

REPORT

Dehradun,
India,
29 October-
2 November
2012

**24th Session of the
International Poplar
Commission
and 46th Session
of its Executive
Committee**

**INTERNATIONAL POPLAR COMMISSION
(IPC)**

**Report of the 24th Session of the Commission
and of the 46th Session of its Executive Committee**

Dehradun, India, 29 October-2 November 2012

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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TABLE OF CONTENTS

Page

PART I. REPORT OF THE 46TH SESSION OF THE EXECUTIVE COMMITTEE OF THE INTERNATIONAL POPLAR COMMISSION	1
I.1 ORGANIZATION	1
I.2 THE SESSION	1
I.3 INFORMAL MEETINGS OF THE EXECUTIVE COMMITTEE	6
PART II. REPORT OF THE 24TH SESSION OF THE INTERNATIONAL POPLAR COMMISSION...	9
II.1 ORGANIZATION	9
II.2 SYNTHESIS OF COUNTRY PROGRESS REPORTS	9
II.3 24 TH SESSION THEME: IMPROVING LIVES WITH POPLARS AND WILLOWS	12
II.4 OPENING OF THE SESSION	13
<i>Keynote Addresses at the Opening Plenary Session (30 October)</i>	<i>13</i>
<i>Keynote Addresses at the Closing Plenary Session (2 November)</i>	<i>14</i>
<i>Concurrent Sessions (31 October and 1 November)</i>	<i>14</i>
II.5 BUSINESS REPORTS	14
<i>Working Party on Poplar and Willow Genetics, Conservation and Improvement</i>	<i>14</i>
<i>Working Party on Poplar and Willow Insects and Other Animal Pests</i>	<i>15</i>
<i>Working Party on Poplar and Willow Diseases</i>	<i>15</i>
<i>Working Party on Poplar and Willow Production Systems</i>	<i>15</i>
<i>Working Party on Harvesting and Utilization of Poplar and Willow Wood</i>	<i>16</i>
<i>Working Party on Environmental Applications of Poplars and Willows</i>	<i>16</i>
<i>Report of the Sub-Committee on Nomenclature and Registration</i>	<i>16</i>
II.6 CONCLUSIONS AND RECOMMENDATIONS OF THE COMMISSION	17
<i>Conclusions</i>	<i>17</i>
<i>Recommendations</i>	<i>18</i>
II.7 STUDY TOURS	18
II.8 MAJOR INITIATIVES	19
<i>Reform of the International Poplar Commission</i>	<i>19</i>
<i>Poplars and Willows: Trees for Society and the Environment</i>	<i>19</i>
<i>Election of the Executive Committee 2012-2016</i>	<i>20</i>
<i>Date and place of next Session</i>	<i>20</i>
II.9 OTHER MATTERS	20
<i>IUFRO 6th International Poplar Symposium</i>	<i>20</i>
<i>IPC Awards Ceremony</i>	<i>20</i>
<i>Poplars in India</i>	<i>21</i>
<i>Evaluation of the Session</i>	<i>21</i>
II.10 CLOSING OF THE SESSION	21
ANNEX I (A) - AGENDA OF THE 46 TH SESSION OF THE EXECUTIVE COMMITTEE	23
ANNEX I (B) - AGENDA OF THE 24 TH SESSION OF THE IPC	24
ANNEX II (A) - PROGRAMME SUMMARY	25
ANNEX II (B) - DETAILED PROGRAMME	28
ANNEX III - LIST OF PARTICIPANTS	43
ANNEX IV - ABSTRACTS SUBMITTED	61
ANNEX V - NATIONAL REPORTS	73
ANNEX VI - EVALUATION RESULTS	75
ANNEX VII - EXECUTIVE SUMMARY OF THE CONCEPT NOTE 'OPTIONS FOR INTERNATIONAL POPLAR COMMISSION REFORM' BY JIM CARLE	78

PART I. REPORT OF THE 46TH SESSION OF THE EXECUTIVE COMMITTEE OF THE INTERNATIONAL POPLAR COMMISSION

I.1 ORGANIZATION

1. The 46th Session of the Executive Committee of the International Poplar Commission (IPC) was jointly hosted by FAO, the Government of India, the Indian Council for Forestry Research and Education (ICFRE) and the Forest Research Institute (FRI) in Dehradun, India, on 29 October 2012. Mr. Stefano Bisoffi, Chairperson of the Executive Committee, chaired the Session. The closed session was attended by 23 persons, including 11 Chairpersons, Vice-Chairpersons or Technical Secretaries of the six Working Parties and of the Sub-Committee on Nomenclature and Registration, the Secretary of the Commission and four observers from Argentina, India and the United States of America. The Director, FOM, FAO also attended.

I.2 THE SESSION

2. The Session was opened by Mr. Stefano Bisoffi, Chairperson of the Executive Committee, who acknowledged and thanked ICFRE, FRI and FAO as hosts and the IPC Secretariat for Session support. The Provisional Agenda was adopted (see *Annex I(a)*).

3. Formal apologies were acknowledged from Ms. Teresa Cerrillo, Mr. John Doornbos and Ms. Catherine Bastien, Executive Committee members, and Ms. Sylvie Augustin and Mr. John Charles (Chairperson and Vice-Chairperson respectively of the Working Party on Poplar and Willow Insects and Other Animal Pests) as well as Mr. Theo Verwijst and Mr. Timothy Volk (Chairperson and Technical Secretary respectively of the Working Party on Poplar and Willow Production Systems).

4. Mr. Stefano Bisoffi stressed the importance of the Session in light of the proposed reforms to the IPC to revitalize and expand the membership, geographic and technical scope and relevance to member countries by revisiting the Working Parties, National Poplar Commissions and the Secretariat. The recommendations of the Executive Committee to the 24th Session of the IPC and to the FAO Committee on Forestry (COFO) will be of critical importance.

5. Mr. Ian McIvor, Chairperson, Working Party on Poplar and Willow Genetics, Conservation and Improvement (<http://www.fao.org/forestry/3770/en/>), reported programme of action progress (2008-2012). The 2010 and 2012 surveys on Poplar and Willow breeding programmes and collections were undertaken and a database on Poplar and Willows clone collections and gene banks prepared for uploading to the IPC website. A guideline to apply standard designs for Poplar and Willow breeding programmes is under preparation. The Working Party jointly organized the 3rd International Congress on Salicaceae with the National Poplar Commissions in Argentina and Chile in Neuquen, Argentina, in March 2011. The Working Party also made presentations and contributed to the study tours of the joint Canada and USA National Poplar Committee meeting held in Edmonton, Canada, in 2011. The sessions and study tours of both meetings highlighted different aspects of Poplar and Willow breeding. There was evidence that the global economic crisis had caused reduced government and private sector funding of breeding programmes. Discussions highlighted the need to have the database available and maintained on the IPC website; availability of additional data on breeding of Poplars and Willows in Europe and National Country Reports; and acknowledgement of the Working Party contributions to Chapter 4 of the book “Poplars and Willows: Trees for Society and the Environment”.

6. Ms. Marijke Steenackers, Chairperson of the Working Party on Poplar and Willow Diseases (<http://www.fao.org/forestry/3768/en/>), reported programme of action progress (2008-2012). A survey of member countries was undertaken to assess important Poplar and Willow diseases, associated breeding programmes for resistance and documented references. On this initiative, specific reference was made to the 7th Framework EU “Treebreedex” inventory of breeding programmes and the “Noveltree” reference document describing methodologies on resistance selection. Due to the small membership, it had been a challenge to document and upload results and databases to the IPC website. Additionally, the Working Party prepared Chapter 8, “Diseases of Poplars and Willows”, for the book “Poplars and Willows: Trees for Society and the Environment”. Discussions centred on heavy commitments of scientists and managers volunteering their services to the IPC Working Parties; the potential for merging with the Working Party on Poplar and Willow Insects and Other Animal Pests; importance of links to relevant initiatives, documents, results, databases to be made on the IPC website; the potential risks associated with mono-clonal plantations; and the availability of valuable reference materials in National Country Reports.

7. Mr. Stefano Bisoffi, on behalf of Ms. Sylvie Augustin, Chairperson, Working Party on Poplar and Willow Insects and Other Animal Pests (<http://www.fao.org/forestry/3769/en/>), reported programme of action progress (2008-2012). The e-book on “Damaging Poplar Insects: Internationally Important Species” was reviewed and updated (<http://www.fao.org/forestry/38255/en/>). The Working Party completed the Chapter 9, “Insects and Other Pests of Poplars and Willows” in the book, “Poplars and Willows: Trees for Society and the Environment”. A highlight is the documentation of case studies from different countries, including different insect and invasive species text, taxonomy, photos, global distribution, description, damage, biology, life cycle, control and quarantine issues. The heavy work load had fallen on too few entomologists, so it had not been possible to participate in the 5th International Poplar Symposium, Orvieto, Italy, in September 2010 or to strengthen the IPC web portal for the Working Party as planned. Discussions highlighted the high quality of Chapter 9 of the book “Poplars and Willows: Trees for Society and the Environment”; and recommended merging with the Working Party on Poplar and Willow Diseases.

8. Mr. Joris Van Acker, Chairperson, Working Party on Harvesting and Utilization of Poplar and Willow Wood (<http://www.fao.org/forestry/3767/en/>) reported programme of action progress (2008-2012). The network for harvesting and wood processing experts was initiated, including with the European case study “Pro-Populus”. Calls for registration of harvesting and wood processing specialists on the IPC database had not attracted as many registrations as expected. The Working Party registered with the EU Noveltree project. The Working Party completed Chapter 10, “Properties, Processing and Utilization” of the book “Poplars and Willows: Trees for Society and the Environment”. Discussions highlighted a lack of inputs from Working Party members; insufficient links with young scientists and insufficient international and national networking, ambitious programme of action; and harvesting and utilization may include non-wood products as Poplars and Willows are grown for multiple purposes.

9. Ms. Mirta Rosa Larrieu, Technical Secretary, Working Party on Poplar and Willow Production Systems (<http://www.fao.org/forestry/3771/en/>), informally reported on production systems in Argentina. Supported by the World Bank, attractive smallholder plantation development grants had subsidized up to 90% of growing costs if in compliance with acceptable standards. Support services included an active network of scientists and academics that tailored extension services to transfer policy, technical and operational knowledge and technology to growers and users. The genetic improvement programme had been a key input. Biomass production had become a priority both for carbon management and bio-energy production. Discussion centred around the very active Argentinian National Poplar Commission; and encouragement of young scientists and managers to participate in IPC activities.

10. Mr. Judson Isebrands, Vice-Chairperson, Working Party on Environmental Applications of Poplars and Willows (<http://www.fao.org/forestry/26214/en/>), reported programme of action progress (2008-2012). The Working Party hosted successful technical meetings and study tours in collaboration

with other Working Parties and hosts including: Institute of Agro-environment and Forest Biology (IBAF) in Rome, Italy, 17-18 September 2010; and the Poplar Councils of Canada and USA, in Edmonton, Canada, 18-24 September 2011. The web portal on the IPC website was updated for projects, activities, lists of institutions, experts, case studies, publication references, links and contacts. The Working Party had completed Chapter 6 “Environmental Applications of Poplars and Willows” for the book “Poplars and Willows: Trees for Society and the Environment”. The Information Notes on selected key topics had not been achieved as planned. Discussions centred on challenges on information dissemination; the need to link with other international events; and the need to share responsibilities of Working Parties. The roles of Poplars and Willows in watershed protection and in afforestation with treated waste water in North Africa were acknowledged.

11. Mr. Stefano Bisoffi, Vice-Chairperson, Sub-committee on Nomenclature and Registration (<http://www.fao.org/forestry/3765/en/>) reported programme of action progress (2008-2012). The International Register for Poplar Cultivars was revised in 2012 to include 16 new cultivars based upon formal registration. A survey of the IPC National Country Reports and the IUFRO International Poplar Symposia references resulted in 200 new clones which will be added to the register. The International Register for *Populus* cultivars on the IPC website is to be updated pending more specific information on polyclonal cultivars, incomplete records, cultivars for which no formal application was filed to the IPC and standardization of clonal names in accordance with international rules. The Sub-committee applied to the International Society of Horticultural Science (ISHS) to be appointed as the International Cultivar Registration Authority (ICRA) for the Registration for *Salix* cultivars, without success thus far. The Sub-committee completed Chapter 2 “Poplars and Willows of the World, with Emphasis on Silviculturally Important Species” for the book “Poplars and Willows: Trees for Society and the Environment”. Discussions focused on the need to: raise awareness of the registration procedures for new cultivars; promote greater cooperation between interested parties; identify and recruit additional specialists to assist in the cultivar registration; and create an effective network.

12. Mr. Stefano Bisoffi, Chairperson, acknowledged the dedication of current Working Party officers but also stressed the need to review the relevance and effectiveness of each Working Party with respect to prevailing problems, issues, solutions and environmental and developmental themes. The role of the IPC was to transfer scientific research into policies and practices in sustainable livelihoods and land-use. An opportunity existed for the IPC to provide inputs to the process associated with the State of the World’s Forest Genetic Resources, coordinated by FAO. Other key issues raised included: the need for greater integration between Working Parties; greater guidance and support to Working Parties from the Secretariat between Sessions; the need for Working Party toolkits to assist in making the technical Working Parties more operational; greater use of the IPC web portals for each Working Party and potentially, National Poplar Commission; stabilization of IPC reforms (possibly 4-8 year process) before future Working Party objectives, outputs and activities will be fully determined; greater use of the National Country Reports to share research, policy, planning and practices information and experiences between member countries; increased networking to address diverse communities of interest and diverse issues; reviewed strategy, to repackage and rearrange the IPC, Working Parties and National Poplar Commissions for greater relevance, visibility and communication between and within member countries; and improved IPC marketing to funding agencies, donors and international programmes (Green Economy, Green Climate Funds, REDD+ and others).

