FACT SHEET - NEPAL

A community approach to access to safe water at the school with ECCA

Antenna Technologies
Sushila Khadgi, Fanny Boulloud, Urs Heierli

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INTRODUCTION

With the different programmes supported in Nepal, Antenna Technologies was able to test dynamic business models to deliver safe water through chlorination to the target population. The specific objective is to improve the hygienic environment by providing safe drinking water through social entrepreneurship and knowledge on water and sanitation awareness in schools, thereby reducing waterborne diseases.

Since 2008, ECCA (Environmental Camps for Conservation Awareness) have been promoting water and sanitation practices at school, introducing different technologies to produce safe water. For now more than 4 years, ECCA school programme is showing an interesting social impact in local communities. At the end of 2013, ECCA is also producing stabilised chlorine to sell in community events, but also distributing them to women groups.

This datasheet presents the evolution of ECCA since the launch of the Safe Water Programme Phase I in October 2010. It describes the creation of the programme, the process and achievements, the success story but also the bottlenecks and lessons learned on the way.

I. Safe water in Nepal

1.1 Background on safe drinking water in Nepal

Nepal is ranked among the countries with the poorest health profile in the world. Lack of safe drinking water supply and sanitation facilities have resulted in worsening public health conditions, deteriorating quality of life and increased economic costs. The high incidence of water-related diseases has contributed significantly to low productivity in Nepal. Water distribution systems in Nepal are mostly focused on the urban centres. Nepal Water Supply Corporation (NWSC) is the sole responsible organization in 28 urban centres of 23 districts of Nepal for the management of drinking water supply. The water distribution systems beyond these urban centres are managed by either the local communities and local water user groups or the private sector. The quality of the water supply is always matter of questioning for safety due to lack of filtration system, no use of disinfection and no proper maintenance. The worse conditions in these systems are the destruction of the source leading severe scarcity of water in times, highly turbid water in rainy season and water borne disease sprawl during the warmer seasons.

The conditions in the hilly and mountainous regions are even worse compared to the plain areas of Nepal with limited sources of water. Even though the source is found it remains hard to make the pipeline distribution system, often becomes long and tedious task to accomplish. Hence the people have to collect water from the far sources and spend hours for the daily need of water. The tragedy behind water use in Nepal is that, the water collected from this much of hardship is also not safe for drinking purpose due to the pollution in the source or due to bad storage vessels. The fact sheet released by Water Partners International depicts that 88 % of the whole diseases are the waterborne diseases. According to Asian Development Bank (ADB) report, sanitation-related diseases account for 72 per cent of total ailments and diarrhoea continues to be one of the leading causes of childhood deaths in Nepal.

Therefore an instant action for the safe drinking water supply is the must in the present context of Nepal. An appropriate technique of water purification system should be installed according to the size of the communities and water distribution systems. Awareness campaigns of safe drinking water should be organized in the communities to prevent them from the waterborne diseases.

1.2 Development of the school programme, social marketing and safe water at work place

The NGO ECCA (Environmental Camp for Conservation Awareness), established in 1987, has been promoting Safe Drinking Water Campaign in Nepal by using Antenna's WATA electro-chlorinators. ECCA has been promoting Mini-WATAs and Standard WATA through schools, community drinking water system, and entrepreneurs.

Mr Pierre Walther on behalf of SDC carried out the project evaluation in September 2012. He recommended that ECCA focus on strengthening the school component and reaching the community around the school, so that people become

aware on the need to disinfect drinking water and hence, demand is created. By cashing on the demand thus created, the chlorine produced by ECCA under the brand of WATASOL was sold to the community.

ECCA strategy

"If you are planning for a year, plant rice.
If you are planning for 10 years, plant a tree.
If you are planning for 100 years, educate your children."

II. The implementation of the Safe Water programme (ECCA)

2.1 Description of the school programmes

ECCA has a long-standing experience in working with schools as it has been operating for 20 years as a youth environmental movement. The School Awareness Programme started in Kathmandu capital. Activities have been initiated in 39 of the planned 40 schools as of 2013, to spread awareness of "Safe Drinking" water to the junior students in various Government and Private Schools. The Figure 1 below shows the different provinces where the school programme have been promoted since 2010.

