Forest Products Market Transparency:

A Report of the International Workshop on

Forest Products Price Information

Edited by Ibrahim Favada and Ed Pepke

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Forest Products Market Transparency: A Report of the International Workshop on Forest Products Price Information
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Preface

Increasingly, market transparency propels a free market economy and helps to thwart market malfunctions, ensuring equitable benefits to all actors in the market. Recently, this awareness has received attention in the forest sector at the international level. As a result a study was conceived by the European Forest Institute (EFI) and United Nations Economic Commission for Europe and Food and Agriculture Organization (UNECE/FAO) Forestry and Timber Section to improve forest products price information in the UNECE region, especially in Europe. The study started in January 2010 and was finalized in 2011, coinciding with the "International Year of Forests 2011". This event highlighted the benefits obtained from forests such as wood products which were the focus of this document.

This report consists of two parts. This first part presents the proceedings of the International Workshop on Forest Products Price Information held in Brussels on 3 November 2011. The workshop was one of the recommendations of the background study for an International Forest Products Price Information System (see EFI Technical Report 92, Favada et al. 2014).

The study was successful thanks to the efforts of several persons and organizations. The authors would like to thank the UNECE/FAO Joint Working Party on Forest Economics and Statistics members, Joint Forest Sector Questionnaire (JFSQ) correspondents, participants of the 2010 Scandinavian Society of Forest Economics Conference, and EFI researchers for responding to the study's surveys. The authors extend thanks and appreciation to the staff of the European Forestry House for hosting the International Workshop on Forest Products Price Information. Our warm thanks go to governmental agencies, organizations and firms that participated in the workshop, including: French Ministry of Agriculture, Finnish Forest Research Institute (METLA), UNECE/FAO, FAO, International Tropical Timber Organization (ITTO), Confederation of European Private Forest owners (CEPF), European Confederation of Woodworking Industries (CEI-BOIS), European Panel Federation (EPI), Indufor OY, Pöyry Management Consulting OY, Timber Trade Federation UK, Union de Silvicultores del Sur de Europa (USSE), and Latvian Forest Information Centre.

The study was possible thanks to core funding of donors of the Observatory for European Forests, including French Ministry of Agriculture, Agrofood and Forestry, Urban Community of Greater Nancy, Regional Council of Lorraine, and French National Institute for Agricultural Research (INRA). The opinions expressed in this document represent the views of the authors and not necessarily those of the donors.

Even if this report is published much after the original even, the outcomes of which it bases its conclusions on, we consider that the content of the report remain highly pertinent and a point of reference, still today.

Ibrahim Favada and Ed Pepke (editors)
Nancy, 2014

List of acronyms and abbreviations

CEI-BOIS	European Confederation of Woodworking Industries
CEPF	Confederation of European Private Forest owners
EFI	European Forest Institute
EFTA	European Free Trade Area
EPI	European Panel Federation
EU	European Union
FAO	Food and Agriculture Organization
FOWL	Forests and other wooded land
FPMkIS	Forest products marketing information system
FPPD	Forest products price database
FPPIS	Forest products price information system
FSC	Forest Stewardship Council
ITTO	International Tropical Timber Organization
JFSQ	Joint forestry sector questionnaire
MCPFE	Ministerial Council for Protection of Forests in Europe
MIS	Management information system
MkIS	Marketing information system
NIPF	Nonindustrial private forest owner
OEF	Observatory for European Forests
PEFC	Programme for the Endorsement of Forest Certification
PIS	Price information system
SFM	Sustainable forest management
SIDA	Swedish International Development Agency
SPWP	Secondary Processed Wood Product
UNECE	United Nation Economic Commission for Europe
USDA	United States Department of Agriculture
USSE	Union de Silvicultores Del Sur de Europa

1. Introduction

The International Workshop on Forest Products Price Information was held on 3 November 2011 at the European Forestry House in Brussels. It was jointly organized by the EFI through its EFI Central European Regional Office and the Observatory for European Forests (EFICENT-OEF), in cooperation with the UNECE/FAO Forestry and Timber Section.

The workshop was one of the recommendations of the background study, involving web search for online forest products price information and surveys with JFSQ correspondents and forest products marketing researchers. It was jointly implemented by the EFI and the UNECE/FAO Forestry and Timber Section.

The workshop consisted of four plenary sessions (see "ANNEX 1. Workshop agenda" for workshop programme). The workshop brought together 17 key stakeholders representing JFSQ correspondents, forest industry consulting companies, forest owners' organization, forest industry organizations and forest products marketing researchers. The list of participants is given in "ANNEX 2. List of participants".

2. Opening and welcoming remarks

The chair of the workshop, **Dr. Ed Pepke**, opened the workshop by welcoming the participants. He stressed the need for forest products price information for different stakeholders, thus the importance of the workshop. The chair informed the participants that the workshop was a joint undertaking by the EFI and UNECE/FAO Forestry and Timber Section.

Mr. Wendelin Gravenreuth provided a short presentation on the European Forestry House in Brussels, which houses several European forestry and forest-related umbrella organizations.

In his welcoming statement, **Mr. Andreas Schuck**, on behalf of EFI thanked the participants and highlighted the importance of the forest products price workshop. For his part, **Mr. Alex McCusker**, on behalf of the UNECE/FAO Forestry and Timber Section thanked the organizers of the workshop and emphasized the interest and role of the UNECE/FAO in providing international forest products price information. The participants introduced themselves.

3. Session 1. International forest products price information: Current status

3.1. The need for forest products price information

Alex McCusker, UNECE/FAO

The UNECE/FAO has published price data in various forms for over 50 years. Until 2001 the price data were published in the Timber Bulletin with more than 200 price series. Since then the Timber Bulletin has been replaced by an Excel price database containing 50 price series. There have been efforts to widen the price database but limited results were obtained. The price series are primarily used in reporting on the markets through the Forest Products Annual Market Review (FPAMR).

These include short- and medium-term market trends, backup to analysis or illustrating statements, longer time series for research, and for real valuation of timber for which actual prices are required. The unmet needs of users include: more product information, exact information, wider data coverage across countries, information of relative importance in the market for a particular product price, and regular provision of data. These users did not care or did not express concern over the availability of most recent price data and heterogeneity of data.