13. Mr. Jim Richardson and Mr. Judson Isebrands advised that all chapters were completed, peer reviewed, edited and first proof completed for the joint CABI-FAO sponsored book “Poplars and Willows: Trees for Society and the Environment” (<http://www.fao.org/forestry/32608/en/>). As the launch will be early-mid 2013, CABI requested that each Chapter previously packaged as Working Papers for peer review, be removed from the IPC website. The Secretariat requested that CABI be approached to approve use of the 2012 Poplar and Willow data rather than the existing 2008 data. Mr. Jim Richardson and Mr. Jud Isebrands were congratulated on their 8-year task as joint editors of this excellent feature book. FAO proposed that the feasibility of the book launch at UNFF-10 in April 2013 be considered.

14. Mr. Walter Kollert, IPC Secretary, highlighted the past difficulty of accessing complete and reliable Poplar and Willow trade data. The World Customs Organization maintains the Harmonized Commodity Description and Coding System as an internationally standardized classification of species groups and traded products, managed for collecting statistics and applying trade tariffs. FAO/EUROSTAT/ITTO/UNECE submitted a joint proposal for a revised edition of the Harmonized Commodity Description and Coding System to identify Poplars and Aspen and their forest product classifications to allow extraction of trade data from 2017. To qualify for specific classification, the threshold minimum trade globally needs to be US\$50 million.

15. Mr. Alberto Del Lungo, Forestry Officer, FAO introduced Phase I of the FAO-Italy Project “Use of treated waste water in forestry and agroforestry systems and support to the IPC”. It was noted that the FAO-Italy Project supported the IPC Secretariat to host the 24th Session and the 46th Executive Committee meeting. The main in-country activities had included regional and country workshops to design project interventions, transfer knowledge and technology and to demonstrate alternative uses of treated waste water for smallholder afforestation in different contexts. Demonstrations had been initiated in Egypt (Ismaelia forest plantations), Tunisia (ferti-irrigation and phytodepuration plant for biomass production), Algeria (phytodepuration for biomass production, Brézina Oasis, Sahara Desert) and Morocco (ferti-irrigation in the Marrakesh green belt), with funding and activities for Libya pending. The sustainable livelihoods and land-use approaches of the FAO-Italy Project tailored to specific country contexts in Northern Africa were acknowledged as appropriate responses to integrating Poplars and Willows with other appropriate forestry and agricultural species. Furthermore, the Committee appreciated and supported the FAO-Italy cooperation and urged continued support towards Phase II funding if the objectives of these valuable projects were to be achieved.

16. Mr. Eduardo Mansur, Director, FAO Forest Assessment, Management and Conservation Division, provided the background and context for FAO Forestry Department and IPC reforms. As the IPC was important as the only legally-binding forestry instrument in FAO, it was imperative that it be strengthened and expanded to increase its relevance and effectiveness in serving member countries. A concept note on options for IPC reform had been prepared for the IPC Secretariat and shared with the Committee, Working Party officers and National Poplar Commissions (Executive Summary, see *Annex VII*). Additionally, FAO proposed to the 2012 COFO to consider expansion of the scope of the IPC whilst maintaining the existing mandate on Poplars and Willows. COFO took note of the proposal to expand the thematic scope of the IPC and requested FAO, in paragraph 70 of its Report, to provide further information on the proposal while sharing it with the 24th Session of the IPC.

17. Mr. Jim Carle, Consultant to the IPC Secretariat, presented a SWOT analysis and future IPC options for consideration by the Executive Committee for their preparation of recommendations to the IPC 24th Session. The SWOT highlights included:

- a) For 65 years, the IPC had linked research of Poplars and Willows with cultivation, conservation and utilization policies, planning and implementation practices. Through networks, long established partnerships, databases, document repositories, and outreach programmes, the IPC had transferred poplar and willow germplasm, knowledge and technology between scientists, growers, processors and users around the globe.
- b) There remained strong interest in the IPC by poplar and willow specialists around the globe, but membership had become stagnant due to institutional complexities in joining. Developing countries were the minority as members of the IPC.
- c) The Secretariat had suffered from a lack of resources in recent years; disconnect had emerged between the technical fields of the Working Parties and the multi-disciplinary and inter-sectoral nature of environmental and development issues facing member countries; and some National Poplar Commissions had become dormant. Because of the relatively narrow geographic and technical focus of the IPC, it had been difficult to attract multi-lateral and bilateral donor and international programme interest and funding as the links with sustainable livelihoods and land-use had not always been apparent.

- d) There were opportunities to build upon the existing, and to secure new partnerships. Expansion of the scope to include poplars, willows and other genera/species of high socio-economic or ecological significance could potentially provide the IPC with new options to better support sustainable land-use and livelihoods, including food security and poverty alleviation. Clarification and simplification of the Convention and rules for membership could encourage new members; revision of Working Parties and National Poplar Commissions into topical themes could be considered (e.g. climate change adaptation and mitigation; sustainable supplies of wood, fibre and short-rotation bioenergy/biofuel; conservation of biodiversity; sustainable livelihoods; sustainable ecosystems and landscapes; and provision of environmental services). The IPC could be more cognisant of the outcomes and recommendations of Rio+20, UNFCCC, CBD, UNCCD, UNFF and MDGs. Opportunities existed to pursue international support for sustainable forest management, REDD+, UN-REDD and other international programmes.

18. Mr. Jim Carle presented the three options for IPC reform: (i) *Status quo*: maintained Poplar and Willow scope; no change to Convention, Working Parties, National Poplar Commissions or Secretariat; (ii) *Institutional Reform*: maintained Poplar and Willow scope; clarification and simplification of the Convention; revised Working Parties, National Poplar Commissions and the Secretariat to address thematic environmental and developmental needs of countries; and (iii) *Integrated Reform*: broadened scope to integrate Poplars and Willows with other genera/species of high economic or ecological significance for sustainable land-use, livelihoods, food security and poverty alleviation; clarification and simplification of the Convention; and revised Working Parties, National Poplar Commissions and Secretariat to better integrate specialist activities, outputs and outcomes into the thematic environmental and developmental needs of countries. It was stressed that the aim of the proposed IPC reform was to stimulate membership interest, broaden environmental and developmental scope, broaden the range of international partners, funding agencies and donors and increase relevance and impacts on sustainable livelihoods and land-use.

19. Mr. Eduardo Mansur, FAO emphasized that: (i) *Status quo* was not an option for FAO as the IPC would continue to weaken without dynamic membership and more resources; (ii) FAO Forestry Department preferred to strengthen the IPC as a legally-binding instrument in forestry; (iii) the *Institutional Reform* and the *Integrated Reform* options were suggestions, but other reform proposals were welcomed; and (iv) reforms would not be immediate as the IPC and FAO administrative and decision-making processes will take time.

20. Mr. Stefano Bisoffi, Chairperson, stimulated discussions on the IPC reforms by suggesting that a strategic plan, white paper or road map be prepared by a Task Force to clarify the objectives, outline the feasible reform tasks, detail the specific responsibilities and prepare a delivery time line for the reform process. The *Status quo* was not considered an option, so the drivers of the current debate needed to look beyond sustainable forest management. Poplars and Willows were integrated with agriculture on landscapes, provided a diversity of wood and non-wood products and were a source of numerous ecosystem services. A feasible path needed to be defined and scheduled for reform to respond to the new drivers and to detail the steps (immediate, medium term and long term) towards achieving reform objectives. It was considered critical to have a strong coordination process, encourage consensus and to achieve change within the IPC at various levels.

21. Mr. V. K. Bahuguna, Director General, ICFRE and Mr. P.P. Bhojvaid, Director General, FRI welcomed the Committee to FRI, Dehradun and stressed the importance and timeliness of the reform process. As Poplars and Willows in India were already grown and traded with other short-rotation forest and agricultural crops in integrated land-use systems, the *Integrated Reform* option was recommended.

22. Reform discussions highlighted that in North America, Europe, China and Latin America, Poplars and Willows were increasingly being integrated with other short-rotation crops, both in forestry and agriculture land-use systems for both wood and food. It was questioned whether the IPC

should be expanded beyond the temperate and boreal range of Poplars and Willows with other short rotation crop species. Any reform would need to ensure that duplication with research and development organizations (e.g. IUFRO and ICRAF) be minimized. There was general support to achieving the *Institutional Reform* option on the path towards ultimately achieving the *Integrated Reform* option by building upon the original IPC vision and objectives, strengths and opportunities, whilst reducing the weaknesses and threats. There was agreement to establish a Reform Task Force to prepare a strategy and a road map detailing the reform, including the legal, institutional dimensions. Appointed Task Force members included: Mr. Stefano Bisoffi (Italy), Mr. Walter Kollert (Secretariat, FAO), Ms. Drusilla Riddell-Black (United Kingdom), Mr. Meng-Zhu Lu (China), Ms. Mirta Rosa Larrieu (Argentina), Mr. Judson Isebrands and Ms. Sharon Doty (United States of America). It was agreed to hold the inaugural meeting of the Task Force on Wednesday 31 October to preliminarily define tasks.

23. Mr. Walter Kollert, Secretary, outlined arrangements for the 24th Session, including the Opening and Closing Plenaries, Concurrent Sessions, Study Tours and Social Events. Reference was made to the IPC and ICFRE websites and the production of publications, including the Book of Abstracts, Synthesis of Country Reports (English, French and Spanish) and References Detailed in Country Progress Reports. The Programmes and publications were available on USB pins for all participants and available on the IPC website. It was stressed that Secretariat Staff were available to assist throughout the 24th Session and Interpretation Services were available for the Opening and Closing Plenaries only. The proposed Chair for the 24th Session was Mr. V. K. Bahuguna, Director General, ICFRE and Vice-Chairs, Mr. Judson Isebrands and Ms. Drusilla Riddell-Black.

24. Mr. Stefano Bisoffi outlined the process for Executive Committee nominations, notification of Heads of Mission and the Executive Committee election process. He proposed that a suitable date for the next Executive Committee meeting be held immediately prior to, or after, the IUFRO Sixth Session of the International Poplar Symposium, 21-23 July 2014, Vancouver, British Columbia, Canada. No formal submissions to host the 25th Session had been received to date but these would need to be submitted prior to the next Executive Committee meeting in Vancouver in 2014.

25. The long standing dedication of Mr. Stefano Bisoffi as Chairperson and Mr. Judson Isebrands as Vice-Chairperson of the IPC were acknowledged. Both were not standing for reelection, but were committed to assist in the reform process on the Reform Task Force.

1.3 INFORMAL MEETINGS OF THE EXECUTIVE COMMITTEE

26. Members of the outgoing Executive Committee and the Working Parties held an informal meeting on strengthening, marketing and resourcing the IPC on Wednesday 31 October 2012. The meeting was briefed by Mr. Walter Kollert, IPC Secretary on the independent evaluation of, and reforms within, the FAO Forestry Department that affected the IPC. Major concerns were reduced budgets and staffing that had eroded the capacity of the Secretariat to serve the IPC, Working Parties and National Poplar Commissions. He outlined that as an FAO Article XIV Statutory Body, the IPC could potentially source, secure, and manage funds and staff and implement projects.

27. The participants brainstormed the next steps to promote developing country membership and new institutional partners (including universities and research institutions, etc.), potential donors and global programmes that could benefit from enhancing the contribution of Poplars and Willows in sustainable livelihoods and land-use. Recommended next steps were:

- a) The IPC Secretariat, working with the Executive Committee and the Working Parties, and based upon experience and lessons learned, should prepare a short strategy paper on the expanded IPC objectives, and the enhanced roles of Poplars and Willows in developing

countries to achieve objectives of major global programmes, proposed pilot or demonstration projects, major beneficiaries and funding sources.

- b) The IPC Secretariat should fully brief the Assistant Director-General and the Directors of the Forestry Department, FAO and others as necessary to assist in marketing the role of Poplars and Willows and expand the context of the IPC to major programmes, targeting specific funding agencies/donors and specific countries in which Poplars and Willows have, or will have, a key role to play.

28. Reform Task Force members held their first meeting on 31 October 2012 to brainstorm the key components in preparation of a road map or plan of action to clarify the objectives (what) outline the concrete reform tasks (how), detail the specific responsibilities (who) and elaborate on a delivery schedule (when). Mr. Walter Kollert, IPC Secretary, briefed the meeting on a proposed legal and institutional study to report on change process issues associated with the IPC Convention.

29. A step-by-step roadmap to promote greater relevance and visibility by FAO and IPC member countries could include:

- a) The conclusions and recommendations of the 46th Executive Committee and 24th Session of the IPC reflect the establishment of a Task Force and outline the reform process.
- b) Ensure that the new Executive Committee members, Working Parties officers and National Poplar Commissions are fully briefed on the reform decisions of the 46th Executive Committee and the 24th Session of the IPC.
- c) Conduct the legal and institutional study of the Convention to gauge what changes can be undertaken, by whom, by when.
- d) Undertake a questionnaire to get feedback on issues, priorities and expectations from National Poplar Commissions.
- e) Revise and strengthen the institutional settings (Secretariat, National Poplar Commissions and Working Party technical topics/themes).
- f) Prepare a marketing and publicity strategy to better define the IPC clients, products/services and the market[s] that can be achieved within the existing Convention and how to better communicate between the IPC Secretariat, Working Parties, National Poplar Commissions, the member country clients and the public.
- g) Make FAO member countries more aware of the goods and services available through the IPC and target new IPC member countries.
- h) Consider expansion of scope (membership, clients, technical work and geographic spread), simplify membership procedures and strengthen the institutional settings that could be achieved if the Convention was revised.

