

Quicksand

DEO

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# **Background**

Despite great development over the last few years, India remains at the forefront of the sanitation crisis. In fact, with 638 million Indians living without sanitation, India is the country with most people living without toilets in the world. With more than 1,000 children dying from preventable diarrhea every day, India is the undisputed leader in world diarrhea rankings. The sanitation and hygiene crisis also has a staggering impact on the country's economy - according to recent World Bank estimates, the consequences of inadequate sanitation and poor hygiene such as increased health costs, productivity losses and reduced tourism cost India approximately USD 53.8 billion - 6.4 % of GDP every year<sup>1</sup>. To tackle this problem, WASH United and Quicksand have developed the "Great WASH Yatra".

## The Great WASH Yatra

In India, Yatra's are meaningful pilgrimages, procession and festivals that people participate in for reasons of good. The GREAT WASH YATRA is a mega-campaign developed by WASH United and Quicksand that seeks to positively influence the perception of sanitation and hygiene across India. The YATRA will harness the positive power of the things Indians love most: Bollywood and Cricket.

The YATRA will start in Delhi in mid September 2012 and will end on World Toilet Day (19.11.) in Mumbai. 15 October (Global Handwashing Day) is another landmark date for the Yatra, on which a special event will be organized with some of the stars supporting the initiative. Along the route, the YATRA will stop in 13 towns and villages in the states of Haryana, Uttar Pradesh, Madhya Pradesh, Rajasthan, Gujarat and Maharashtra. The goal is to reach almost 90 million people directly and indirectly over the course of the Yatra. Visitors will engage on the issues of sanitation and hygiene in a playful carnival style atmosphere, such as WASH Cricket games and competitions for communities and schools. 3 tents (the Toilet-Lab, Handwashing-Lab and a Womens-Only-Menstrual Hygiene Lab) will invite visitors to talk and discuss about the topic, to create a positive attention around sanitation and hygiene and build an emotional connection to product designs.

Partners for the Yatra are the Government of India, the Water Supply and Sanitation Collaborative Council (WSSCC), WaterAid and Eawag/Sandec.

<sup>1</sup> http://www.wsp.org/wsp/sites/wsp.org/files/publications/wsp-esi-india.pdf

## **SOAP IT UP!**

Diarrhea is one of the biggest killers of children under 5 year. In India, 1,000 children die of diarrhea as a result of unclean water, lack of toilets and hygiene every day. Proper handwashing with soap at critical times can reduce these preventable deaths roughly by half. Particularly in rural India, where the practice of open defecation is still widespread and hands are commonly used for eating, handwashing with soap at critical times is of high importance. The availability and access to a dedicated place for washing hands with soap is one of the crucial aspects to motivate and sustain this key life saving behavior.

# The design challenge

The challenge is to find innovative new ideas for a hand washing station for a rural Indian household. What we are looking for is a hand washing station that is so exciting, interactive and fun that it helps us turn hand washing with soap from an onerous duty to a joyful experience.

The selected Top 5 handwashing station designs will be constructed as prototypes and displayed in the Handwashing-Lab of the YATRA. The Yatra will give us the opportunity to test the prototypes with tens of thousands of users across different regions in India. In addition to looking into how usable, reliable, durable, reproducible and easy-to-repair the different designs are, we are particularly interested in understanding users' perceptions and acceptance of the different prototypes, to find out which designs really create the most exciting and joyful handwashing experience. Users' feedback and other insights gained on the Yatra will inform adaptations of the prototypes.

The visitors of the Yatra will vote for the best design, which will receive the "People's Choice Award".

The aim of the challenge is solicit new innovative ideas and concepts, gather extensive user feedback and therefore learn about and share new possible design solutions for truly fun and joyful hand washing stations that people will love to use.

