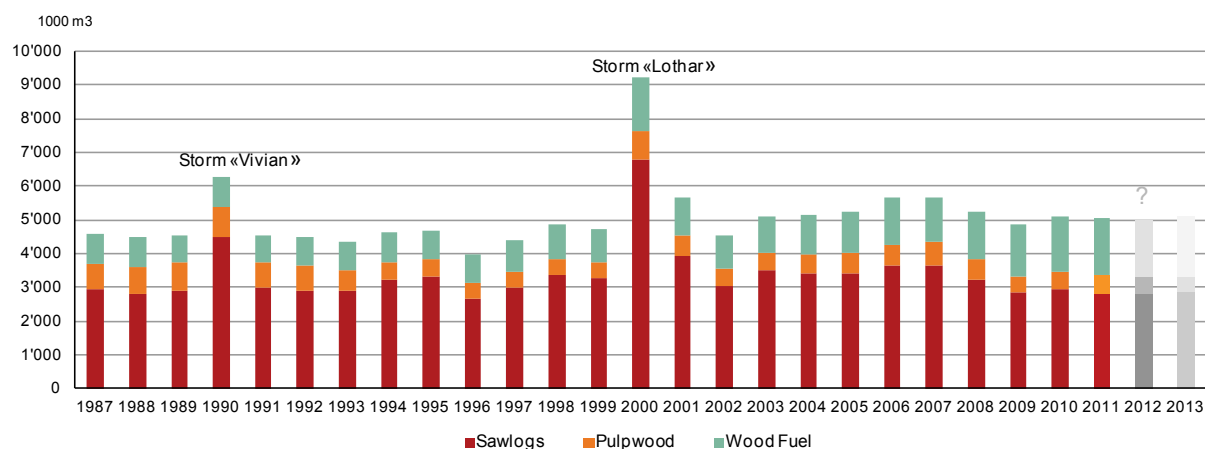


**United Nations Economic Commission for Europe UNECE  
 Timber Committee  
 70th session, Geneva 16–19 October 2012**

**Developments in Forest Product Markets and  
 Policy Measures and Developments that may have a  
 Bearing on these Markets**

**Country Report 2012 for Switzerland**

Wood Harvest in Switzerland 1987 - 2013





# Contents

<b>Highlights</b> .....	<b>5</b>
<b>1 General economic trends</b> .....	<b>6</b>
<b>2 Policy Measures and Developments that have a Bearing on Forest Product Markets and Forest Management</b> .....	<b>7</b>
<b>2.1 Swiss National Forest Programme (Swiss NFP)</b> .....	<b>7</b>
<b>2.2 Swiss Biodiversity Strategy</b> .....	<b>7</b>
<b>2.3 Wood Resource Policy and wood promotion</b> .....	<b>7</b>
<b>2.4 Research and development</b> .....	<b>8</b>
2.4.1 NRP 66 Wood: Strategies and technologies for the optimised use of the resource wood.....	8
2.4.2 Forest and climate change: effects and adaptation .....	9
<b>2.5 Life Cycle Assessment of biomass and wood products</b> .....	<b>9</b>
2.5.1 Biomass Strategy.....	9
2.5.2 Switzerland's binding ecological and minimum social requirements for biogenic fuels and the mineral oil tax.....	10
2.5.3 Life Cycle Assessment of wood products (and sustainable building).....	10
<b>2.6 Policies for renewable energy and energy efficiency</b> .....	<b>11</b>
2.6.1 The legal framework.....	11
2.6.2 The Energy Strategy 2050 .....	11
2.6.3 The cost-covering remuneration for feed-in to the electricity grid (CRF).....	12
2.6.4 Energy efficiency and sustainable building .....	12
<b>2.7 Climate change and the forestry sector</b> .....	<b>12</b>
2.7.1 CO2 Act, incentive taxes and post-Kyoto.....	13
2.7.2 Kyoto Protocol, forest management and CO2 balance of forest and wood .....	14
<b>2.8 Trade issues affecting the market</b> .....	<b>14</b>
2.8.1 Market transparency: the Swiss duty of declaration for wood and harvested wood products.....	14
2.8.2 European Timber Regulation, EUTR .....	15
<b>3 Developments in Forest Product Markets</b> .....	<b>17</b>
<b>3.1 Roundwood: sawlogs, pulpwood and fuelwood</b> .....	<b>17</b>
Developments up to mid-2012 .....	17
3.1.1 Timber assortments and price trends .....	17
3.1.2 Economic situation of the forestry sector .....	18
Current developments.....	18
<b>3.2 Wood energy</b> .....	<b>19</b>
<b>3.3 Certified forest and forest products</b> .....	<b>20</b>
3.3.1 FSC an PEFC certification .....	20
3.3.2 Herkunftszeichen Schweizer Holz (label of origin) .....	20
<b>3.4 Sawnwood</b> .....	<b>21</b>
<b>3.5 Pulpwood-processing sector</b> .....	<b>21</b>
3.5.1 Wood-based panels .....	21
3.5.2 Pulp and paper .....	22
<b>4 Tables</b> .....	<b>23</b>
<b>4.1 Economic Indicators for Switzerland</b> .....	<b>23</b>
<b>4.2 Forest products production and trade in 2010–2011; Estimations and Forecasts for 2012–2013</b> .....	<b>24</b>

We would like to thank the following for their contributions to this short report:  
Sabine Augustin, Eduard Belser, Thomas Bettler, Christoph Dürr, Ulrike Krafft, Daniel Landolt, Tatiana Pasi, Michael Reinhard, Nele Rogiers, Claire-Lise Suter

**Compiled by**  
**Swiss Federal Office for the Environment FOEN**  
**Forest Division**; CH-3003 Bern  
Tatiana Pasi  
phone +41 31 324 70 69; [tatiana.pasi@bafu.admin.ch](mailto:tatiana.pasi@bafu.admin.ch)  
<http://www.umwelt-schweiz.ch/wald>

September 2012

## Highlights

- The number one economic topic in Switzerland remains the **high value of the Swiss franc**, which also influences events in the forestry and timber sector. (p. 6/17)
- While Swiss domestic demand is strong, some economic sectors are suffering losses due to the weak euro. (p. 17)
- The nuclear disaster at the Fukushima nuclear power plant in Japan has shaken Swiss energy policy to the core. (p. 6/11)
- The Swiss Forest Policy 2020, the political action programme for the Swiss forest, is being adapted to a changed environment. (p. 7)
- The Swiss Biodiversity Strategy aims to conserve the resilience of ecosystems through their variety. (p. 7)
- The Wood Action Plan is being extended for an additional period up to 2016 (p. 7) and a national research programme is developing **strategies and technologies for the optimised use of the resource wood**. (p. 8)
- Effects of climate change on the Swiss forest: a research programme (p. 9)
- The duty of declaration for wood and harvested wood products generates market transparency. (p. 14)
- The label of origin **Herkunftszeichen Schweizer Holz** raises awareness among consumers of sustainably produced wood from the region. It guarantees the Swiss origin of wood and hence provides proof of the legality and ecological sustainability of the logging and the forestry management. (p. 20)
- Prices for sought-after soft stemwood increase in neighbouring countries; they show a steady decline over the course of the year in Switzerland. (p. 17)

# 1 General economic trends

## Developments up to mid-2012

Formative events in the report year 2011 were the major earthquake disaster with the ensuing tsunami and nuclear disaster in Japan and the euro crisis. While the Japanese disasters mainly affected energy policy in Switzerland, the declining euro left its mark on economic developments. Following its recovery in 2010, the global economy came to a standstill again in 2011 and uncertainty about future development spread. The Swiss economy slowed down from the middle of 2011, but it still grew in real terms by 2.1%. Economic growth in 2010 was just under 3%.

Thanks to robust domestic economic activity and a relatively resistant export industry, the Swiss economy is performing better than had been anticipated in view of the strong Swiss franc and an economic recession in many EU countries. However, for various sectors and many export companies the situation remains tight, with strong downwards pressure on margins. The turbulent events on the currency markets since 2010 have forced many export companies to reduce their sale prices to the detriment of margins in order to remain internationally competitive despite the strength of the Swiss franc. This is reducing the cushion that would enable the mitigation of further negative developments. The situation in the industrial sector is, therefore, problematical and the latest deterioration in Europe poses a serious risk to the further development.

The Swiss economy's remarkable resistance to crisis is due, in considerable part, to the continuing robust economic activity on the domestic front. For example, investments in construction and domestic household demand are being helped by the historically low interest rates, falling inflation and a growing population (as a result of continuous immigration).

The unemployment rate in 2011 and up to mid-2012 was 2.8%.

The floor established for the exchange rate against the euro plays a key role in this context as this has stabilized the currency situation. Against the background of the enduring turbulence on the European money and financial markets and the resulting constant increase in the value of the Swiss franc, the Swiss National Bank set the franc-euro exchange rate at CHF 1.20/EUR in September 2011. Apart from individual fluctuations, it succeeded in maintaining this rate through the repeated purchase of large sums of euros. According to statements from a number of sectors, this target rate is below the "pain barrier" for competitiveness. In general, however, Swiss exports withstood the pressure generated by the fluctuating exchange rates up to 2012 better than feared – at the cost, however, of the erosion of margins.



