(Bangladesh Mobile Water Purification Plant)

Compact Portable Distribution Type Purification Plant
and Environmental Education

New Cycloclean

Nippon Basic Co., Ltd.

Outline of Nippon Basic

Nippon Basic works to contribute to the production of safe drinking water.

We are producing drinking water in Bangladesh in a private/government collaboration with Japan International Cooperation Agency (JICA).

Name	Nippon Basic Co., Ltd.
Location	2nd floor Ujihashi Building, 767-2 Shin-Maruko-machi, Nakahara-ku, Kawasaki, Kanagawa, Japan 211-0005 2-minute walk from Shin-Maruko Station on Tokyu Toyoko Line TEL.+81-(0)44-738-2215 FAX.+81-(0)44-738-2216 Email nipponbasic@ceres.ocn.ne.jp URL http://www.nipponbasic.ecnet.jp
Representative President	Yuichi Katsuura
Established	May 2005
Capital	35 million yen
Banks	Musashi Kosugi Branch of The Bank of Yokohama Motosumiyoshi Branch of The Bank of Tokyo-Mitsubishi UFJ Musashi Kosugi Branch of The Shiba Shinkin Bank Musashi Kosugi Branch of Kawasaki Shinkin
Main Sales Contacts	Kawasaki City, JICA AIT Corporation, ALSOK Desh Bidesh Enterprise Co., Ltd. (Bangladesh) Myanmar Yutani Co., Ltd. (Myanmar) and others
Main Suppliers	Basic Co., Ltd., Miyata Cycle Co., Ltd. Osawa Seisakusho Co., Ltd., MIZSEI MFG CO., LTD. KITZ MICROFILTER CORPORATION, PRIMENET and others
Products	Water purification systems integrated into bicycles, Seawater desalination equipment, Portable water purification kits for disaster situations, Water purification equipment for at all times (disasters included), Gasoline engine driven water purification equipment and others

Outline of Collaboration between Nippon Basic and JICA

JICA-BOP Business (Working in Urban Informal Settlements)

Informal Settlers Challenging to Create Water Business in Informal Settlements

JICA

2011 BOP Business Partnership Promotion

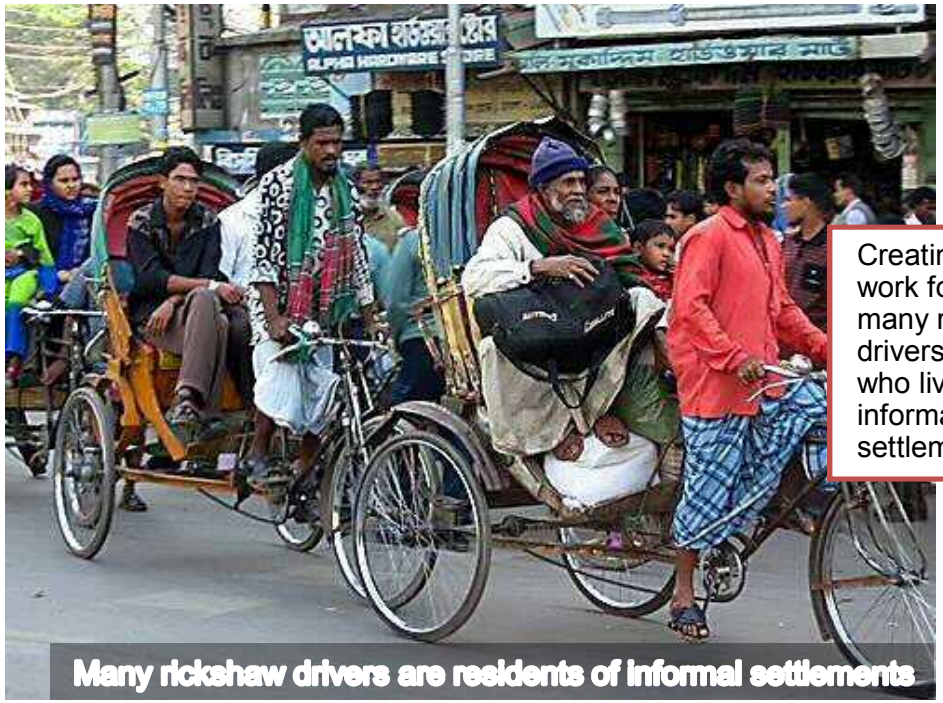
Application

Selection

Nippon Basic

With the backing of JICA financial support, we built a water plant on the outskirt of Dacca in Bangladesh, and started a water supply business for informal settlements.

