

**THE INTERNATIONAL COMMISSION ON POPLARS AND OTHER  
FAST-GROWING TREES SUSTAINING PEOPLE AND THE  
ENVIRONMENT (IPC)**

**WORKING PARTY (WP4) ON SUSTAINABLE LIVELIHOODS, LAND-  
USE, PRODUCTS AND BIOENERGY**

**Report 2018-2020 & Action plan 2020-2022  
In relation to the 50th IPC Executive Committee Meeting**

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**REPORT 2018-2020**

***FOREWORD***

The International Commission on Poplars and Other Fast-Growing Trees Sustaining People and the Environment (IPC), is a treaty-based body placed within the framework of the FAO. Its mission is to reduce poverty and facilitate production of ecosystem services worldwide by fostering the sustainable management of fast-growing trees.

The IPC supports research and management activities through six international, cross-disciplinary working parties dealing with:

Taxonomy, Nomenclature and Registration;  
Domestication and Conservation of Genetic Resources;  
Plant Health, Resilience to Threats and Climate Change;  
Sustainable Livelihoods, Land-use, Products and Bioenergy,  
Environmental and Ecosystem Services, and  
Policy, Communication and Outreach.

This Working party is based on an earlier merger of the Working Party on Harvesting and Utilization of Poplar and Willow Wood, the Working Party on Production Systems. The Working Party on Sustainable Livelihoods, Land-use, Products and Bioenergy is specifically dedicated to the forestry-wood industry chain of fast-growing trees like poplars and willows. It is indeed a combination of the previously indicated working parties on production systems and on harvesting and utilization of wood.

## **ACTIVITIES AND OUTPUTS**

In the below paragraphs several topics are discussed in relation to the activities and outputs for the period 2018-2020:

### **Organisational structure**

#### ***Networking***

At the last meeting in Berlin (25<sup>th</sup> Session of the International Poplar Commission, 13-16 Sep 2016) interest in this working party was expressed by a considerable group of international experts. Furthermore there is an important interaction with industrial networks like Pro-Populus in Europe.

#### ***Regional network managers***

Based on info received over the past year and completed by 2018-19, a list of experts interested in this working party was established. Besides the Chair it is the intention to provide in several Vice-Chairs and one Technical Secretary. The reason for the Vice-Chairs was to accommodate global participation and to share the workload. The Working Party Chairperson, Vice-Chairpersons and the Technical Secretary will be redefined to strengthen regional networking for China, Asia, Latin America, North America, Africa and Europe.

#### ***A new WP Executive***

A new WP executive will be installed after further consultation.

#### ***Update Global Directory***

An update of Experts relating to this Working Party on Sustainable Livelihoods, Land-use, Products and Bioenergy needs to be updated to enable interactions and communication on working party specific topics and tasks.

### **Research and development**

#### ***Organising meetings/workshops/conferences***

In the past the working party on Harvesting and Utilization has been able to organise some dedicated conferences. Both the conference in Nanjing (21-24 October 2008) and the 2nd Conference on Engineered Wood Products based on Poplar/willow Wood, León, Spain, (8-10 September 2016) were successful in this respect.

#### ***State of the art data base***

Earlier there was an attempt to create a database dealing with publications related to harvesting, utilization and product properties. Starting from the content of the FAO/IPC Book “*Poplars and Willows in the World*” it can still be an objective to come to an update on state of the art knowledge related to this working party. So the plan remains to prepare a database of publications related to harvesting, utilization and forest products properties as well as on production systems.

### ***Initiate new research, R&D***

This topic will evolve from the improved networking and might need a boost from young scientist who could be motivated by a specific state of the art database.

### ***Writing of the Utilization Chapter of “Poplars and Willows in the World”.***

The FAO/IPC Book “Poplars and Willows in the World” could do with some updating related to this Working Party. The proposal is to work with complementary information made available on the website and envisage future publication related to innovation and trends.

### ***Organize a Scientific/Technical Conference***

Organize a dedicated workshop/conference on technical aspects of producing wood products derived from fast-growing species, including topics on harvesting and utilization as well as aspects of sustainability, could be organized back-to-back with other conferences (e.g. International Poplar Symposium).

### ***Initiate new international collaborative R&D projects***

Examine current research and initiate new priority research collaborative projects to advance the utilization of fast-growing wood species (e.g. comparison of biomass for energy with other forest products options). We still envisage setting up a support system for young scientists and students (PhD and post graduate) with grants for short-term scientific missions, conference participation, etc.