CHF/EUR

## Outlook

It may be assumed that economic development for the remainder of this and the next year will continue to be characterised by a significantly contrasting picture between the good performance of domestic sectors (construction, consumer-related areas, services directed at the domestic economy), on the one hand, and by export sectors under increasing pressure to adapt, on the other.

The tendency of some EU countries to slide towards recession, the continuing euro crisis and the low euro exchange rate are all weighing heavily on Switzerland's economic prospects. GDP growth of 1.5% is expected for 2012 and 2013. The positive growth forecasts for the Swiss economy are significantly dependent on the assumption that European economic policy will be successful in preventing an uncontrolled escalation of the crisis into a widespread banking and financial crisis.

-> see also <http://www.seco.admin.ch/aktuell/00277/01164/01980/index.html?lang=en&msg-id=44900>

## 2 Policy Measures and Developments that have a Bearing on Forest Product Markets and Forest Management

### 2.1 Swiss National Forest Programme (Swiss NFP)

The legal framework for Swiss forest policy is set down in the Swiss Federal Act on Forest<sup>1</sup> which is based on art. 77 of the Federal Constitution of the Swiss Confederation.<sup>2</sup> In addition to this, the Federal Council approved the Forest Policy 2020 (FP2020) on 31 August 2011.<sup>3</sup> FP2020 represents the further development/evolution of the former *Swiss National Forest Programme (Swiss NFP)*. The updating of this basic concept for national forest policy became necessary in order to effectively address changing conditions within and outside the forestry sector, e.g. adaptation to climate change, invasive species (neobiota), increased demand for wood etc. The overarching objectives of FP2020 are the optimisation and improvement of forests in relation to the three dimensions of sustainability, i.e. the ecological, economic and social value of the forest.

As far as wood is concerned, FP2020 concentrates on the supply of wood and the efficiency of the forestry sector. Forest policy is complemented by *the Wood Resource Policy* (see chapter 2.3), which deals mainly with topics of relevance beyond the forest edge.

During the development of FP2020, efforts were made to ensure that it is consistent with the development of the *Swiss Biodiversity Strategy* (see chapter 2.2) and the *revision of the Federal CO2 Act* (see chapter 2.7.1, page 13). With respect to the conservation of biodiversity, FP2020 adopts the *Aichi Biodiversity Targets* developed under the *Convention on Biological Diversity CBD* (see also chapter 2.2 *Swiss Biodiversity Strategy*).

The *NFP* was developed on the basis of a participative process. Representatives of the forestry sector and other relevant sectors were actively involved in the development of the FP2020.

An action plan for the implementation of *Forest Policy 2020* is currently in preparation.

-> <http://www.bafu.admin.ch/wald/01152/11490/index.html?lang=fr>

-> <http://www.bafu.admin.ch/dokumentation/medieninformation/00962/index.html?lang=fr&msg-id=45961>

### 2.2 Swiss Biodiversity Strategy

The national strategy for the conservation and promotion of biodiversity was approved by the Federal Council on 25 April 2012. The trigger for this mandate was the negative assessment of the status of biodiversity in Switzerland (OECD Environmental Performance Reviews: Switzerland, 2007) and the obligations entered into as part of various international conventions. The long-term aim of the Swiss Biodiversity Strategy (time horizon 2050) is to ensure that the resilience of the ecosystems will be conserved through their variety. In order to conserve and strengthen the diversity of the ecosystem services, among other measures, sufficient areas for the protection and promotion of biodiversity will be designated by 2020. These areas also include forest areas. The biodiversity objectives shall be integrated into all relevant policy and economic sectors, including forestry. The next step, to be completed by 2014, involves the development of an action plan for the implementation of the strategy through concrete measures. All of the actors involved – mainly the cantons, communes and cities – as well as science and research and NGOs will be actively involved in the development of the action plan. -> <http://www.bafu.admin.ch/biodiversitaet/10372/10395/index.html?lang=fr>

### 2.3 Wood Resource Policy and wood promotion

It is the task of the Federal Office for the Environment (FOEN) to manage the access to Switzerland's natural resources. The main objectives for the resource wood in this regard are that it contributes to the sustainable<sup>4</sup> use of wood from native forests and supports the resource-efficient use of wood. In

<sup>1</sup> [http://www.admin.ch/ch/e/rs/c921\\_0.html](http://www.admin.ch/ch/e/rs/c921_0.html)

<sup>2</sup> <http://www.admin.ch/ch/e/rs/c101.html>

<sup>3</sup> <http://www.news.admin.ch/message/index.html?lang=fr&msg-id=40865>

<sup>4</sup> Sustainable: the economically efficient and socially and ecologically compatible harvesting and use of wood. This also includes the legally defined functions of the forest such as the protective function and biodiversity.

order to implement these objectives in a targeted way, together with the cantons and the forestry and timber sector, the FOEN has formulated a Wood Resource Policy, which is coordinated with the other relevant sectoral policies (e.g. energy policy, regional development policy) and covers the period to 2020. This policy defines, among other things, the direction to be taken by federal policy in relation to wood promotion. Wood promotion activities are organised in the context of **the Wood Action Plan (Aktionsplan Holz, AP Holz)**.<sup>5</sup> Seven thematic focuses contribute to the implementation of the objectives of the Wood Resource Policy.<sup>6</sup> Promotional and research projects that correspond to the following thematic focus areas are supported:

- 1 Data: support for knowledge transfer, the publication of relevant data on wood volumes, wood utilisation potential, utilisation strategies and the life-cycle of wood as a material and energy source (life-cycle assessment)
- 2 Provision of information for and raising awareness of forest owners (mobilisation of raw wood reserves)
- 3 Provision of information for and raising awareness of the general public on the topic of "increased wood utilisation – coordination with other forest functions"
- 4 Development of innovative concepts for increasing the possibilities for the recycling and use of hard wood
- 5 Further development of energy-efficient and large-scale timber construction systems, use of wood in renovation projects
- 6 Raising of awareness of institutional end users in relation to timber structures and wood energy
- 7 Design of general conditions and coordination with relevant partners on topics concerning wood

The *Wood Action Plan* was programmed to run for a period of four years (2009–2012). In May 2012, the Federal Office for the Environment (FOEN) decided to extend the programme to 2016. An evaluation showed that the measures carried out under the Wood Action Plan had generated positive stimulus for the timber sector, e.g. for timber construction through the development of fire protection and sound-proofing systems. The sector could not have achieved this under its own steam. A further CHF 4 million per year is being made available for the implementation of the Wood Action Plan. The seven thematic focuses of the current programme will essentially be retained. The details of the **Wood Action Plan 2013–2016** will be developed by the end of 2012.

## 2.4 Research and development

In addition to the Wood Action Plan, the Confederation has other vehicles for the promotion of topics relating to the forestry and timber sector. For a detailed list of the different vehicles, please consult the report for 2011. -> <http://www.unece.org/forests/market-statements-2011.html>

### 2.4.1 NRP 66 Wood: Strategies and technologies for the optimised use of the resource wood

New opportunities for research on wood are being created through the National Research Program **NRP 66 Holz "Strategien und Technologien zur wertoptimierten Nutzung der Resource Holz"** (NRP 66 Wood "Strategies and technologies for the optimised use of the resource wood"). The NRP 66 "Wood" will run for four years (2012 – 2015) and has a budget of CHF 18 million. Its aim is to provide a scientific and materials-technology basis and application-oriented solutions for the increased use of wood. In the context of the holistic exploitation of the possible uses of wood, the focus of the research carried out as part of this NRP is on the optimisation of the forest-wood-chemistry-energy added-value chain. In particular, the insights gained will enable the exploitation of the possibilities offered by the cascaded use of wood ("first material then energetic use"). In order to make optimum use of the future wood potential, it is planned to use the research findings, first, to organise the traditional wood value chain more efficiently and, second, to establish an industrial base with higher added value.

The programme is divided into six thematic modules:

- M1: Raw wood – availability, procurement policy and processes

<sup>5</sup> <http://www.bafu.admin.ch/aktionsplan-holz/index.html?lang=fr>

<sup>6</sup> <http://www.bafu.admin.ch/aktionsplan-holz/10300/index.html?lang=fr>



- M2: Material conversion of wood into exploitable chemical substances
- M3: Energy use of wood
- M4: Wood as material for components
- M5: Wood as material for structural frameworks and buildings
- M6: Life-cycle management of wood-based material flows (see also chapter 2.5)

For further information, see <http://www.nfp66.ch/E/Pages/home.aspx>

#### 2.4.2 Forest and climate change: effects and adaptation

The FOEN launched a research programme in conjunction with a number of research institutions in 2009, the aim of which is to estimate the effects of climate change on the Swiss forest, and the resulting risks for forest ecosystem services, like wood production, water protection, and biodiversity. In the first stage of the programme, up to the end of 2011, experiments were carried out along with basic research on the mechanisms and effects of climate change and their impact on trees and forests. The potential changes in tree species composition are being calculated. This will provide the basis for the scenario modelling of the effects of climate change on forest services.