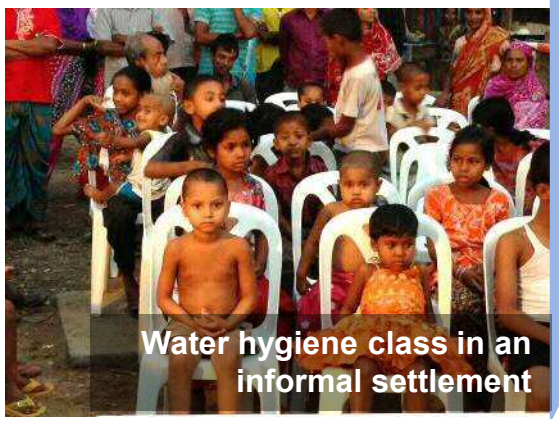
- Using leg power of rickshaw drivers in informal settlements
- Pedal power creating cheap, safe water
- Contributing to improvements in hygiene by providing safe, clean, affordable drinking water to informal settlements



Many rickshaw drivers are residents of informal settlements

Creating new work for the many rickshaw drivers/riders who live in informal settlements

Rickshaw drivers purifying water at the water plant



Water hygiene class in an informal settlement

Water supply in informal settlements has started

There has been a big public response to the water supply activities in informal settlements, even leading to the start of water hygiene education that targets children, with hundreds of children and adults attending each hygiene talk.

The safe water is made use of in the informal settlements, with tea shops using the water in milk tea (5 taka per cup) and cups of water (1 taka per cup), In this way, base of the economic pyramid (BOP) business has begun.

Life with safe water has started

Using water in the home

Clean water is good for business

A tea shop proprietress

Evaluation of Bangladesh BOP Business

JICA's World
May 2013 publication

On-the-spot article about
Bangladesh BOP Project

From Informal Settlements to Agricultural Communities

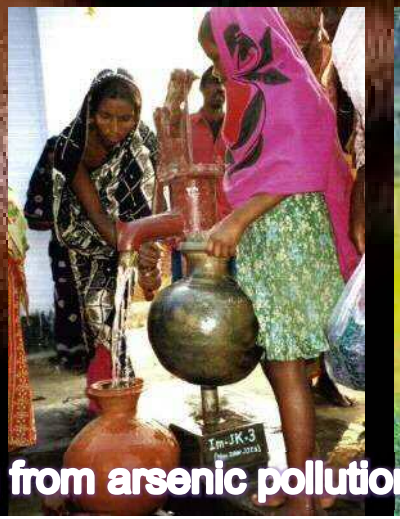
Widespread arsenic pollution means arduous work for women and loss of school opportunities for children who have to go far afield to fetch clean water.

People are being driven to use dirty wetland water in agricultural communities.

Our aim is to introduce portable, compact, non-electrical water purification devices into agricultural communities.

Agricultural Communities are the Centerpiece of BOP

People are suffering from arsenic pollution



Drawing water is the work of women and children

Next step is to study how a BOP business project can be made to work

Local Government-Private Sector Cooperation Group on Japan Side

Kawasaki Chamber of Commerce and Industry
Kawasaki Foundation for Promotion of industry
Kawasaki Economy and Labor Bureau
Kawasaki Shinkin Bank

Support

UNIDO
JETRO
International support groups such as JICA

Proposal

Joint proposal team

Cooperation request

Cooperating bodies in government of target country

Bangladesh Government Bodies

Counterpart: Department of Public Health Engineering (DPHE)
Cooperating bodies: Ministry of Disaster Management and Relief and Ministry of Primary and Mass Education

JICA feasibility study implemented in FY2015

FY2018
Aim to implement demonstration project

Applied in October 2017 for project for water supply distribution business using purification equipment integrated into bicycles that provide direct supply

Based on a study of equipment available for emergency water supplying and the setup of community disaster prevention schemes in Bangladesh, we aim to use Cycloclean (a bicycle & purifier combo that provides safe drinking water without the need for electricity) in a distribution demonstration project that supplies water and improves hygiene.

Cooperative Work with Grameen Veolia

Piping supply water to agricultural communities in Bangladesh

* 1-kilometer of pipeline costs 3 million taka (approximately 3.6 million yen), *Water charge of 2.5 taka (approximately 4 yen) per 10 liters, *Maximum pipeline length of 7 kilometers

Villagers are fetching Water from a Stand Post (Tap point) of GVWL

2016/ 5/22

VEOLIA

Grameen Veolia Water Ltd.

