



## Contribution of Poplars & Willows to Sustainable Livelihoods & Land-use in of

### Key Points from Presentations

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International workshop:

*"Improve the contribution of Poplars and Willows in meeting sustainable livelihoods and land-use in selected Mediterranean and Central Asian Countries"*



### Context: Poplar & willow culture

- **Poplar natural forests:**
  - wide range of forests – conservation & protected areas, recreation (low % of land area)
- **Willow forests:**
  - generally less forest areas than poplars – water courses etc
- **Intensive plantations, poplar:**
  - 10,000-50,000 ha expanding but facing difficulties to expand, production of wood, fibre and potentially wood energy, some rehabilitation of degraded lands, carbon forests
  - limited species, clones
- **Intensive plantations, willow:**
  - limited plantations of willow – phyto remediation, bioenergy, treated water waste
- **Agroforestry, poplar:**
  - diverse range of poplar mechanisms
- **Agroforestry willow:**
  - relatively small willow agroforestry





## Key stakeholders in poplar & willow development

- **Governance in P & W (policies, programs & technical support):**
  1. Environment & Forestry Ministries
  2. Agriculture & Forestry Ministries
  3. Agriculture Ministries
- **Research in P & W & Specializations**
  1. State Forest Institutes
  2. Universities
- **Education & Training in P & W**
  1. Most countries have Universities for professional training or access to neighboring countries
  2. Technical and operational training for forest managers & artisans exist, but need strengthening
  3. Strong need for forest extension (smallholders, farmers)
- **Investors in P & W afforestation/harvesting/end use**
  1. Government, State enterprises
  2. Farmers/smallholders, private lands – depend upon land-use & crop ownership rights
  3. Companies, private lands – depend upon land-use & crop ownership rights



## Benefits from poplar & willow cultivation (economic, environmental & social)

- **Benefits depend upon purpose, scale, investor & land-use**
- **P & W both very flexible & can be grown in a wide range of mechanisms from small to large scale**
- **P & W - carbon sequestration/storage, protection of waterways, soils, watersheds, shelter of villages, roads, public utilities bioenergy**
- **Willows phyto-remediation, treated and untreated water waste**
- **Poplars valuable supply of wood, fibre – many products**
- **rural employment, appropriate technology, in phase with livelihoods needs, local products for local people, help to combat urban drift, development of village based industries**





## **Major issues in poplar & willow culture**

- **Need for coherent, consistent, clear policy, legal, regulatory frameworks – enabling conditions - invest**
- **Institutional frameworks (transition from centralized-decentralized systems) – strong state control, but emerging private sector private smallholder/farmers**
- **Inter-sectoral-multi-disciplinary nature of P & W institutions & management a challenge for foresters**
- **Limited species & clones => risk/vulnerabilities to insects, diseases and other pests**
- **Public & political negative perception about P & W**
- **Emerging issues of bioenergy, carbon sequestration are major for P & W**
- **Industrial use in the region is in infancy with strong emphases on protection, conservation etc**
- **Hydrology, water resources issues**



## **Problems/constraints experienced in P & W culture**

- **State dominance, policy & legal frame not changed**
- **Bias against intensive P & W plantations (in infancy)**
- **Threats of insects, diseases, pests, fires, natural disasters (droughts, floods, winds etc)**
- **Changed hydrology, irrigation issues in arid lands**
- **Small private sector, uncertain market situation**
- **Lack of sustainability management tools**
- **Special needs of smallholder investors (extension)**
- **Poor public perception and negative bias for plantations and P & W**





## **Opportunities for poplars & willows to meet sustainable livelihoods & sustainable land-use**

- **Enabling conditions for private smallholder & corporate**
- **Industry development, village based industries**
- **Extension services**
- **Renewable, energy efficient, environmentally sensitive provision of products and services**
- **Suitability for rehabilitation of degraded or marginal lands**
- **Less intensive management than annual crops**
- **Flexible over forestry and agricultural land-uses**
- **Carbon and bioenergy markets**



## **Priority needs to support poplar & willow development**

- **Recognize & realize the multiple potentials of P & W**
- **Integrate institutional support systems – forestry and agriculture**
- **Improve policy, legal, and long term strategy development (including climate change mitigation, bioenergy etc)**
- **Collaboration between scientists to share research and results, better networking**
- **Link science-policy-practices**
- **Improve public awareness/understanding of P&W**
- **Pilot projects to demonstrate to politicians/public**
- **Support investment in industry development**