According to a 2011 survey with FPAMR users, the following user groups were identified: R&D (35%), government (26%), industry (12%), non-governmental organizations (11%), students (1%), and other (15%). The industry and R&D need specific, current price series; the latter also needs long price series. The need for long price series increases by group in this order: non-governmental organizations, student and government.

There is a lack of information on user needs other than UNECE/FAO users. The dimensions of needs include wide geographic coverage, wide product coverage, real prices vs. price indexes, continuity of the series and other issues such as representativeness, frequency, reliability and comparability. User satisfaction remains to be identified.

The industry/market participants had quite different needs which were better satisfied through their current sources. Other user groups, with more general or approximate needs, seemed to find what they need or did not articulate their needs very well. Whether users need actual data from UNECE/FAO or simply a portal of sources has significant resource implications.

3.2. Forest products production, trade and price information: FAO's experiences on collection, maintenance and use

Arvydas Lebedys, FAO Forestry Department

The FAO collected price data through annual questionnaires and supplementary sources in 1970 and 1980s. The data were published in the Forest Products Prices. The FAO price database contained 742 price series, 20 products/groups, and 71 countries. The 9th and last issue of Forest Products Prices appeared in 1992, and was later discontinued because of lack of resources at FAO and limited demand for FAO price statistics. However, FAO continues to collect annual statistics on export and import unit values.

The current FAOSTAT-Forestry database contains export and import quantity and value information for over 60 commodities. Annual trade statistics by country are available in the FAOSTAT-ForesSTAT from 1961 onwards, and bilateral trade flow statistics are available in FAOSTAT-Forestry Trade Flows from 1997 onwards.

Price information is instructive when it is linked to traded quantity. For some products, information on international trade price (export/import unit value) is sufficient to derive global trends in price development. These products include FAOSTAT commodities such as dissolving wood pulp, printing and writing paper, newsprint, coniferous sawnwood, chemical wood pulp, plywood, fibreboard, veneer sheets, recovered paper, particleboard including OSB and other paper and paperboard (export accounts for >20% of production globally). Price information, however, is insufficient for some products, mostly traded domestically, e.g., non-coniferous sawnwood, industrial roundwood, wood charcoal, mechanical wood pulp, other fibre pulp and woodfuel.

FAO uses price statistics in analysis of global trends (by product group/single product) and country specific trends (by products group/single product). Also, there are a lot of various freely available sources where general long-term price trends can be obtained. For example, the trends in global export price vs. value added of forest products. A country specific example was in Lithuania, which has a price database of 74 separate price series for different roundwood assortments (species, quality). To maintain such database takes time and resources - it took 6 years to develop the database (1993-1999).

FAO discontinued its publication Forest Products Prices 20 years ago because it is possible to derive unit price trends for many processed products from trade statics such as FAOSTAT, COMTRADE and EUROSTAT). Regarding roundwood, external trade sources are insufficient to determine roundwood price developments. Should the UNECE/FAO decide to maintain a price database, FAO Forestry Department staff could provide their inputs (contacts, advice, etc.).

3.3. The needs for forest products price information: A consultant's perspective

Antti Koskinen, Pöyry Management Consulting Oy

To perform their everyday work, consultants need price information on various assignments covering the whole value chain, including strategic consulting, wood procurement, operations, markets, financial issues, etc. Often consultants need not just one or two prices but a range of prices depending on a particular value chain channel, e.g. the value chain of Roundwood. Not only timber prices are needed, but also prices for by-products such as sawdust, chips, etc., and co-products such as energy.

From a consultant's perspective, price information is needed for various purposes such as project study (costs, revenues, and sensitivity), spot price information for benchmarking and short-term market planning, cyclical price forecast for medium-term sales and production planning and market forecasts, and price trends forecast for long-term investment planning, feasibility studies and valuations. Sensitivity analysis of an investment is much influenced by changes in prices for a given wood cost and production volume. An example of benchmarking is the cost competitiveness analysis of sawmill industry. For price forecasting, consultants need to identify both trends and the cycles.

Price information is rarely transparent and comparable. Thus, consultants have to process it. Raw data received are adjusted for discounts, agent commission, quality/product mix, transport cost, taxes/duties, exchange rate and inflation, if applicable. Product prices are not directly comparable because prices for different species or same species may vary from different sources, different qualities and dimensions, and product measurement problems (different units, conversion factor, and real price vs. index).

The availability and quality of price information vary across countries and by region. In North America, excellent coverage of timber products, but raw material price coverage differs regionally. In Europe and Asia, availability and quality differ between countries. Raw material prices are well covered in Nordic countries and Central Europe. Good timber product price availability for Japan and Central Europe. Sources of price data include: 1) commercial journals/magazines and consultants; 2) public source, including research institutions, statistical authorities, and customs statistics; 3) and own market research.

Forest products prices are an essential part of consultants' everyday work. These prices are used in a variety of projects. However, consultants need first to process the price data to produce usable information.

Jarno Seppälä, Indufor Oy

Forest products price information is needed, from a consultant's perspective, for various usages/projects such as business information support, market studies on timber and timber products, feasibility studies, business plans, mergers and acquisitions, and valuations. Moreover, there is an increasing need/importance for price information concerning feasibility studies, business plans, mergers and acquisitions, and valuations.

Various forest and forest industry products are of interest to consultants. Among the products that pose challenges in the price data collection (and of increasing need) include forest residues (tops, branches, etc.), oriented strand lumber (OSL), laminated veneer lumber (LVL) and processing residues (bark, chips and sawdust). It is challenging to obtain price information for engineered wood products (glulam and I-joists), joinery and furniture, and processing residues (sawdust and cut-offs). Price information on wood pellets is increasingly important to consultants.

Price data collection poses a challenge in some regions. In Eastern Europe and Central Asia, price information is increasingly needed, but it is challenging to obtain it. The same is true for China, South America (for plantation wood) and Africa (for plantation wood). It is challenging to obtain price information in South Korea and Russia.

There are two types of price data: primary and secondary data. The former is obtained from clients, personal and telephone interviews, price surveys and sub-consultants; and the latter from industry magazines and publications, national/international industry organizations, national statistics and customs, and consultants. Data sourced from personal and telephone interviews and sub-consultants are of increasing importance from a consultant's perspective. The same is true for secondary data sourced from sub-consultants.