### Requirements

Design a Handwashing station for a rural Indian household:

- include a device for soap
- capable of being produced locally/regionally
- easy maintenance and local replacement of spare parts guaranteed

## Design considerations

- The size of an average rural Indian household is 4.7
- About 60 per cent of India's rural population lives on less than Rs 35 a day. All India average monthly per capita consumer expenditure (MPCE) in rural areas is Rs 1,054. The spending on durables is roughly 5% (based in 2009-2010 census)<sup>2</sup>.
  - The suggested retail or production price should therefore be "affordable".
- Average daily water usage per person in a rural household is design by the Government with 40 l (Drinking 3l, Cooking 5l, Bathing 15l, Washing utensils & house 7l, Ablution 10l) However, in reality it might be even as low as 10l. The majority of the rural population is using water from

http://economictimes.indiatimes.com/photo/9157769.cms http://economictimes.indiatimes.com/news/economy/indicators/60-percent-of-rural-india-lives-on-less-than-rs-35-a-day/articleshow/12980807.cms

wells for drinking & cooking purposes, from piped water supply (8-19%) and about from hand pumps (10-20%)- and a combination of these. A water e tap inside the house is not coming, and the average distance traveled to fetch water from wells was about 1/2 -1 km., from piped water 300-400 m, & from hand pumps 600-1400 m. It consumed 1 1/2; -2 hrs to fetch a bucket/pitcher of water from the source<sup>3</sup>.

- Intermittent availability of water is a common problem, mainly due to seasonal shifts affecting water sources; thus, many households adopt the practice of storing water in containers inside their homes (Brick et al., 2004). These water storage containers all have wide-mouth openings and were made of a variety of materials: aluminum, brass, plastic, steel, and earthenware.
- Because fetching water is time consuming and water availability is limited, the station should consider to store and regulate the flow of water in sufficient quantity. Ideally the hand washing station would need to hold enough water for at least daily use of the entire family.
- In general it's the women of the household who fetches the water, clean the house and prepares the food.
- Soap (mainly bar soap) is often available in the household.
- The station should be readily accessible to enable household members to wash their hands at the critical times (after toilets and before food preparation), this means that the station should be placed either next to the toilet (if available) or food preparation area.

There are no prescriptions on materials, shape, size, etc. (Submission details see page 4)

## Price

<u>TOP 5 designs</u> will receive 500 USD and will be featured at the YATRA Peoples Choice award = Final Winner will be invited to the 2013 UNBOX festival, Delhi

### **Process**

- ↓ Global announcement of the competition via email, public media, websites; through WASH United, WSP, IDEO, Quicksand, HatteryLabs and partner networks.
- ↓ An international jury of experts will select the Top 5 designs.
- Quicksand will build the prototypes for the selected Top 5 designs in close with the designer (in special case, the designer can build the prototype and send to the Yatra)
- ↓ Quicksand will accompany the presentation of the Top 5 designs during the Yatra to evaluate usability, aesthetics, and potential improvements and undertake eventual adaptations and modifications of the prototypes. (for similar process see <a href="http://vimeo.com/9904332">http://vimeo.com/9904332</a>)
- Voting by the Yatra visitors on the final winner = "People's Choice Award"
- ↓ Global announcement on updates and of the winner via email, public media websites; through WASH United, WSP, IDEO, Quicksand, HatteryLabs and partner network
- ↓ WASH United and Quicksand will develop a synthesis and detailed documentation to make the study findings accessible to a larger community of designers, commercial partners, academics, public health experts and health practitioners.

<sup>&</sup>lt;sup>3</sup> http://www.ispub.com/journal/the-internet-journal-of-epidemiology/volume-6-number-2/water-collection-amp-consumption-behaviour-in-rural-haryana.html

## Dates:

Final submission date: 30th June 2012 Announcement of Top 5 winners: 20th July 2012

YATRA tour: September –November 2012

Announcement of winning design: 1st December 2012

# The Jury:

Thorsten Kiefer, Executive Director WASH United

Jeff Chapin, Senior designer, IDEO

Nirat Bahtnagar, Principal, Quicksand

Jacqueline Devine, Senior Social Marketing Specialist –and/or Indian Specialist, Water and Sanitation Program / World Bank

