project but asked that their observations be taken into account. Those observations were primarily:

- *The risk of competition between road infrastructure and public transport, resulting in:*
  - *A reduction in the current modal shift towards public transport.*
  - *A significant increase in traffic.* However, the link between the Chasseurs crossroads and Thonon is part of the scheme for opening up the Chablais, and the scheme design took into account the road link and public transport. The analyses carried out showed that these two approaches were complementary, given the current level of public transport and the demand for transport in general.
  - *An increase in pollutant emissions (Geneva's territory).* However, the impact assessments presented at the inquiry included an air quality analysis. The definition of the geographical area covered by this analysis complies with the regulations in force. The extension of the geographical area to include the Geneva conurbation (particularly the local road network) in this type of analysis might be envisaged within the framework of current cooperation in studying transboundary transport. Such steps are beyond the strict limits of the project under consideration. The project proponent might communicate any information required for such studies, as necessary.
- *The risk, due to fragmentation of the land, of undermining:*
  - *The conservation of fauna corridors.* The project proponent has taken note of these requests and a passage under the road for fauna has been added in response. At the project level, the Swiss authorities concerned, along with the other actors, will be involved in defining construction measures.
  - *The protection of watercourses and wetlands.* The project proponent reaffirms his preoccupation with the protection of watercourses and wetlands. The measures foreseen at present assure the preservation of these features, either by avoiding them or by taking special construction measures (crossing works, etc.). Again, at the project level, the Swiss authorities concerned, along with the other actors, will be involved in defining construction measures.

The project proponent is committed to a continuing dialogue with the Swiss authorities at the project level. In addition, and in compliance with article 7 of the Espoo Convention (post-project analysis), it is agreed to involve the Swiss authorities in future environmental studies of the project.

## Lessons learnt from the Geneva region and potential value in Central Asia

This section will be developed further subsequent to the site visits on 6 April 2006.

The table below identifies some of the issues in implementation of the Convention, comparing the situation in France and Switzerland with that in Central Asia.

<b>Issue</b>	<b>France and Switzerland</b>	<b>Central Asia</b>
Ratification of the Convention	Switzerland: 1997. France: 2001.	From 2001. Not yet all.
Regulatory framework for transboundary EIA	Highly developed.	Being developed.
Bilateral & multilateral agreements	Only project-specific agreements under the Convention, but two tripartite commissions (one with Luxembourg, the other with Germany, as the third party) have made recommendations on transboundary notification and consultation. <sup>22</sup>	Soviet-era interstate agreements.
Practical application	Initiated well in advance of ratification. Extensive experience.	Limited experience, e.g. paper mill in Kyrgyzstan prior to ratification. New pilot study involving Kyrgyzstan and Kazakhstan, this time as Parties to the Convention.
Nature of communications	Started by being informal, now formal. Open cooperation.	?
Language of communications	France-Switzerland: in French.	Russian.
Timing	Aim is for no delays, sticking to deadlines specified in the legislation of the Party of origin.	?
Costs	Project proponent is responsible for elaboration of EIA. Environmental review of project in the affected Party is not charged to proponent or the Party of origin	Who pays cost of environmental review in affected Party?

<b>Issue</b>	<b>France and Switzerland</b>	<b>Central Asia</b>
Public participation	Public on either side of the border has an opportunity to participate in the procedure: the project documentation, including the Environmental Impact Statement is made available to the public.	Expected to be strengthened as experience is built up.

## Sources

<sup>1</sup> Federal Environmental Protection Law of 7 October 1983, entered into force 1 January 1985. Reference: RS 814.01. Link: [http://www.environnement-suisse.ch/imperia/md/content/recht/umweltrecht/usv\\_bg-en.pdf](http://www.environnement-suisse.ch/imperia/md/content/recht/umweltrecht/usv_bg-en.pdf) (non-binding English version).

<sup>2</sup> Federal Ordinance on EIA of 19 October 1988, entered into force 1 January 1989. Reference: RS 814.011. Link: <http://www.admin.ch/ch/f/rs/8/814.011.fr.pdf> (French version - also available in German).

<sup>3</sup> A full list of guidance is available at [http://www.environnement-suisse.ch/buwal/fr/fachgebiete/fg\\_uvp/recht/wegleit/index.html](http://www.environnement-suisse.ch/buwal/fr/fachgebiete/fg_uvp/recht/wegleit/index.html) (French version of guidance - also available in German and partly in Italian).