The first phase of the research programme ended 2011 with a workshop and an intermediate report. The second phase started 2012 and will run to 2015. Experiments will be continued and initial guidelines for the practice of silviculture in the context of climate change and adaptation will be developed. Forestry practitioners will be involved increasingly in the development of the implementation tools.

In 2012 FOEN published the first part of the Swiss strategy “Adaptation on climate change”<sup>7</sup>.

Forests with high priority for adaptation measures are: critical protection forests, forests with high percentages of conifers and climate sensitive forest stands. It is the task of the research programme to define and identify measures to be taken in these categories.

## 2.5 Life Cycle Assessment of biomass and wood products

Life Cycle Assessment (LCA) has proven to be a key method for the successful implementation and application of the principle of sustainable development. The concept of eco-balancing is gaining in significance against the background of climate problems and the increasing scarcity of energy, raw materials and land. Industry and the construction sector expect that ecological issues will become increasingly important factors in the context of competitiveness. Thus, it is possible to observe increasing competition among industries that supply raw materials for the production of “ecological” construction materials or energy sources.

Establishing the life cycle inventory (LCI) of a product is not a straightforward task. Although guidelines for conducting a LCA are available, a variety of decisions remain during the setting up of the life cycle inventory that rely implicitly or explicitly on subjective elements. Consistent and coherent life cycle inventory (LCI) datasets are a prerequisite to the performance of sound LCA studies. Quality-controlled and transparently documented generic datasets increase the credibility and acceptance of LCA results. In particular, they support informed decision-making in the field of energy as well as in the field of buildings, construction components and materials.

### 2.5.1 Biomass Strategy

In order to be able to approach the conflicts surrounding the use of biomass, a cross-sectoral strategy for the production and use of biomass was developed in 2011 and involved the cooperation of several federal authorities. The strategy is based on guidelines that specify how biomass should best be produced and used while taking societal, ethical, ecological and economic issues into account. Hence the **Swiss Biomass Strategy (*Biomassestrategie Schweiz*)** provides a basis for sectoral strategy, for example, in relation to the use of biomass for energy generation and nutrient management. Important principles include the efficiency of production and processing, the life-cycle perspective, cascade use (food and material uses come first followed by energy use at

<sup>7</sup> Anpassung an den Klimawandel in der Schweiz – Ziele, Herausforderungen und Handlungsfelder. Erster Teil der Strategie des Bundesrates. Bundesblatt Nr. 14 vom 03.04.2012, 6777-3858

the end of the life-cycle) and the consideration of species that are suited to the locations in which they are cultivated.

-> <http://www.bafu.admin.ch/biomasse/11126/index.html?lang=en>

### 2.5.2 Switzerland's binding ecological and minimum social requirements for biogenic fuels and the mineral oil tax

Switzerland was the first country in the world to introduce binding ecological and minimum social requirements for the exemption of biofuels from the mineral oil tax into its legal framework.

Since 2008, fuels from renewable feedstocks are exempt from the mineral oil tax if they comply with specific criteria. In order to benefit from this tax relief, producers and importers of biofuels must demonstrate that the fuels have a positive aggregate environmental impact and are produced under socially acceptable conditions. Three ecological minimum requirements must be met in order for the aggregate environmental impact to be positive: a reduction of at least 40% in greenhouse gas emissions compared to fossil fuel, no significantly greater harm to the environment than fossil fuel, and the cultivation of raw materials must not endanger tropical forest conservation and biological diversity. The burden of proof lies with the producer or importer to provide information on the type, description and quality of fuel, the entire process of fuel production, from cultivation of raw materials to the distribution of fuel to the consumers, and the impact on tropical forests and biodiversity. For example, the conservation of ecosystems of particular conservation value, such as forests, wetlands and grasslands of significant biological diversity, is prohibited. The details on how to provide proof of the positive aggregate environmental impact are regulated by the Ordinance on Proof of the Positive Aggregate Environmental Impact of Fuels from Renewable Feedstocks (Biofuels Life Cycle Assessment Ordinance, BLCAO), which came into force in 2009.

Biofuels obtained from residues or waste from agricultural or forestry production or processing are presumed to fulfil the ecological minimum requirements conditions if they were produced using the latest available technologies.

Based on the findings of a report the Federal Council decided in mid-September 2012 that further incentives were not required in the area of biogenic fuels. The contribution of biogenic fuels to the fulfilment of the objectives of Swiss energy and climate policy is classified as low. These objectives can be achieved more effectively and efficiently with other instruments. Moreover, the domestic potential for the production of biogenic fuels is limited.

-> <http://www.news.admin.ch/message/index.html?lang=fr&msg-id=45949>

### 2.5.3 Life Cycle Assessment of wood products (and sustainable building)

#### Research

- One focus area in the **National Research Programme NRP 66** (-> see chapter 2.4.1) is the life-cycle analysis of wood-based material flows; it is aimed to optimise the ecological use of wood resources in Switzerland using the results of these analyses.

-> <http://www.nfp66.ch/E/projects/life-cycle-wood-material-flows/Pages/default.aspx>

- It is impossible to carry out solid life-cycle analyses and transparent material comparisons in the absence of a quality-tested database. For this reason the Empa (the Swiss Federal Laboratories for Materials Testing and Research) developed the "**ecoinvent database**" with the aim of making the comparison of materials on the basis of their eco-balance understandable and transparent through the use of comparable methodologies.<sup>8</sup> The Empa uses these data in the development of fact sheets and recommendations for sustainable building.

Since early 2008, the authorities and Empa have been engaged in preparations for the updating of this database in the area of wood and harvested wood products as much of the data in this area originate from 1986, 1990 and 1999 and are therefore obsolete. At the same time, it is also in-

---

<sup>8</sup> The Empa is an interdisciplinary research and services institution for material sciences and technology development within the ETH domain.

tended to address methodological questions, for example that concerning the correct integration of the land use of a resource. This process is carried out with the involvement of the timber sector. The revision and updating of the ecoinvent data for wood and wood products is currently in preparation (including energy wood). Concrete results may be expected by late 2012.

One example of a comparative study of *EMPA* is its analyses of different LCA of the energy use of woody biomass and other biomass. One of the results is that there is no difference in energy efficiency whether wood is used for heating only or used of combined heat and power. For both uses the total efficiency is from 60% to 95% (heat production) or 45% to 90% (combined heat and power).

### Public procurement

- The **KBOB** (*Koordinationskonferenz der Bau- und Liegenschaftsorgane der öffentlichen Bauherren*, coordination group for public construction projects) regularly publishes lists with updated data on the ecological characteristics of building materials, technologies, energy sources and transport process and additional information on the topic of sustainable building.

The KBOB recommendations contain information and suggestions for procurement bodies and model text modules for use in invitations to tender. These are aimed at the clients of construction projects, project managers and planners working at federal, cantonal and communal levels.

-> see also chapter 3.3.2 *Herkunftszeichen Schweizer Holz (label of origin)*

For further information, see: <http://www.empa.ch>;

- <http://www.bbl.admin.ch/kbob/00493/00495/index.html?lang=de> (KBOB, a coordination group for public construction projects)

- <http://www.eco-bau.ch> > *eco-bau* is a platform for public construction clients that provides recommendations for sustainable building.

- [http://www.lignum.ch/fr/nouveautes/nouveautes/nouveautes/?tx\\_ttnews%5Btt\\_news%5D=1158](http://www.lignum.ch/fr/nouveautes/nouveautes/nouveautes/?tx_ttnews%5Btt_news%5D=1158)

## 2.6 Policies for renewable energy and energy efficiency

### 2.6.1 The legal framework

The legal framework for the Swiss energy sector is mainly provided by two legislative acts: the Swiss Federal Energy Act (*Energiegesetz, EnG*) and the Swiss Federal Energy Supply Act (*Stromversorgungsgesetz, StromVG*). The measures, with which the targets defined by Swiss energy policy shall be achieved are defined in two action plans. The measures comprise a mix of legally defined minimum standards and consumption specifications as well as incentive and promotional systems.

### 2.6.2 The Energy Strategy 2050

As a result of the devastating earthquake in Japan and the disaster at the Fukushima nuclear power plant, the Federal Council mandated the *DETEC (Department of the Environment, Transport, Energy and Communications)* to revise its energy strategy at the end of May 2011. The Federal Council decided to continue to safeguard Switzerland's high level of energy security – although **without nuclear energy in the medium term**. Existing nuclear power plants shall be decommissioned at the end of their operational lifespan and will not be replaced by new nuclear power plants. In order to ensure the security of supply, as part of its new Energy Strategy 2050, the Federal Council, is focusing on increased energy savings (energy efficiency), the expansion of renewable energies, and, if necessary, on fossil-fuel-based electricity production (cogeneration facilities, gas-fired combined-cycle power plants) and imports. Furthermore, Switzerland's power grid should be expanded without delay and energy research strengthened. The phasing out of nuclear power and the other strategic goals shall be achieved through a package of around 50 measures. The package will be incorporated into a bill and presented for consultation in autumn 2012. The strategy and bill will be presented for parliamentary consultation in mid-2013. If an optional referendum is not initiated, the bill could become law from 2014.