Figure 1: ECCA volunteers teaching WASH and safe water practices in Kathmandu

At the beginning of the programme (2010), of 25 schools tested, 20 showed a presence of E-coli in the water. The model to be tested is that the school will appoint a person to produce 2 litres of chlorine per day in two shifts (Mini-WATA) and use 250 ml to disinfect the 1000 litre water tank and sell the rest through the children to their parents in 50ml flasks. Those bottles have been branded WATASOL and people can buy the flask (10 or 15 NRS). It is assumed that a family will need 20 litres of drinking water per day and thus uses 5 ml. A flask of 50 ml will thus last 10 days and the students can replenish the flasks at school for say 5 NRS Water quality tests before and after added chlorine and a questionnaire or group discussion has been used to monitor the effect of chlorination on consumer satisfaction and health impact.

Besides, ECCA provided basic introduction to the class and teachers on water treatment methods and waterborne diseases. Additionally, ECCA volunteers continue following up training every 3 months in each schools (Figure 2), gathering all documents of chlorine production prepared by the students and answering all their questions if needed.

Sushila Khadgi, Safe water programme coordinator, ECCA

"ECCA volunteers provide trainings and awareness cessions to schools in urban and rural areas environment, with a specific focus on safe drinking water. All covered ECCA schools have received once a year a training on waterborne diseases, an added value for the curriculum of the schools. Pupils receive an introduction of WATA technology to produce chlorine, allowing the ECCA volunteers are old members of Nature Club and are active allowing disinfection of the school water tanks. "

Figure 2: ECCA volunteers teaching WASH and safe water practices in Kathmandu

2.1.1 Introducing safe water at school: empowering pupils with chlorine production

First of all, water should reach the school facilities and a water system should be working: pumping or water harvesting and water storage facility. Once this system is set up, the disinfection programme can start. In some of the schools, either due to the continuous flow of water in the reservoir tank or the placement of storage tank at a higher level, the students were facing difficulties in mixing WATASOL in the tank. In such cases either additional tank or alternatives such as water jars, dispensers and water bottles were provided to the schools and at convenient locations in the school premises. It allowed an easy access to chlorinated water and thereby encouraged the chlorinated water consumption by all students and teachers.

The school programme is organised around the production of chlorine at school by the member of the Nature Clubs. Some of the school pupils interested in environment gathered under an association, called Nature Clubs. They are motivated and determined to promote health and protection of environment in the school and their community. Those Nature Clubs are in charge of the chlorine production and are supervised by their teachers and ECCA volunteers (Figure3). To guide them on the importance of implementing best management practices for drinking water in schools and at household level, a manual on Safe Water was designed by ECCA, printed and distributed to the project schools. Furthermore, the quality of the drinking water provided to the students and teachers is regularly tested to ensure that

it meets the required standard. Besides, Nature Club students are also performing Free Residual Chlorine (FRC) test regularly inside the school as well as in the community.

In 2013, the new Mini-WATAs were delivered in ECCA, and all the previous devices (producing chlorine in 8 hours) were replaced. The teachers and the students were really interested in receiving the newer version of Mini WATA producing chlorine in 3hours, as it increased their efficiency level. In the Nepalese context, power supply shortcut for long hours are frequent and it is rare to have continuous power supply for 8 hours, which was hampering the production of WATASOL.


Figure 3: Pupil Production and storage of safe water at school

2.1.2 Door to door campaign

To reach out to the community for WATASOL promotion, door to door campaigns are organized by Nature Club students in almost all the project sites. Groups of students along with ECCA volunteers are visiting each household of the nearby community and sensitize people about the need of using Safe Drinking Water and role of WATASOL for healthy living. And to give continuity to the use of WATASOL in those areas, re-sale campaigns were conducted every 2 or 3 weeks.


Figure 4: Door to door campaigns from the Nature club

2.1.3 Theatre drama and documentary show

Through the documentary students receive information on methods to purify water at the local level. The documentary is focusing on water related issues, water borne diseases and solution for disinfection, including the WATASOL chlorine and has been shown to all the pupils of the schools of this programme.

