

Sébastien Soulier

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Hydrogeologist and Water, Hygiene and Sanitation Expert (WASH)

Infection Prevention and Control Specialist (IPC)

Environmental Transition Project Manager

Summary of competences

Technical expertise

Water, sanitation, disease control, infectious waste management, energy, environnement, mapping, logistics

Project Management

Analysis of complex situations, needs perception analysis and actual needs evaluation, program strategic planning, link between academic and operational partners, response to emergencies

Ressource Management

- HR: Recruitment, team set up and animation, training set up, design of adapted pedagogic approaches
- Finance: Budget and timing prevision, monitoring

Language: Fluent in French an English, professional in Spanish, basics of Portuguese

Hydrogeologist and WASH Expert

Referent Water Sanitation Hygiene, Médecins Sans Frontières, Geneva, 2014

- Strategic and technical support to MSF projects (24 countries), Strategy definition, minimum requirement control, technical design of WASH solutions
- HR Management of field watsan pool. Negotiation of terms of references and budgets for specialists' mission with program managers and field teams

WASH coordinator, Doctor without Border (MSF), 2007-2011

- **Emergency Water distribution** for drought and war related IDP's in Dadaab, Kenya. **Quick evaluation** of the situation, set up and monitoring of emergency water distribution program, negotiation for hand over with CARE.
- Set up of an **infectious waste management system** for the regional hospital Lichinga, Mozambique. Analysis of common practices, determination of waste fluxes, determination of an improvement plan with hospital director and heads of services.
- Design of emergency water supply through **rain harvesting** and **drinking water pound rehabilitation** after Nargis Cyclone in Burma
- Design of a durable and safe **regional water supply project** in a population displacement area, Aveba, Ituri DR. **Mapping** of existing water points and population, design of a **spring catchment** plan, establishment of a budget, follow up of material use, team management, security management
- **Early earthquake intervention** in Port au prince, Haiti. Assessment of water ressources for hospitals and IDP camps, construction of latrines, Management of surgical waste issues.
- Coordination of 3 WASH program for IDP camps in eastern Tchad, daily water distribution through pipe networks and trucks to 120'000 pers. **Water treatment** (Iron removal, sedimentation, UV and chlorine treatment), Water research and production (**bore holes drilling** campaign, river water treatment plants), Camp **solid waste management**.

Hydrogeologist and WASH Expert

WASH officer, Doctor without Border (MSF), 2005-2007

- Set up of a 300 beds, 2nd level hospital water and sanitation network in Bunia, Ituri DRC, **conception and dimensioning of water network from its sources to the treatment of effluent**. Bore hole equipment, water tower construction, sewage and infiltration system design and construction.
- Study of urban hospital water supply in Monrovia, Liberia, **Geophysics and hydrogeological study** of Mamba point, dimensioning of a **reverse osmosis** treatment plant
- Management of water hygiene and sanitation of 2 field hospitals in Lofa county, Liberia. Construction of wells, **field hospital rehabilitation, hospital hygiene management**.
- Design and implementation of **regional WASH strategy** for Cyclone victims in Guatemala. **Mapping** of the region, bacterial vulnerability of water resource study including **water analysis campaign**, design of emergency water trucking, **well cleaning campaign**, shallow **bore hole drilling** campaign.

Infection Prevention and Control Specialist

Adviser Logistic, WASH, IPC, World Health Organisation, 2015

- **Adviser** for logistic epidemic response preparedness.
- **Analysis** of weakness in **national epidemic response system** and definition of a plan for rapid and long term improvement of logistic response capacities. Guinea Bissau.
- **Training set up on safe burial and basic hospital hygiene practices**, starting from logistic organisation, to pedagogic approach of this 1 week training. Guinea Bissau.

Expert in Infection Prevention and Control (IPC), World Health Organization, 2014

Control of an epidemic outbreak of Ebola viral hemorrhagic fever in the district of Koinadugu - Sierra Leone. The local outbreak (55 cases) has been controlled **within 20 days. No staff has been infected**.

- **Exploration** and **IC strategy definition**,
- Rapid **Isolation** Set up, **design** of emergency ETU and **construction follow up**.
- **IC training** of hygiene and medical staff, logistic set up
- **Team Management**: ETU Staff, Lab team and safe burial team coordination