-> <http://www.bfe.admin.ch/themen/00526/00527/index.html?lang=en>

-> <http://www.bfe.admin.ch/energie/00588/00589/00644/index.html?lang=fr&msg-id=44187>

### 2.6.3 The cost-covering remuneration for feed-in to the electricity grid (CRF)

The Energy Act stipulates an increase of the production of electricity from renewable energy sources by 2030. One of the most significant measures concerns cost-covering remuneration for the input into the network of electricity produced from renewable energy sources. The **cost-covering remuneration for feed-in to the electricity grid**, CRF, is paid to offset the difference between total production cost (including investments) and market price. It came into force in January 2009. Electricity consumers pay a surcharge per kilowatt hour to finance the payments (and other measures introduced under the Energy Act). The tariffs for remuneration for electricity from renewable energy sources (green power) have been specified on the basis of reference facilities for each technology and output category. A gradual downward curve is foreseen for these tariffs in view of the anticipated technological progress.

In order to ensure that more forest wood, field shrubs and waste wood are used in energy generation, a price bonus is also paid for wood. The tax rate is regularly revised in accordance with the prevailing economic situation and price trends. Since 1.3.2012, small power plants (< 5MW) receive both higher remuneration and the bonus. To obtain remuneration, the producer must fulfil requirements in relation to efficiency. Thus, only electricity production from combined heat and power (CHP) qualifies for CRF. Switzerland has now nine operational CHP plants, which generate 7% of total energy production from wood energy.

For further information see: <http://www.bfe.admin.ch/themen/00612/02073/index.html?lang=en>

The CRF is a cornerstone of the promotion of renewable energies. It is complemented by the partial earmarking of revenues from the CO<sub>2</sub> tax for the financing of climate-related measures in buildings and by the promotional programmes carried out as part of the economic stabilisation measures and financed using special funding. The latter support, in particular, district heating systems based on renewable energy sources or waste heat. (See also chapter 3.2 *Wood energy*)

### 2.6.4 Energy efficiency and sustainable building

Energy efficiency is a crucial parameter for all sustainable development strategies. The building stock, which accounts for half of Switzerland's energy consumption, is a particular point of focus in this context. Significant ecological and economic potential exists in the area of the construction of new buildings and renovation of old ones. Therefore, both promotional programmes and standards exist in this area at the different levels, i.e. national, cantonal, local.

- A **national building programme** for the reduction of CO<sub>2</sub> emissions commenced in 2010; it is financed in part by the income from the CO<sub>2</sub> tax (see chapter 2.7.1, page 13 ). The existing cantonal incentive systems are being harmonised. Only measures that outperform the legally defined minimum standards will be supported.
- The cantons make a considerable contribution to the Confederation's energy and CO<sub>2</sub> objectives with their **cantonal promotion programmes**. A large proportion of the direct subsidies are paid for improvements to the building envelope and for the promotion of automatic wood-fired heating systems and solar collectors.
- The Swiss cantons have implemented strict standards which have led to a clear reduction in energy consumption. The standards are based on a variety of instrument, such as fact sheets for architects and planners (*SIA Merkblätter*), the *Minergie* standard and energy certificates for old and new buildings. For a more detailed description of these instruments, see the 2011 report. -> <http://www.unece.org/forests/market-statements-2011.html>.

## 2.7 Climate change and the forestry sector

**Switzerland's climate and energy policy are very closely linked.** Measures for greater energy efficiency and for the further development of renewable energy sources as a proportion of total energy consumption also impact positively on the fight against climate change.

### 2.7.1 CO2 Act, incentive taxes and post-Kyoto

Based on the Swiss **Federal CO2 Act**, which was passed in 1999, Switzerland aims to reduce energy related CO2 emissions by 10 % during the period 2008 - 2012 (as compared with 1990 levels).

The CO2 Act is based, first, on voluntary measures, in particular on the part of business, and, second, if predefined intermediary reduction targets are not met, on steering instruments, such as the CO2 levy. A CO2 levy on fossil combustible fuels (heating oil, natural gas) of CHF 12 per tonne of CO2 has been levied since January 2008. The tax is not levied on biofuels, such as energy wood. **The CO2 tax is an incentive tax on the carbon content of fossil fuels.** The revenue from the levy is redistributed to the citizens on a per capita basis and to enterprises as a percentage of wages paid. Because CO2 emissions had not decreased to the required level, a tax increase was triggered and tax rates tripled from CHF 12 to CHF 36 per tonne of CO2 (from 3 to 9 centimes per litre of heating oil) as of 2010. At the same time, the effectiveness of the tax was reinforced by a national building programme, to which one third of the revenues is dedicated (see chapter 2.6.4 *Energy Efficiency and Sustainable Building*). The earmarking of the CO2 tax required an amendment of the CO2 Act, which was adopted by Parliament in 2009 (see below).

Due to the intervention of the private sector, a CO2 tax is not levied on transport fuels but a “**Klimarappen**” (“climate cent”). The “climate cent” is a private sector instrument implemented by the Swiss mineral oil industry, which entered a commitment vis-à-vis the Swiss Confederation to offset CO2 emissions by 17 million tonnes over the period 2008 to 2012 (first commitment period under the Kyoto Protocol); at least two million tonnes of this shall be reduced within Switzerland. The large bulk of emission reductions, max. 15 million tonnes (3 m p.a.), are achieved abroad by using the flexible mechanisms of the Kyoto Protocol. CO2 credits from projects implemented according to requirements set by the Kyoto Protocol can also be accounted for under Switzerland’s CO2 Act.

The CO2 Act requires further emission reduction targets **beyond 2012 (second commitment period)**. The government presented a draft revision of the act to parliament in August 2009 proposing a reduction of Switzerland’s greenhouse gas emissions of at least 20 % by 2020 (as compared with 1990 levels) with the option to increase the target in line with international commitments beyond Kyoto. The revised act has been accepted by the parliament on 23<sup>rd</sup> December 2011 and will be in force as from 1<sup>st</sup> January 2013, together with the 2<sup>nd</sup> commitment period under the Kyoto protocol as agreed at the UNFCCC Climate Conference in Durban, in December 2011. The scope of the revised national legislation has been extended from energy related CO2 emissions to all greenhouse gases, sinks and sources covered by the international agreement beyond Kyoto. The Swiss parliament inserted amongst other instruments such as a fund to foster new technologies a passage providing for the accountability of wood products regardless of international regulations. This is in line with the Durban decisions which allow in the next commitment period to account for **harvested wood products (HWP)** as part of the Kyoto Protocol activity “forest management” (see Chapter 2.7.2).

**The mix of instruments** of the revised CO2 Act is rooted on existing measures, such as the CO2 levy on heating fuels, from which energy intensive industries can be exempted, and the building programme. The CO2 tax on transport fuels however, proposed as a subsidiary measure only to be introduced, if the targets are not reached, was dropped by the Parliament. The private sectors “climate cent” is transformed into an obligation for importers of transport fuels to offset a certain percentage of CO2 emissions. The main instrument to curb emissions from the transport sector are prescriptions for passenger cars; the fleet of new cars is not to exceed an average target value of 130 gram per kilometre by 2015. The existing emissions-trading system is sought to be linked to the European emission trading system.

A maximum of CHF 300 million from the **CO2 tax is earmarked to subsidise CO2 relevant measures in buildings** (at most two third of the tax revenue). At least two third of this funding is to be dedicated to a nationally harmonised **buildings refurbishment programme** (insulation of roofs, walls, floors and ceilings and replacement of windows). One third at the most can be made available to cantons by matching their budgets for the **promotion of renewable energies**, waste

heat utilisation and building services engineering (see also chapter 2.6.4 *Energy Efficiency and Sustainable Building*).

The precondition for such general subsidies to be granted by the Confederation is the existence of both a cantonal legal basis and a promotional programme. To some extent, the cantons are free to design their specific promotional programme. With regard to renewable energies, the majority of cantons promote wood energy. The amount of subsidies granted by the Confederation varies among other factors with the efficiency of the cantonal program in the previous year.

