E

联合国粮食及农业组织 | Food and Agriculture Organization of the United Nations | Organisation des Nations Unies pour l'alimentation et l'agriculture | Продовольственная и сельскохозяйственная организация Объединенных Наций | Organización de las Naciones Unidas para la Alimentación y la Agricultura | منظمة الأغذية والزراعة للأمم المتحدة

INTERNATIONAL COMMISSION ON POPLARS AND OTHER FAST-GROWING TREES SUSTAINING PEOPLE AND THE ENVIRONMENT

Twenty-seventh Session

Bordeaux, 22 - 25 October 2024

Synthesis of Country Progress Reports

Suggested action by the Commission

The Commission may wish to:

a. endorse the document Synthesis of Country Progress Reports 2020-2023;

b. highlight the importance of country progress reports to monitor the development of fast-growing trees and encourage Members to present country progress reports in preparation for the IPC Sessions.

Queries on the substantive content of this document may be addressed to:
The IPC Secretariat IPC-Secretariat@fao.org

I. Background

1. The International Commission on Poplars and Other Fast-Growing Trees Sustaining People and the Environment (IPC) emerged from the revision of the Convention on the International Poplar Commission, approved by the 41st Session of the FAO Conference on 29 June 2019. Together with the new name, the revision established a mandate for the Commission to cover all fast-growing tree species. Since the adoption of the Strategy for the International Commission on Poplars and Other Fast-Growing Trees Sustaining People and the Environment 2022–2032 ("IPC Strategy") at the 26th Session of the IPC, the Commission has been working diligently to implement its expanded mandate.

2. Eighteen Members[1] of the IPC have provided national progress reports and/or responded to the Questionnaire on Poplars and Other Fast-Growing Trees Sustaining People and the Environment 2020 – 2023 to the 27th Session of the International Poplar Commission.[2] This document presents the progress in different areas of cultivation, management, and utilization of poplars, willows, and other fast-growing trees during the period 2020 to 2023, highlighting, innovations, opportunities, challenges, and trends.

II. Policy and Legal Frameworks

3. The report synthesizes global efforts to promote and regulate fast-growing tree species, especially poplars and willows. It highlights diverse national policies aimed at sustainable management, economic competitiveness and environmental benefits. Members vary in their approaches, from regional regulations to national programs supporting cultivation and utilization. Climate change is increasingly influencing policies for Fast Growing Trees (FGTs), reflecting a collective push towards integrating these species into broader forestry and climate strategies. Forest and agriculture linkages and land-use regulation are also themes that emerge from the country reports as relevant for FGTs.

III. Genetic Resources

4. Significant advancements in the taxonomy, nomenclature, and registration of poplars, willows and other fast-growing species were reported. Members have registered new cultivars and developed clones with improved growth, disease resistance, and adaptability for various uses such as timber production, erosion control, and phytoremediation.

5. Efforts include creating electronic databases and implementing legislative measures to support plant breeders' rights, which demonstrates a global trend toward enhancing genetic diversity and optimizing the cultivation of these species for multiple applications.

6. Most Member Nations reported on their efforts to conserve the genetic resources of poplars and willows and to optimize the breeding and selection of fast-growing plantations. Work focused mainly on improving the attributes of planting material in terms of productivity, wood quality, and resilience to climatic stressors. These improvements are critical for carbon sequestration, sustainable resource management, biomass production, phytoremediation, ecosystem restoration and achieving carbon neutrality goals.

[1] Argentina, Austria, Belgium, Canada, Chile, China, France, Germany, Iran, Ireland, Italy, Korea, New Zealand, Slovenia, Spain, Sweden, Turkey and the United States of America

[2] The complete Country Progress Reports can be found in document IPC/2024/INF/4: Consolidated Country Progress Reports

IV. Plant Health, Resilience to Threats and Climate Change

7. The ongoing efforts to comprehend the life cycles and behaviours of detrimental pests and diseases affecting fast-growing tree species were noted. They aim to identify optimal treatment strategies and mitigate future threats, emphasizing proactive measures for sustaining genetic diversity and bolstering resilience against evolving environmental challenges.

8. In the reporting period, diverse abiotic factors such as wind, floods, droughts and pollution significantly impacted the health and productivity of fast-growing tree species in multiple countries, highlighting the need for tailored management strategies and genetic selection to enhance resilience against these adversities.

V. Production Systems for the Bioeconomy

9. Member countries report the utilization of fast-growing tree plantations to mitigate and adapt to climate change. Efforts span diverse regions and climates, focusing on tailored research and cultivation techniques to maximize timber yield, enhance ecosystem services, and increase resilience to environmental stresses. Key strategies include selecting optimal genotypes for specific environments, precise water and nutrient management and innovative silvicultural practices to optimize forest structure and productivity. Advancements in nursery practices and propagation techniques for fast-growing tree species have been evident, encompassing innovations in biotechnology, cultivation of new cultivars, and sustainable management practices tailored to enhance growth, yield and environmental resilience.

10. Recognizing the potential of wood and other bio-based products for substituting fossil-based materials, Members are innovating in the harvesting, processing, and utilization of poplars, willows, and other fast-growing trees. Advanced techniques include thermal modification for improved durability in wood cladding, the development of hybrid poplar varieties for engineered wood products or the introduction of mechanized systems to boost productivity. Research-driven strategies focus on optimizing biomass yield, improving bioenergy production, and integrating sustainable practices in urban and industrial applications, thus enhancing the overall sustainability and efficiency of forestry practices.

11. The integration of agroforestry and silvopastoral systems involving poplars and other Salicaceae species is being advanced across various Members through research and practical applications, focusing on improving productivity, environmental benefits and economic viability.

VI. Environment and Ecosystem Services

12. Fast-growing species continue being 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.

13. The use of poplar and willow trees in environmental phytoremediation applications continues to be studied. The effectiveness of phytoremediation varies depending on species and local conditions. in some countries, the use of phytoremediation faces limitations due to environmental and legal regulations while lack of subsidies or financial incentives may also limit its adoption. Countries are leveraging naturally regenerating forests with species like poplars, aspen, and various bamboos, to enhance biodiversity, combat desertification, improve carbon sequestration, and bolster ecological resilience against climate change.

VII. National Poplar Commissions

14. From the countries that have reported, the main structures for National Poplar Commissions can be identified as follows: Some operate as governmental or mixed organizations, managed by government representatives with participation from industry, universities, and experts. Others function as interprofessional or non-profit organizations, involving both public and private actors like growers, researchers, and industry representatives. In some cases, there is no formal commission, and national focal points handle the responsibilities. Certain commissions act as specialized sub-societies within larger forestry or agricultural organizations, often with thematic working groups. Additionally, there are collaborative structures managed by governmental bodies but with significant input from the private sector and academia.

VIII. International Cooperation

15. National Poplar Commissions have exercised international cooperation mostly through participation in research programs. collaborative projects, conferences, and meetings. For instance, the sharing of poplar clones, joint research and nursery projects and participation in networks like European Forest Genetic Resources Programme (EUFORGEN) and the European Information System on Forest Genetic Resources (EUFGIS) are among the activities reported.

IX. Other Species of Interest to Members

16. Interest in the cultivation and utilization of other fast-growing species has significantly increased in recent years, based on the geographical position and climate conditions of each Member, as well as the potential for wood and biofuel production.

17. The other most common fast-growing species of interest for Members include alder, larch, birch, pine, spruce, black locust and eucalyptus, out of a total of 20 genera reported of interest.