<sup>4</sup> Regulation Implementing the Federal EIA Ordinance, of 11 April 2001, entered into force 21 April 2001. Reference: K 1 70.05. Link: <http://etat.geneve.ch/dt/site/protection-environnement/impact/master-content.jsp?pubId=4059&nodeId=2070&componentId=kmelia215> (French).

<sup>5</sup> Issued June 2004. Link: <http://www.greie.ch/fr/publications.htm> (available in French, German, Italian).

<sup>6</sup> Much of the description of the Swiss EIA system presented in this document is based on materials available on the website of the Federal Office for the Environment. Link: [http://www.environnement-suisse.ch/buwal/fr/fachgebiete/fg\\_uvp/index.html](http://www.environnement-suisse.ch/buwal/fr/fachgebiete/fg_uvp/index.html) (French version - also available in German and Italian and partly in English).

<sup>7</sup> A table summarizing responsibilities of these actors is available in English from the UNECE secretariat or in French, German and Italian from the website of the Swiss Federal Office for the Environment.

<sup>8</sup> Service canatonal d'étude de l'impact sur l'environnement; e-mail: [environnement-info@etat.ge.ch](mailto:environnement-info@etat.ge.ch); link: <http://etat.geneve.ch/diae/site/protection-environnement/impact/>

<sup>9</sup> Link: <http://www.environnement-suisse.ch/buwal/eng/>

<sup>10</sup> Tables summarizing these data are available from the UNECE secretariat in English. The federal statistics may be found at [http://www.environnement-suisse.ch/buwal/fr/fachgebiete/fg\\_uvp/uvp\\_statistik/index.html](http://www.environnement-suisse.ch/buwal/fr/fachgebiete/fg_uvp/uvp_statistik/index.html). The grEIE statistics are available at [http://www.greie.ch/pdf/projets\\_eval.pdf](http://www.greie.ch/pdf/projets_eval.pdf) /.

<sup>11</sup> Source: <http://etat.geneve.ch/diae/site/protection-environnement/impact/>.

<sup>12</sup> The information provided in this section is drawn from various sources, but especially *L'étude d'impact sur l'environnement*, by Patrick Michel of BCEOM for the French Ministry of Environment and Sustainable Development, available on the Espoo Convention's website at [http://www.unece.org/env/eia/documents/france\\_EIA\\_complete.pdf](http://www.unece.org/env/eia/documents/france_EIA_complete.pdf) (in French).

<sup>13</sup> Law number 76-629 of 10 July 1976 on Nature Protection, available at <http://aida.ineris.fr/textes/lois/text0264.htm> (in French).

<sup>14</sup> Decree number 77-1141 of 12 October 1977 for the Application of Article 2 of the Law number 76-629 of 10 July 1976 on Nature Protection, as amended, available at <http://aida.ineris.fr/textes/decrets/text0199.htm> (in French).

<sup>15</sup> Direction des études économiques et de l'évaluation environnementale (D4E); see [http://www.l.environnement.gouv.fr/article.php?id\\_article=1293](http://www.l.environnement.gouv.fr/article.php?id_article=1293) (in French).

<sup>16</sup> Source: *L'étude d'impact sur l'environnement*, by Patrick Michel of BCEOM for the French Ministry of Environment and Sustainable Development, available on the Espoo Convention's website at [http://www.unece.org/env/eia/documents/france\\_EIA\\_complete.pdf](http://www.unece.org/env/eia/documents/france_EIA_complete.pdf) (in French).

<sup>17</sup> Source: <http://www.unece.org/env/eia/activities.html#EIAbuilding>.

<sup>18</sup> Dusik J., Cherp A., Jurkeviciute A., Martonakova H., and N. Bonvoisin, Capacity Development for Implementing the UNECE SEA Protocol in the Former Soviet Union Countries in Eastern Europe, Caucasus and Central Asia; UNDP, the REC and UNECE, 2006.

<sup>19</sup> Cherp, A (2001) SEA in Newly Independent States, in Dusik, J (ed) Proceedings of International Workshop on Public Participation and Health Aspects in Strategic Environmental Assessment. Regional Environmental Centre for Central and Eastern Europe, Szentendre, Hungary.

<sup>20</sup> However, an instrument of accession has not yet been received by the United Nations in New York.

<sup>21</sup> Guidelines on EIA in a Transboundary Context in the Caspian Sea Region, produced by UNEP, UNECE, EBRD and the Caspian Environment Programme, and available at <http://www.caspianenvironment.org/newsite/Documents-TransboundaryEIA.htm>.

<sup>22</sup> Source: Review of Implementation 2003, available at <http://www.unece.org/env/eia/documents/Review%20of%20Implementation%202003.pdf>