### 2.7.2 Kyoto Protocol, forest management and CO2 balance of forest and wood

Switzerland has chosen to account for forest management as an activity under Article 3.4 of the Kyoto Protocol during the 1<sup>st</sup> Commitment period. In other words, changes in carbon stocks in Swiss forests due to forest management are taken into account in the calculations for Switzerland's compliance with its commitment under the Kyoto protocol. CO2 certificates achieved through CO2 sequestration due to forest management, afforestation or revegetation (**Carbon Removal Units**, RMUs) will be held in the country's account. On the other hand, for emissions due to forest management or deforestation the respective amount of CO2- certificates (assigned Amount Units, AAUs) have to be cancelled. There is no legal basis for the transfer of RMUs to forest owners who are interested in participating in the CO2 market. Hence, one of the country's biggest forest companies initiated a process for the certification of its forest management to provide sink certificates for the voluntary market. Moreover, no legal basis exists for obliging forest owners to generate carbon sinks in their forests and, under current regulation, Switzerland as a country is liable if forest owners' create net emissions due to forest management and needs to compensate those emissions by other measures. According to current estimates, the Swiss forest is expected to provide a carbon sink of around 10% of total greenhouse gas obligations during the Kyoto commitment period of 2008 to 2012 (estimates of changes in soil organic carbon and litter are not yet included).

On the other hand, wood utilisation is expected to become more attractive in the years to come and this will foster the **substitution and carbon sequestration effect of wood**. The cascaded use of wood (first material use, then as energy wood) replaces more CO2-intensive construction materials and fossil fuels. This substitution effect is implicitly accounted for in the greenhouse gas inventory because the consumption of fossil fuels is reduced. Swiss policy and the forest and timber industry argue for the integration of this substitution effect to enhance the attractiveness of wood utilisation and to prevent a further increase in the already high growing stocks in the Swiss forests. A further advantage of wood used in construction and furniture is the resulting increase in the carbon stock in **harvested wood products (HWP)**. This, however, cannot be accounted for during the first Commitment Period of the Kyoto Protocol. The 2011 Durban Accords set new rules for the accounting of the forest management activity in the 2<sup>nd</sup> Commitment Period under the Kyoto protocol. Accounting for forest management will be compulsory as from January 2013 and HWP is an integral part of the Art. 3.4 activity *Forest Management*, provided they are domestically produced and processed. Emissions resulting from natural disturbances do not have to be accounted for if they were beyond control of the party and provided they were not anthropogenically triggered, not materially influenced by the party and that the party had taken all measures to prevent and manage the event.

A study on the potential contribution of the Swiss forestry and timber sector to the reduction of CO2 emissions showed that the best long-term effect was achieved by a scenario where growth increment is maximised by harvesting regularly on a sustainable basis thereby accounting for changes in total biomass in forests, substitution and the carbon sequestration in HWPs.

## 2.8 Trade issues affecting the market

### 2.8.1 Market transparency: the Swiss duty of declaration for wood and harvested wood products

The Swiss **Ordinance on the Duty of Declaration for Wood and Harvested Wood Products** has been in force since October 2010. The implementation of its provisions has been mandatory

since January 2012. The ordinance is based on the principle of market transparency. It does not contain any restrictions but obliges all traders who sell wood products **to declare the type of wood used and its country of origin, i.e. the country in which it was logged, to the end consumer**. The information provided by the declaration is intended to enable consumers to make an informed decision when purchasing a product.

The duty of declaration is at the final point of sale. Hence, border controls do not need to be implemented.

As in the new EU regulation (see next chapter 2.8.2), the **scope** of the ordinance is based on the nomenclature of the internationally harmonised and binding customs tariff system.

Only raw wood and solid wood products must be declared during the first stage of the implementation of the ordinance. The latter also include glulams (Leimbauhölzer) and solid wood furniture.

Veneers, derived wood products, parquet and doors are still excluded. It is planned to record these and other wood products at a later stage when the content of the future EU regulation on wood and wood products has been clarified. The scope of the draft version of the EU wood regulation was used as a basis for the development of the scope of the Swiss regulation.

To alleviate the administrative burden on small and medium-sized companies, it is sufficient for companies to make a general declaration in the case of low-volume production.

A database is accessible on the internet ([www.konsum.admin.ch](http://www.konsum.admin.ch)), from which the following information can be obtained:

- The scientific names and trade names of the wood types required for the declaration
- The distribution areas of the wood types
- Information as to whether the type of wood in question originates from a protected species under the Convention on International trade in Endangered Species (SR 0.453).

The starting point for the further development of the Swiss regulation is set to change with the application and implementation of the EUTR on 3 March 2013 (see next chapter).

For further information, see <https://www.konsum.admin.ch/holzdeklaration/start/index.html?lang=fr>

## 2.8.2 European Timber Regulation, EUTR

The **European Timber Regulation, EUTR** will be applicable in the EU from 3 March 2013. This regulation prohibits the placing on the market of illegally logged wood and **obliges all traders who place wood products on the market for the first time to exercise due diligence**. The scope of the regulation covers almost all wood products from customs tariff chapters 44, 47, 48 and 94.

The key elements of the due diligence obligation are:

- Information and documentation on the timber type, timber origin, legality, traceability
- Risk assessment processes based on the above-specified information and a risk reduction process if a suspected risk is assessed as not negligible.

-> If the timber originates from a country, in which a negligible risk of illegal logging exists, information need only be provided on the timber type and origin.

The application of the EUTR in the EU will have an impact on the Swiss timber sector as the EU is Switzerland's most important trading partner in the sectors affected by the regulation. Approximately 95% of timber products are exported to the EU or imported from there. All Swiss market actors who export into the EU will be indirectly obliged to provide the information to the EU traders required to fulfil their due diligence obligation.

- Because Switzerland can be demonstrated to be a country without any risk of illegal logging, there will be no additional costs for the export of timber and timber products that can be proven to originate from Swiss timber (see also Chapter 3.3.2 *Herkunftszeichen Schweizer Holz – label of origin*).
- Moreover, because 95% of Swiss timber imports originate from the EU and have, therefore, already been placed on the market in the EU, almost all Swiss exports may be considered as without risk and legal. Additional information will have to be provided for a small proportion of Swiss exports. This will give rise to additional costs.

<http://www.globalforestregistry.org/> presents countries in accordance with their risk of illegal logging. Thanks to its Forest Act – one of the strictest in the world – and its consistent implementation, Switzerland is assessed as risk-free.



For further information, see:

- [http://ec.europa.eu/environment/forests/timber\\_regulation.htm](http://ec.europa.eu/environment/forests/timber_regulation.htm);
- <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32010R0995:EN:NOT>;
- <http://www.globalforestregistry.org/>



## 3 Developments in Forest Product Markets

**In the Swiss forestry and timber sector, the years 2010 to 2012 were marked by the weakening of the euro.** The adjustment in the exchange rate has had obvious effects on the trade in timber products which is strongly integrated into the global market. Approximately 95% of Swiss exports of timber products are exported to the EU or imported from the EU. The derived timber products and base paper industries, in particular, export a high proportion of their production into the EU. Due to the relative rise in the cost of their products, these industries are losing competitiveness.

As Chapter 1 shows, the Swiss economy is performing well compared to that of other European countries. The fact that this overall picture conceals an economy of two parts is demonstrated by the situation in the different branches of the forestry and timber sector:

- The strong construction sector, the increasing popularity of timber as an ecological construction material ensured a stable demand for timber and that wood-processing operations in some regions are working at a good capacity.
- The stimulating domestic demand was counteracted, however, by the restraining effect of the strong Swiss franc. While the timber constructors could benefit from the cheaper imports of semi-finished wood products, the margins and profits of domestic wood traders and exporters came under pressure due to the exchange rate.

In the residential construction sector, new building and extensions and property remodelling continue to operate at a high level. Timber construction is also gaining ground in multi-story construction and in industrial-commercial building. Capacities in the areas of timber construction, carpentry and interior construction are correspondingly well utilised. Their profits are mostly obtained in Swiss francs. At the same time they can purchase sawn timber, semi-finished wood products and above all glued construction timber (verleimtes Konstruktionsholz), derived timber products and other additional purchases in the euro zone and hence reduce their costs.

### 3.1 Roundwood: sawlogs, pulpwood and fuelwood

#### Developments up to mid-2012

From 2008 to mid-2012 the Swiss forestry sector was spared the effects of major storms and compulsory logging. The volumes of bark-beetle wood, which had remained high in 2007, also declined significantly and reached their lowest level for years in 2012.

Overall, at 5.1 million cubic metres (m<sup>3</sup>), almost as much wood was cut in Swiss forests in 2011 as in the previous year. Wood harvesting was slightly below the average value for the past 20 years. 64% of the wood harvest, i.e. 3.3 million m<sup>3</sup>, originated from public forests and 1.8 million m<sup>3</sup> from private forests.

The harvesting of softwood declined by 3% to 3.4 million m<sup>3</sup> while hardwood harvesting increased by 3% to 1.67 million m<sup>3</sup>. The proportion of harvested wood accounted for by softwood has decreased from 80% to 67% since 2000, and the proportion of hardwood has increased from 20% to 33%. This reflects the trends in natural forest development: two thirds of the standing volume is softwood and declining while one third is hardwood and increasing.

