

SUPSI

# WASH COMPETENCE CENTRE SUPSI

2014

Annual report



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*"WASH is an acronym used in international development programs and refers to "Water, Sanitation and Hygiene". Access to safe water, adequate sanitation, and proper hygiene education can reduce illness and death from disease, and also impact poverty reduction and socio-economic development.."*

## Objectives of the WASH Competence Centre

The WASH Competence Centre was founded at SUPSI on the 22. March 2012, in occasion of the World Water Day.

WASH is an acronym used in international development programs and refers to "Water, Sanitation and Hygiene". Access to safe water, adequate sanitation, and proper hygiene education can reduce illness and death from disease, and also impact poverty reduction and socio-economic development.

These areas are treated together as the impact of deficiencies in each area overlap strongly, and so to achieve a strong positive impact on public health, they need to be addressed together. The WASH competence centre, is a network of SUPSI staff members involved in teaching, research and services/consultancies in the field of water resources.

Members have experience in cooperation and development projects at international level.

### **Remind:**

World Water Day is marked on 22 March every year. It's a day to celebrate water. It's a day to make a difference for the members of the global population who suffer from water related issues. It's a day to prepare for how we manage water in the future. In 1993, the United Nations General Assembly designated 22 March as the first World Water Day. In 2015, the theme for World Water Day is '[Water and Sustainable Development](#)'. It's about how water links to all areas we need to consider to create the future we want. Visit the [official UN website](#).



## Staff

Staff member, Department*	Profession	Main geographic work experience
<b>Sebastian Pera (Coordinator) DECD</b>	Hydrogeologist	Argentina, Cuba, Indonesia, Chad, Pakistan
<b>Claudio Valsangiacomo (Coordinator) DECD</b>	Microbiologist	Zimbabwe, DR Congo, Pakistan, Philippines, Central Asia, Haïti, Caucasus Region
<b>Marcus Hoffmann DECD</b>	Physicist	Azerbaijan, Caribbean, Indonesia, Slovenia
<b>Pamela Principi DIT</b>	Microbiologist	South Africa, China
<b>Enrica Massardi DHS</b>	Nurse	Afghanistan, Sierra Leone, Nicaragua, Cambodia, Togo
<b>Paola Solcà DBSS</b>	Sociologist Anthropologist	South Africa, Nicaragua, Bolivia, Argentina, Romania, Burkina Faso
<b>Renzo Longhi DIT</b>	Environmental scientist	South Africa, Romania, Santo Domingo, China
<b>Jennifer Duyne Barenstein DECD</b>	Social Anthropologist	India, Bangladesh, Sri Lanka, Indonesia, Philippines, Mexico, Nicaragua, Argentina, Haiti
<b>Massimiliano Cannata DECD</b>	Environmental Engineer	Vietnam, Brazil, Romania
<b>Andrea Rizzoli DIT</b>	Control Engineer	Europe
<b>Francesca Cellina DECD</b>	Environmental Engineer	Europe

\*) DECD: Department for Environment Constructions and Design, DIT: Department of Innovative Technologies, DHS: Department of Health Sciences, DBSS: Department of Business and Social Sciences



From left: Claudio Valsangiacomo, Sebastian Pera, Marcus Hoffmann, Pamela Principi, Enrica Massardi, Paola Solcà, Renzo Longhi (Jennifer Duyne, Massimiliano Cannata, Andrea Rizzoli and Francesca Cellina are missing on this picture).

## Teaching and training

The WASH CC is involved both in graduate/postgraduate education and in lifelong learning within SUPSI and other academic institutes.

