

## Master Thesis

### Title:

### **Water footprint and virtual water trade in Switzerland and implications for environmental policies**

The water footprint of an individual, community or business is the total volume of freshwater that is used to produce the goods and services consumed by the individual or community or produced by the business. In today's world, the production and consumption of goods and services in one region/country can have impact on the hydrological systems and water use in another region/country. This connection occurs as a result of international trade of goods and services, especially food commodities. International trade of food involves long-distance transfers of virtual water in the form of food.

The concepts of water footprint and virtual water trade address the fact that human production activities and consumption have direct and indirect impacts on both local and global freshwater systems. Hence, issues relating to water shortages and pollution can be better understood and addressed by considering production and supply chains as a whole from both the production and consumption perspectives.

The aim of this thesis (diploma) is three fold: 1) to apply the concepts of water footprint and virtual water trade to investigate the water consumption patterns of individuals and the national as a whole for Switzerland; 2) to analyze the food trade structure, partners and possible environmental impacts on both Switzerland and its major trade partners; 3) to address the importance and limitations of the concepts for raising the public and business awareness of water resources and environment suitability.

The position is available immediately. The location of the position is at the Swiss Federal Institute for Aquatic Science and Technology (Eawag), Duebendorf, Switzerland. Please submit your application (attach your most recent publications if any) to Dr. Hong Yang (email: hong.yang@eawag.ch), SIAM, EAWAG, Ueberlandstrasse. 133, 8600 Duebendorf, Switzerland.