Peter Hong, Head of UX, Creative Director, HatteryLabs

## Inquiries and questions regarding the design challenge, please contact:

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### **About WASH United**

WASH United harnesses the power of sport to promote safe drinking Water, Sanitation and Hygiene (WASH) for all people, everywhere. With its headquarter in Berlin, it's a unique coalition of international and African civil society organizations, United Nations agencies, governments and leading actors from the world of football. www.wash-united.org



#### **About IDEO**

IDEO (pronounced "eye-dee-oh") is an award-winning global design firm that takes a human-centered, design-based approach to helping organizations in the public and private sectors innovate and grow. <a href="https://www.ideo.com">www.ideo.com</a> www.ideo.com</a>



### **About Quicksand**

Quicksand is a multidisciplinary design and innovation consultancy started in early 2005 with studios now in Delhi and Bangalore. Comprising a team of entrepreneurs, anthropologists, technologists, designers and film makers, Quicksand is looking constantly to explore newer areas of design inquiry & innovation cutting across corporates and non-profits. www.quicksand.co.in



## **About HatteryLabs**

HatteryLabs is part venture fund, part creative development group, investing in peple with big ideas to help them build great organizations and to call on expertise and human.inspired insights in technology, business and design to invest in, guide and build extraordinary companies http://labs.hattery.com/



## **About the Water and Sanitation Program**

The Water and Sanitation Program (WSP) is a multi-donor partnership administered by the World Bank to support poor people in obtaining affordable, safe and sustainable access to water and sanitation services. WSP works directly with client governments at the local and national level in 25 countries through regional offices in Africa, East and South Asia, Latin America and the Caribbean, and in, Washington D.C. <a href="https://www.wsp.org">www.wsp.org</a>



### **About Südfeuer**

Südfeuer is a communication agency based in Hamburg, Germany. Their clients range from media houses to German government ministries and the GIZ. Südfeuer is strategy, communication and design partner of WASH United. www.suedfeuer.com

# Some recommended background reading:

Jaqueline Devine (2010): Beyond tippy taps, the role of enabling products in scaling up and sustaining hand washing

http://www.wsscc.org/sites/default/files/publications/6\_devine\_beyondtippy-taps\_vietnam\_2010.pdf

WSP (2010): Insights in designing a handwashing station for rural Vietnamese households <a href="http://www.wsp.org/wsp/sites/wsp.org/files/publications/WSP">http://www.wsp.org/wsp/sites/wsp.org/files/publications/WSP</a> Designing Handwashing Station H <a href="http://www.wsp.org/wsp/sites/wsp.org/files/publications/WSP">wsp.org/files/publications/WSP</a> Designing Handwashing Station H <a href="http://www.wsp.org/wsp/sites/wsp.org/files/publications/WSP">wsp.org/files/publications/WSP</a> Designing Handwashing Station H <a href="http://www.wsp.org/wsp/sites/wsp.org/files/publications/">wsp.org/files/publications/WSP</a> Designing Handwashing Station H <a href="http://www.wsp.org/wsp/sites/wsp.org/files/publications/">wsp.org/files/publications/</a> Designing Handwashing Station H <a href="http://www.wsp.org/wsp/sites/wsp.org/files/publications/">www.wsp.org/wsp/sites/wsp.org/files/publications/</a> Designing Handwashing Station H <a href="http://www.wsp.org/wsp/sites/wsp.org/">www.wsp.org/wsp/sites/wsp.org/wsp/sites/wsp.org/</a> Designing Handwashing Station H <a href="http://www.wsp.org/">www.wsp.org/wsp/sites/wsp.org/</a> Designing Handwashing Station H <a href="http://www.wsp.org/wsp/sites/wsp.org/">www.wsp.org/wsp/sites/

Enabling technologies for handwashing with soap database <a href="http://www2.wsp.org/scalinguphandwashing/enablingtechnologies/index.cfm?Page=Home">http://www2.wsp.org/scalinguphandwashing/enablingtechnologies/index.cfm?Page=Home</a>

# And some inspirational pictures