3.4. The results of the study 'Improving international forest products price information'

Ibrahim Favada and Paul Rougieux, EFI

Forest products price information is needed for several purposes such as optimal profitability of private individual forest owners and forest industry companies; fiscality and policy formulation (e.g., estimation of revenue from forest and forest industry); and market planning and economic research (e.g., market outlook studies, testing of economic theories). The study was a joint project of EFI and UNECE/FAO, coordinated by EFI's Observatory for European Forests. The study objectives were to improve data coverage and quality of price information and to propose the best options for data collection and dissemination. The study reviewed UNECE/FAO Excel price database, extracted and analysed metadata from various price information sites, and conducted two separate surveys, each dedicated to a different group (national statistical offices and forest products marketing researchers).

Data governance was described by who owns the sites (organization type) and access rights of those sites. The main organization types are timber merchants who accounted for 32% of total information resources[1] (247), followed by consulting firms (12%), and forest owner organizations (9%). The modes of access were public (66% total resources), subscription (18%) and for members only (6%).

Data quality was judged by usability of information resources in terms of availability. More than half of the resources were found in Europe. The bulk of countries had information resources less than or equal to 10. Three countries (France, Russian and United States) had more than 20 information resources. Four of the information resources were relational databases.

The main findings of survey with national statistical offices are: a) official collection of price data concerned only roundwood prices; b) raw data providers (forest owners and forest industry companies) voluntarily participated in the collection; c) there was no official collection of forest industry products; and d) the constraints in data collection were unwillingness of raw data providers, methodological problems (sampling, product definitions and specifications), and lack of resources and funds.

Based on the information resources, a portal was developed. The entities or contents of the portal were described, and a demonstration of how the portal functions was presented during the workshop.

The main conclusions of the background study were the needs for: 1) establishing forest products marketing information systems in countries lacking them; 2) providing more resources (material and human) to national statistical offices; 3) harmonizing of sampling methods, product definitions and specification; and 4) developing an online relational price database.

Recommendations to accomplish these conclusions included: 1) organizing a price workshop to gather key stakeholders to elaborate on how to motivate data providers; 2) establishing a

[1] These include websites reporting price information (price series or spot prices).

pilot forest products price database for roundwood prices; 3) collaborating with national statistical offices for harmonizing product definitions and specifications; and 4) furthering study on the use and existence of forest products marketing information system in the UNECE region.

4. Session 2. Actor's perceptions of forest products price information

4.1. Reflections from forest owners

Wendelin Gravenreuth, CEPF

Forest products prices are major driving force for timber harvests. The members of CEPF derive income mainly from timber sales (90%); the remaining 10% from other activities (e.g. Hunting). Forest owners are increasingly selling fuelwood to private individuals because of increasing energy prices. The main drivers of forest owners' harvesting decisions are timber prices and silvicultural reasons. Recent economic and financial crises discouraged timber harvests from private forests. In this situation, forest owners prefer to use their forests as a savings bank.

Timber market transparency is increasingly important to forest owners. They need timely updates on market developments and prices (quarterly price update is desirable). Prices received by forest owners are also affected by timber sales from State forests. In regions where more than 50% of the forest land is owned by the State, prices for timber sales from the State may be fixed with forest industry companies. In certain regions, e.g. Southern Germany, forest owners face a monopoly which deprives them of receiving fair timber prices. Thus, the need arises for forest owners to organize themselves. The better they are organized, the better they are informed. For example, the Nordic forest owners are better organized and informed about the timber market. Lack of market transparency is more serious in Eastern Europe.

4.2. Reflections from forest industry

Filip De Jaeger, CEI-BOIS

Forest products price information is important for CEI-BOIS as well as its members. CEI-BOIS uses price information to study developments in the industry, e.g. price development. These analyses are based on price indexes, not actual prices. CEI-BOIS does not collect prices from its members because of anti-competition laws.

The price developments for softwood logs based on the partial data for 2011 compared to the previous year did not show a marked change in these countries: Australia, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Latvia, Netherlands, Norway, Romania, Russia, Sweden, Switzerland, and United Kingdom. The same is true for softwood sawnwood price development during 2010-2011 concerning these countries: Australia, Austria, Belgium, Denmark, Finland, Germany, Italy, Latvia, Netherlands, Norway, Romania, Russia, Sweden, Switzerland, and United Kingdom.

Prices for chips did not change much during 2009 to 2011 for these countries: Australia, Austria, Belgium, Denmark, Germany, Italy, Latvia, Romania, Russia, Switzerland, and the United Kingdom. The same is true for prices for sawdust during the same period in these countries: Austria, Belgium, Italy, Latvia, Romania, Switzerland, and United Kingdom. Prices for 23-30 mm rough sawnwood were much higher for 2011 (January-November) compared to the previous year. The prices for 2010 ranged from about 225 – 245 €/m3, while in 2011 it varied from 245 – 250 €/m3 (www.timberonline.net). In 2011 (January-August), pellet prices were much higher in Austria, Germany and Switzerland compared to the previous year. The price variation was very important in Switzerland (www.pelletspreise.ch).

The price indexes are obtained from member organizations on a wide range of products. Some data are not available from member organizations; some companies are reluctant to provide data, e.g. companies in the wood preservation industry. Discrepancies exist in reporting of import and export volumes and values between countries, e.g. Sweden and Germany.

Isabelle Brose, EPF

The European Panel Federation (a member of CEI-Bois) maintains an in-house collection of cost indexes, among other things, on raw material inputs, roundwood, and wood residues, for internal use only.

5. Session 3. Best practice examples for improved data collection

5.1. The role of forest owners in providing and improving price information on raw material from forests

Inazio Martínez de Arano, USSE

Europe has 14 forest types, ranging from boreal forests to plantations and naturally seeded exotic forests. Southern Europe comprises mainly coniferous forests of Mediterranean, Anatolian and Macaronesian regions. In these regions the forests are mainly plantations under low management. In Southern Atlantic Europe annual harvests, mainly coniferous (71%), totalled about 27 million hectares of which: sawlogs (60%), pulpwood (39%) and firewood (1%).

The forest industry consists of 19,603 enterprises. The sawmills accounted for about 8% of the total number of forest industry enterprises. Aquitaine, Galicia and Portugal together accounted for about 72% of sawmills in the region. The enterprises are sparsely distributed. Thus, raw materials are mobilized in complex flows.