30. A suggested timeline for the Task Force could be:

- a) The recommendations from the 46th Executive Committee and the 24th Session of the IPC, Dehradun, India be presented at the 22nd Session of COFO¹, 2014 and to the 40th FAO Conference to alert them of the IPC reform process proposed.
- b) New studies and recommendations that take a step-wise, progressive approach will be shared through the Secretariat in a transparent manner within the Executive Committee, National Poplar Commissions and Working Parties to formulate a firm reform proposal.
- c) The IPC reform proposal be submitted for further discussion and recommendations at the 47th Executive Committee meeting (July 2014).
- d) Firm proposals and recommendations defining the new scope be discussed at the 48th Executive Committee for a decision by the 25th IPC Session in 2016.
- e) The conclusions and recommendations of the 25th IPC Session, 2016 be submitted to the subsequent FAO COFO, Council and Conference Sessions for their approval.

¹ There is nothing within the IPC Convention that requires conclusions and recommendations of the IPC to be approved by COFO. The decision making authority is the FAO Conference.

31. The newly-elected members of the Executive Committee for 2012-2016 met informally on 2 November 2012 to introduce elected members and to discuss general business. Because of changed airline travel schedules, only five of 12 elected members were able to attend. As there was not a quorum, it was agreed to defer election of the Chairperson, Vice-Chairperson of the Committee and up to five co-opted members to the Executive Committee, to a web-based election process coordinated by the IPC Secretariat. Mr Walter Kollert, Secretary, congratulated members and welcomed the eight newly-elected members to the Executive Committee, including: Mr. Esteban Borodowski (Argentina), Ms. Barbara Thomas (Canada), Mr. Georg von Wuehlisch (Germany), Mr. V. K. Bahuguna (India), Mr. Dinesh Kumar (India), Mr. Naldo Anselmi (Italy), Mr. Martin Weih (Sweden) and Mr. Emile S. Gardiner (USA). Ms. Marijke Steenackers (Belgium), Mr. Meng-Zhu Lu (China), Ms. Catherine Bastien (France), and Mr. Sasa Orlovic (Republic of Serbia) were re-elected. Mr. Walter Kollert informed those present of the responsibilities, reporting and meetings cycles of the Executive Committee and the appointment of a Reform Task Force to prepare a roadmap for reform of the IPC. It was proposed that the 47th Executive Committee Meeting be held to coincide with the IUFRO 6th International Poplar Symposium event in Vancouver, Canada, from 21 to 23 July 2014.

PART II. REPORT OF THE 24th SESSION OF THE INTERNATIONAL POPLAR COMMISSION

II.1 ORGANIZATION

1. The 24th Session of the International Poplar Commission (IPC) was jointly hosted by the Government of India, the Indian Council for Forestry Research and Education (ICFRE), the Forest Research Institute (FRI) and FAO, and was held in Dehradun, India, from 30 October to 2 November 2012.

2. The Session was attended by 197 delegates and experts from 22 countries, including 17 member countries of the Commission: Argentina, Belgium, Canada, the Peoples' Republic of China, Germany, India, Italy, the Netherlands, New Zealand, the Republic of Korea, the Republic of Serbia, South Africa, Sweden, Tunisia, Turkey, United Kingdom and the United States of America. Observers attended from Algeria, Estonia, Nepal, the Russian Federation and Uzbekistan. The List of Participants is in *Annex III*.

II.2 SYNTHESIS OF COUNTRY PROGRESS REPORTS

3. Country Progress Reports for the period 2008 through 2011 were received from the National Poplar Commissions of 21 member countries and the Russian Federation, a non-member country (see *Annex V*). The contents of the National Reports were synthesized into two IPC Working Papers:

- 1) IPC/12 – “Synthesis of Country Progress Reports, Activities Related to Poplar and Willow Cultivation and Utilization, 2008 through 2011, prepared for the 24th Session, International Poplar Commission, 2012”. The Synthesis was made available in:

English (<http://www.fao.org/docrep/011/k3380e/k3380e00.htm>)
French (<ftp://ftp.fao.org/docrep/fao/011/k3380f/k3380f.pdf>)
Spanish (<ftp://ftp.fao.org/docrep/fao/011/k3380s/k3380s.pdf>)

- 2) IPC/13 – “Publications Listed in Country Progress Reports” prepared for the 24th Session, International Poplar Commission, 2012” (<http://www.fao.org/docrep/011/k3333e/k3333e00.htm>).

4. These Working Papers were available on the Internet prior to the 24th Session and distributed to all participants in electronic copies. Additionally, the Synthesis was presented as a Keynote Address by the Secretary to the plenary session – “Synthesis of Country Progress Reports: Highlights, 2 November 2012”.

5. Highlights and issues from the Synthesis included:

Policy and legal framework

- a) In many reporting countries, poplar and willow cultivation and uses are well established in the national economy; government support programmes in some developing countries continue to promote investments in the establishment of planted forests and forest enterprises. In some European countries the area covered by poplars and willows is decreasing due to competition with other more profitable agricultural crops.
- b) In the European Union poplar and willow plantations outside forests are classified as agricultural crops eligible for subsidies under the Common Agricultural Policy. Afforestation

permits are not required for the establishment of short-rotation plantations outside forests. This policy is meant to facilitate the creation of short-rotation plantations outside forests.

- c) Short-rotation poplar and willow plantations have generally been acknowledged as a viable land-use option to produce renewable energy. European countries are strictly implementing strategies for greenhouse gas emission objectives, including ambitious targets for renewable energy, for which biomass production with poplars and willows will play a key role.
- d) Technical guidelines for the sustainable management of poplar plantations have been developed in Italy to facilitate the application of forest certification schemes for poplar cultivation.

Identification, registration and varietal control

- a) Legislation on forest reproductive material has been amended in many countries including the establishment and maintenance of national clone registers for the registration and identification of poplar and willow clones of different origins.
- b) Programmes concerning the genetic modification of poplars and willows continue to be actively pursued, both in developed and developing countries. They report significant progress in genetic characterization and manipulation to enhance resistance against pests, diseases and other stresses, namely drought or flooding, improve technical properties as well as growth and yield, particularly with the objective of biomass production.

Production systems and cultivation

- a) The vast majority of poplars planted on forest and agricultural land are hybrids, predominantly cultivated in short rotations for the production of biomass.
- b) The use of clones or mixes of clones is usually avoided for the restoration of riverbanks and degraded sites, or the enrichment of natural environments; for this purpose plants with a greater genetic diversity from natural forests are used instead as sources of reproductive material.
- c) The gene flow from cultivated poplar plantations may have profound effects on wild populations including the risk of extinction of the wild poplar species. Cultivated poplars may become invasive thereby replacing the populations of the wild species through genetic assimilation. However, information about hybridization between cultivated tree species and their wild relatives is limited.
- d) Biomass growth turned out to be significantly dependent on soil fertility, silvicultural management and water supply.
- e) The global efforts to mitigate climate change and reduce greenhouse gases, including the strategic energy objective of the European Union, have prompted a process towards the development of a number of distinct management models (e.g. varying planting densities), each of which will be specific to a certain product (e.g. biomass), or environmental service (e.g. phytoremediation, landscape restoration).
- f) The competitiveness of biomass production in short-rotation poplar and willow plantations will depend to a large extent on the price of conventional energy. If the prices of mineral oil remain at their present high level for a longer time, woody biomass is likely to become competitive as a source of bioenergy, particularly if a rationalization of seedling production, harvesting and transport can be accomplished.
- g) Agroforestry production systems using intercropping were found to be more productive than separate cultures of crops and trees. In addition, trees in the agroforestry system contributed to carbon sequestration and the reduction of nitrogen loss through soil leaching.

Genetics, conservation and improvement

- a) Most countries reported on their efforts to preserve the genetic resources of poplars and willows and to optimize breeding and selection of fast-growing plantations. Work focused mainly on improving the attributes of planting material in terms of productivity, wood density,

higher resilience to climatic conditions and diseases, phytoremediation and biodiversity conservation.

- b) In some European countries the drive for producing renewable energy had raised the demand for good quality seedlings to an extent, which could not be met by local nurseries, so that they had to be imported from other countries.

Forest protection

- a) The most frequent pests and diseases in poplar plantations, which have caused severe economic damages in some countries, are reported to be the leaf-rust (*Melampsora* spp.), stem cankers (*Septoria musiva*), brown leaf blight (*Marssonina brunnea*), and the poplar and willow borer (*Cryptorhynchus lapathi*). The "willow sawfly" (*Nematus oligospilus*) is the major plague in willow plantations causing serious defoliation that reduces timber production by up to 60%.
- b) The risk of pest outbreaks was reported to be considerably higher in monoclonic or oligoclonic plantations as compared to more diverse populations. The spread of damaging pathogens has remarkably increased due to the increase in the use of monoclonic hybrid poplars.
- c) Various research projects are underway to better understand the life cycles and infestation patterns of damaging pathogens, and to determine the most effective treatments.
- d) In the reporting period the extreme climatic conditions greatly influenced the phytosanitary situation of poplar and willow plantations. The major poplar planting areas in many countries were subject to high water stress through an alternation of frequent floods and pronounced dry-spells resulting in high mortality rates, noticeably in young plantations.

Harvesting and utilization

- a) Pulp, paper and plywood are the major products from commercial poplar plantations, but there has been a growing interest in the use of poplar wood for higher-value products such as fibre boards, particle boards, oriented-strand boards (OSB) and furniture.
- b) The renewable energy policies pursued by many countries had opened a new dimension in the development of the *Salicaceae* species and prompted an enormous interest in the utilization of poplars and willows for the production of bioenergy in the form of woodfuel or liquid fuel (ethanol). To this end, a high number of research projects were implemented in many countries focusing on the development of technological innovations to enhance harvest mechanization, improve storage logistics and the collection and transport of biomass to conversion plants.
- c) Willow wood was found to be anatomically comparable to poplar wood. The principal difference is a higher share of tension wood in willows (15 to 50 %) as compared to poplars (5 to 10%), which usually depreciates the quality of the finished products. Nevertheless, willow wood, once air-dried is perfectly suitable for sawing, joinery, packaging, pallets, match making and veneer and plywood. It can also be used as raw material for pulp and paper, fibreboard and particleboard.

Environmental Applications

- a) Poplars and willows have been extensively used in many countries to establish shelterbelts and windbreaks to protect agricultural and horticulture fields and fruit orchards, to preserve coastal and riparian buffer zones, and to control erosion, sediment transport and desertification. Poplars and willows are uniquely qualified for the establishment, restoration, and enhancement of these protective zones as they are quick growing, enable rapid biomass accumulation of nutrients from the soil, have been shown to break down certain pesticides and denitrify nitrogen, and can quickly stabilize soil.
- b) Forest carbon is becoming an increasingly significant component of climate action. Many countries have made commitments to reduce their greenhouse gas emissions through various

initiatives, including reductions through afforestation, avoided deforestation and reforestation projects. To quantify the amount of carbon that can be attributed to forestry-related activities, a few countries have developed an approved quantification protocol, that is required to obtain carbon credits.

- c) European black poplar (*Populus nigra* L.) and white poplar (*Populus alba* L.) were once dominant trees in riparian zones of many European countries. They became rare and even endangered, especially in the case of European black poplar. Their habitats were used for the establishment of plantations of more productive poplars, as well as for other purposes like agriculture, urbanization, and flood control. The protection of habitats and the reforestation of these species are considered of crucial importance in the restoration of riparian zones.
- d) Agricultural crops and poplar plantations have been compared and evaluated as carbon sinks according to the guidelines of the Intergovernmental Panel on Climate Change (IPCC). It was found among others, that the above-ground biomass and root biomass of poplar plantations and the soil organic carbon in agriculture make the highest contribution as carbon sinks. It appears that the planting of poplars, as an alternative to the cultivation of agricultural crops, has a clear advantage in storing excess atmospheric CO₂.
- e) The use of poplar and willow trees in environmental phytoremediation applications continues to be studied and explored in a number of research projects. However it still faces some obstacles, and although the technology has been successfully tested in many countries, full-scale applications are still limited.

National Poplar Commissions and international cooperation

- a) Most of the reporting countries indicated that their national poplar commissions continued to function and to hold or support the organization of meetings, plan and implement technical research and workshops, and field tours. Some of them maintain an active website.
- b) Many member countries reported that they had increased strategic cooperation with other countries, international organizations and professional networks. Cooperation focused in particular on the transfer of knowledge and technology, on the planning and implementation of joint research programmes and on the exchange of germplasm for breeding programmes.

