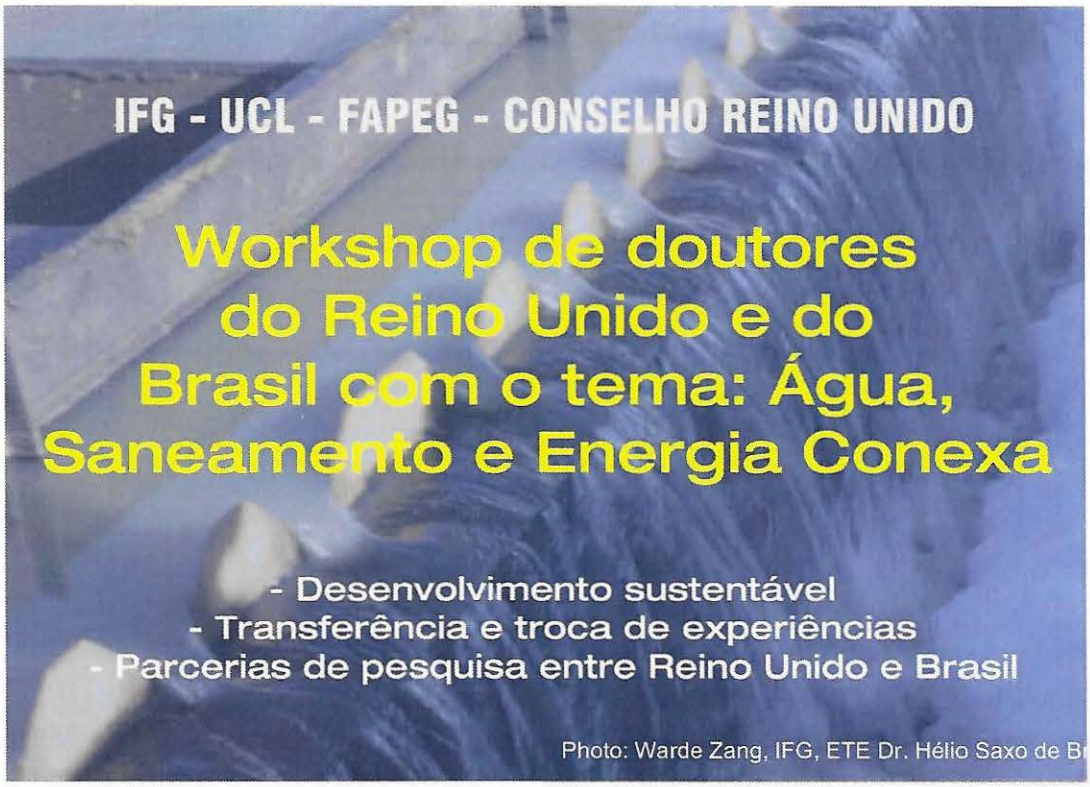
# HANDBOOK

## Early Career Researcher Links Workshop of the United Kingdom and Brazil: Water, Sanitation and Energy Nexus

Sustainable Development
Transfer and Exchange of Experiences
Research Partnerships Between United Kingdom and Brazil




13th – 16th September 2016
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# Water, Sanitation and Energy Nexus
# Researcher Links Workshop

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# Water, Sanitation and Energy Nexus
# Researcher Links Workshop

## 13th – 16th September 2016

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**Presentation abstract**

Biosand filters have been used worldwide for the household treatment of drinking water in isolated communities. Although several studies have addressed their performance in removing physical, chemical and microbiological parameters, research is still necessary for the adaptation of such a technology to the reality of isolated communities in Latin American countries. The present research reports on experiences of the construction of a full-scale biosand filter, operated in intermittent flow with easy-access materials. The biosand filter required a simple and uncomplicated construction, which can be performed by a single worker. However, tests must be conducted for the evaluation of the safety of the filtered water regarding the presence of contaminants that may be released by the materials used. The economic analysis of the biosand filter revealed a total cost of approximately US$ 60 in August, 2016. According to the results, more research is necessary for the improvement of biosand filters before they are transferred to the target communities. The research is being funded by São Paulo Research Foundation – FAPESP, Brazil (Process 2014/12712-8).