Forest ownership is divided into public (22%) and private (78%). The latter ownership can be divided into private individuals (28%) and other (72%). The number of hectares per owner varies from 1.3 to 5.3%, with a regional average of 3 ha/owner (excluding Asturias region without data). Forest owners are organized into associations and cooperatives. Forest associations provide advice and services, including wood selling. Forest cooperatives engage in a joint trade of forest products and integration of the value chain.

Forest owner organizations are involved in wood trading business. These organizations provide timber price information to their members. Prices are either mill-delivery or roadside, e.g. in the Galicia region. There are many sawmill industry players and highly fragmented ownership. There is a lack of short/mid-term price agreements between forest owners and forest industry companies. The market is not transparent; it is very speculative.

Forest owners need price information for several reasons. For timber sales, forest owners need price information to bargain with sawmills. In case of natural disasters such as storm, roundwood prices fall instantly by various amounts in the region. The availability of price information can help forest owners to mitigate the impact on the market. To assess whether forestry is profitable (or develop a new policy), forest owners need price information. For example, for forest owners to participate actively in bioenergy target for 2020, current and future prices of timber and energy are required.

5.2. Forest industry's role and efforts towards improving price information on processed wood products

Igors Krasavcevs, Latvian Forest Information Centre

The Latvian Forest Industry Information Centre was established in 2005 as part of the Latvian Forest Industry Federation. In late 2005, the Centre started information services, including online services (www.latvianwood.lv) and offline services (e.g., monthly market reports). Since 2009, the Centre extended services as third party (market price provider) in log delivery contracts between forest owners and industry. From April 2011, it has become part of the Wood Product Department and Research Institute owned by the Latvian Forestry Industry Federation and Latvian State Forests.

Generally, industry members prefer the small time lag, well documented sources and product details (specifications and delivery method). The members need information on market drivers and trends to make decisions. In particular, they need:

- Monthly price updates with a time lag of five working days after the reporting period;

- Information from the biggest forest owners, woodworking industry members and roundwood trade market members;

- Information on: 1) sawlogs and veneer logs of which, pine (10 specifications), spruce (8 specifications), birch (8 specifications), and aspen (3 specifications); 2) pulpwood (pine, spruce, birch and aspen); 3) wood residues of which chips (3 specifications) and sawdust; and 4) firewood.

- Other information on: 1) historical period at least 5 years for a region within Latvia and more than 5 years in countries around the Baltic Sea; 2) price types: long-term contract prices (not included in monthly reports) and spot market prices included in monthly reports; 3) region: four main areas in Latvia and in countries around the Baltic Sea; and 4) support for market research.

The data come from members and non-members of the Latvian Forest Industry Federation and international partners. These include associations, consulting companies and experts providing local market information. In return, they receive short email reports in PDF format. The industry members and non-members provide monthly price information to the Forest Information Centre about the previous month during the first 5 days of next month. In return, the non-members get online reviews about market trends and short monthly email reports in PDF format (national level). In addition to these, the industry members get an extended access to the online wood resources price database and unlimited monthly reports in PDF format (international level).

There is a need for more comparable wood products price information. The Baltic-Nordic roundwood price data network is one good practice. Similar network for roundwood and

biomass products could be set up in Central and Eastern Europe, with efforts to achieving comparability of data, something not easy to obtain because of different product specifications and measurements.

Nick Boulton, Timber Trade Federation, UK

Forest products price information is important for trade. There is a lack of price information in the United Kingdom, which is explained by a high demand for it. However, details of demand for prices have not been clearly identified. One must be mindful of situations that might lead to price setting/fixing which is against competition laws. In spite of the need for price information in a free market economy, it cannot be enforced by law.

The data providers are unwilling to provide price information due to business secrets. They could be more willing to provide price information by means of technological solutions which guarantees privacy of their business secrets and provides incentive for providing price data. For example, a website that allows market actors to provide data anonymously and get instantly a feedback from the system (e.g., market price indicator).

In the search for price information, distinction should be made between spot prices and long-term prices. The former reflect today's prices, prices of actual products traded. These prices should be accurate data. The EFI Forest Products Price Portal provides an easy access to spot and long-term prices in the UNECE region. Regarding the issue of what kind of price series to use, some people stick to certain price series because they understand their limitations and benefits.

5.3. How can governmental agencies facilitate stakeholder groups to improve forest products price information?

Michel-Paul Morel, French Ministry of Agriculture, Agrofood and Forestry

In 2009 the average afforestation rate in France was 31% of the total land area in France. The total forest area is 15 million ha, publicly owned 4 million ha (27%) and privately owned 11 million ha (73%). The latter group has 3.5 million owners, mainly individuals and families (3 million owners possess less than 4 ha). Owners have the responsibility to manage their forests within the framework of different legislation (forest, environmental, labour and fiscal). Public forests are managed by the Office National des Forêts (ONF).

During the period 2005–2010, an average of 63 million m^3 over bark was harvested, of which 37 million m^3 (59%) were marketed and the remainder 26 million m^3 (41%) used for own consumption, comprising mainly fuelwood and including 8 million m^3 from trees outside forests. Of the 37 million m^3 marketed, 13 million m^3 (35%) was marketed by ONF, 5 million m^3 (14%) was marketed by cooperatives, 1 million m^3 (3%) was marketed by forest experts and 18 million m^3 (48%) was marketed by the owners themselves, usually sold as standing timber to logging companies.

The net annual increment in French forests is 85 million m^3 and the average annual felling is 44 million m^3, with a felling-increment ratio of 51%. It must be noted that the estimate of fellings is provided by IFN[2] whereas the estimate of the removals is provided by the *Service de la statistique et de la Prospective* (SSP). The difference between the two estimates is due to logging losses and to the volume of branches. In spite of this, there is a discrepancy of about 40 to 50 million m^3 between the net annual increment and the fellings.

The current forest policy calls for an increase of removals of 21million m^3 by 2020, of which 9 million m^3 of industrial roundwood and 12 million m^3 of fuelwood. As a result, the increment-felling ratio would pass from 51% to 70%. In tandem, the call for enhancement of the share of renewable energy in the total of the final energy consumption to at least 23% by 2020 would require a rise of 20 MTOE (million tons of oil equivalent) of the annual production of renewable energies (23 MTOE in 2010 of which wood and wood residues represented 10 MTOE). Forestry and the wood-processing sector are expected to provide one-third of this increase.