II.3 24th SESSION THEME: IMPROVING LIVES WITH POPLARS AND WILLOWS

6. The theme of the 24th Session was “Improving Lives with Poplars and Willows”. There were 203 papers submitted for the 24th Session, of which 40 percent were contributed by India. Countries with economies in transition and developing countries accounted for 78% of the papers and industrialized countries of Europe and North America, 22%. Although many papers were interdisciplinary, the distribution by principal Working Party was: Poplar and Willow Genetics, Conservation and Improvement (59); Poplar and Willow Production Systems (53); Environmental Applications of Poplars and Willows (42); Poplar and Willow Insects and Other Animal Pests (10); Harvesting and Utilization of Poplar and Willow Wood (28); and Poplar and Willow Diseases (7). Four papers addressed Nomenclature and Registration.

7. The paper summaries submitted to the 24th Session of the IPC were published in Working Paper IPC/11 - “Improving Lives with Poplars and Willows: Abstracts of Papers submitted to the 24th Session of the International Poplar Commission, 2012” available on the IPC website prior to the 24th Session (<ftp://ftp.fao.org/docrep/fao/011/k3334e/k3334e.pdf>) and distributed in electronic copy to all participants on registration.

8. The sessions at a glance can be viewed in *Annex II (a)*. The detailed programme can be referenced in *Annex II (b)* and the authors and titles of papers presented are in *Annex IV*.

II.4 OPENING OF THE SESSION

9. Mr. V.K. Bahuguna, Director-General of the Indian Council of Forestry Research and Education and Chancellor, FRI Deemed University in Dehradun, India and Mr. P. P. Bhojvaid, Director General, Forest Research Institute, welcomed participants and opened the 24th Session as the host Government and as a beneficiary of the services provided by the International Poplar Commission. The hosting of the Session in Dehradun was seen as recognition of the Poplar and Willow research and development in Northern India and the opportunity to transfer knowledge between Indian and international participants. The importance of Poplar and Willow in improving the lives of smallholders through agroforestry systems in Northern India was stressed, but their provision of a wide range of goods and ecosystem services were also acknowledged.

10. Mr. Stefano Bisoffi, Chairperson, IPC and Mr. Eduardo Mansur, Director, FAO Forest Assessment, Management and Conservation Division, highlighted that the goal of the IPC was not the development of Poplars and Willows *per se*, but the development of rural communities by adopting integrated, multi-disciplinary and inter-sectoral approaches to Poplar and Willow culture to support sustainable livelihoods and land-use. India stood as an excellent example, particularly in their integration of Poplars and Willows in agroforestry and smallholder systems. Reform of the IPC to expand scope, relevance and visibility to member countries and funding institutions was a critically important agenda item of the 24th Session. It was noted that the IPC and modern India were both celebrating their 65th Anniversaries in 2012. The Government of India, the Indian Council of Forestry Research and Education and the Forest Research Institute were acknowledged as ideal co-hosts of the 24th Session of the ICP.

11. Hon. Shri Vijay Bahuguna, Chief Minister, Uttarakhand welcomed participants and invited them to enjoy their visit to Dehradun and Uttarakhand and to share knowledge and technology in the research, growing, using and trading of Poplars and Willows. The key role of the Indian Council of Forestry Research and Education and the Forest Research Institute in research and transfer of knowledge and technology to farmers and smallholders in Northern India was stressed.

12. The Provisional Agenda was adopted without amendment (see *Annex I (b)*).

Keynote Addresses at the Opening Plenary Session (30 October)

13. The following keynote addresses were delivered in the opening plenary in support of the theme:

- a) Sandeep Tripathi (India) – *Large-scale commercial plantation of Populus deltoides Bartr. in non-traditional zone of poplar under agroforestry in Vaishali district, Bihar*
- b) Martin Weih (Sweden) – *Poplar and Willow biomass from marginal land production: Ecological and environmental implications*
- c) Jim Richardson (Canada) – *A new poplar and willow publication for a global audience*
- d) Ian McIvor (New Zealand) – *Poplars and willows in hill country – stabilizing soils and storing carbon*
- e) Li-Ming Jia (China) – *Effects of soil water potential on the growth and physiological characteristics of Populus tomentosa pulpwood plantation under subsurface drip irrigation*
- f) Joris Van Acker (Belgium) – *Potential of thermal modified poplar wood for construction products*
- g) Barbara R. Thomas (Canada) – *Poplar plantations – A Canadian opportunity*
- h) Anatoly Tsarev (Federation of Russia) – *Fodder value of Eupopulus poplar leaves*
- i) Silvia Cortizo (Argentina) – *Certification of poplar nurseries in Argentina*
- j) Evgeniy K. Botman (Uzbekistan) – *The poplar and willow sector in Uzbekistan*

Keynote Addresses at the Closing Plenary Session (2 November)

14. The following keynote addresses were delivered in the closing plenary:

- a) Drusilla Riddell-Black (UK) – *Opportunities to enhance wood fuel yields in semi-arid regions of India using wastewater*
- b) Emile S. Gardiner (USA) – *Advancing plantation culture of black willow (Salix nigra Marsh.) in the Southern United States*
- c) Georg von Wuehlisch (Germany) – *Status of short-rotation coppices (SRC) with poplar and willow in Germany*
- d) R.C. Dhiman (India) – *Salient features of poplar culture in India*
- e) Walter Kollert (IPC Secretariat, FAO, Italy) – *Synthesis of Country Progress Reports*

Concurrent Sessions (31 October and 1 November)

15. The organization and scheduling of concurrent sessions were arranged in Themes but participants were encouraged to participate across themes where feasible. The concurrent session themes included:

- a) Theme 1: Poplar and Willow Diseases (Directorate of Forest Education)
- b) Theme 2: Poplar and Willow Insects and Other Animal Pests (Directorate of Forest Education)
- c) Theme 3: Harvesting and Utilization of Poplar and Willow Wood (Board Room)
- d) Theme 4: Poplar and Willow Genetics, Conservation and Improvement (Forestry Library)
- e) Theme 5: Poplar and Willow Production Systems (Indira Gandhi National Forest Academy)
- f) Theme 6: Environmental Applications of Poplars and Willows (Plenary Hall)
- g) Theme 7: Nomenclature, Registration and Taxonomy (ICFRE Building)

II.5 BUSINESS REPORTS

Working Party on Poplar and Willow Genetics, Conservation and Improvement

16. Dr NB Singh (India) was elected as the Chairperson for the 2012-2016 period, Dr Sasa Orlovic (Serbia) as Vice-Chairperson and Ms Teresa Cerrillo (Argentina) as Technical Secretary.

17. The working party reviewed progress on the plan of action decided on at the 2008 IPC meeting, and acknowledged with gratitude the responses of member countries to the Working Party requests for data to contribute to our databases of clone collections and current contact persons for country breeding and improvement programmes. An updated database of genetic stocks based on returns to the WP was sent to IPC for listing on the IPC website. The working party further proposed to IPC that website information on country contacts be updated and that a useful addition to country reports to IPC each four year period would be a current list of researchers and their areas of involvement, responsibility and interest.

18. The programme of action for the period 2012-16 includes to (a) host a Working Party meeting in association with another working party (possibly Pests and Diseases) close to the IPS meeting in Vancouver in 2014 to share progress and successes in incorporating knowledge and techniques gained from molecular genetics into classical breeding programmes (e.g. DNA fingerprinting to identify specific poplar or willow clones, DNA fingerprinting of *Melampsora* rust disease races). Leadership in this project will be provided by Dr NB Singh and (b) to advance the project 'Apply standard designs

for poplar and willow breeding programmes'. Leadership in this project will be provided by Ms. Teresa Cerrillo.

Working Party on Poplar and Willow Insects and Other Animal Pests

19. There was no report available as no working party members were present at the Session.

Working Party on Poplar and Willow Diseases

20. Ms. Marijke Steenackers (Belgium) was elected as the Chairperson for the 2012-2016 period, Mr. Mauritz Ramstedt (Sweden) as the Vice-Chairperson and Ms. Edilene Machado (Brazil) as the Technical Secretary.

21. The 2008-2011 programme of action proved overly ambitious due to the limited active participation of members, so reporting of the global diseases survey results was not completed, insufficient networking and use of the Working Party web portal was reported and there were insufficient linkages with other Working Parties.

22. The programme of action for 2012-2016 included:

- Report on the Poplar and Willow selection and breeding programmes for disease resistance around the world to include: (i) inventory of selection and breeding programmes, (ii) description of screening methods for resistance; and (iii) preparation of a resistance screening method for most important Poplar diseases;
- Update the Working Party membership list of specialists in Poplar and Willow diseases and add to the Working Party web portal on the IPC website;
- Develop an action plan for improving selection and breeding for resistance to diseases in developing countries to address limited clones in monocultures;
- Develop an action plan for improving selection and breeding for resistance to diseases in developing countries, using India as a model for similar climatic solutions in other countries; and
- Link more closely with other Working Parties for more inter-disciplinary approaches to disease resistance, particularly with Genetics, Conservation and Improvement; Production Systems; and Environmental Applications.

Working Party on Poplar and Willow Production Systems

23. No working party members were present at the Session and there was no election of working party officers. Mr. Yashwant Singh Rawat made an informal presentation of recommendations which included:

- Strengthen diversification of Poplar and Willow use for biofuel and bioenergy production needs of people;
- Facilitate exchange of Poplar and Willow germplasm between member countries;
- Support development of appropriate technology and cost effective Poplar and Willow pruning and management tools;
- Support knowledge sharing on certification of Poplar and Willow germplasm;
- Facilitate sharing of transportation options and costs and marketing intelligence information between growers to improve their financial returns; and
- Promote more Willows in plantation development programmes for production and environmental applications.

Working Party on Harvesting and Utilization of Poplar and Willow Wood

24. Mr. Joris Van Acker (Belgium) was elected as the Chairperson for the 2012-2016 period, Mr. Yukun Hua (China), Mr. Ahmed Koubaa (Canada) and Mr. Raul Suarez (Argentina) as Vice-Chairpersons and Mr. Lieven De Boever (Belgium) as Technical Secretary.

25. The programme of action for 2012-2016 included:

- Network with harvesting and utilization specialists around the globe to share resources;
- Create a state-of-the-art database of publications on harvesting, utilization and product properties and make available on the Working Party web portal;
- The role of Working Party Chairperson, Vice-Chairpersons and the Technical Secretaries will be redefined to strengthen regional networking for China, Asia, Latin America, North America, Africa and Europe;
- Support young scientists for short-term scientific missions and their participation in conferences;
- Compile country-based information from multiple sources;
- Organize workshops or an international conference meeting on harvesting and utilization similar to the Nanjing Conference in 2008;
- Initiate new research and development in harvesting and utilization;
- Create sub-groups (Wood products and bioenergy); and
- Strengthen networks and outreach to include bamboo.

Working Party on Environmental Applications of Poplars and Willows

26. Ms. Sharon Doty (USA) was elected as the Chairperson for the 2012-2016 period, and Mr. Andrej Pilipovic (Serbia) and Ms. Jaconette Mirck (Canada) as the Vice-Chairpersons, and Mr. Ioannis Dimitriou (Sweden) as the Technical Secretary.

27. The programme of action for 2012-2016 included:

- Review of the Working Party web content (expand case studies, update library and links; and review and expand technical contacts);
- Publish information notes in progress on slope stabilization/erosion control and waste water management and prepare new ones on riparian buffers, shelterbelts and agroforestry and share through the Working Party web portal and WOCAN; and
- Host international meetings in conjunction with the Genetics, Conservation and Improvement Working Party in New Zealand in March 2014; in conjunction with the IUFRO 6th International Poplar Symposium (IPS) in Vancouver, British Columbia, Canada in July 2014; and in Eastern Europe (location and date to be confirmed) in 2015.

Report of the Sub-Committee on Nomenclature and Registration

28. Ms. Julia Kuzovkina (USA) was elected as the Chairperson for the 2012-2016 period, Mr. Stefano Bisoffi (Italy) as the Vice-Chairperson and Mr. Lorenzo Vietto (Italy) as the Technical Secretary.

29. The programme of action for 2012-2016 included:

- Add 16 Poplar cultivars to the register and add to the IPC website;
- Send updated register and “checklist” of new Poplar and Willow cultivars to the International Society of Horticultural Science (ISHS);
- Gather passport data of new Poplar and Willow cultivars;

- Strengthen the network of Poplar and Willow breeders worldwide;
- Raise awareness of the Poplar register through National Poplar Commissions and tree breeders;
- Resubmit application to the International Society of Horticultural Science (ISHS) for the IPC to be appointed as the International Cultivar Registration Authority (ICRA) for Willows;
- Translate the Dichotomous Key for Nursery Identification of the Main Poplar Clones Cultivated in Europe into English, publish as an IPC Working Paper and upload to the IPC website;
- Publish a newsletter on the IPC website to update on recent taxonomic changes in the Salicaceae family as well as other news; and
- Monitor and assist the Kew Royal Botanic Garden “World Checklist of Salicaceae *sensu stricto*” that will provide an updated world classification and phylogeny of *Populus* and *Salix*.

30. The Sub-Committee alerted the participants to:

- The new International Journal of Salicology and Plant Biology to publish different aspects of the Salicaceae around the world;
- The Kew Royal Botanic Gardens “World Checklist of Salicaceae *sensu stricto*” that will update the world classification and phylogeny of *Salix* and *Populus*;
- Status change of *Salix euxina* I.V. Belyaeva (Euxine Willow), formerly known as *Salix fragilis* Linnaeus (Crack Willow); and
- New name of *Salix gmelinii* Pallas (Gmelin’s Willow), formerly *Salix dasyclado* Wimmer. *Salix dasyclado* and *Salix burjatica* will be considered synonyms.

