



Mayrina FIRDAYATI

Home Country
Indonesia

Degree
PhD in Civil and
Environmental
Engineering

Expertise
Waste Water
Treatment Systems

Research Focus
Re-Use of Grey Water
for Urban Agriculture

Host University
Technical University
of Hamburg-Harburg,
Germany

Fellowship Awarded
2007

Mayrina Firdayati lives in Bandung, Indonesia about two hours from the capital city of Jakarta. She is married to an entrepreneur, and they have two sons.

May, as she is known, is researching the re-use of waste water in urban agriculture or aquaculture. She is especially interested in the potential re-use of grey water – waste water derived from showering or washing clothes and dishes.

With human populations increasing in all parts of the world, there is rising demand for water. There is also significantly more waste water. In developing and emerging economies such as Indonesia, where water consumption is increasing along with the amount of waste water, May's research is helping to extend the amount of arable land in urban settings and to provide new sources of water for agriculture.

One solution being viewed by May has the potential to help overcome the challenge of limited space in urban areas by increasing the amount of urban agriculture. She is looking at ways to treat grey water to remove potentially dangerous detergents and chemicals so that the water may be re-used for agricultural purposes in urban settings, particularly in populous urban areas such as Java Island that have problems with overcrowding and sanitation. Known as sustainable sanitation or resource-oriented sanitation, her research is intended to help poor people living in urban settings produce additional food.

May is studying for a PhD in civil and environmental engineering at Technical University of Hamburg-Harburg in Germany, a leading institution in the field of waste water management, where she is researching water treatment systems that may be appropriate for use in Indonesia.

Following her studies, May plans to teach at the Institute of Technology Bandung in Indonesia.