WASH officer, Doctor without Border (MSF), 2007-2011

- **Early control of Cholera epidemics** in Guinea Conakry. Evaluation of situation, implementation of **cases mapping** and **alert system**, determination of **epidemic control strategy** (fisheries and market hygiene, facilities mapping, targeted house cleaning, CTC Hygiene procedures), **design and recruitment** of emergency intervention team, coordination with other NGO's and MoH)
- **Literature review and design of a TB infection control system** in a penitentiary TB hospital; Kyrgyzstan
- Design, organisation (budget & logistic) and animation of a 15 days **training on hospital hygiene** for Somali staff aiming at autonomisation of the field team member in terms of disease control. one of the team trained were able to control a cholera outbreak within a month after the training. **Kenya-Somalia-Uganda**
- **Cholera Environmental control** in Guinea Bissau. Identification of cholera infection source (collaboration with Epicentre), set up of **disease control strategy, recruitment** of watsan team, negotiation with authorities, **management of the intervention**. design of food security activities (fisheries and market hygiene), sewage clean up management.
- **Cholera containment** in flooded areas bordering an high incidence area in Mozambic. **Intervention strategy design and implementation**, Rapid set up of basic **water treatment and distribution** point along the river, **Hygiene kit distribution, Vigilance system** and mobile clinic set up in flooded areas.
- **Hepatitis E Epidemic control** in IDP camps in Tchad. **Intervention strategy design and implementation**, Set up and maintenance of UV water treatment system, Public water distribution point clean up, house hold water storage hygiene program
- **Cholera suspicion** in Lake Albert DRC, Exploration, rapid set up of diarrheal disease treatment unit, sensibilisation of fishers community on water and food hygiene

Additional skills

Emergencies and humanitarian logistics

General Management of material aspects of emergency mission such as stock management and supply, accounting management, vehicle management, team life management, passive security and safety management. Construction project management, rapid set up of health facilities such as therapeutic feeding center, surgical facilities, food and NFI distribution. During Zinder Famine in Niger 2005, in Liberia 2006, in Tchad 2007, during Nargis cyclone intervention 2008 and Haiti earthquake intervention in Haiti 2010, in Kyrgyzstan 2010

Additional skills

Emergencies and humanitarian operations

Field coordination, team management, relation with local stakeholders, security management, intervention strategy design and implementation, field and population displacement mapping. In Tchad 2007, Ituri DRC in 2007 and 2009, Irrawady delta, Burma 2008

Environmental transition project manager MSF Swiss section Geneva, 2011- 2014

Design and implementation of a strategy of ecological transition preserving operational capacities of MSF, establishment and defense of proper resource attribution. Design of academic researches and collaboration with universities .

- Organisation Environmental Diagnosis, Design of an environmental impact monitoring system
- Conception and implementation of environmental policy.
- Development of pilot projects improving energy efficiency of MSF projects (3 pharmacies renovated, 1 hospital equipped with solar energy production) and management of toxic waste (project risk evaluation tool),
- Development of a draft communication strategy aimed to accompany the ecological transition.

Design of a Geographic Information System, for Médecins Sans Frontières 2013

- Evaluation of the potential application of geographic information systems (GIS) for MSF.
- Proposal for an organizational structure allowing rapid management of mapping requests.
- Choice of implementation partners.

Academic Formation

Certification AFNOR **Buildings' Diagnostic** (Gaz, Electricity, Asbestos, Energy Efficiency). 2010

Diplôme post grade inter-universitaire en **Gestion des ressources en eau, hydrologie et hydrogéologie**. Centre d'Hydrogéologie de Neuchâtel (CHYN) - spécialité hydrogéologie 2004

Diplôme d'Etude Supérieures Universitaires en **Hydrogéologie**, université de Montpellier II. 2003

Master **Environmental Sciences**, université de Montpellier II. 2001

Master **Cognitive Sciences**, université d'Aix-Marseille I. 1999

Bachelor **Cellular Biology and Physiology**, université de Nancy I. 1998

DEUG **Life Sciences**, université de Nancy I. 1997

Premier Cycle d'**Etudes Médicales**, université de Nancy I. 1996

Main researches and findings

Development of a guide for the **bioclimatic and energy efficient management of pharmacies**
Project Manager Environment, MSF Swiss section. 2013

Evaluation of the potential of **geographic information systems (GIS)** for MSF.
Current status, opportunities and recommendations for the development of technology.
GIS Consultant, Médecins Sans Frontières. 2013

Study of the Ecological and Economic **relevance of autonomous PV-hybrid energy production systems**
Project Manager Environment, MSF Swiss section. 2012

Transmission of tuberculosis in Kyrgyz penitentiary system
WASH-IPC expert, MSF Swiss section. 2008

Arsenic in groundwater - Conceptual Model and Its Application on the study of geogenic contamination Kean Svay district in Kandal province, Cambodia.
Research Fellow with the CHYN, EAWAG and RDI Cambodia, Kien Svay - Cambodia. 2004

Main researches and findings

Study of the **origin of sulphates in the waters** of Rabieux,
Research Fellow at the research and protection of water resources department. Conseil Général de L'Hérault.
2003

Electroencephalographic study of the role of prosody in **language understanding** in human,
Research Fellow Intern, Centre for Research in Cognitive Neuroscience CNRS Marseille - Language Team,
1999

Study of the roles of the associative parietal cortex and hippocampus in **acquiring spatial representations** in
rats.
Research Fellow Intern, Centre for Research in Cognitive Neuroscience CNRS Marseille - Space Team, 1998