II.6 CONCLUSIONS AND RECOMMENDATIONS OF THE COMMISSION

31. Mr. Stefano Bisoffi, Chairperson, IPC, presented the conclusions and recommendations from the IPC 24th Session to the FAO Committee on Forestry (COFO).

Conclusions

32. The Indian Council for Forestry Research and Education and the Forest Research Institute were commended for successfully hosting the IPC 24th Session. The Commission, through study tours, plenary and concurrent sessions, was made aware of the environmental, social and economic significance of Poplars, in improving lives of rural communities in India.

33. For the past 65 years, the International Poplar Commission, through National Poplar Commissions, Working Parties and the Sub-Committee on Nomenclature and Registration, has provided a bridge linking research of poplar and willow cultivation, conservation and utilization with development policies, planning and implementation practices. Through effective networks, long established partnerships, comprehensive databases and outreach programmes, the IPC has successfully transferred poplar and willow germplasm, knowledge and technology between scientists, growers, processors and users around the globe.

34. However, the present geographic and technical focus of the IPC has made it difficult to attract multi-lateral and bilateral donor and international programme interest and funding as the links with sustainable livelihoods and land-use are not always apparent. The Secretariat has experienced a lack of resources in recent years; the technical fields of the Working Parties need to be more integrated into multi-disciplinary and inter-sectoral environmental and development issues facing member countries; and some National Poplar Commissions are facing challenges in meeting their obligations. Despite strong interest in Poplars and Willows around the globe, membership has been stagnant due to

institutional complexities in joining the IPC. Furthermore, developing countries are the minority as members.

35. In view of these challenges, and taking note of the increasing number of species being used in agroforestry systems in various parts of the world and the importance of these species in the livelihoods of the people and climate change mitigation, FAO proposed to the 2012 Committee on Forestry (COFO) to consider the opportunity of expanding the IPC thematic scope while maintaining the existing mandate on Poplars and Willows. COFO took note of the proposal to expand the thematic coverage of the IPC and requested FAO, in paragraph 70 of its Report, to provide further information on the proposal while sharing it with the 24th IPC Session.

36. The 46th Executive Committee Meeting in Dehradun, India, agreed and after in-depth discussion, established a Task Force to explore the options to reform the IPC in order to better respond to country needs for improved livelihoods (food security and poverty alleviation), meeting the emerging challenges of climate change mitigation and sustainable land-use in a broader geographic context. By so doing, the IPC should be able to expand membership, and attract more donor funding.

37. The Task Force will report, with recommendations, leading to decisions at the 47th Executive Committee Meeting in Vancouver, B.C. Canada, in July 2014. In the interim, the Task Force will cooperate with the Executive Committee to provide inputs on measures to: (i) strengthen the link between the Secretariat, Working Groups and National Poplar Commissions; (ii) increase the efficiency of the Working Groups; (iii) improve communications and awareness in order to disseminate available knowledge inside and beyond the IPC and member countries; and (iv) explore the interests and needs of all National Poplar Commissions or equivalent bodies.

Recommendations

38. The International Poplar Commission, through its Secretariat, Working Parties and National Poplar Commissions, recommended to:

- a) Recognize and support the reform process initiated by the International Poplar Commission in response to paragraph 70 of the Report of COFO, 2012.
- b) Increase recognition of the role and the potential of the National Poplar Commissions by Governments of Member Countries and support their activities and interaction with the International Poplar Commission.
- c) Review institutional, administrative and reporting procedures with the objective to streamline application for new membership, clarify reporting and rationalizing procedures for the Commission and Executive Committee Meetings and to consider a more flexible use of the official languages.
- d) Continue support to and endorse the FAO-Italy financed project “Forest restoration in Algeria, Egypt, Morocco and Tunisia using treated waste water to sustain smallholders’ and farmers’ livelihoods (GCP/RAB/013/ITA)” that achieved significant results in the first year of activities in its partner countries. The Commission recognized and appreciated the focus on livelihoods and socio-economic and environmental benefits.
- e) Increase communication from IPC to key stakeholders and the efforts to raise public awareness of the activities, outputs and outcomes of such projects and initiatives.

II.7 STUDY TOURS

39. A pre-Session study tour was hosted by the Indian Forest Research Institute, Haryana Forest Service and Wimco Seedlings from 27 to 28 October in Haryana to visit poplar plantations and poplar-based industries in Yamunanagar. The study tour included technical meetings, briefings and debriefings with forestry authorities, industry and local farmers, as well as visits to privately-owned factories producing plywood and other wood products from poplars and eucalyptus, a poplar clonal

nursery producing *Populus deltoides* for farmers, and to view different agro-forestry models. Many of the plantations in the region are part of a programme of the Western India Match Company (Wimco) which provides poplar planting stock to local farmers who establish and manage the plantations and are guaranteed a market for the timber by Wimco. The farmers use efficient agro-forestry systems to grow poplars along with different agricultural (wheat, sugar-cane) and horticultural (mango, ginger, turmeric) crops, to the mutual benefit of trees and crops.

40. A post-Session study tour was hosted by the Indian Forest Research Institute, Uttarakhand Forest Service and Wimco Seedlings from 3 to 6 November in Uttarakhand that visited poplar nurseries, plantations and research trials in the area of Lalkuan, Rudrapur and Nainital. The study tour included technical meetings, briefings and debriefings with forestry authorities and industry, as well as field visits to view poplar plantations under intensive management in privately-owned, farmer-operated agro-forestry systems, and also under low-intensity management in state-owned block plantings. Wimco demonstrated its successful production of poplar planting stock for farmers who planted and managed the poplars in conjunction with agricultural and horticultural crops which benefited trees, crops and the livelihoods of rural families. The visit highlighted all aspects of the company's research and development programme to develop, test and promote new clones of *Populus deltoides* (as well as crosses with *P. ciliata* and *P. nigra*). While most of the poplar plantations were on the plains, interesting trials of crosses of native and exotic poplars (*P. ciliata*, *P. yunnanensis*, *P. deltoides*, *P. nigra*) were also visited in the more mountainous conditions of Nainital district.

II.8 MAJOR INITIATIVES

Reform of the International Poplar Commission

41. Mr. Stefano Bisoffi, IPC Chairperson and Mr. Walter Kollert, IPC Secretary, highlighted the need for reforms to expand membership and scope of the IPC and to increase relevance and visibility to member countries and donors. The options for reform, the establishment of a Reform Task Force and the intention to prepare a strategy for the reform process were advised. The reform was supported through the conclusions and recommendations of the 24th Session.

Poplars and Willows: Trees for Society and the Environment

42. Mr. Jim Richardson, supported by Mr. Judson Isebrands, co-editors, reported that the full manuscript of the peer reviewed book had been submitted to CABI and FAO in June 2012. Editing, formatting and finalization of illustrations were in process. The more than 400 pages in 13 Chapters were prepared by 70 contributing authors from 15 countries globally. Features of the book include 2,500 references, fully illustrated in black and white and three sections of colour plates. The book flier was provided and a short review of each Chapter given. These included: (i) Introduction; (ii) Poplars and Willows of the World with emphasis on silviculturally important species; (iii) Ecology and physiology of Poplars and Willows; (iv) The domestication and conservation of *Populus* and *Salix* genetic resources; (v) Operational Poplar and Willow culture; (vi) Environmental applications of Poplars and Willows; (vii) Abiotic stresses; (viii) Diseases of Poplars and Willows; (ix) Insects and other pests of Poplars and Willows; (x) Properties, processing and utilization; (xi) Markets, trends and outlook; (xii) Poplars and Willows for rural livelihoods and sustainable development; and (xiii) Epilogue. Fliers on the book were made available to all participants. The book will be released in early-mid 2013. Orders can be made on <http://bookshop.cabi.org/default.aspx?site=191&page=2633&pid=2525>.

Election of the Executive Committee 2012-2016

43. From 16 candidates representing 11 countries, 12 were elected to the Executive Committee for the period 2012-2016. An election was held by secret ballot involving 10 country delegates authorized to represent their respective governments (Argentina, Belgium, Canada, China, Germany, India, Italy, the Republic of Serbia, Sweden and the United States of America). The elections were monitored by a ballot committee including Messrs. Alberto Calderón (Argentina), Joris Van Acker (Belgium), and Jim Carle (FAO Consultant).

44. The 12 elected members of the Executive Committee for the period 2012-2016 are: Esteban Borodowski (Argentina), Marijke Steenackers (Belgium), Barbara R. Thomas (Canada), Meng-Zhu Lu (China), Catherine Bastien (France), Georg von Wuehlisch (Germany), V.K. Bahuguna (India), Dinesh Kumar (India), Naldo Anselmi (Italy), Sasa Orlovic (Republic of Serbia), Martin Weih (Sweden) and Emile S. Gardiner (United States of America).

45. At an informal meeting of the new Executive Committee subsequent to the 24th Session, due to unforeseen changes in travel arrangements, there was no quorum, so it was agreed to defer election of the Chairperson, Vice-Chairperson of the Committee and up to five Co-opted members to the Executive Committee, to a web-based election process coordinated by the IPC Secretariat.

46. In the web-based election process arranged by the IPC Secretariat in December 2012 and January 2013, Mr. Martin Weih (Sweden) was elected as Chairperson and Ms Marijke Steenackers (Belgium) as Vice-Chairperson. Mr. Stefano Bisoffi (Italy), Mr. Jim Richardson (Canada), Mr. Judson Isebrands (USA), and Mr. Jim Carle (New Zealand) were voted as co-opted members to the Executive Committee.

Date and place of next Session

47. There were no formal proposals received to host the 25th Session of the IPC in 2016. Proposals were invited for submission prior to the 47th Executive Committee meeting proposed for Vancouver, B.C. Canada, in association with the IUFRO 6th International Poplar Symposium, 21-23 July 2014.

II.9 OTHER MATTERS

IUFRO 6th International Poplar Symposium

48. Participants were invited to the IUFRO Sixth International Poplar Symposium (IPS-VI), in Vancouver, British Columbia, Canada from 21-23 July 2014, with post conference study tours in British Columbia being planned. The theme is based upon the question: “Domestication of *Populus* and *Salix*: How far have we come, and how far do we still have to go?”.

IPC Awards Ceremony

49. Mr. Stefano Bisoffi, IPC Chairperson and Mr. Walter Kollert, IPC Secretary, in recognition of their contributions to Poplar and Willow culture, in the commemorative 65th Anniversary Year of the IPC, presented commemorative plaques to: Mr. Naldo Anselmi (Italy), Mr. Jim Carle (New Zealand), Ms. Teresa Cerrillo (Argentina), Mr. Ramesh Chand Dhiman (India), Mr. Hua Yukun (China), Mr. Judson Isebrands (USA), Mr. Kurt Perttu (Sweden), Mr. Jim Richardson (Canada), Ms. Drusilla Riddell-Black (UK), Ms. Marijke Steenackers (Belgium), Mr. Ferit Toplu (Turkey), Mr. Sven de Vries (the Netherlands), Mr. Yin Weilun (China) and Ms. Zhang Qiwen (China).

Poplars in India

50. Hon. Shri Vijay Bahuguna, Chief Minister, Uttarakhand, released the special edition of the ENVIS Forestry Bulletin on “Poplars in India” to give participants and undersanding the work being undertaken in India.

Evaluation of the Session

51. The results of the evaluation of the session by the country delegates are documented in *Annex VI*.

II.10 CLOSING OF THE SESSION

52. Mr. Stefano Bisoffi, retiring IPC Chairperson after 12 years, acknowledged the fraternity of the Poplar and Willow family and the excellent hosting of 24th Session by the Government of India, ICFRE and FRI. The transfer of knowledge and technology, capacity building and the ingenuity of farmers were acknowledged as at least as important as the advancement of science. It was stressed that IPC “business as usual” was not an option. Reform of the IPC could not be postponed as the world is very different from 65 years ago. It was time to consider a broader geographic area, a wider socio-economic and technical context, and stronger attention to the worldwide concerns on climate change adaptation and mitigation, biodiversity and sustainable livelihoods and land-use in order to maintain relevance.

53. Mr. Walter Kollert, IPC Secretary, on behalf of FAO congratulated the Indian Council for Forestry Research and Education and the Forest Research Institute and their dedicated teams (including volunteers) for the success of the 24th Session. Commemorative plaques were presented to Mr. V.K. Bahuguna and to Mr. P.P. Bhojvaid. The participants and the IPC Secretariat staff were acknowledged for their key inputs to the Session.

54. Mr. P.P. Bhojvaid, Director General, FRI, Dehradun acknowledged that the Session had provided the Indian delegates with the opportunity to learn about the multiple roles of Poplars and Willows in achieving sustainable forest management, livelihoods and land-uses in other countries. The work of the IPC Secretariat, Organizing and Scientific Committees, organizers of study tours, cultural events and catering as well as sponsors, interpreters and media was acknowledged.

55. Mr. V.K. Bahuguna, Director General, ICFRE, prior to officially closing the session, acknowledged the contribution of the hosts and participants in plenary and concurrent sessions as contributing to the success of the Session. The past and newly elected Executive Committee members were congratulated for initiating and guiding the IPC reform process. The IPC reforms may wish to consider the Indian context where the National Poplar Commission had expanded its technical scope to become the “National Commission on Poplars, Willows and other Short-Rotation Crops” and intended to expand its geographic scope into Bihar, West Bengal and North Eastern States.