Teaching module and Staff members involved	Content	Target students
<p><b>Course “Water and sanitation engineering”</b>  <b>CHYN/CICIR and CHYN/UNHCR</b></p> <p><b>Claudio Valsangiacomo</b></p>	<p>The Centre of Hydrogeology of the University of Neuchâtel (CHYN) and the International Committee of the Red Cross (ICRC - Wathab Unit) propose the <a href="#">course on water and sanitation engineering</a> with the aim to enable the participants to acquire the basic technical skills required to conduct their activities as water and sanitation engineers (Watsan). The same course has been replicated for attendants from UNHCR field officers.</p>	<p>The course is designed for engineers and scientists interested in a humanitarian engagement in the domain of water and sanitation.</p>
<p><b>CAS</b>  <b>Claudio Valsangiacomo and Paola Solcà</b></p>	<p>A Certificate of advanced studies in development and cooperation has started in October 2014.</p>	<p>19 students interested in development and cooperation with a Bachelor or Master degree are following the CAS.</p>
<p><b>Courses “Global world, local worlds: practical traineeship” and “International Cooperation”</b></p> <p><b>Paola Solcà and Enrica Massardi</b></p>	<p>Courses and practical training are offered at DBSS and DHS for small groups of students at Bachelor level. The overarching goal of the program is to prepare students to address the traineeship that will be held at projects located abroad in developing countries. Furthermore beside the theoretical courses, a series of events are offered with the aim to interest, motivate and raise awareness on the meaning and value of international cooperation and development.</p>	<p>Health and social work students who will experience clinical and educational practices in development and cooperation context.</p>
<p><b>Workshop “Experiencing health care in a resource poor country”</b></p> <p><b>Enrica Massardi</b></p>	<p>Concepts on preparing, coaching and supervising students during the whole process of practice in poor resourced countries.</p>	<p>Health professionals and lecturers which supervise students allocated in developing countries for their traineeship.</p>

## Applied research

Project, main authors, country	Description	Partners
Academic study on SDC water projects implemented in KPK province Pakistan. Claudio Valsangiacomo, Sebastian Pera, Luca Colombo	This study was focused on the water quality assessment of the Water, Sanitation and Hygiene program implemented by SDC in the districts of Charsadda in KPK, in the aftermath of the severe flood event of 2010. The main aim of the study was to assess water quality (bacteriological and chemical-physical parameters) from a set of representative samples taken in the region of Charsadda from shallow wells. This study allowed to identify the different paths of contamination of domestic wells.	National Center of Excellence in Geology, University of Peshawar, Pakistan  Integrated Regional Support Program IRSP, Mardan, Pakistan  JOBS International Private Limited (JIPL), Islamabad, Pakistan  Swiss University of Applied Sciences of Southern Switzerland, Lugano, Switzerland

## Consulting activities

Consultancy and main authors	Description	Partners
<b>Humanitarian operation Serbia</b> Claudio Valsangiacomo	Emergency response to the Balkans floods.	SDC, humanitarian aid (Swiss Corps)
<b>The WHO Global Task Force on Cholera Control</b> Claudio	The Global Task Force for Cholera Control ( <a href="#">GTFCC</a> ) was revitalized by WHO. The revitalization process was initiated in 2012 and completed in early 2014. The first meeting of the revitalized GTFCC has taken place in June 2014 to finalize membership and priorities.  The WASH CC @SUPSI is represented in the Working Group WASH	SDC, humanitarian aid (Swiss Corps), co-representation within WG WASH.

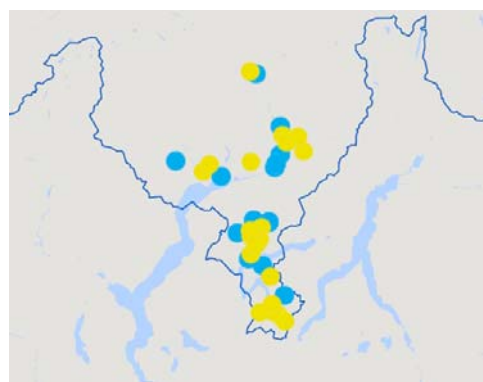
## Memberships

Membership	Description	WASH staff members
AGUASAN	Swiss Community of practice on WASH issues  <a href="http://www.aquasan.ch">www.aquasan.ch</a>	Claudio Valsangiacomo, Sebastian Pera, Pamela Principi and Jennifer Duyne