To attain these targets, the demand for wood can be increased by promoting the use of wood in building, providing incentives to develop wood industries and the use of wood energy. On the other hand, the supply of wood can be increased by State assistance to private owners to harvest more timber (subsidies for equipments and fiscal incentives) and by developing contracts between producers and users. Most importantly, the timber markets must be more transparent. Some questions can be raised: 1) what type of information on the state of wood markets do forest owners have? and 2) how can we monitor the growing competition between industrial uses (pulp and panels) and energy use?

[2] IFN: National Forest Inventory

The Ministry of Agriculture has made many attempts at different times (1989, 1997 and 2002) to build a unified source of information on wood prices based on a voluntary participation of the main forestry organisations: ONF, forest cooperatives and forest experts. These regularly report price information through the Economic Observatory of France Bois Forêt[3]. However, there exist methodological differences among data collectors. Some stakeholders are reluctant to provide price data to any organisation unless it is a public statistical agency. Because of these, the idea of a unified source of information based on reporting from the organizations was eventually abandoned. Instead, the Minister of Agriculture, in charge of forestry, mandated its statistics agency SSP to implement a statistical survey based on the principles of the European statistical Code of Practice and of the French legislation on this matter (1951 Act)[4].

The SSP led the survey planning and implementation in consultation with all stakeholders. After the survey was approved by the National Council for Statistical Information (CNIS), the Minister of Economy signed an act on 20 July 2011, which approved the survey and made it compulsory for data providers in the wood chain. In the same month the questionnaires were sent to 280 logging companies (response rate of 70%), and the first results of the survey were published in October 2011[5]. These included the price indices for pulpwood, sawnwood and wood energy for the first six months of 2011.

The next survey will be launched in January 2012 to cover the second six months of 2011. The obligation to respond to the survey will strictly be enforced. Some questions can be asked: 1) Will the professionals be satisfied with it? 2) Will it contribute to a better monitoring of the competition between industrial uses and energy uses? and 3) Will it be efficient to increase the removals in French forests? Hopefully it will, but a few years are required to be certain. The evaluation of the survey will be implemented in 2015 by the Quality-Label Committee, and a decision will be made whether to continue or not with the survey.

[3] The site is located at: http://www.franceboisforet.fr/observatoire%20economique
[4] Act no. 51-711 of June 7, 1951, on legal obligation, coordination and confidentiality in the field of statistics.
[5] http://www.agreste.agriculture.gouv.fr/enquetes/bois-et-derives-535/prix-du-bois-825/

6. Session 4. Needs for continued collaboration

6.1. Identifying gaps in international forest products price availability, their analysis and dissemination

Andreas Schuck, EFI

At the macro level price, information is needed by several stakeholders: Governmental agencies want sound estimates of revenue from forestry and wood processing industry; intergovernmental agencies to make sound timber market analysis/outlook at regional and international level; and forest industry to support decision making (compilation, analysis, targeted applications). At the micro level, forest owners may need more market transparency for decision making in timber sale transactions.

On the demand for and supply of price forest information, Wardle et al. 2008[6] noted that forest products prices were only partly available or missing; analysis and accessibility were not satisfactory; readily accessible, processed, aggregated, and harmonized information is required, online publication/access is preferred; and limited willingness to pay for the specified/tailored services.

Forest products price information is available from private and public sources. Some examples of private sources are Euwid, International Wood Markets Group and Wood Resources International. The public sources include FAO, ITTO, UNECE/FAO, The Finnish Forest Research Institute's 'Metinfo Service' and the European Forest Institute's (EFI) 'Forest Products Prices Information Portal'. UNECE/FAO, Metinfo and the EFI Forest Products Prices Information Portal are described below while the ITTO and FAO were subject to presentations by other workshop participants.

The UNECE/FAO price series (as of March 2010) span from 1960-2009. The database contains 7 product categories, 31 products, 47 species, with periodicity ranging from weekly to annual data. The data were published through a printed *Timber Bulletin* until 2001. After that year the bulletin was replaced by an Excel database which can be downloaded from the UNECE/FAO website. The weekly data consists of 3 price series for sawnwood, 33 series of monthly data, quarterly data is available for 31 series, and 2 price series for annual data. These price series were obtained from the following countries: Austria, Canada, Czech Republic, Germany, Finland, France, Lithuania, Slovenia, Sweden, and Switzerland. Again the level of detail varies considerably between the reporting countries.

The Finnish Forest Research Institute's Metinfo Service provides an online regional database reporting on roundwood prices (logs and pulpwood) from 5 countries: Estonia, Finland, Lithuania, Norway and Sweden. Estonia, Finland, Lithuania, Norway report monthly and annual data while Sweden provides quarterly and annual data. The price series do not cover the same time periods. The most extensive time series is available in Finland (1995 - 2011) while Norway covers a rather limited number of years (2006 - 2011).

[6] Wardle, P., C. Narayan, A. Requardt, E. Pesonen, and A. Schuck. 'International Information on European Forest Sector' (2008)

The EFI Forest Products Price Information Portal contains over 200 information sources from 30 countries. It includes price series data, spot prices and other price related information. The price portal allows quick searches for price information by product category, geographic location, market area and type of organization. The Portal is one of the main outputs of the Feasibility Study on improving price information, undertaken by EFI in cooperation with the UNECE/FAO Forestry and Timber Section.

In conclusion, there are two publicly available online sources for international forest products price information, excluding tropical forest products. Data availability is limited to few countries and products. Monthly, quarterly and annual data are available for selected products. The length of price series may vary for the same product by country. There is a metadata portal for international products price information.

Alex McCusker, UNECE/FAO

The UNECE/FAO *Forest Products Annual Market Review* (FPAMR) uses price analysis as a significant part of almost every chapter. Market publications in other areas also rely heavily on using prices to illustrate their points. Cross-country price analysis seems very weak, despite the use of indices, due to the different role of wood and market conditions, as well as grade and species variation. Roundwood is easier to compare and analyze than further processed products in the wood value chain.

Typical users often seem to stumble upon UNECE/FAO price database rather than knowing about its existence. In this regard, there is a lack of publicity and dissemination. There is no centralized database to find meta-information on forest products prices until the EFI/UNECE/FAO forest products price study.