ANNEX I (a) - Agenda of the 46th Session of the Executive Committee

**INTERNATIONAL POPLAR COMMISSION
FORTY-SIXTH SESSION OF THE EXECUTIVE COMMITTEE
Dehradun, India, 29 October 2012**

AGENDA

1. Opening of the Session
2. Adoption of the Agenda
3. Activities of the Working Parties and of the Sub-Committee on Nomenclature and Registration of Poplars since the Forty-fifth Session of the Executive Committee in Orvieto, Italy, September 2010
4. Summary report on poplar related events since the Forty-fifth Session of the Executive Committee
5. Status of the Book: Poplars and Willows - Trees for Society and the Environment
6. Development of the International Poplar Commission, its Working Parties, and Communications
7. Arrangements for the 24th Session of the IPC
8. Proposals for the composition of the Executive Committee for the period 2012-2015
9. Proposals for the date and place of the next session of the Executive Committee
10. Other matters

ANNEX I (b) - Agenda of the 24th Session of the IPC

**INTERNATIONAL POPLAR COMMISSION
TWENTY-FOURTH SESSION AND RELATED SESSIONS
Dehradun, India, 30 October-2 November 2012**

AGENDA

1. Opening of the Session
2. Adoption of the Agenda
3. Election of Officers
4. Improving Lives with Poplars and Willows
5. Synthesis of Country Progress Reports, 2008-2011
6. Sub-committee on Nomenclature and Registration
7. Poplar and Willow Genetics, Conservation and Improvement
8. Poplar and Willow Diseases
9. Poplar and Willow Insects and Other Animal Pests
10. Poplar and Willow Production Systems
11. Environmental Applications of Poplars and Willows
12. Harvesting and Utilization of Poplar and Willow Wood
13. Election of Members of the Executive Committee for the four-year period (2012-2015)
14. Date and place of next Session
15. Other matters

ANNEX II (a) - Programme Summary

Time	Monday, 29 October IPC-Executive Committ. Meeting 9:00-18:00 hrs		Tuesday, 30 October Official Opening, Plenary Sessions 9.00-17.30 hrs	Wednesday, 31 October Concurrent Sessions 8.30 to 17.40 hrs						
7:30			Registration and distribution of material for IPC-Session 7:30 to 08:30 hrs, Hall-1 (Convocation Hall) Lobby	Directorate of Forest Education Hall No 4	Board Room, FRI Main Building Hall No 2	Library Hall No 3	Indira Gandhi National Forest Academy Hall No 5	Convocation Hall Hall No 1		
7:45										
8:00										
8:15										
8:30	Registr. for Exec.Comm.	Registr. for general delegates Hall-1 (Convocation Hall) Lobby	Inaugural Session (Welcome remarks, Opening by Chair and Adoption of the agenda) Hall-1 (Convocation Hall)	8.30-10.30 1A	8:30-10:30 2A	8:30-10:30 3A	8:30-10:30 4A	8:30-10:30 5A		
8:45	IPC-Exec. Comm. Meeting			Poplar and willow diseases	Harvesting and utilization of poplar and willow wood	Poplar and willow genetics, conservation and improvement	Poplar and willow production systems	Environmental applications of poplars and willows		
9:00										
9:15										
9:30										
9:45										
10:00	Board Room Hall 2			9:00 – 18:00		(Theme 1)	(Theme 3)	(Theme 4)	(Theme 5)	(Theme 6)
10:15										
10:30	Morning break									
10:45	10:30 to 11:00									
11:00	IPC-Executive Committee Meeting Hall-2 (Board Room)		Group Photograph		11:00-12:30	11:00-12:30 2B	11:00-12:30 3B	11:00-12:30 4B	11:00-12:30 5B	
11:15			Plenary session I		Business Meeting IPC Executive Committee	Harvesting and utilization of poplar and willow wood	Poplar and willow genetics, conservation and improvement	Poplar and willow production systems	Environmental applications of poplars and willows	
			Keynote 1 Sandeep Tripathi (India)							
			Keynote 2 Martin Weih (Sweden)							
			Keynote 3 Jim Richardson (Canada)							
12:30			Lunch break 12:30 to 14:00 hrs							
14:00	IPC-Executive Committee Meeting Hall-2 (Board Room)		Plenary Session II		14.00-15:30 1C	14:00-15:30 2C	14:00-15:30 3C	14:00-15:30 4C	14:00-15:30 5C	
14:15			Keynote 4 I.R. McIvor (New Zealand)		Poplar and willow insect pests	Harvesting and utilization of poplar and willow wood	Poplar and willow genetics, conservation and improvement	Poplar and willow production systems	Environmental applications of poplars and willows	
14:30			Keynote 5 Li Ming Jia (China)							
14:45			Keynote 6 Joris van Acker (Belgium)							
15:00			Keynote 7 Barbara Thomas (Canada)							
15:15										
15:30	Afternoon break									
15:45	15:30-16:00 hrs									

16:00	IPC-Executive Committee Meeting Hall-2 (Board Room)	Plenary Session III	16:00-17:00 1D	16:00-17:30 2D	16:00-17:30 3D	16:00-17:30 4D	16:00-17:30 5D
16:15		Keynote 8 Anatoly Tsarev (Russia)	Nomenclature and Registration, Taxonomy (Theme 7)	Harvesting and utilization of poplar and willow wood (Theme 3)	Poplar and willow genetics, conservation and improvement (Theme 4)	Poplar and willow production systems (Theme 5)	Environmental applications of poplars and willows (Theme 6)
16:30		Keynote 9					
16:45		Silvia Cortizo (Argentina)					
17:00		Keynote 10					
17:15		Evgenity K. Botman (Uzbekistan)					
17:30							
17:45		Army Band Performance (18.00 - 18.45)	Performance by cultural troupe of Punjab (18.00-19.00) (Hari Singh Auditorium)				
18:00		Cocktail Reception hosted by FAO, (Venue -Officers Club) 19:00-20:30					
18:15							
18:30							
18:45							

Time	Thursday 1 November Concurrent Sessions, Poster Session, Business meetings of working groups 8.30 to 18.00 hrs					Friday, 2 November Plenary Sessions, Closing
7:30	Directorate of Forest Education, Hall No 4	Board Room, FRI Main Building, Hall No 2	Library Hall No 3	Indira Gandhi National Forest Academy, Hall No 5	Convocation Hall Hall No 1	Hall-2, 7:30-8:30 Election of new executive committee
7:45						
8:00						
8:15						
8:30	8:30-10:30 1E Poplar and willow diseases and insect pests (Themes 1 and 2)	8.30-10.30 2E Harvesting and utilization of poplar and willow wood (Theme 3)	8:30-10:30 3E Poplar and willow genetics, conservation and improvement (Theme 4)	8:30-10:30 4E Poplar and willow production systems (Theme 5)	8:30-10:30 5E Environmental applications of poplars and willows (Theme 6)	Plenary Session IV, Hall-1 8:30 to 10:30
8:45						Keynote 11 Drusilla Riddell Black (UK)
9:00						Keynote 12 Emile Gardiner (USA)
9:15						Keynote 13 Georg von Wuehlisch (Germany)
9:30						Keynote 14 R.C. Dhiman (India)
9:45						
10:00						
10:15						
10:30	Morning break 10:30 to 11:00 hrs					Plenary Session V, Hall-1 11:00-12:30 Synthesis of National Reports Walter Kollert (IPC) Working party reports 1 to 6 (10 min each)
10:45						
11:00						
11:15						
11:30						
11:45						
12:00						
12:15						

12:30	Lunch break 12:30 to 14:00 hrs					
14:00	Concurrent Sessions 14.00-15.30 hrs					Closing Ceremony Election results Recommendations to COFO Medal awards Hall-1 14:00 to 15:30 END OF PROGRAM
14:15	Hall No.4	Hall No 2	Hall No 3	Hall No 5	Hall No 1	
14:30	1F Poplar and willow diseases and insect pests (Themes 1 and 2)	2F Harvesting and utilization of poplar and willow wood (Theme 3)	3F Poplar and willow genetics, conservation and improvement (Theme 4)	4F Poplar and willow production systems (Theme 5)	5F Environmental applications of poplars and willows (Theme 6)	
14:45						
15:00						
15:15						
15:30	Afternoon break 15:30-16:00 hrs					
15:45						
16:15	Technical meetings of Working Groups 16.00 to 17.30					Informal Meeting of new Executive Committee Board-Room 16.00 to 17.30
16:30						
16:45						
17:00	Hall No.4	Hall No. 2	Hall No. 3	Hall No.5	Hall No. 1	
17:15	Poplar and willow diseases and insect pests	Harvesting and utilization of poplar and willow wood	Poplar and willow genetics, conservation and improvement	Poplar and willow production systems	Environmental applications of poplars and willows	
17:30	(Themes 1 and 2)	(Theme 3)	(Theme 4)	(Theme 5)	(Theme 6)	

Closing Ceremony

Election results
Recommendations to COFO
Medal awards

Hall-1
 14:00 to 15:30

END OF PROGRAM

Informal Meeting of new Executive Committee

Board-Room
 16.00 to 17.30

*Hall No.1, CONVOCATION HALL,

Hall No.2, BOARD ROOM,

Hall No 3, NFLIC,

Hall No 4, DFE,

Hall No 5, IGFNA,

Hall No 6 , EXTN DIV. HALL

ANNEX II (b) - Detailed Programme**Date: 30th October 2012****PLENARY SESSIONS
VENUE: HALL NUMBER – 1
CONVOCATION HALL****Venue In-charge: Mr. N.S.K Harsh
Mr. H. V. Vashisht
Mr. Anup Chandra****PLENARY SESSION: I**

S. No.	TIMING	TITLE	AUTHOR
	11:15 AM to 12:30 PM	Large scale commercial plantation of <i>Populus deltoides</i> bartr. in non-traditional zone of poplar under agroforestry in Vaishali district, Bihar	Sandeep Tripathi, India
		Poplar and willow biomass from marginal land production ecological and environmental implications	Martin Weih, Sweden
		A new poplar and willow publication for a global audience	Jim Richardson, Canada / USA
12:30 PM to 02:00 PM Lunch Break			

PLENARY SESSION: II

	02:00 PM to 03:30 PM	Poplars and willows in hill country – stabilising soils and storing carbon	Ian McIvor, New Zealand
		Effects of soil water potential on the growth and physiological characteristics of <i>Populus tomentosa</i> pulpwood plantation under subsurface drip irrigation	Li Ming Jia, China
		Potential of thermal modified poplar wood for construction products	Joris van Acker, Belgium
		Poplar Plantations – A Canadian Opportunity	B. R. Thomas, Canada

03:30 PM to 04:00 PM Tea Break

PLENARY SESSION: III

	04:00 PM to 05:30 PM	Fodder value of <i>Eupopulus</i> poplar leaves	Anatoly Tsarev, Fed. of Russia
		Certification of poplar nurseries in Argentina	Silvia Cortizo, Argentina
		The poplar and willow sector in Uzbekistan	Evgeniy K. Botman, Uzbekistan
		Opportunities to enhance wood fuel yields in semi-arid regions of India using waste water	Drusilla Riddell- Black, United Kingdom

Date: 2nd November 2012

**VENUE: HALL NUMBER – 1
CONVOCATION HALL**

PLENARY SESSION: IV

**Venue In-charge: Mr. A. K Raina
Mr. Ombir Singh**

	08:30 AM to 10:30 AM	Synthesis of National Reports	Walter Kollert, IPC, FAO
		Advancing plantation culture of black willow (<i>Salix nigra</i> Marsh.) in the southern United States	Emile Gardiner, USA
		Status of short rotation coppices (SRC) with poplar and willow in Germany	Georg von Wuehlisch, Germany
		Salient features of Poplar culture in India	R.C. Dhiman, India
10:30 AM to 11:00 AM Tea Break			
		PLENARY SESSION V	
		WORKING PARTY REPORTS - 1 to 6	

CONCURRENT SESSIONS

Date: 31st October 2012

**THEME-1: POPLAR AND WILLOW DISEASES
VENUE: HALL NUMBER – 4
DIRECTORATE OF FOREST EDUCATION**

Venue In-charge: Mr. Sudhir Singh
Mr. Ashwani Tapwal

S. No.	TIMING	TITLE	AUTHOR	COUNTRY
Chair: Ms. Marijke Steenackers (Belgium) Co-Chair: Prof. Mauritz Ramstedt (Sweden)				
	8:30 AM to 10:30 AM	Phyto-pathological problems in short rotation plantations of poplar and willow for bio-energy production	Naldo Anselmi	Italy
		Variation in natural decay resistance in <i>Populus deltoides</i> clones	N.S.K. Harsh	India
		Report of <i>Bipolaris spicifera</i> and <i>B. setariae</i> on <i>Populus deltoides</i> in India	Y. P. Singh	India
		Poplar defense mechanisms against <i>Melampsora larici-populina</i>	Steenackers Marijke	Belgium
		Studies on variability among isolates of <i>Rhizoctonia</i> sp. of poplar	Archana Bagwari	India
10:30 AM to 11:00 AM Tea Break				
11:00 AM to 12:30 PM	Business meeting IPC Executive Committee			

12:30 PM to 02:00 PM Lunch Break

Date: 31st October 2012

THEME-2 :POPLAR AND WILLOW INSECTS AND OTHER ANIMAL PESTS
VENUE: HALL NUMBER – 4
DIRECTORATE OF FOREST EDUCATION

Venue In-charge: Mr. Sudhir Singh
Mr. Aswani Tapwal

Chair: Mr. V.R.R. Singh (India)