<b>Swiss Water Partnership, SWP</b>	The SWP goal is to bring together relevant stakeholders to promote a sustainable and equitable use and management of water resources and universal access to water and sanitation.  <a href="http://www.swisswaterpartnership.ch">www.swisswaterpartnership.ch</a>	Claudio Valsangiacomo, Sebastian Pera (Member of the steering Board)
<b>Swiss humanitarian aid unit</b>	Membership in specialized groups WES (Water and Environmental Sanitation) and Med (Medicine)  <a href="http://www.skh.ch">www.skh.ch</a>	Claudio Valsangiacomo
<b>Solidarit'eau suisse</b>	solidarit'eau suisse is an initiative of SDC, the Aguasan Group and Swiss aid organizations enabling local authorities to support a drinking water project in a developing country in an efficient and transparent manner.  <a href="http://www.solidariteausuisse.ch">www.solidariteausuisse.ch</a>	Claudio Valsangiacomo (Member of the steering Board)
<b>HydroDWG</b>	Hydrology Domain Working Group of the OGC  <a href="http://www.opengeospatial.org">www.opengeospatial.org</a>	Andrea Rizzoli (observer)
<b>iEMSS</b>	International Environmental Modeling & Software Society  <a href="http://www.iemss.org">www.iemss.org</a>	Andrea Rizzoli
<b>Swiss Municipalities</b>	Local energy planning processes for Municipalities. In energy planning processes at the local level, identification of the opportunities for electricity production and thermal energy recovery in waterworks systems and sewage water networks. (FC)	Francesca Cellina
<b>Federazione delle ONG della Svizzera italiana, FOSIT</b>	Member of the steering committee since April 2013, <a href="http://www.fosit.ch">www.fosit.ch</a>	Paola Solcà

### **Solidarit'eau suisse in the Canton of Ticino.**

Thanks to our presence in the Steering Committee of solidarit'eau Suisse, the Canton of Ticino has the highest score of municipalities promoting water projects in developing countries (33 municipalities out of 144).



## Institutional partnerships

Institution, WASH member involved	Type of partnership	Internet web-page
<b>FOSIT, Federazione delle ONG della Svizzera italiana</b>  <b>Paola Solcà</b>	Memorandum of understanding for joint projects in development and cooperation SUPSI-FOSIT	<a href="http://www.fosit.ch">www.fosit.ch</a>
<b>swissuniversities Development and Cooperation Office</b>  <b>Claudio Valsangiacomo</b>	Focal point for development and cooperation within Swiss Universities.	<a href="http://www.swisuniversities.ch">www.swisuniversities.ch</a>
<b>Foundation for Education and Development (since January 2013 Education 21)</b>  <b>Paola Solcà</b>	The Foundation has supported financially and practically the project "practical internship in the developing countries" at DBSS since 2002. Recently the Department of Teaching and Learning has joined the 3rd phase of the SDC program "partnership Nord-South" (2012-2015).	<a href="http://www.education21.ch">www.education21.ch</a>
<b>International Cooperative Programme on Assessment and Monitoring of the Effects of Air Pollution on Rivers and Lakes, ICP Waters</b>  <b>Luca Colombo</b>	ICP Waters is a programme for monitoring of the effects of acid rain and air pollution on water and water courses. Twenty countries (18 European countries, USA and Canada) participate and supply monitoring data to the programme's central database at NIVA. The monitoring data provide a basis for documenting effects of long-range transboundary air pollutants.	<a href="http://www.unece.org/env/lrtap/workin/ggroups/wge/waters.html">www.unece.org/env/lrtap/workin/ggroups/wge/waters.html</a>
<b>Associazione svizzera dei professionisti della protezione delle acque, VSA</b>  <b>Pamela Principi, Renzo Longhi, Sebastian Pera</b>	The Swiss Water Association is the professional society for water in Switzerland lobbies for clean and vital bodies of water is generalist for all questions concerning water is specialist for sanitation and bodies of water. The association represents the aggregation of the Swiss professionals for water protection. VSA offers professional training programs, defines the standards for security and quality and informs about water pollution control.	<a href="http://www.vsa.ch">www.vsa.ch</a>
<b>BioSweet SCCER</b>  <b>Pamela Principi</b>	SUPSI is a research partner in the newly funded SCCER, focusing on energy recovery from biomass. SCCER BIOSWEET focuses on the biochemical and thermochemical conversion of wood, biowaste/manure and algae to gaseous and liquid biofuels with the vision to contribute additional 100 PJ towards fulfilment of the Swiss Energy Transition by 2050. Research will be directed towards small and medium-size	<a href="http://www.sccer-biosweet.ch">www.sccer-biosweet.ch</a>