#### 3.1.1 Timber assortments and price trends

Of the 2.83 million m<sup>3</sup> of **sawlogs** harvested in 2011, 2.57 million m<sup>3</sup> or 91% were softwood and only 9% hardwood. The market for **soft sawlogs** in 2011/12 was influenced mainly by the pressure arising from the low euro exchange rate and the closure of Switzerland's biggest sawmill in Domat/Ems:

Due to the changes in the exchange rate, the forestry sector had to endure price reductions to be able to sell the timber abroad and also on the domestic market.

The sawmills cut a total of 10% less wood, a development that can be explained in particular by the closure of Switzerland's largest sawmill in Domat/Ems. Whereas prices for stemwood, for which international demand (Germany and Austria) is healthy, increased, they underwent a con-

tinuous decline over the course of the year in Switzerland. For the survey period January to April 2010, they decreased by between 10% and 14% as compared with the previous year, depending on the assortment.

The development of the foreign trade figures for soft stemwood reflect the decline in domestic demand for spruce/fir stemwood due to the closure of the large sawmill in Domat/Ems in the canton of Graubünden. In 2011, imports fell below 2007 levels and declined by 72% as compared with 2010 to 46,000 m<sup>3</sup>. In contrast, after four years of decline, exports increased by 33% to 613,000 m<sup>3</sup>.

The market for **beech sawlogs**, the most important variety of hardwood in terms of volume, remains weak due to the lack of suitable processors. The majority of the traditional processing capacities for Swiss beechwood in northern Italy ceased operation in recent years. In the case of the relatively higher quality reference assortment (Referenzsortiment), the price of beech sawlogs declined by 15% as compared with the previous year for the survey period of January to April, while that of the lower quality reference assortment decreased by 10%. The harvesting of hard sawlogs declined again by 3% to approximately 259,000 m<sup>3</sup>, of which 204,000 m<sup>3</sup> was exported. At around 50,000 m<sup>3</sup> in 2011, imports of hard stemwood were also considerably lower than exports.

The harvesting of **energy wood** increased by almost 4% to 1.7 million m<sup>3</sup> and that of wood for the derived wood products and paper industries ("**industrial wood**") increased slightly to 0.53 million m<sup>3</sup>.

Hence the supply of wood shifted further away from higher quality roundwood assortments to lower quality assortments for industrial processing and, above all, energy production.

Medium and lower quality beech roundwood, large volumes of which were exported to Italy or processed in Switzerland into the 1990s, now enter the expanding energy wood market.

### 3.1.2 Economic situation of the forestry sector

The increased prominence of lower-priced assortments and the generally lower profits from wood as compared with the previous year resulted in lower earnings from the wood harvest. A cubic metre of harvested wood still yielded on average a turnover of a good CHF 75 for forest owners. Average harvesting costs CHF 74.6. Hence the forest owners earned only CHF 0.50 per cubic metre. The regional variations are considerable: in the central plateau profits of CHF 19 /m<sup>3</sup> were obtained while, in the Alps, the wood harvest generated a deficit of CHF 43/m<sup>3</sup>.

These results do not include infrastructure costs (e.g. the maintenance of forest roads), forest maintenance and administrative costs. In 2011, costs increased on average in all areas of activity relating to forest management in Switzerland.

Because the wood harvest is already in deficit in the mountain regions and in forests located on difficult terrain, without state contributions, mountain and protective forest maintenance would have to be completely abandoned. In other regions, like the Central Plateau, additional costs arise for the maintenance of forest paths which are used by the population and for forest maintenance, for example the felling of trees as a safety measure.

Hence, the state pays an average contribution of CHF 182 per hectare for the management of the Swiss forests. According to the forest statistics, in 2011, the payments for protective forest maintenance, forest biodiversity services and young forest maintenance, and forestry planning increased by a total of 9%. Despite this, due to the larger deficit in the wood harvest and the general increase in costs, the outcome in forest management deteriorated by almost 15%. Forest owners had to pay an average total of CHF 51 for the management of each hectare of forest.

-> see also: <http://www.news.admin.ch/message/index.html?lang=fr&msg-id=45380>

## Current developments

It may be assumed that the market trends observed from 2010 to 2012 will continue in 2012/13:

- The long-term buoyancy in building construction, in particular residential construction, shores up the demand for soft sawlogs.

- The high valuation of the Swiss franc against the euro generates strong pressure on imports and impacts on domestic prices in Swiss francs.
- The demand for hard sawlogs remains weak; and the market for energy wood grows.
- Demand for industrial wood may be expected to remain constant; here too the market is significantly influenced by the CHF/EUR exchange rate so that part of the demand should be covered by foreign wood.

### 3.2 Wood energy

At 852,330 TJ, Switzerland's total energy consumption in 2011 was 6.5% lower than in the previous year. With the exception of transport, energy consumption in all sectors decreased. This may be explained for the most part by the hot weather. The economic development and measures for the increasing of energy efficiency should also have had an impact. Hence, the use of all combustibles decreased while there was a slight increase in overall propellant use.

The effective consumption of wood energy also decreased by 9%, i.e. from 4.5 to 4.1 million m<sup>3</sup> of fuelwood. This gross consumption of wood corresponds to an effective fuel conversion of wood (Endenergieumsatz) of 39.2 PJ. The reduction reflects, however, a weather-adjusted increase of almost 4%! The climate effects are excluded from the weather-adjusted development.

The total consumption of 4.1 million m<sup>3</sup> includes combustion in waste incineration plants. The gross consumption of wood energy, excluding waste incineration plants, is 3.71 million m<sup>3</sup> (35.6 PJ).

Of the 4.1 million m<sup>3</sup> of fuelwood used

- 55 % originated from the forest (2.27 million m<sup>3</sup>);
- 19 % from wood processing (0.76 million m<sup>3</sup>);
- 19 % from used wood sources (0.78 million m<sup>3</sup>); and
- 7 % from wood pellets (0.29 million m<sup>3</sup>).

Although wood energy is the second most important native and renewable energy source in Switzerland after hydroelectric power, wood energy only accounts for around 4 % of the total final energy consumption, as in previous years. Due to the characteristics of this climate-neutral raw material and the subsidising of non-renewable energies, the importance of wood as an energy source continues to increase. The potential offered by energy wood (i.e. forest, slash, wood residues and used wood) will be exploited more extensively in the future. The *cost-covering remuneration for feed-in to the electricity grid (CRF)* for electricity generated from renewable sources (see Chapter 2.6.3, page 12) affects the viability of wood-fired heating plants and, together with a desired gain in terms of image, increases the (economic) attractiveness of business with green electricity for the Swiss electricity companies.

Three large wood-fired power plants currently operate in Switzerland. Switzerland's fourth biggest wood-fired combined heat and power plant in Bern will commence operation in the second half of 2012. It will operate in conjunction with a waste incineration plant. Its operation will fully impact on the production of electricity from wood and waste from 2013.

Due to the hot weather, the supply of energy wood from forests exceeded demand in 2011. This was reflected in the development of prices for forest energy wood: the prices of wood chips declined and there was only a minimal increase in the price of energy wood in chunks.

Foreign trade in fuelwood is relatively insignificant. In other words, the fuelwood harvested in Switzerland is also burned within the country.

For further information, see: Swiss Federal Office of Energy (SFOE): *Schweizerische Holzenergiestatistik 2011* ->

-> [http://www.bfe.admin.ch/themen/00526/00541/00543/index.html?lang=de&dossier\\_id=00771](http://www.bfe.admin.ch/themen/00526/00541/00543/index.html?lang=de&dossier_id=00771)

## 3.3 Certified forest and forest products

### 3.3.1 FSC and PEFC certification

Approximately 0.66 million ha of Swiss forest (i.e. 53 % of the total forest area) was certified in 2011. Of these certified areas, more than the half have both **FSC and PEFC certification**. Of the timber harvested in Switzerland in 2011, 68 % was certified.

At present, over 963 companies operating at all levels in the timber processing sector hold a certificate. In contrast to the situation in the forestry sector, the majority of these companies, 909, only hold the FSC certificate. Thus, the Swiss wholesale distributors, which also hold a significant share of the market in the DIY sector, are FSC-certified. 30% hold both the FSC and PEFC certificate. At present there are no companies in Switzerland that are solely PEFC-certified.

In 2009 a **national certification standard** which forms the basis of certification for FSC and PEFC in Switzerland was introduced by both label organisations. The aim was to reduce the cost of certification. However, this harmonisation is criticised today as the competition between the private labels is disappearing as a result of its introduction.

The main driving forces for certification in Switzerland are the DIY sector and the demand for certified paper products. On the other hand, the sellers of certified wood cannot demand a higher price ("green premium"). Thus the market does not compensate for the additional costs incurred in certification. For this reason, certification is a contentious issue in the forestry and timber sector.

### 3.3.2 Herkunftszeichen Schweizer Holz (label of origin)

The origin of the wood is not declared under the FSC and PEFC certification systems. In 2009 the forestry and timber industry introduced a new label ("**Herkunftszeichen Schweizer Holz**", **HSH**). It is managed by LIGNUM, the Swiss timber sector umbrella organization. Its main purpose is to show and prove the Swiss origin of the timber products. The intention here is to raise the awareness of end users about Swiss wood that is produced in accordance with the strict sustainability requirements of the Swiss forest legislation and has not caused environmental pollution as a result of being transported over long distances.