## **Membership**

### ***Support young scientists***

There remains a need for a support system for young scientists (PhD and young post docs), e.g. grants for short term scientific missions (STSM), support for conference/session participation.

### ***Compiling country based information***

The WP Executive of the Working Party on Harvesting and Utilization was very keen on identifying the key poplar/willow industry in the different IPC active countries. This intention might be expanded to all aspects relevant for the current working party.

## **Focus and outreach**

### ***Update the Working Party’s web page***

Better use will be made of the IPC Working Party website to inform members of the action plans, needs and results.

### ***Develop an outreach program***

There is still an ambitious plan to develop an outreach program to all member countries of IPC, and to interested Developing Countries, in order to expand the active membership in this Working Party. Prior to getting this fully started there is a need for further updating of the Global Directory of Poplar and Willow Experts with regard to this Working Party.

***Develop a liaison with other Working Parties***

The topic of developing a liaison with other Working Parties of IPC to determine areas of common interest was explored by both chair and technical secretary of the Working Party on Harvesting and Utilization already in 2007. Anyhow it is expected that the inter-WP liaison will be an ongoing activity. In this respect the new Working Party on Sustainable Livelihoods, Land-use, Products and Bioenergy Support is already an interaction between previously separate Working Parties on Harvesting and Utilization of Poplar and Willow Wood and on Production Systems. The earlier proposal/justification for a new Working Party on Socio-economic Issues of Poplar and Willow Development (sustainable land-use and livelihoods, climate change mitigation and adaptation and bioenergy/biofuel) has been integrated this way.

## ***ACTION PLAN 2020-2022***

### ***FOREWORD***

According to the guidelines, this Action Plan 2020-2022 is intended to prepare a programme of work and to detail this with achievable specific activities, assign persons responsible, detail indicative delivery dates and show linkage with FAO. Objectives are suggested to be SMART, which are Simple, Measurable, Achievable, Realistic and Time bounded.

### ***PROPOSED ACTIVITIES - OBJECTIVES***

Topics from the Report 2018-2020 are further integrated in the work foreseen for 2020-2022.

#### **Organisational structure**

##### ***Networking***

Based on all input received a renewed network for experts is becoming real for all different aspects of harvesting and utilisation, of wood processing and products of poplar/willow and other fast-growing species and of production systems related. Furthermore it is important to interact with existing industrial networks (e.g. Pro-Populus in Europe) as well as networks related to sustainable livelihoods. This information will be compiled over the next years.

In addition to the 'traditional' countries, extra effort is clearly needed to involve 'new countries' not present for the moment in the WP membership. This will i.a. be done by checking publications from research teams and verifying links to R&D responsible people in the industry besides discussing with national representatives in other WP's.

##### ***Regional network managers***

The WP Executive (chair, vice-chairs, and technical secretary) still need to be redefined as a group of regional network managers for China, Asia, South-America, North-America, Africa, Europe. Both relevant experts relating to the whole forestry wood chain from production systems up to products and taking into account impact on livelihood need to be considered. To increase networking potential each of the vice-chairs will be asked to appoint a co-worker/colleague having some more options to actively work on databases and data collection as well as communication in general.

##### ***Proposal for a European COST Action***

To increase interaction on innovation in Europe we could envisage to establish a related COST Action. This could include aspects related to production, energy, biorefineries, but surely there is a need to focus on many aspects of the Green Deal and primarily also on Green Building, e.g. the potential for CLT and other engineered wood products.

## **Research and development**

### ***Organising meetings/workshops/conferences***

Dedicated conferences as organised earlier like by the working Party on Harvesting and Utilisation (Nanjing 2008, Léon 2016) will be organised focussing on technical aspects of producing poplar/willow wood products. This topic will also serve further possibilities for liaison with other WP's.

### ***State of the art data base***

In order to make the WP more attractive for (young) researchers a state of the art database is proposed dealing with publications related to harvesting, utilization and product properties. This database should be subdivided or allow sorting by category of publication (peer reviewed... conference proceedings), date of publication and envisaged/studied poplar/willow product as key search parameters alongside a general key word list.

### ***Initiate new research, R&D***

To examine the prospects and mechanisms of initiating new and needed international collaborative R&D project(s) to advance the work on production systems up to utilization of Poplars and Willows, the updated network of experts will be used.

