OVERVIEW OF AGRICULTURE IN THE SYR-DARYA COUNTRIES

Workshop
Water-Food-Energy-Ecosystems Nexus Assessment in the Syr Darya River Basin

FAO Sub-regional Office for Central Asia (FAO SEC)
2-4 December, 2014
Almaty, Uzbekistan
OUTLINE

- Overview and Challenges of Agriculture:
  - Forestry
  - Land and water resources
  - Aquaculture and fisheries
  - Livestock
  - Crop production

- Questions?
FORESTRY
# OVERVIEW OF LAND USE

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>LAND AREA ('000 ha)</th>
<th>ARABLE LAND</th>
<th>FOREST AND OTHER WOODED LAND</th>
<th>PERMANENT PASTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Area ('000 ha)</td>
<td>% of total land area</td>
<td>Area ('000 ha)</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>269,970</td>
<td>21,535</td>
<td>8.0</td>
<td>18,959</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>19,180</td>
<td>1,345</td>
<td>7.0</td>
<td>1,182</td>
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<tr>
<td>Tajikistan</td>
<td>14,060</td>
<td>930</td>
<td>6.6</td>
<td>552</td>
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<td>Uzbekistan</td>
<td>41,424</td>
<td>4,484</td>
<td>10.8</td>
<td>4,199</td>
</tr>
</tbody>
</table>

FAOSTAT, 2013
CHALLENGES OF FORESTRY SECTOR

- Weak forest governance including policy, legal and institutional structures
- Deforestation and degradation of forests mainly due to fuelwood deficit and overgrazing
- Lack of data/information on forest and tree resources and forest monitoring
- Insufficient land-tenure security and forest ownership
- Lack of cross sectoral approach for forest/land management, such as agroforestry and watershed management
- Climate change impacts on forests and land resources
PRIORITIES FOR FORESTRY

- Support to strengthening the policy, legal and institutional framework for implementation of sustainable management of forest and tree resources
- Strengthening environmental roles and contributions of forests and trees to:
  - combat desertification, including erosion control
  - restore and sustainably manage mountain watersheds
  - conserve riparian (tugai) forests
  - adapt to and mitigate climate change
  - conserve forest biodiversity and genetic resources
LAND AND WATER RESOURCES
## OVERVIEW OF IRRIGATED LAND

<table>
<thead>
<tr>
<th>Country</th>
<th>Land area ('000 ha)</th>
<th>Cultivated land</th>
<th>Irrigated area</th>
<th>Irrigated land (salinized)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Area ('000 ha)</td>
<td>% of total land area</td>
<td>Area ('000 ha)</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>272,490</td>
<td>23,480</td>
<td>9</td>
<td>2,066</td>
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<tr>
<td>Kyrgyzstan</td>
<td>19,994</td>
<td>1,351</td>
<td>7</td>
<td>1,021</td>
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<tr>
<td>Tajikistan</td>
<td>14,255</td>
<td>875</td>
<td>6</td>
<td>742</td>
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<tr>
<td>Uzbekistan</td>
<td>44,740</td>
<td>4,651</td>
<td>10</td>
<td>4,198</td>
</tr>
</tbody>
</table>

Aquastat survey, 2012
CACILM Multicountry Soil Map
(SLM-IS Component, CACILM-1, 2009)

Source: CACILM Multicountry Secretariat, 2009
CHALLENGES OF LAND AND WATER RESOURCES

- Severe land degradation (including salinization of irrigated land)
- Water scarcity (institutional and economical)
- ‘Water demand’ – Low efficiency of canal irrigation systems and low agricultural water productivity.
- ‘Skill gap’ - Lack of new young qualified professionals and inadequately trained / equipped Water User Associations
- Increasingly complex structure of the water-food-energy nexus in a changing environment
- High vulnerability of livelihoods to climate change impacts, particularly extreme weather events (e.g. droughts and floods)
PRIORITY OF LAND AND WATER RESOURCES

