

THE SATO HYGIENIC TOILET PAN

• Background

Developing countries — particularly those in South Asia, Sub-Saharan Africa and Oceania — seriously lack adequate sanitation facilities. People are often forced to use non-hygienic open pit latrines, or worse yet, defecate in the open, wherever they may happen to be.

Daily aspects of life that we take for granted are constant struggles for people in developing countries. The amount of poverty is overwhelming and heartbreaking. Items regularly used in North America are considered an extravagance for the many residents just hoping to survive the day. Among these are toilets, and any other sanitary way to go to the bathroom.

Poor sanitation is a leading cause of child mortality. Today, an estimated 1,800 children die every day due to inadequate sanitation facilities.

Our solution to this global crisis is the Sato, a low-cost hygienic toilet pan that utilizes simple mechanical and water seals to close off pit latrines from the open air. This reduces disease transmission from flying insects that come into contact with human waste. The SaTo pan eliminates the unsightly appearance and odours from open pit latrines.

• Location, Date

Bangladesh, Philippines, Haiti, Malawi and Uganda; 2013-14

• Areas

Rural

• Stage/Scale

Not available

• Objective of the assignment

To touch 20 million lives with improved sanitation by the year 2020

• What was done

- In 2013, American Standard launched the Flush for Good™ campaign that promoted the SaTo by matching the sale of every Champion Pro toilet with the donation of one SaTo. The campaign resulted in:
 - Donation of 1.2 million SaTo toilet pans to developing countries.
 - More than 810,000 of the first SaTo pan models have been distributed and installed in Bangladesh, Uganda, Haiti, Malawi, Nepal, Nigeria and the Philippines.
- American Standard has set a goal to improve the quality of life for more than 20 million people with safer sanitation facilities by 2020.
- American Standard is currently in field testing for three new models of the SaTo. The new models are designed to operate where water is limited, as in Sub-Saharan Africa. A trap door blocks the sights and smells of the pit below and can be conveniently opened to get rid of waste by manually pulling a cable. The user rinses the pan clean using a very

small amount of water. The SaTo toilet pan has been a solution enabling us to help save millions of lives in developing countries.

- Patents for Humanity Award
- American Standard has been honored with a 2015 Patents for Humanity Award from the United States Patent and Trademark Office (USPTO) for improving sanitation conditions in developing countries with the SaTo toilet pan technology
- Launched in 2012, the Patents for Humanity program honors individual and organizational patent holders who have developed innovative and sustainable solutions that address global humanitarian challenges.
- 2014 GREEN GOOD DESIGN Award
 - The SaTo was recognized for its innovative industrial designs that contribute to promoting healthy living and contribution to worldwide design innovation with a sustainable edge. Presented by The European Centre for Architecture Art Design and Urban Studies and The Chicago Athenaeum Museum of Architecture and Design.



● Impact

- American Standard SaTo Sanitary Toilet Pan Recognized with 2014 R&D 100 Award
- The Life-Saving SaTo Pan, Invented to Help Improve the Global Sanitation Crisis, Distinguished in R&D Magazine International Competition.
- The SaTo hygienic toilet pan, created by American Standard Brands as a life-saving safe sanitation solution for developing countries, is a winner in R&D Magazine's 52nd annual R&D 100 Awards. This international competition recognizes the 100 most technologically significant products introduced into the marketplace over the past year, encompassing a wide range of industries including Fortune 500 companies, academia and federally funded research institutions.

● Innovation

American Standard invented the SaTo (derived from Safe Toilet) sanitary toilet pan in 2013 to help reduce disease transmission, provide safe sanitation facilities and improve quality of life for residents of Bangladesh, who were defecating using open pit latrines. This cost-effective SaTo toilet pan used ingeniously simple mechanical and water seals with a trap-door mechanism to close off pit latrines from the open air, thereby preventing flying insects from spreading pathogens from contact with human waste. Use of the SaTo pan allowed residents to continue “flushing” their waste using their traditional bodna container of water.

- **Financials**

N/A

- **Sources and References**

- <https://www.rdmag.com/article/2015/08/american-standard%E2%80%99s-sato-safe-toilet>
- http://www.lixil.com/en/news/pdf/20160531_SaTo_E.pdf