Plan B: **Portable & Compact Purification Plant for Distribution – "Visiting Water Purification Plant"**

Project to supplement pipeline water supply

Apr.2016

日本ベーシック株式会社
Nippon Basic Co.Ltd

Freeing women from the hard labor involved in drawing and carrying water long distances

Mon
Tus
Wed
Thu
Sun
L
M
N
O
K

CC3

Tuseday
Wednesday
H hamlet
I hamlet
Monday
Thursday
G hamlet
J hamlet
Sunday
F hamlet
Moving between hamlets

CC2

Visiting work
Return home
Return home
Visiting work

Wednesday D hamlet
Tuseday C hamlet
Thursday
E hamlet
Monday
B hamlet
Sunday
A hamlet
Moving between hamlets

CC1

Visiting work

CC4
Visiting work
Return home

Number of Cyclocleans required for population and hamlets

CC50
Visiting work

Town/village
NGO operation center
Saturday: Wash/replace filters, etc., and carry out maintenance

Stockpiling base for Cyclocleans, spare replacement filters and membrane detergent, etc.

No need to fetch water from afar, as the purification plant will come right into the hamlet, close to homes!

Water charges also can be paid by bartering with agricultural produce and dried fish, etc.

Joint Research with Kawasaki Environment Bureau
(2007-2008 Visiting Local Elementary Schools to Provide Lessons)

川崎でろ過器体験授業

泥水たちまち透明に

手作業で水を浄化することで水資源の大切さを学ぼうという授業が十一日、川崎市川崎区の市立宮前小学校で開かれた。子供たちに水質汚濁や水の循環への問題意識を高めてもらう狙いで、市公害研究所の職員が講師を務めた。

子供たちは手作りろ過器の製作に挑戦。ペットボトルの中に砂利や炭を詰めた簡単な構造で、子供たちはコーヒーや酢、墨汁、米のとぎ汁など身近な液体を試していた。

自転車搭載型の浄水器も登場した。同市中原区のベンチャー企業・日本ベーシック（勝浦雄一社長）が災害用に開発した「モバイルウオーター」で、産学連携事業として参加した。ペダルをこぐと荷台に載せたポンプが作動し、大腸菌などを除去しながら一分間に約六リットルの飲み水をつくれる仕組み。

授業には五年生約百三十人が参加し、泥水がたちまち透明になると「一瞬で飲み水ができるなんてすごい」と歓声が上がった。（斉藤 大起）

自転車搭載型の浄水器を試す子供たち
＝川崎市立宮前小学校

Article in Kanagawa Shimbun (newspaper) on December 12, 2007

水質浄化の大切さ学ぶ

市公害研究所 宮前小に出前授業

川崎市公害研究所は十一日、市立宮前小学校（川崎区宮前町）五年生に、水質浄化の大切さを教える出前授業を行った＝写真。授業には自転車搭載型浄水装置を開発した「日本ベーシック」（中原区新丸子町）の勝浦雄一社長も参加。自転車のペダルをこいで泥水をろ過する技術を披露した。泥水が一瞬で透明な飲み水に変わる様子に児童から「すごい」と歓声が上がった。

市と同社は、環境技術の社会還元に関して共同研究を行っており、出前授業は、市内外の環境技術の活用策として初めて行われた。

授業を受けたのは、総合学習で「水質浄化」を学ぶ五年生二十人。ほかの同学年の児童約百十人も授業を見学した。

授業では、家庭や川の水が循環していることを教わった後、自作のろ過装置で「すごい」と歓声が上がった。

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授業では、家庭や川の水が循環していることを教わった後、自作のろ過装置で「すごい」と歓声が上がった。コーヒーや洗剤、米のとぎ汁などさまざまな液体をろ過する実験を行い、どのような装置が液体をより浄化するかを学んだ。

鶴岡百佳さん（二）は「水がきれいになる仕組みが初めて分かった。自転車のろ過装置は、災害時にプールの水などが飲めるようになるので便利。自分の周りの水がもっときれいになるといい」と話した。（市毛史歩子）

Article in morning edition of Tokyo Shimbun (newspaper) on December 12, 2007

Thank you for your kind attention

Nippon Basic Co., Ltd.