	installations in order to meet the needs of the Swiss market and to exploit the high innovation potential in both fields together with Swiss industry.	
<b>Open Source Geospatial Foundation OSGeo</b>  <b>Massimiliano Cannata</b>	OSGeo, support the collaborative developments open source geospatial software, and promotes its widespread use. The foundation's projects are all freely available and useable under an OSI-certified open source license.	<a href="http://www.osgeo.org">www.osgeo.org</a>

## Media, communication and events

Subject and staff members involved	Type of media, communication, event	Contents
<b>Ten years after tsunami Televisione della Svizzera italiana Claudio Valsangiacomo</b>	Swiss Italian TV, <a href="#">documentary film 10 years after the tsunami</a> of 26 December 2004	Reconstruction of the event with a documentary film and interview of victims and actors.
<b>Luzerner Zeitung Claudio Valsangiacomo</b>	Newspaper Lucerne	„Schweiz hilft Überschwemmungsoptionern“ „Ausnahmestand wegen Hochwasser in Serbien“, Mai 2014
<b>UNC 2014 Water and Health Conference Claudio Valsangiacomo</b>	Congress	The 2014 <a href="#">Water and Health Conference</a> : Where Science Meets Policy, organized by The Water Institute at UNC, considers drinking water supply, sanitation, hygiene and water resources in both the developing and developed worlds with a strong public health emphasis.

## Publications

Title, WASH member involved	Journal, Book, year	Authors
<b>SDC Technical Guidelines “Well Cleaning in an Emergency</b>	SDC, humanitarian aid. In preparation.	Claudio Valsangiacomo, Pamela Principi
<b>Academic study on SDC water projects implemented in KPK Pakistan 2014 - FINAL REPORT</b>	Internal report for SDC, Bern, dec. 2014	Seema Anjum Khattak, Mohammad Riaz, Rashid Ali, Shahnaz Akhtar, Luca Colombo, Sebastian Pera, Claudio Valsangiacomo

## Abbreviations

COHEP	Swiss Conference of Rectors of Universities of Teacher Education
CRUS	Rectors' Conference of the Swiss Universities
EU	European Union
FOSIT	Federazione delle ONG della Svizzera italiana
KFH	Rectors' Conference of the Swiss Universities of Applied Sciences
SDC	Swiss Agency for Development and Cooperation
SNSF	Swiss National Science Foundation
SUPSI	Scuola universitaria professionale della Svizzera italiana (University of Applied Sciences and Arts of Southern Switzerland). Departments: DACD: Department for Environment Constructions and Design, DTI: Department of Innovative Technologies, DSAS: Department of Business and Social Sciences, DSAN: Department of Health Sciences, DFA: Department of Teaching and Learning
UN	United Nations
UAS	Universities of Applied Sciences and Arts
UNOSAT	UNITAR's Operational Satellite Applications Programme
UNITAR	United Nations Institute for Training and Research
UTE	Universities of Teachers Education
USI	Università della Svizzera italiana
WHO	World Health Organization