There is a need to highlight the availability of other price sources in publications and meetings. Cross-linking through the organization’s web site should be increased. Price information should be circulated to targeted groups, and organization producing information on price should maintain visibility of the informational products or services.

6.2. Finnish solutions for forest products price data collection, processing and dissemination

Martti Aarne, METLA/Forest Statistical Information Service

The mission of Metla's forest statistical team is to provide decision-makers with comprehensive, reliable and up-to-date information on the Finnish forest sector, including the international context. The main focus is on the short-term roundwood market-related statistics, especially prices for industrial roundwood. A rapidly emerging new area in 2011 concerns prices and harvested volumes of wood energy (forest chips, logging residues, stumps and roots, etc.). Metla's forest statistics information service is part of the Official Statistics of Finland (OSF). Consequently, in statistical processes, emphasis is assigned to quality aspects, utilising EU Quality Criteria. The starting point can be described in the following manner: The absence of statistics is far better than the production of low-quality statistics.

Data collection regarding all forest statistics is based on informal "gentlemen's agreements" rather than the law or regulations. Why on a voluntary basis? There are long traditions in voluntary agreements as well as well-functioning networks, an open statistical culture, customer orientation, and the principle that only "necessary" statistics are produced. The development aspects include the following: 1) Publicly available, easily-accessible and good-quality price information is considered necessary for well-functioning roundwood markets; 2) The Finnish Ministry of Agriculture and Forestry has set up a working group, involving key stakeholders, to coordinate and provide guidance on how to improve roundwood market information. It is then Metla's task to implement the proposed improvements; 3) The views of end-users of roundwood market information are of crucial importance, and they are taken into account as much as possible.

The Finnish Forest Industries Federation (FFIF) collects primary data from its member companies. Metla receives aggregated data from the FFIF, compiles and publishes the statistics. The statistics cover 83% of the roundwood volumes sold by non-industrial, private forest owners (NIPF), excluding some medium-sized and all small sawmills. However, these shortcomings in coverage do not impair the reliability of price statistics.

The specifications only apply to roundwood transactions concerning NIPF owners. Roundwood transactions excluded are roundwood sales taking place in forest industry companies' own forests and in state-owned forests. There are two transaction forms: standing sales (stumpage prices) and delivery sales (roadside prices). There are no public statistics available on state forests and mill yard prices of roundwood in Finland. There are six principal roundwood assortments: pine, spruce and birch logs, and corresponding pulpwood assortments. As of 2011, small-sized logs are included in the statistics. The regional breakdown comprises seven price regions (weekly and monthly statistics), and 13 forestry centres (annual statistics).

Roundwood trade statistics concerning the previous week are published online every Tuesday morning at: www.metla.fi/metinfo/tilasto/roundwood/. Monthly data – also available at www.metla.fi/metinfo/mo/ – are included in the database, and a *Forest Statistical Bulletin* is

published about two weeks later during the following month. A bulletin dealing with annual prices is published in early-February. The *Finnish Statistical Yearbook of Forestry* contains the most recent price information and long-reaching time series. The *Yearbook* is bilingual (Finnish and English).

During 2011, several improvements were implemented: 1) As of January 2011, stumpage prices are available by felling method (regeneration fellings, thinnings and first thinnings); 2) A more detailed regional breakdown of prices was introduced; 3) Separate volume and price data for small-sized logs of pine and spruce are reported; and 4) There are also nominal stumpage price indices by six roundwood assortments (12/2010=100).

The development activities, currently still in the planning phase, include: 1) Improvement of coverage of statistics (inclusion of data from small and medium-sized sawmills); 2) Metla's task will be to collect data directly from sawmills; 3) The setting-up of a permanent data auditing system; 4) Enlargement of the online service of roundwood prices in the Baltic Sea Region (price data from, e.g. Latvia, Poland); and 5) Development on statistics on wood energy, including both prices and volumes. A feasibility study in this area was completed in 2011.

Current revisions in publishing policy include: 1) A greater focus on online services with fewer resources devoted to printed publications; 2) There are two statistical interfaces: Metinfo Statistical Service (professional users, subject to a license fee), and Metinfo Forest Owners' Service (free of charge). The development trend is moving towards free dissemination, with more emphasis on the Forest Owners' Service (FOS); 3) The FOS user interface has been renewed, with new elements and more detailed data also on roundwood trade and price indices; and 4) As of January 2012, completely free-of-charge statistical bulletins (PDF).

Located at www.metla.fi/metinfo/tilasto/roundwood/, the roundwood prices in the Baltic Sea Region are collected by the Baltic-Nordic Forest Statistics Group (BNFSG). The Service is maintained by Metla. The objective of BNFSG is to publish relevant and representative price series, produced by official statistical authorities. The price database contains roadside prices and purchased volumes of logs and pulpwood, compiled mainly on a monthly basis. Quality statements for all countries involved are also presented. The present national members include: Estonia, Finland, Lithuania, Norway and Sweden. There are plans to enlarge the price database by also including, e.g. Latvia and Poland. Price comparisons between countries should be treated with caution. This is due to matters such as measurement units – as well as quality and dimensional requirements of various assortments – varying significantly within the region.

With reference to forest products-based price statistics, the preferred national source should be the organisation in charge of official forest statistics in each country (quality aspects). In further international efforts, the resources and expertise of Metla and other BNFSG partners are available, if needed. As Metla is a core partner in the EFINORD Regional Office, Metla's potential involvement should proceed through the EFINORD Platform. As regards data collection, Metla strongly recommends arrangements based on the voluntary participation of

data providers. Further research work is necessary to improve the comparability and consistency of price series over time and between countries.

6.3. International solutions

Steve Johnson, ITTO Secretariat

Timber remains the single most important product produced and traded internationally from tropical forests, therefore, focus remains on collecting reliable and timely data on timber and wood products. Better market transparency and improved market intelligence are vital for the expansion of international trade in timber from sustainably managed tropical forests and the planning of forestry policies. In this connection, the ITTO has the mandate of compiling, collating and publishing statistical information on production, supply, trade, stocks, consumption and market prices of tropical timber. This mandate is primarily implemented through ITTO's *Annual Review and Assessment of the World Tropical Timber Situation and Market Information Service*.

