Rural Water Shops- Entrepreneurial Solutions for Basic Infrastructure at the BoP Markets in Nepal

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Nexus Technology P. Ltd., Nepal

The 2015 University of Oklahoma International WaTER Conference
“Off the Grid: Sustainable Water and Sanitation in a Non-Networked World”
Nepal’s Challenges in Water and Energy Sector
Introduction: The Rural Water Shops/ Nexus Centre
How it Works
Rural Water Shop/Nexus Centre Features
The Revenue Model
Proving the Business
Water Shops in Progress
Challenges, Scaling-up and Way Forward
CHELLENGES IN NEPAL

Nepal is one of the poorest countries, currently ranking 145th on the Human Development Index.

89% have no access to quality drinking water.

63% live without reliable and appropriate energy supply.
CHALLENGES IN NEPAL....

- 80% of Nepal’s population is living in rural areas.
- One of the poorest nations in the world with an annual per capita income of about $730.
- The majority of the population lack access to basic necessities e.g. safe drinking water, health care, electricity and food.
- 40% of the Nepalese households have no reliable access to electricity.
- More than 89% of the total population is deprived of regular access to quality drinking water.
- 10,500 children die each year due to inadequate access to safe drinking water and poor hygiene and sanitation conditions.
NEXUS Technology P. Ltd.

- Nepal’s exclusive distributor of Trunz Water Systems AG, Switzerland
- Provides high-quality water treatment, power supply (solar, wind and vortex) and micro-irrigation solutions for decentralized areas
- Provides smart climate solutions (Biogas, Recahrge ponds, ICS, Solar Lanterns etc.)
- Provides personalized service, after-sales service, high-quality business model support and technical expertise
THE NEXUS CENTER

- medical treatment
- charging of electronic devices
- electricity
- access to internet
- safe drinking water
- hygiene products
- refrigeration
HOW NEXUS CENTRE WORKS?

Investors (e.g. WWF, SBB, A4All, REPIC, Green Village Ventures India)

Local NGOs/Service Agencies

NEXUS Technology (Nepal) as Franchisor

WECONNEX AG (Switzerland)

Franchisee 1
Franchisee 2
Franchisee 3
Franchisee 4
Franchisee 5
Franchisee 6..
KEY ASPECTS

- Technology
- Franchisee
- Safe Water
- Water Source
- Quality Assurance
- Clean Energy
REVENUE MODEL

Leasing to Own & Franchisee

- The Nexus Centers are leased to entrepreneurs in rural areas, who are willing and committed to run these centers
- 10% down-payment of the total infrastructure cost of a Nexus Center (approximately 5,000 USD)
- 50% of the revenues generated by the Nexus Centers through the sales of drinking water, battery recharging services and renting out of business facilities
- After ownership has been vested to the entrepreneurs, revenues are generated through service and maintenance contracts
- With a pilot project with 3 water shops in Southern Nepal, it has been proven that entrepreneurs are willing to commit up to 20% down-payment of the total project cost and repay the revenues generated
SOCIAL MARKETING

• Water Mela
• Scholarship fund
• Behavior change - Documentaries, Posters, FM Radio, Local Television, Newspapers
• Pet Bottle Label Design - for tourists
• Sponsoring social events
• Water quality test certificate
PROVING THE BUSINESS

Pilot Phase

- 4 pilot water shops/nexus centers in Nepal & India
- 3 of Nepal started operations in November 2014 & 1 in Bihar started operation in July 2015
- Selling price of water: 0.015 USD/l for commercial customers & 0.005 USD/l for hospitals, Internet: 0.05 USD/hr, Solar light: 0.8 USD/m, Refrigeration: 0.05 USD/5 kg/d
- Reached the 50% of the 2015 target
MANARI MODEL, Nepal

- 7 Stages Treatment
- 3 New Local Jobs
- 1,800 Beneficiaries

Rural Water Shops
Nexus Technology P. Ltd., Nepal
PARASI MODEL, Nepal

- 7 Stages of Treatment
- 3 New Local Jobs
- Beneficiaries: 1 Hospital, 7 institutions, 3 Factories

Rural Water Shops
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MADI MODEL, Nepal

7 Stages Treatment
3 New Local Jobs
4,000 Beneficiaries

Rural Water Shops
Nexus Technology P. Ltd., Nepal
BANKATWA-INDIA MODEL

3 Stages Treatment
4,000 New Local Jobs
6 Beneficiaries

Rural Water Shops
Nexus Technology P. Ltd., Nepal
WATER SHOPS IN PROGRESS

1 Nexus Centre in Surkhet, Nepal
2 Nexus Centres in Nawalparasi, Nepal
4 Nexus Centres in Chitwan, Nepal
4 Nexus Centres in Bardiya, Nepal
SCALING UP

Untapped Market Potential in Nepal & India (Bihar)

The objective is to replicate the NEXUS Centers on a large scale in Nepal & Bihar.

<table>
<thead>
<tr>
<th>Number of Nexus Centers</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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<td>10</td>
<td>35</td>
<td>100</td>
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<table>
<thead>
<tr>
<th>Investment required</th>
<th>1 Mio $</th>
<th>1.5 Mio $</th>
<th>3.5 Mio $</th>
<th>-0.5 Mio $</th>
<th>-1.5 Mio $</th>
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<tr>
<th>Sales Revenue</th>
<th>122'800 $</th>
<th>483'550 $</th>
<th>1'563'032 $</th>
<th>2'075'179 $</th>
<th>2'846'249 $</th>
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<tr>
<th>Net Profit</th>
<th>-89'908 $</th>
<th>107'769 $</th>
<th>64'568 $</th>
<th>248'959 $</th>
<th>1'070'017 $</th>
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<tr>
<th>Interest Payments *</th>
<th>80'000 $</th>
<th>200'000 $</th>
<th>480'000 $</th>
<th>440'000 $</th>
<th>320'000 $</th>
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**Rural Water Shops**

**Nexus Technology P. Ltd., Nepal**
CHALLENGES & WAY FORWARD

- Maintaining constant water quality
- Packaging and Transportation
- Behavior Change & Social Marketing of Water and Energy in rural areas
- Truly One-Stop Shop: Social Business at BoP
- Target- 100 Nos. in three years (2015-2017)
- A small step for increasing access to quality water and reliable energy services
- Entrepreneurial based solutions at the BoP Markets to tap the Impact Investments
- Replication in North Bihar of India
Key Partners & References

Thank You For Your Kind Attention!
## MF Technologies

<table>
<thead>
<tr>
<th></th>
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<th>Ultrafiltration</th>
<th>Nanofiltration</th>
<th>Reverse Osmosis</th>
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<td><strong>Water</strong></td>
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<tr>
<td><strong>Monovalent ions</strong></td>
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<td><strong>Multivalent ions</strong></td>
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<td><strong>Bacteria</strong></td>
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<tr>
<td><strong>Suspended solids</strong></td>
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