- Capacity development to assess and combat land degradation (including salinity management) and, cope with water scarcity at different scales, enhancing land and water productivity for sustainable agriculture
- Information and knowledge sharing: enhancement of knowledge on water and agriculture; enhancement of quantity and quality of soil data and information
- Strengthening regional cooperation and cross-sectoral policy dialogue on sustainable water resources management
- Increasing resilience of livelihoods to natural disasters, with a focus on drought and floods.
- Promotion of equitable and secure rights to access to land and other natural resources
FISHERIES
CHALLENGES OF FISHERIES

- Legislative, institutional and financial frameworks (e.g. national policies, strategies, etc.);
- Statistics and data information;
- Capacity building;
- Technology transfer & R&D;
- Ingredient/feed supply;
- Fish quality and hygiene;
- Monitoring, control and surveillance
PRIORITIES OF FISHERIES

- Institutional capacity building;
- Training and education
- Diversification of aquaculture in Central Asia
- Development in marketing of fish and fish products; quality and safety of fishery products, consumer awareness
- Development of feed technology for Central Asia
- Updating of national legislation and by-laws; technical regulations
LIVESTOCK
CHALLENGES IN LIVESTOCK

- Supply vs demand of winter feed;
- Trans-boundary animal disease;
- Insufficient funding for vaccination and government vet services;
- Outdated policies and strategies for animal diseases control;
- Capacity Building;
- Coordination and cross sectoral issues;
- Insufficient support for private veterinary services;
- Investment in government system has little affect in farmers life;
- Outdated and costly disease control and surveillance system,
- No accurate disease information and prevalence.
- Lack of animal registration, traceability and movement control
PRIORITIES OF LIVESTOCK

- Formulation of policies and strategies for meeting the farmers needs and international requirements
- Strengthening technical capacities of the professionals and institutions in animal health and production aspects,
- Sharing knowledge, information and best practices for disease control and improving animal productivity:
  - Delivery of private veterinary services
  - Cost effective animal disease control
  - Accurate animal disease information and control strategies
  - Development of model animal production farms with appropriate technologies.
CROP PRODUCTION
CHALLENGES OF CROP PRODUCTION

- Rapid growth of population and increasing demand for food and feed
- Rising prices of inputs (fuel, fertilizer, seed, pesticides, etc.)
- Impacts of climate change to crop yield
- Lack of institution capacity and legislation
- Generation gap and lack of qualified experts
- Lack of modern knowledge and technology
PRIORITIES OF CROP PRODUCTION

- Development of policies and strategies on sustainable crop intensification and diversification of cropping system
- Drought preparedness and climate change mitigation
- Promotion of conservation agriculture (CA)
- Strengthening policy on plant protection, implementation of international conventions and standards, including regional harmonization of phytosanitary legislation
- Promotion of IPM
- Capacity building (training, pest management, plant genetic resources, etc.)
- Promotion of seed certification and quality control for priority crops (cotton, wheat, fodder crops, potatoes)
THE ESSENCE OF THE CHALLENGE: MANAGING UNCERTAINTIES AFFECTING AGRICULTURE AND FOOD SECURITY

- Food self-sufficiency or (regional) agricultural trade?
- Short-term ‘trouble-shooting’ action or long-term targeted investment for the modernization of irrigation systems?
- Unsustainable growth development patterns or green growth?
- Water supply or demand management (i.e. increased irrigation efficiency)?
- Effective delivery capacity of governments and river basin organizations to provide services?
QUESTIONS?

- River basin vs national level: What is the most effective strategy for upscaling and mainstreaming best agricultural practices in existing policies, programs and investment frameworks at river basin level for a more sustainable and efficient agriculture?
- Driving forces behind the sharp decline in the contribution of agriculture, forestry, fishery to GDP during the last decade? What better explains the ups and downs of the agricultural production/productivity of the region? Lessons learnt for the future?
- What is the current regional approach to the basin management? Existing mechanisms and tools?
For more information, please contact:

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