The HSH guarantees the traceability and documentation of a wood product from its origin to the end user. Products bearing the *Herkunftszeichen Schweizer Holz* label of origin may contain up to 20% of wood of foreign origin if it comes from a comparable production region (low risk origin) and has a sustainability certificate or declaration of origin.

Since September 2011, all wood origination from Swiss forest areas can be marked with the *Herkunftszeichen Schweizer Holz* label of origin. Use rights are assigned to forest owners if they are prepared to fulfil the conditions of the regulation. The cantonal forestry sector associations monitor compliance with the regulation requirements.

-> [http://www.lignum.ch/fr/technique/certification\\_du\\_bois/](http://www.lignum.ch/fr/technique/certification_du_bois/)

-> <http://www.wvs.ch/fr/taches-centrales/dossiers/certificat-dorigine-bois-suisse.html>

### Public procurement

Recommendations exist for public procurement in Switzerland (see also chapter 2.6.4). The recommendation for the **procurement of sustainably produced wood** requires that **100% of the material originate from legal and sustainably managed sources**. Previously, proof was provided by the sustainability certification based on the FSC and PEFC systems. The origin of the wood is now also applicable if a country's legal provisions and reliable implementation guarantee the sustainable development of its forests. This is guaranteed in the case of Switzerland. The *Herkunftszeichen Schweizer Holz* is valid as proof of Swiss origin.

-> [http://www.lignum.ch/fr/nouveautes/nouveautes/nouveautes/?tx\\_ttnews%5Btt\\_news%5D=1158](http://www.lignum.ch/fr/nouveautes/nouveautes/nouveautes/?tx_ttnews%5Btt_news%5D=1158)



### 3.4 Sawnwood

In contrast, Swiss sawmills largely covered their sawlog requirements from domestic sources – at prices charged in Swiss francs. On the other hand, they export sawnwood and sawnwood residues into the Euro zone. As a result **they face a double and correspondingly severe competitive disadvantage vis-à-vis their competitors from the EU**. Moreover, the Italian sawnwood market, a traditional sales channel, is declining, and, on the domestic market, traditional wood boards cut to the customer's specifications for construction purposes, are being increasingly replaced by further processed semi-finished products such as glued construction timber (verleimtes Konstruktionsholz). The prices of the imported glued-laminated beams (Leimbinder) correspond approximately to those that Swiss laminated wood producers have to pay for domestic sawnwood.

Due to the price pressure from imported products, the domestic prices of almost all sawnwood assortments decreased in 2011 – despite good domestic demand.

Nonetheless, the sawmills maintained their production levels astonishingly well in 2011. 2.16 million m<sup>3</sup> sawlogs were processed into 1.31 million m<sup>3</sup> of sawnwood. The production of soft sawnwood declined only by 11 % to 1.31 million m<sup>3</sup>. This decline can be explained by the closure of the large sawmills in Domat/Ems in the canton of Graubünden in late 2010. The latter had organised its capacities for the cutting of one million solid cubic metres of wood but, according to estimates, only cut one quarter of this volume in 2011.

Whereas 33% of the wood that was harvested in 2011 in the Swiss forest was hardwood, only 4% of the wood cut in the sawmills is hardwood. This can be explained by the fact that the construction sector mainly uses softwood. Hence consumer and business demand is not quite in tune with the natural wood supply of the Swiss forest. This is problematic from an environmental economics perspective as **cascaded use**<sup>9</sup> is desired by politics and society and is supposed to be implemented consistently. (See also chapter 2.4.1 *NRP 66 Wood: Strategies and technologies for the optimised use of the resource wood*)

Imports of soft sawnwood declined slightly again for the first time since 2002 to 409,000 m<sup>3</sup>. Imports collapsed by 54% to around 203,000 m<sup>3</sup>, which can be explained by the closure of the large sawmill in Domat/Ems and the low euro/Swiss franc exchange rate.

With a cutting volume in excess of 100 000 m<sup>3</sup>, the large sawmills sank 2011 their share of total sawnwood production to 33%.

### 3.5 Pulpwood-processing sector

Due to the closure of *Borregaard Schweiz* in 2008 and the economic recession, the purchasing of raw wood by industrial-wood-processing plants collapsed in 2009 by 35% to 1.23 million m<sup>3</sup>. In 2010 it increased by 6% and in 2011 by a further 5% to 1.37 million m<sup>3</sup>. The 1.37 million m<sup>3</sup> industrial wood purchased were distributed evenly with a good 680,000 m<sup>3</sup> for forest wood (+17%) and wood residues (-4%). Around 533,000 m<sup>3</sup> of industrial wood was harvested in Swiss forests – approximately the same volume as the previous year. Around 450,000 m<sup>3</sup> of sawnwood residues were acquired by the Swiss sawmills.

Imports of industrial roundwood are subject to major fluctuations as the internationally oriented industrial wood processors take greater account of the prevailing supply situation and currency developments than the sawmills when purchasing raw wood.

#### 3.5.1 Wood-based panels

The production of wood-based panels in Switzerland is shared by only two companies, one of which produces particleboard and the other various forms of fibreboard. The export figures are since beginning of 2010 no longer published for data protection reasons and have to be estimated. 2011 was another ambivalent year for the Swiss particleboard and fibreboard industry. While it benefited from the building boom, it came under pressure in the export sector, in particular.

---

<sup>9</sup> Cascaded use refers to the principle whereby particularly high quality wood is first used for long-lasting products and is only made available for energy use at the end of the lifecycle of these products.

Soft fibreboard is preferred for the energy-based renovation of buildings and used for high-quality heat and noise insulation. Because this sector is less affected by recession, the production volume could be maintained at the previous year's level of 550,000 m<sup>3</sup>. In addition to the three Swiss production locations, a third plant is being developed in France to alleviate the exchange rate problem. The fibreboard industry is also expanding with the establishment of a sales organisation in Japan, a country of interest to Switzerland from the perspective of both demand and exchange rate.

Particleboard production decreased by around 6% to 400,000 m<sup>3</sup>. These products are mainly used in the production of furniture and in interior construction.

Hard fibreboard is not produced in Switzerland.

### **3.5.2 Pulp and paper**

Since the closure of *Borregaard Schweiz* in 2008, there are only two large plants in Switzerland that purchase raw wood for paper production. In 2011, this represented 300,000 m<sup>3</sup> of raw wood, a third of which was forest wood and two thirds wood residues.

The Swiss market for paper and paperboard products is internationally oriented: in 2011 the volume of products consumed (1.45 million tonnes) was around the same as that produced (1.38 million tonnes; -12%), and imports were around the same as exports (around 1 million tonnes). Hence, the exchange rate problem fully impacted on this industrial sector in Switzerland. Exports declined by 14%, however the export quota (i.e. the proportion of production accounted for by exports) remains high at 70%.

Half way through 2011, the factory for coated, wood-free fine paper belonging to the South African Sappi group in Biberist in the canton of Solothurn closed. Special paper manufacturer Cham Paper Group also announced the streamlining of its Swiss location by 2014. Hence the deindustrialisation of this economic sector continues. Switzerland's last paperboard production plant closed in 2010.

In 2011, only 12 companies in Switzerland still manufactured paper and case materials (Wellkartonpapier); in the early 1990s there were 30. These 12 paper producers import their entire cellulose requirements as cellulose is no longer produced in Switzerland since 2008.

Although the Swiss paper industry is shrinking in terms of both production and consumption, with the commencement of operation of a powerful paper machine in Perlen, in the canton of Lucerne, the production and export of newspaper increased markedly in 2011.

Due to the closure of one plant that mainly used cellulose and expansion of another that primarily uses waste paper, the demand for cellulose decreased and while the waste paper requirement grew. The proportion of secondary fibres in production increased correspondingly from 50% to 62%. In total, around 1.1 million tonnes of fibrous material was used in Switzerland for paper production in 2011. In addition to the processed waste paper fibres, 25% of this material consists of cellulose (2011: 39%) and 13% pulp.