S. No.	TIMING	TITLE	AUTHOR	COUNTRY
	02:00 PM to 03:30 PM	Large scale willow mortality in Lahaul valley, Himachal Pradesh: Some issues of immediate comments	K.S. Kapoor	India
		Plants efficacy against poplar defoliator: <i>Clostera cupreata</i>	Rashmi	India
		Threats to willow plantation from insect-pest under changing climatic conditions	Ranjeet Singh	India
		Faunistic survey of termites causing damage on poplar and their management	Vivek Tyagi/ Shamila Kalia	India

03:30 PM to 04:00 PM Tea Break

Date: 31st October 2012

THEME-3 :HARVESTING AND UTILIZATION OF POPLAR AND WILLOW WOOD
VENUE: HALL NUMBER – 2
BOARD ROOM (F.R.I.,MAIN BUILDING)

Venue In-charge: Mr. N.K. Upreti
Mr. D.P. Khali

Chair: Prof. Joris Van Acker (Belgium)
Co-Chair: Mr. Sven De Vries (Netherlands)

S. No.	TIMING	TITLE	AUTHOR	COUNTRY
	08:30 AM to 10:30 AM	Bio-conversion of poplar (<i>Populus deltoides</i> Bartr.) biomass into fermentable sugars for bio-ethanol production	Lakshmi Tewari	India
		Attitude to plywood production of six new poplar clones	Gianni Facciotto	Italy
		Field performance of poplar and chir-pine treated with ZiBOC in Indian climatic conditions	Sadhna Tripathi	India
		Extraction and utilization of natural dye from poplar bark on pilot scale	Rakesh Kumar	India
		Chemical utilization of <i>Populus deltoides</i> for developing leaf protein concentrate	Lutful Haque Khan	India
10:30 AM to 11:00 AM Tea Break				
	11:00 AM to 12:30 PM	High-throughput characterization of poplar wood to support selection and breeding	Joris Van Acker	Belgium
		Ligno-cellulosic biomass as feedstock for bio-fuels production	Laura Rosso / Gianni Facciotto	Italy
		<i>Populus</i> chemistry outlook for improved utilisation	Vineet Kumar	India
		Impact of extension strategies for popularization of poplar among the farmers in northern India	B. S. Mandal	India

12:30 PM to 02:00 PM Lunch Break

Chair: Mr. H.S. Gujral (India)

Co-Chair: Mr. Gianni Facciotto (Italy)

	02:00 PM to 03:30 PM	Development of a SRC Simulation model and Calibration For Poplar	Facciotto Gianni	Italy
		Poplar – a multifarious tree species for wood industries, rural livelihoods and nature conservation	Gulshan Ahuja	India
		Understanding the dynamics of poplars and willows on human and animal behavior from psycho evolutionary perspective	Vasudha Singh	India

03:30 PM to 04:00 PM Tea Break

	04:00 PM to 05:00 PM	Growth performance of poplar tree under agroforestry system in northern India	B. S. Mandal / Y.P. Singh	India
		Economics and market mechanism of poplar in India	H.P. Singh	India

Date: 31st October 2012

THEME-4 :GENETICS, CONSERVATION AND IMPROVEMENT OF POPLARS AND WILLOWS

VENUE: HALL NUMBER – 3

NFLIC (LIBRARY)

Venue In-charge: Mr. Meena Bakshi

Mr. S. P. Chaukiyal

Chair: Mr. Ian McIvor (New Zealand)

Co-Chair: Mr. Shutang Zhao (China)

	08:30 AM to 10:30 AM	Inter Clonal variation of <i>Populus nigra</i> Linn. (Black poplar) clones growing in Kashmir	Sajad Gangoo	India
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		Genetic improvement of Himalyan poplar (<i>Populus ciliata</i> Wall ex Royale)	Sanjeev Thakur	India
		Early variation and genetic correlation in growth and branching characters in clones of <i>Populus deltoides</i> Bartr.	Bikram Singh	India
		Willow improvement in India present status and future possibilities	N.B. Singh	India
		Variation in the growth and wood properties of <i>Populus deltoides</i>	M. Aziz / P K. Pande	India
10:30 AM to 11:00 AM Tea Break				
	11:00 AM to 12:30 AM	Development of new clones of willows through breeding	Jai Pal Sharma	India
		Growth performance and genetic parameters of six years old willow clones	Jai Pal Sharma	India
		Evaluation of willow clones for their growth characteristics and physiological parameters at nursery stage	Rajni Sharma	India
		Status of Poplars in Nepal an overview	H.B. Thapa	Nepal
12:30 PM to 02:00 PM Lunch Break				

Chair: Mr. Georg von Wuehlisch (Germany) Co-Chair: Mr. Sasa Orlovic (Serbia)				
	02:00 PM to 03:30 PM	Initial performance of different <i>Populus deltoides</i> clones in Jammu region	Jagdish Singh	India
		The Swedish Poplar Network Initiative – Testing clones and developing short rotation poplar crops through participatory research	Almir Karacic	Sweden
		Genetic improvement and breeding of <i>Populus davidiana</i>	Guo Shu Ping	China
		Macro- and micro- propagation of <i>Populus gamblii</i> Dode	Ajay Thakur	India

03:30 PM to 04:00 PM Tea Break				
	04:00 PM to 05:00 PM	Protomic changes during regeneration of the secondary vascular system in <i>Populus tomentosa</i> Carr. revealed by quantitative proteomics	Meng-Zhu Lu	China
		Molecular diversity of tree willow clones	N.B. Singh	India

Date: 1st November 2012

THEME-4 : GENETICS, CONSERVATION AND IMPROVEMENT OF POPLARS AND WILLOWS (Cont.d)

VENUE: HALL NUMBER – 3

NFLIC (LIBRARY)

Venue In-charge: Mr. Meena Bakshi

Mr. S. P. Chaukiyal

Chair: Mr. R.B.S. Rawat (India)

Co-Chair: Mr. William Schroeder (USA)

	08:30 AM to 10:30 AM	New <i>P. × canadensis</i> clones for wood industry and biomass production selected in Italy	Gianni Facciotto	Italy
		Clonal variation in growth, biomass and nutrient distribution in <i>Populus deltoides</i> under agrisilviculture system	Alka Mishra	India
		Nursery evaluation of open pollinated half sib progenies (F1 of <i>Salix</i> sp.) and ascertaining their parentage through molecular markers	M.K. Singh	India
		Status and distribution of willows in temperate and cold arid regions of Jammu and Kashmir	R. Banyal	India
		Status of <i>Populus</i> plantation species in Jammu and Kashmir, India	Sayed Tariq	India
10:30 AM to 11:00 AM Tea Break				

Date: 31st October 2012

THEME-5 :POPLAR AND WILLOW PRODUCTION SYSTEMS VENUE: HALL NUMBER – 5 INDIRA GANDHI NATIONAL FOREST ACADEMY (IGNFA)				
<p>Venue In-charge: Mr. Lokho Puni Mr. A.K. Sharma</p>				
<p>Chair: Sh. A.S. Dogra (India) Co-Chair: Ms. Mirta Rosa Larrieu (Argentina)</p>				
S. No.	TIMING	TITLE	AUTHOR	COUNTRY
	08:30 AM to 10:30 AM	Multipurpose poplar plantations in Italy	Laura Rosso	Italy
		Influence of Salix clone on growth and yield of wheat intercrop under shallow water table conditions of northern India	Salil Tewari	India
		An overview of Poplar culture in Haryana state of India	Jagdish Chander	India
		Biomass and productivity of <i>Populus deltoides</i> plantation in Hoshiarpur district of Punjab	Laxmi Rawat	India
		Poplar in Haryana – past, present and future	R.K. Sapra	India
10:30 AM to 11:00 AM Tea Break				
	11:00 AM to 12:30 PM	Inter-cultivation of <i>Populus ciliata</i> wall. ex Royle as the nurse crop its effect on survival and growth performance of <i>Abies pindrow</i> Royle and <i>Picea smithiana</i> (Wall.) Boiss	K.S. Kapoor	India
		A model for governing registration of nurseries for commercial multiplication of quality planting stock	Dinesh Kumar	India
		Pruning – An essential operation of poplar culture in India	J.N. Gandhi	India
12:30 PM to 02:00 PM Lunch Break				

Chair: Mr. Jim Richardson (Canada) Co-Chair: Mr. Srikant Chandola (India)				
	02:00 PM to 03:30 PM	Contribution of <i>Populus deltoides</i> in economy of farmers in Punjab	A. S. Dogra	India
		Production potential of different intercrops under poplar based agroforestry systems	Salil Tiwari	India
		Cultivation of willows in mountain cold desert of India the Lahaul Valley case study	Yashwant S. Rawat	South Africa
03:30 PM to 04:00 PM Tea Break				

Date: 1st November 2012

Date: 1st November 2017

THEME-5: POPLAR AND WILLOW PRODUCTION SYSTEMS (Cont.d)				
VENUE: HALL NUMBER – 5				
(IGNFA)				
Venue In-charge: Mr. Lokho Puni				
Mr. A.K. Sharma				
Chair: Mr. Emile S. Gardiner (USA)				
Co-Chair: Mr. R.K. Sapra (India)				
S. No.	TIMING	TITLE	AUTHOR	COUNTRY
	08:30 AM to 10:30 AM	Determination seed morphological and germination characteristics and relationships with Euphrates Poplar (<i>Populus euphratica</i> Olivier)	Huseyin Karatay	Turkey
		Poplar culture on farmland – Farmers’ experience from Uttar Pradesh, India	Nikki Pilania Chaudhary	India
		Poplars and willows for increasing the livelihood and rural development a review	Avtar Singh	India
		Study of poplar based agroforestry in Eastern Uttar Pradesh	Kumud Dubey	India
10:30 AM to 11:00 AM Tea Break				

Date: 31st October 2012

THEME-6 :ENVIRONMENTAL APPLICATIONS OF POPLARS AND WILLOWS
VENUE: HALL NUMBER – 1
CONVOCAATION HALL

Venue In-charge: Mr. H.B. Vashishtha
Mr. Anoop Chandra

Chair: Prof. Martin Weih (Sweden)
Co-Chair: Ms Ana Beatriz Guarnaschelli (Argentina)

S. No.	TIMING	TITLE	AUTHOR	COUNTRY
	08:30 AM to 10:30 AM	Capacity of poplar and willow clones to withstand high levels of wastewater application	William Schroeder	Canada
		Poplar culture for speedy carbon sequestration in India a case study form terai region of Uttarakhand	Mohit Gera	India
		Leaf anatomical and ultrastructural responses to salt-stress of three <i>Populus alba</i> L. clones	Mejda Abassi	Tunisia
		Improving biomass production and phytoremediation using natural endosymbionts of poplar and willow	S.L. Doty	USA
		High yield and carbon storage in 9-year-old hybrid poplar riparian buffers in south-eastern Canada	Daniel Gagnon	Canada
10:30 AM to 11:00 AM Tea Break				
	11:00 AM to 12:30 AM	The comparison of soils between the poplar plantation area and corn and hazelnut cultivated areas based on some plant nutrients	Ahmet Karakaş	Turkey
		Use of Salicaceous genotypes for Phytoremediation: the experiences of the CRA - research unit for intensive wood production of <i>Casale Monferrato</i> in Italy	Stefano Bisoffi	Italy
		Mitigation and Adaptation strategy to climate change A case study of <i>Populus deltoides</i> based agroforestry system in Chhattisgarh, Central India	S.L. Swamy	India

		Poplar as a climate mitigation option under REDD+ a case from the north Indian state of Haryana, India	T.P. Singh	India
12:30 PM to 02:00 PM Lunch Break				
Chair: Mr. Jannis Dimitriu (Sweden) Co-Chair: Mr. H.S. Goraya (India)				
	02:00 PM to 03:30 PM	The impact of short rotation crops grown on agricultural land on water and soil quality	Ioannis Dimitriou	Sweden
		Problem of flying cotton from <i>Populus</i> in Kashmir Valley and some remedial measures	Syed Tariq	India
		Sustainability in bio-energy production of poplar and willow with respect to nitrogen fixation	Georg Von Wuehlisch	Germany
03:30 PM to 04:00 PM Tea Break				
	04:00 PM to 05:30PM	A study on determination of nutrient in some one year old poplar clones	Ahmet Karakaş	Turkey
		Transcriptional profiling analysis of <i>Populus euphratica</i> in response to salt stress	Shutang Zhao	China
		Aeroallergens from Poplar trees in Kashmir valley of India	Gh. M. Bhat / Ombir Singh	India

Date: 1st November 2012

THEME-6 : ENVIRONMENTAL APPLICATIONS OF POPLARS AND WILLOWS (Cont.d) VENUE: HALL NUMBER – 1 CONVOCATION HALL				
<p>Venue In-charge: Mr. H.B. Vashishtha Mr. Anoop Chandra</p>				
<p>Chair: Prof. Sharon L Doty (USA) Co-Chair: Mr. Ahmat Karakas (Turkey)</p>				
S. No.	TIMING	TITLE	AUTHOR	COUNTRY
	08:30 AM to 10:30AM	Climate driven adaptive traits in phenology and ecophysiology of <i>Populus balsamifera</i>	Raju Y. Soolanayakanahally	Canada
		Are tree morphological determinants indicators of Nitrogen Use Efficiency (NUE) in hybrid <i>Populus</i> clones for bioenergy plantations	Pierluigi Paris	Italy
		<i>Salix dasyclados</i> Used For Phytoremediation Of Dredged Soil At Site In Public Recreation Area In Oslo, Norway	Theo Thewys	Belgium
		Economics of poplar pyrolysis stemming from phytoremediation of metal polluted soils	Mauritz Ramstedt	Sweden
		Eco-friendly restoration of problematic soil through willow and poplar species	Avtar Singh	India
10:30 AM to 11:00 AM Tea Break				

