Wastewater Production, Treatment, and Use in Lao PDR.

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Wastewater use and/or disposal

- In 2005, total water withdrawal was an estimated 4.26 km³, which is only 1 percent of the total actual renewable water resources. Water withdrawal for agriculture was approximately 3.96 km³, while for municipalities and industries it was an estimated 0.13 km³ and 0.17 km³ respectively (Figure 1).
Regulations and implementation of guidelines

- Law on The Processing Industry.
- Law on Hygiene, Disease Prevention and Health.
- Regulation for Industrial Waste Discharge.
- Environmental Protection Law.
- Law on Water and Water Resources.
Challenges

• Inadequate legal framework and unclear institutional responsibilities;
• The access to “normal” toilet facilities is relatively good, but it is assumed that maintenance is poor;
• Wastewater from domestic areas, hospitals, industrial operations are discharged directly to urban environment;
• The hygienic situation is worsened by flooding in many urban areas;
• Lack of access and monitoring of wastewater services;
• Lack of awareness among communities and authorities on the benefits of improved wastewater;
• Lack of capacity among public institutions;
• Poor wastewater conditions will become a major drawback in order to encourage investment and tourism activities.
Government’s approach to wastewater management

• The Prime Minister’s Office
• The Ministry of Natural Resources and Environment (MONRE)
• The Ministry of Agriculture and Forestry (MAF)
• The Ministry of Industry and Commerce
• The Ministry of Public Work and Transportation
• The Ministry of Energy and Mining
• The Ministry of Health
Possible solutions

- Develop legislative aspects (Law, regulation or guideline on safe wastewater use for agriculture and health)
- Set up a Steering Committee including working group at each level
- Develop an appropriate strategy and action plan on safe wastewater use for agriculture
  - Strengthening capacity
  - Public awareness