## 4 Tables

### 4.1 Economic Indicators for Switzerland

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 <sup>F</sup>	2013 <sup>F</sup>
<b>Economic growth in %<sup>1</sup></b>	-2	2.3	2.5	3.6	3.6	1.8	-1.5	2.7	2.1	1.5	1.5
<b>Inflation in %<sup>2</sup></b>	0.6	0.8	1.2	1.1	0.7	2.4	-0.5	0.7	0.2	0.2	0.5
<b>Unemployment rate in %<sup>1</sup></b>	3.7	3.9	3.8	3.3	2.8	2.6	3.7	3.5	2.8	2.8	3
<b>Interest yields in 10-year government bond in %<sup>3</sup></b>	2.6	2.7	2.1	2.5	2.9	2.9	2.2	1.6	1.5	0.6	0.3
<b>Currency rate<sup>3</sup></b>											
EUR	1.52	1.54	1.55	1.57	1.64	1.59	1.51	1.38	1.23	1.2	1.2
USD	1.35	1.24	1.25	1.25	1.2	1.08	1.09	1.04	0.89	0.97	1.05
1) State Secretariat for Economic Affairs SECO											
2) Consumer Price Index, Swiss Federal Statistical Office BFS											
3) Swiss National Bank SNB											

## 4.2 Forest products production and trade in 2010–2011; Estimations and Forecasts for 2012–2013

### TC1: Roundwood and Rawwood

Product Code	Product	Unit	Estimate			Forecast
			2010	2011	2012	2013
<b>1.2.1.C</b>	<b>SAWLOGS AND VENEER LOGS, CONIFEROUS</b>					
	Removals	1000 m <sup>3</sup>	2'678	2'568	2'550	2'600
	Imports	1000 m <sup>3</sup>	162	46	45	40
	Exports	1000 m <sup>3</sup>	460	613	600	590
	Apparent consumption	1000 m <sup>3</sup>	2'380	2'001	1'995	2'050
<b>1.2.1.NC</b>	<b>SAWLOGS AND VENEER LOGS, NON-CONIFEROUS</b>					
	Removals	1000 m <sup>3</sup>	266	259	240	230
	Imports	1000 m <sup>3</sup>	28	50	30	30
	Exports	1000 m <sup>3</sup>	222	204	190	180
	Apparent consumption	1000 m <sup>3</sup>	72	105	80	80
<b>1.2.1.NC.T</b>	<b>of which, tropical logs</b>					
	Imports	1000 m <sup>3</sup>	1	2	2	2
	Exports	1000 m <sup>3</sup>	1	2	2	2
	Net Trade	1000 m <sup>3</sup>	0	0	0	0
<b>1.2.2.C</b>	<b>PULPWOOD (ROUND AND SPLIT), CONIFEROUS</b>					
	Removals	1000 m <sup>3</sup>	307	296	280	270
	Imports	1000 m <sup>3</sup>	97	151	140	130
	Exports	1000 m <sup>3</sup>	66	62	50	40
	Apparent consumption	1000 m <sup>3</sup>	338	385	370	360
<b>1.2.2.NC</b>	<b>PULPWOOD (ROUND AND SPLIT), NON-CONIFEROUS</b>					
	Removals	1000 m <sup>3</sup>	201	237	230	225
	Imports	1000 m <sup>3</sup>	0	0	0	0
	Exports	1000 m <sup>3</sup>	47	47	40	35
	Apparent consumption	1000 m <sup>3</sup>	154	190	190	190
<b>3 + 4</b>	<b>WOOD RESIDUES, CHIPS AND PARTICLES</b>					
	Domestic supply	1000 m <sup>3</sup>	946	846	840	830
	Imports	1000 m <sup>3</sup>	646	709	700	700
	Exports	1000 m <sup>3</sup>	1'185	992	860	800
	Apparent consumption	1000 m <sup>3</sup>	407	563	680	730
<b>1.2.3.C</b>	<b>OTHER INDUSTRIAL ROUNDWOOD, CONIFEROUS</b>					
	Removals	1000 m <sup>3</sup>	14	13	12	11
<b>1.2.3.NC</b>	<b>OTHER INDUSTRIAL ROUNDWOOD, NON-CONIFEROUS</b>					
	Removals	1000 m <sup>3</sup>	5	4	4	4
<b>1.1.C</b>	<b>WOOD FUEL, CONIFEROUS</b>					
	Removals	1000 m <sup>3</sup>	512	535	550	580
<b>1.1.NC</b>	<b>WOOD FUEL, NON-CONIFEROUS</b>					
	Removals	1000 m <sup>3</sup>	1'128	1'163	1'150	1'200



## TC2: Forest Products

Product Code	Product	Unit	Estimate			Forecast
			2010	2011	2012	2013
<b>5.C</b>	<b>SAWNWOOD, CONIFEROUS</b>					
	Production	1000 m <sup>3</sup>	1'397	1'251	1'250	1'230
	Imports	1000 m <sup>3</sup>	418	409	410	430
	Exports	1000 m <sup>3</sup>	445	203	190	180
	Apparent consumption	1000 m <sup>3</sup>	1'371	1'457	1'470	1'480
<b>5.NC</b>	<b>SAWNWOOD, NON-CONIFEROUS</b>					
	Production	1000 m <sup>3</sup>	59	63	60	60
	Imports	1000 m <sup>3</sup>	64	64	65	65
	Exports	1000 m <sup>3</sup>	21	16	15	15
	Apparent consumption	1000 m <sup>3</sup>	101	111	110	110
<b>5.NC.T</b>	<b>of which, tropical sawnwood</b>					
	Production	1000 m <sup>3</sup>	3	3	3	3
	Imports	1000 m <sup>3</sup>	22	23	24	25
	Exports	1000 m <sup>3</sup>	2	2	2	2
	Apparent consumption	1000 m <sup>3</sup>	23	24	25	26
<b>6.1</b>	<b>VENEER SHEETS</b>					
	Production	1000 m <sup>3</sup>	5	5	5	5
	Imports	1000 m <sup>3</sup>	4	5	5	5
	Exports	1000 m <sup>3</sup>	3	3	3	3
	Apparent consumption	1000 m <sup>3</sup>	6	6	7	7
<b>6.1.NC.T</b>	<b>of which, tropical veneer sheets</b>					
	Production	1000 m <sup>3</sup>	0	0	0	0
	Imports	1000 m <sup>3</sup>	0	0	0	0
	Exports	1000 m <sup>3</sup>	0	0	0	0
	Apparent consumption	1000 m <sup>3</sup>	0	0	0	0
<b>6.2</b>	<b>PLYWOOD</b>					
	Production	1000 m <sup>3</sup>	8	8	8	8
	Imports	1000 m <sup>3</sup>	100	103	114	110
	Exports	1000 m <sup>3</sup>	3	3	5	5
	Apparent consumption	1000 m <sup>3</sup>	105	108	117	113
<b>6.2.NC.T</b>	<b>of which, tropical plywood</b>					
	Production	1000 m <sup>3</sup>	0	0	0	0
	Imports	1000 m <sup>3</sup>	4	3	3	3
	Exports	1000 m <sup>3</sup>	2	0	0	0
	Apparent consumption	1000 m <sup>3</sup>	2	3	3	3
<b>6.3</b>	<b>PARTICLE BOARD (including OSB)</b>					
	Production	1000 m <sup>3</sup>	426	400	400	400
	Imports	1000 m <sup>3</sup>	291	258	270	270
	Exports	1000 m <sup>3</sup>	269	249	250	250
	Apparent consumption	1000 m <sup>3</sup>	449	409	420	420
<b>6.3.1</b>	<b>of which, OSB</b>					
	Production	1000 m <sup>3</sup>	0	0	0	0
	Imports	1000 m <sup>3</sup>	72	72	75	75
	Exports	1000 m <sup>3</sup>	1	1	1	1
	Apparent consumption	1000 m <sup>3</sup>	71	71	74	74
<b>6.4</b>	<b>FIBREBOARD</b>					
	Production	1000 m <sup>3</sup>	553	550	560	570
	Imports	1000 m <sup>3</sup>	198	190	190	200
	Exports	1000 m <sup>3</sup>	444	418	420	430
	Apparent consumption	1000 m <sup>3</sup>	307	322	330	340
<b>6.4.1</b>	<b>Hardboard</b>					
	Production	1000 m <sup>3</sup>	0	0	0	0
	Imports	1000 m <sup>3</sup>	40	37	35	33
	Exports	1000 m <sup>3</sup>	1	1	1	1
	Apparent consumption	1000 m <sup>3</sup>	40	36	34	32
<b>6.4.2</b>	<b>MDF (Medium density)</b>					
	Production	1000 m <sup>3</sup>	253	220	210	210
	Imports	1000 m <sup>3</sup>	85	80	70	70
	Exports	1000 m <sup>3</sup>	253	203	190	180
	Apparent consumption	1000 m <sup>3</sup>	84	97	90	100
<b>6.4.3</b>	<b>Other fibreboard</b>					
	Production	1000 m <sup>3</sup>	300	333	340	350
	Imports	1000 m <sup>3</sup>	73	73	75	70
	Exports	1000 m <sup>3</sup>	190	215	210	210
	Apparent consumption	1000 m <sup>3</sup>	183	191	205	210
<b>7</b>	<b>WOOD PULP</b>					
	Production	1000 m.t.	124	142	140	140
	Imports	1000 m.t.	472	300	220	230
	Exports	1000 m.t.	11	28	5	5
	Apparent consumption	1000 m.t.	585	414	355	365
<b>10</b>	<b>PAPER &amp; PAPERBOARD</b>					
	Production	1000 m.t.	1'559	1'041	1'200	1'100
	Imports	1000 m.t.	919	968	1'000	1'000
	Exports	1000 m.t.	912	560	700	650
	Apparent consumption	1000 m.t.	1'566	1'449	1'500	1'450