The Marketing Information Services (MIS) is one of ITTO's first activities, published bi-weekly since 1989. It delivers market news, prices and trends for hundreds of tropical timber products to trade groups, executives and analysts worldwide (currently 12,000 email subscribers in over 100 countries; over 40% of visits to ITTO website). It was first implemented by the International Trade Centre (Geneva) from 1989-1995, thereafter by the ITTO Secretariat. The MIS is disseminated through a newsletter called Tropical Timber Market Report (TTMR) in the form of portable document format (PDF). Subscribers to TTMR get information on the latest release through an email. MIS coordinator is assisted by a small network of correspondents in strategic tropical timber suppliers/marketplaces. Information supplied by correspondents is supplemented by other sources such as trade publications, personal contacts and information from ITTO projects and Annual Review (aggregate prices from trade data).

The TTMR provides information on market conditions (prices, demand and supply of TTPs and changes in the marketing environment). The price component is the core of the report, over 400 timber products are regularly reported on, some series go back over 20 years. Primary and secondary tropical timber products and selected substitutes are covered. FOB prices and (usually) CIF prices are reported from 10 most important tropical timber exporters and from 10 most important importers, respectively. These countries together account for more than 80% of tropical timber trade. Most prices are recorded in US$; current exchange rates are provided for those reported in other currencies. Prices (and volumes) of certified timber are also reported where available (mainly Malaysian Timber Certification Council, some other countries/schemes starting to provide data). Freight rates are also reported for major shipping routes. Finally, price trend charts showing short-medium term movements in selected products are published in each issue.

Other market information includes housing starts in major markets; trends in prices/markets for competitive solid wood and reconstituted substitutes for tropical timbers; market access developments (bans, tariffs, procurement policies, CITES listings, etc.); company and trade association news; and periodic information on production and trade flows of tropical timber products.

A user survey on TTMR readership showed 6 reader groups: timber executive (39%), economist/consultant (18%), the trade association (14%), educational institution (7%), financial institution (4%), and other (18%) include most government ministries, agencies, etc.

Prices and other information are widely analyzed and published/reprinted in a range of sources. Comparison between export and import prices between trading partners helps to identify problems with information and sometimes legality of trade. Regular user surveys provide valuable feedback on the utility of the service and areas for improvement. A Network of correspondents are reviewed annually.

Carbon (and other environmental services) prices are to be considered for inclusion when/if markets are established. Bio-energy prices are to be considered for inclusion when/if such products are actively traded by tropical countries. A service to match legitimate sellers and buyers of tropical timber products is being considered. More information on volumes and prices of certified timber products is to be included when/if available. On-line price database and feedback mechanism are under consideration. More collaboration with JFSQ partners to collect, analyze and report forest products prices is envisaged. Funding is a key consideration for these future developments.

Knowledge of trends in forest product prices is essential for planning and monitoring at all levels of the sector. Better and more timely market intelligence allows to 1) to recognize market trend changes (new markets, products, specifications, relative competitiveness) and opportunities; and 2) to improve decision making capabilities for the formulation of policies for better management of tropical forests, expansion of trade, promotion of lesser used species, etc. However, forest products prices are often considered commercially sensitive requiring innovative techniques for collection and sensitivity in reporting. There are many new challenges surrounding new products/services from forests. ITTO is ready to share experiences and work with partners to improve the availability and reliability of forest products prices.

7. Discussion

This section presents issues discussed during the workshop under the following headings: 1) types of prices, 2) price information reporting, and 3) information cost and availability.

Types of prices. The various types of prices such as import/export unit values, price index and actual/nominal prices are reported in official statistics. It was pointed out that that unit value prices were not very informative due to the problem of aggregation of data. However, these prices can be very useful as an error-checking device to see whether these values reflect the reality. In the absence of actual prices, unit value prices may provide an overview of past trade development. On price indices vs. actual prices, the usefulness of price index was questioned. It was clarified that price indices compress data and provide an overview of price development for a particular point in time (usually stable economic conditions). However, users should understand how price indices are calculated before using the indices, e.g., cross-country price comparison. It was argued that more details about how price indices were calculated should be provided to users. Some national statistical agencies report both price indices and actual prices (e.g. Finland) and others only price indices (e.g. France).

Price information reporting. Price information reporting and what is being reported are increasingly important to many stakeholders. Concerned was expressed over the lack of official price information on biomass and wood energy. In particular, it is not known how biomass prices affect timber products prices in Europe. There are, however, efforts at pan-European and national level to provide statistics on biomass and wood energy. It was reported that EUROSAT provides statistics on flows of wood pellets and firewood, and pellets have been separated from sawdust in the Harmonized System classification. METLA would begin to monitor volumes and prices of wood energy in Finland. It was pointed out that more demand of information on biomass existed at local level. Prices for wood residues are difficult to obtain, and these prices are important because of the competition for residues between the wood-energy and panel and pulp manufacturing industries. The participants agreed that there was a lack of information on the profitability of forestry in Europe; in particular, there was no country comparison on this issue. It was reported that in tropical countries, profitability is positively correlated with illegal logging. It was stressed that certification schemes such as FSC and PEFC should provide information on volumes of certified products.

Information cost and availability. Collecting price data takes time and involves a cost. It was reported that private sector (publishing companies) also provides price information to paid subscribers. There are many price publishers, for example, Euwid, Wood Resources International, and Random Lengths. As an example of the cost of data provision, the ITTO spends annually 200,000 USD for the Marketing Information Service. The awareness of market information was discussed. It was indicated that some forest owners were aware of market information, but others did not. In Southern Europe, forest cooperatives and organizations were not well organized (compared to their counterparts in Nordic countries), so were less informed about the timber market.

8. Conclusions and recommendations

The participants agreed that the conclusions and recommendations from this workshop be presented for action at the UNECE/FAO Working Party on Forest Economics and Statistics and the EUROSTAT Working Group on Forest Statistics meeting.

8.1. Conclusions

The workshop concluded as follows:

Needs for price data:

- Users have many different needs for and means of accessing information. Industry and market participants seem to have most of the data they need whereas forest owners and outsiders do not;
- Long-term series are important for policy setting, e.g. the UNECE/FAO price databases, including for *European Forest Sector Outlook Study*;
- Policy development requires adequate forest products price information, and understanding how policies affect prices;
- Forests are converted to other land uses in the tropics because of the low profitability of forest products, partly due to the weak knowledge of prices;
- Forest products (including byproducts) prices are essential for various industrial projects such as feasibility studies for establishing a sawmill, making business plans, mergers and acquisitions and valuation; and
- Secondary data from sub-consultants and primary data from personal and telephone interviews are important to consultants.