Furthermore in this respect it would be good to introduce specific work on biomass for energy as a key technical topic of the WP dealing primarily with processing parameters (evaluating different industrial biomass to energy conversion options) and the interaction with material processing, e.g. the production of wood based panels.

## **Membership**

### ***Support young scientists***

There is a need to set up a support system for young scientists (PhD and young post docs), e.g. grants for short term scientific missions (STSM), support for conference participation.

### ***Compiling country based information***

A compilation of all the details on topics related to the on Sustainable Livelihoods, Land-use, Products and Bioenergy should be made based on the input provided in the national reports that are an excellent starting point for this. Specific focus should be on other fast growing species to be prioritised.

## **Focus and outreach**

### ***Outreach, website***

Similarly as the European organisation Pro-Populus (The European poplar association) we propose to improve the website of the IPC Working Party on Sustainable Livelihoods, Land-use, Products and Bioenergy and hence underline the positive aspects of growing poplars in

relation to a sustainable society. The new version of the website of Pro-Populus definitely covers this topic:

### ***Working party beyond poplar***

As it is the intention to look beyond the past focus on *Salicaceae* (poplar, aspen, willow,...) specific work is intended to broaden the scope to species with similarities either in respect to cultivation and impact on livelihoods or to products and ecosystem services provided. Furthermore, it is of interest to enlarge the geographical scope from those species more linked to temperate regions towards fast growing tropical hardwood species.

### ***Cross cutting issues***

Already during the 43rd Executive Committee the topic of socio-economic impact of the poplar and willow wood production and utilization was discussed. Major crosscutting issues that could be addressed in this integrated manner are fast-growing trees in a context of: i) Sustainable Land-use; ii) Sustainable Livelihoods; iii) Mitigation and Adaptation to Climate Change; and iv) Bioenergy/Biofuel production. Clearly the Working Party on Sustainable Livelihoods, Land-use, Products and Bioenergy is there to address these issues.

### ***Branding***

There is a proposal for rebranding the working party on the bioeconomy (wood, fiber, cellulose, carbon, energy), and trying to strengthen links with organizations like ITTO, the FAO Advisory Committee on Sustainable Forest Industries, the World Bank, and umbrella industry associations. This can be complemented with the idea to separate out livelihoods and income as a cross-cutting working party and somehow simplify the working.

## SWOT ANALYSIS

The below SWOT analysis remains valid in most of its topics and can still be used for guiding the WP initiatives.

Strengths	Weaknesses
<ol style="list-style-type: none"> <li>1) Partly based on the oldest working party related to key elements in sustainable poplar/willow forestry wood chain;</li> <li>2) Diversity of products for society development;</li> <li>3) Sound expertise/experience of Working Party members;</li> <li>4) Integrating production systems and products (either material or energy) involves key players for a sustainable approach of poplar plantations.</li> </ol>	<ol style="list-style-type: none"> <li>1) Important topics are covered by this working party but some could be difficult to integrate and might need a separate approach e.g. sustainable livelihoods;</li> <li>2) Very low input from WP members;</li> <li>3) Missing link to young scientists active in the field of wood technology by National committees;</li> <li>4) Insufficient international and national networking for this WP.</li> </ol>
Opportunities	Threats
<ol style="list-style-type: none"> <li>1) The growing interest in lignocellulosic biomass for both material (direct or indirect) and energy will create specific opportunities for fast growing plantation trees like hybrid poplar;</li> <li>2) Industry is more aware of the need to network on international, national and regional level;</li> <li>3) New innovative opportunities related to engineered wood products as well as biomass for energy and the overall interest in sustainable production-processing fast growing trees;</li> <li>4) Besides plantation grown hybrid poplars also the aspen resource and other species of the <i>Salicaceae</i> will be of higher interest in future. Other tree species should be considered especially when relating similarly to sustainable livelihoods.</li> </ol>	<ol style="list-style-type: none"> <li>1) Lower interest, e.g. in Europe in promoting poplar/willow plantations could lead to critical issues on supply, demand, specifications and price of forest products;</li> <li>2) Biomass for energy should become an opportunity and not a threat for poplar cultivation, hence the need to interact with the agricultural sector;</li> <li>3) Low international investigation effort to improve the knowledge of wood properties &amp; potentialities;</li> <li>4) There seems to be reduced the need for developments and improvements of hybrid poplar products. It slowed down the industrial investments, starting with the reduction of the available budget for research.</li> </ol>