Date: 31st October 2012

THEME-7: NOMENCLATURE AND REGISTRATION, TAXONOMY
VENUE: HALL NUMBER – 4
DIRECTORATE OF FOREST EDUCATION

Venue In-charge: Mr. Sudhir Singh
Mr. Aswani Tapwal

Chair: Mr. Stefano Bisoffi (Italy)
Co-Chair: Mr. Julia Kuzovkina (USA)

	04:00 PM to 05:00 PM	Status and distribution of willows in temperate and cold arid regions of Jammu & Kashmir	R. Banyal	India
		Indian poplars with special reference to indigenous species	Subhash Nautiyal	India

ANNEX III - List of Participants

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ANNEX IV - Abstracts submitted

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ABSTRACTS SUBMITTED²

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Alimohammadi A., Asadi F., Adeli E., Tabaie-Aghdaei S.R. and Mataji A. - Using Morphological Traits for Identification of Poplar (*Populus alba*) Stands in Iran (Esfahan and Zanjan provinces)

Alimohammadi A., Asadi F., Adeli E. and Tabaie-Aghdaei S.R. - Investigation on Genetic Diversity in *Populus nigra* Plantations Using Molecular and Morphological Markers

Aziz Massarat and Pande P.K. – Variation in the Growth and Wood Properties of *Populus deltoids* Baihui Xingyajuan and Guo Shuping - Genetic Improvement and New Cultivars Breeding of *Populus davidiana*

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Calderon A., Bustamante J., Riu N., Pérez S. and Zanetti P. - Behavior of Clones of *Populus* spp., in Tunuyán, Mendoza, Argentina

Calderon A., Bustamante J., Riu N., Pérez S. and Zanetti P. - Behavior of Clones of *Populus* spp., in Lavalle, Mendoza, Argentina

Cerrillo Teresa - Advances on the Willow Breeding Program in Argentina

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² Copies of papers can be requested directly from authors.

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Swamy S.L., Mishra Alka and Sushma - Mitigation and Adaptation Strategy to Climate Change: A Case Study of *Populus deltoides*-Based Agroforestry System in Chhattisgarh, Central India

Tariq Syed and Khanna Deepak - Problem of Flying Cotton from *Populus* in Kashmir Valley and Some Remedial Measures

Thewys Theo and Kuppens Tom – Economics of Poplar Pyrolysis Stemming from Phytoremediation of Metal Polluted Soils

Tian Ye, Xia Zhenyang, Zhao Yajun, Song Hao and Fang Shengzuo - Soil Nitrate Production and Assimilation in Riparian Hybrid Poplar Plantations

von Wuehlisch Georg - Sustainability in Bio-Energy Production of Poplar and Willow With Respect to Nitrogen Fixation

Zarati Houda, Béjaoui Zoubeir, Abassi Mejda and Albouchi Ali - Effect of Irrigation by Treated Wastewater on Growth and Photosynthesis of Poplar Seedlings

SUB-COMMITTEE ON NOMENCLATURE AND REGISTRATION

Banyal R., Gupta S.K. and Abidi Raja Ali - Status and Distribution of Willows in Temperate and Cold Arid Regions of Jammu & Kashmir

Cortizo S. and Garau A. - Certification of Poplar Nurseries in Argentina

Naithani H.B. and Nautiyal S. - Indian Poplars With Special Reference to Indigenous Species

Panse Shiv S. Panse, Chauhan Pramod and Malhotra Kshitij - Constraints and Challenges in Forest Certification of Agroforestry Plantations of *Populus deltoides*: A Case Study from North Indian States

ANNEX V - National Reports

INTERNATIONAL POPLAR COMMISSION TWENTY-FOURTH SESSION

NATIONAL REPORTS

National reports on activities related to poplar and willow cultivation, exploitation and utilization 2008-2011 were received from 21 countries (one of which being an observer country), as follows:

Argentina	Italy
Belgium	New Zealand
Canada	Republic of Korea
Chile	Romania
China	Russian Federation*
Croatia	Serbia (Republic of)
Egypt	Spain
Finland	Sweden
Germany	Switzerland
India	Turkey
Iran (Islamic Republic of)	United States of America

* The Russian Federation is not a member of the IPC.

ANNEX VI - Evaluation Results

EVALUATION RESULTS **24th Session, International Poplar Commission** **Dehradun, India** **30 October to 2 November 2012**

1 How would you rate the planning, announcements, pre-registration and access to information prior to the 24th Session?

1	2	3	4	5	6	7	8.30	9	10
Poor								→ Excellent	

Suggestions for improvement in the future

- Programme to be issued earlier to help planning travel. Changes to be made earlier in the programme.
- Better have a whole programme before registration (including dates). There was uncertainty for a long time.
- More countries to give useful contributions.
- Internet and telephone facilities should be provided to participants.
- Information missing on the web page, for example about oral presentations.
- Only one website should be established. Should be better designed.
- Simpler review process for abstracts.
- Clear information on website.
- Registration and payment modules to be improved. Many problems arose regarding on-line payment.
- Quicker reply to e-mails sent for information.
- Less changes in deadlines.
- Booklet could have contained clearer information.
- Programme should be published in press or media to reach more people – not only on the website.
- Information on documentation necessary for obtaining visa should be provided much earlier.
- E-mails sent before the session should be shorter and more topic-oriented.
- Good organizing committee but improvements needed in announcement discipline.
- More thematic approach should be used.
- NGO involvement should be welcomed. All universities, forest departments and wood-based industries should have been informed and invited.

2 How would you rate the programme and structure of the 24th Session?

1	2	3	4	5	6	7	8.51	9	10
Poor								→ Excellent	

Suggestions for improvement in the future

- Desirable to have clear sessions, stressing the importance of poplar as a future source of renewable energy.
- Web connection during IPC session for dissemination of presentations to those not able to physically attend the session.
- Too many last minute changes.
- Too many concurrent sessions at different places – impossible to follow other groups.
- Daily schedules should be provided to avoid confusion.
- Number of presentations from host country should be limited in order to have a better balance between host and foreign countries. More proportion in abstracts submitted by host and foreign countries.
- Good facilities but too much distance between meeting places. More country overviews during the Plenary session.
- Scientific papers should be separated from information papers.
- Rather poor, depending probably on the limited number of delegates from abroad.
- Changes in programme made things difficult.
- Concurrent sessions should be reduced to one day, facilities for concurrent sessions to be closer one from the other.

- More encouragement should be given to researchers, scholars and scientists.
- Insects and Diseases Groups should perhaps be treated together.

3 How would you rate the Poster presentation arrangements at the 24th Session?

1	2	3	4	5	6	7	8	9.20	10
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Poor —————> Excellent

Suggestions for improvement in the future

- Selecting best posters for 3-slide presentations after the poster session.
- To be maintained.
- Presence of presenters should be ensured for meaningful outcome.
- Better to have the presentation inside – too hot! Too bright in sunshine.
- Poster session should last longer in order that, during coffee breaks, posters could still be looked at. Should be on throughout the meeting.
- Would be good to allocate short time slots to each poster theme in which the author is expected to be around for discussion.
- Nobody in front of posters – would be fruitful to get more information.
- Too few posters.

4 How would you rate the administrative and logistical support by the HOST Secretariat at the 24th Session? (registration, IT support, help services etc.)

1	2	3	4	5	6	7	8.90	9	10
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Poor —————> Excellent

Suggestions for improvement in the future

- Coordinated transport from/to the airport.
- IT support should be improved in future.
- Information on shuttle buses very poor.
- No e-mails during conference.

5 How would you rate the administrative and logistical support by the FAO Secretariat?

1	2	3	4	5	6	7	8.56	9	10
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Poor —————> Excellent

Suggestions for improvement in the future

- Lack of support from FAO regarding participation of developing countries.
- Some improvement in logistics required.

6 How would you rate the technical inputs prepared by FAO to the 24th Session (Book of Abstracts, Synthesis of Country Reports, Working Papers, Programme, Website)?

1	2	3	4	5	6	7	8.32	9	10
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Poor —————> Excellent

Suggestions for improvement in the future

- Hard copies of documents would do better for abstracts.
- Programme given did not cover all days. Detailed programme would be necessary to avoid confusion.
- Given the complexity of changing schedules, organizers kept participants fairly well informed.
- Not very good. Did not see a Book of Abstracts, nor country report.
- Hard copies would be preferred.
- Some false abstracts can be corrected by authors.
- Some papers were very poor – not up to IPC standards.
- Need of local level promotion to food safety, food security and food production.
- Reports and papers must receive high quality inputs.

7 How would you rate the performance of the interpretation services?

1	2	3	4	5	6	7	8.82	9	10
Poor								→ Excellent	

Suggestions for improvement in the future

- The only time I used this service, it was good.
- This time, French translation was probably not necessary.
- No need for interpretation.

9 How would you rate the conference facilities and services?

1	2	3	4	5	6	7	8.79	9	10
Poor								→ Excellent	

Suggestions for improvement in the future

- Very good facilities.
- Distance between various conference venues should be shorter.
- More than one bathroom for Western women would be necessary.
- Main hall had problems regarding sound as a result of echoing. Questions from the floor were frequently difficult to hear.
- Good hospitality services.
- Halls too far from each other. More bathrooms.

9 How would you rate the hotel accommodation, meals and services?

1	2	3	4	5	6	7	8.51	9	10
Poor								→ Excellent	

Suggestions for improvement in the future

- Improvement needed in this area such as network facilities, connection facilities.
- Fully in accordance with expectations.
- Food was very good.
- The tent was not a good idea.

10 Any other comments to improve IPC Sessions in the future?

- No comments received.

ANNEX VII - Executive Summary of the Concept Note ‘Options for International Poplar Commission Reform’, by Jim Carle

The 80 million hectares of poplars and willows (90% natural and semi-natural, 10% planted and agroforestry systems) in temperate, boreal and tundra ecosystems provide multiple benefits for tens of millions of families in industrialized and developing countries and those with economies in transition. They provide a wide range of products (wood and non-wood) and ecosystem services that are socially, environmentally and economically important.

For the past 65 years, the International Poplar Commission, through National Poplar Commissions, Working Parties and the Sub-Committee on Nomenclature and Registration, has provided a bridge linking research of poplar and willow cultivation, conservation and utilization with development policies, planning and implementation practices. Through effective networks, long established partnerships, comprehensive databases and outreach programmes, the IPC has successfully transferred poplar and willow germplasm, knowledge and technology between scientists, growers, processors and users around the globe. The IPC has achieved an impressive list of activities, outputs and outcomes.

There remains strong interest in the IPC by poplar and willow specialists around the globe, but membership has been stagnant due to institutional complexities in joining. Developing countries are the minority as members of the IPC.

The Secretariat has suffered from a lack of resources in recent years; disconnect has emerged between the technical fields of the Working Parties and the multi-disciplinary and inter-sectoral nature of environmental and development issues facing member countries; and some National Poplar Commissions have become dormant. Because of the relatively narrow geographic and technical focus of the IPC, it has been difficult to attract multi-lateral and bilateral donor and international programme interest and funding as the links with sustainable livelihoods and land-use are not always apparent.

There are opportunities to build upon the existing partnerships (IUFRO, IEA Bioenergy Tasks and International Commissions for the Nomenclature of Cultivated Plants) and to secure new partnerships. Expansion of the scope to include poplars, willows and other genera/species of high socio-economic or ecological significance can potentially provide the IPC with new options to better support sustainable land-use and livelihoods, including food security and poverty alleviation. Clarification and simplification of the Convention and rules for membership could encourage new members; revision of Working Parties and National Poplar Commissions into topical themes (e.g. climate change adaptation and mitigation; sustainable supplies of wood, fibre and short-rotation bioenergy/biofuel; conservation of biodiversity; sustainable livelihoods; sustainable ecosystems and landscapes; and provision of environmental services). In this respect, the way forward should be more cognisant of the outcomes and recommendations of Rio+20, UNFCCC, CBD, UNCCD, UNFF and MDGs. Opportunities exist to pursue international support for sustainable forest management, REDD+, UN-REDD and international programmes.

This concept note considers three options for the way forward for the IPC:

1. *Status quo*: maintaining poplar and willow scope; no change to Convention, Working Parties, National Poplar Commissions or Secretariat;
2. *Institutional Reform*: maintaining the poplar and willow scope; clarification and simplification of the Convention; revised Working Parties, National Poplar Commissions and Secretariat to address thematic environmental and developmental needs of countries; and
3. *Integrated Reform*: broadening the scope to integrate poplars and willows with other genera/species of high economic or ecological significance for sustainable land-use, livelihoods, food security and poverty alleviation; clarification and simplification of the Convention; and revised Working Parties, National Poplar Commissions and Secretariat to better integrate specialist activities, outputs and outcomes into the thematic environmental and developmental needs of countries.

The proactive, Integrated Reform option is recommended to stimulate membership interest, broaden environmental and developmental scope and to attract a broader range of international partners, funding agencies and donors. In this way, the IPC has the potential to increase its relevance and impacts on sustainable livelihoods and land-use.