Data availability and quality:

- There is considerable variation in quality and availability of price series available today on the internet. For example validation problems exist with EUROSTAT internal trade statistics;
- Available data include unit price figures which appear to be underused;
- The forest sector finds it difficult to harmonize market and price information;
- Excellent examples of national and international market information systems exist, and sharing of expertise was offered at the workshop;
- A limiting factor in downstream price reporting is fear of price collusion;
- Resources (financial and human) are key to development;

• The new EFI price portal is an important advancement in improving forest products price information;

• The METLA Metinfo, ITTO and UNECE/FAO Forestry and Timber Section are the only current public international price data sources; and

• The FAO Forest Department staff would provide their inputs for database development and maintenance by the UNECE/FAO Forestry and Timber Section.

8.2. Recommendations

The workshop recommended the following:

Data providers:

• Innovative benefits are necessary for price information contributors, for example earlier access to current prices; and

• Forest Europe's legally binding agreement on forests in Europe should include data sharing requirements, in lieu of an obligation to provide price information

National governments:

• More transparency and reliability is necessary for international forest products prices;

• Joint Forest Sector Questionnaire correspondents should continue to use their expertise to adjust customs statistics;

• Capacity building is needed to establish national marketing information system; and

• To ease concerns on price collusion when price data are being collected.

Intergovernmental organizations:

• EFI Forest Products Price Information portal could distinguish between sources that provide spot prices from those that provide price series;

• EU Standing Forestry Working Group should facilitate market information development;

• ITTO should upload price series to their website, initially as Excel spreadsheets, and eventually add them to their relational, online statistical database; and

• The UNECE/FAO should conduct a user survey for its price database such as the one done for its *Forest Products Annual Market Review*.

ANNEX 1. Workshop agenda

Forest Products Price Workshop Agenda

European Forest Institute (EFI) and UNECE/FAO Forestry and Timber Section
International workshop on
Improving International Forest Products Price Information
European Forestry House, Brussels, Belgium, 3 November 2011

Time	Activities
8:30	**Registration**
9:00	**Opening and welcome** Ed Pepke (Chair)/EFI Alex McCusker /UNECE-FAO Andreas Schuck/EFI
	Introduction of participants Ed Pepke/EFI
Session 1: International forest products price information: current status	
9:30-9:45	**The needs for forest products price information** Alex McCusker/UNECE-FAO
9:45-10:00	**Forest products production, trade and price information: FAO's experiences on collection, maintenance and use** Arvydas Lebedys /FAO
10:00-10:30	**The needs for forest products price information: A consultant's perspective** Antti Koskinen /Pöyry Mgt Consult. Jarno Seppälä /INDUFOR
10:30-10:45	**The results of the study on Improving international forest product's price information** Ibrahim Favada/EFI Paul Rougieux/EFI
10:45-11:15	**Discussion with coffee** Ed Pepke/EFI
11:00-11:15	**Coffee Break** (beverages sponsored by European Forestry House)
Session 2: Actors' perceptions of forest products price information	
11:15-11:30	**Reflections from forest industry** Wendelin Gravenreuth
11:30-11:45	**Reflections from forest industry** Filip De Jaeger /CEI-BOIS Isabelle Brose /EPI

Time	Activities
11:45-12:25	**Discussion** Participants
12:25-12:30	**Summary of the morning sessions** Ed Pepke/EFI
12:30-13:00	**Lunch**
Session 3: Best practice examples of improved data collection	
13:00-13:15	**The role of forest owners in providing and improving price information on raw material from forests** Inazio Martínez de Arano /USSE
13:15-13.30	**Forest industries' role and efforts towards improving price information on processed wood products** Igors Krasavcevs / Latvian Wood Nick Boulton / Timber Trade Federation UK
13.30-13:45	**How can governmental agencies facilitate towards stakeholder groups to improve forest products price information?** Michel-Paul Morel / Ministry of Agriculture. (France)
13:45-14:30	**Discussion** Participants
14:30-14:45	**Coffee Break**
Session 4: Needs for continued collaboration	
14:45-15:00	**Identifying gaps in international forest products price availability, their analysis and dissemination** Andreas Schuck /EFI Alex McCusker /UNECE/FAO
15:00-15:20	**Finnish solutions for forest products price data collection, processing and dissemination** Martti Aarne /METLA
15:20-15:40	**International solutions** Steve Johnson /ITTO
15:40-16:45	**Discussion** Participants
16:45-17:00	**Summary of the workshop**
17:00	**Closing**

ANNEX 2. List of participants

Country representatives

FINLAND
Mr. Martti Aarne
Head of Forest Statistics
METLA

FRANCE
Mr. Michel-Paul Morel
Head of Forest Statistics Dept**.**
SSP
French Ministry of Agriculture

International organizations

EFI
Dr. Ibrahim Favada
Researcher
EFICENT-OEF, Observatory for European Forests

Dr. Ed Pepke
Senior Timber Analyst
EU FLEGT Facility

Mr. Paul Rougieux
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Mr. Andreas Schuck
Head of EFICENT-OEF

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ITTO
Dr. Steve Johnson
Japan

UNECE/FAO
Mr. Alex McCusker
UNECE/FAO Secretariat
UNECE/FAO Forestry and Timber Section
Switzerland

Industry organizations

Ms. Isabelle Brose
Economic Adviser
European Panel Federation
Belgium

Mr. Nick Boulton
Head of Technical and Trade Policy
Timber Trade Federation
United Kingdom

Mr. Felip De Jaeger
Secretary General
CEI-BOIS, Belgium
Belgium

Mr. Igors Krasavcevs
Head of Forest Information Center, Wood Product Development and Research Institute
Latvia

Forest owners' organizations

Mr. Inazio Martínez de Arano
Executive President
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Spain

Mr. Wendelin Gravenreuth
Project Manager
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Consulting firms

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Senior Consultant
Pöyry Mgt Consulting Oy
Finland

Mr. Jarno Seppälä
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