After this success of the program in the school, the nature club students also replicated the program in the community, neighbouring schools and local groups. The school programme was also hoping that the information about safe drinking water solution would flow from the children to the parents. But as it was not sufficient, ECCA starting raising awareness of parents on safe drinking water technology used in the school, parents' gatherings were organized in several schools (Figure 5). With the help of the school administration, parents were invited for interaction and debate around safe water. The Nature Club students also performed drama on different household water purification techniques in the streets. To ease local people understanding, some schools also performed the drama in local 'Newari' language. Hence the drama was easy to understand and enjoyable for the local people. Drama is a powerful and entertaining form of communication, and it can be presented without the need for an indoor stage or theatre house. After several years, the documentary show and the drama have become popular in school and community.

Additionally, ECCA organized an Interschool Drama Competition in 2010, 2011 & 2012 at Patan Durbar Square, Lalitpur. The nature club students performed in front of a panel of judges, who evaluated the dramas according different criteria like the relevancy of the script to the topics, the subject matter was dully incorporated in the script, the concept and the content of the story, the clarity in delivering the message, the student performance and the clarity of the voice during the performance. The top three nature clubs at the grand finale were awarded with the cash prize of NRS 15,000, NRS 10,000 and NRS 5,000 respectively.

Figure 5: Documentary show and drama theatre at school and for the community

2.1.4 The drawing and essay competition

ECCA has designed variety of programs in order to encourage students to be competitive and active; to boost their confidence and help them gain knowledge and experience. With their objective to create awareness among young generation about various issues related with water and sanitation, ECCA has been organizing National Essay Competition each year during the World Environment Day (Figure 6). ECCA envisions that students after participation in this competition will initiate expressing their concern regarding water and environment issues and will be encouraged to in protecting and conserving it.

The top three winners in each category were awarded cash prizes along with a gift hamper and certificate. It is also important to note that nature club themselves are regularly organizing different competitions in their school in order to encourage use of safe water among the students. Hence, art (drawing) and speech competitions have been organized in different schools.

YEAR	TOPIC
2011	“How can we recharge the ground water and make our drinking water safe"
2012	“Role of water in Healthy Environment”
	“Impacts of climatic adaptation in water resources”
	”Safe Drinking Water for a Healthy Family”
2013	“Importance of Water and Sanitation facility in school”
	“Water challenges faced today and ways of mitigating those challenges”

Figure 6: Drawing competition and essay competition at school

2.2 Description of the community water supply (WATASOL)

ECCA project focused on both the demand and the supply side. On the demand side, ECCA worked on facilitating and supporting the promotion activities designed by the local groups. The idea was not to impose an activity but really to help them create their own. As a result, many activities were conducted with the direct involvement of the locals, thus contributing a significant amount (both in-kind and cash) as local contribution. For instance, the money obtained from the sales of WATASOL was spent on additional promotion activities by many schools. The project supported by developing and providing education materials (flyers, flex, hoarding boards, incentives or prizes). On the supply side, in addition to providing the device (Mini WATA and Standard WATA) and training the producer, quality checks were constantly done on the produced WATASOL and water quality test: Free Residual Chlorine (FRC) test were performed periodically.

2.2.1 The ECCA business model and its customers

A central part of the model is the implementation of chlorine production. ECCA is the main producer of WATASOL chlorine that is available in all ECCA safe water events. They produce stabilised WATASOL and market it through the sales agents or the social mobilizers (Figure

In the first two and half years of the programme (until mid 2012), un-stabilized WATASOL was sold (which was used within one week of production). At that time, local production and distribution allowed to reuse the chlorine bottles. And it was a relevant cost saving for users, as the cost of empty bottle is more than the WATASOL solution. But this is initial concept could not be kept with the new requirements of chlorine stabilisation. Indeed, with the Antenna directive on chlorine stabilisation in 2012, WATASOL chlorine has to be stabilised in ECCA lab. And as of 2012, the chlorine WATASOL is produced from Standard WATA device, then stabilized, filled in 50ml bottles and dispatched to different project sites and consumers (including East Nepal).

From 2012, the school Mini WATA is now used to produce WATASOL inside the school premises only, for drinking water as well as sanitation purpose, as to spread awareness in the adjoining community. But all the WATASOL bottles presently sold are stabilized. The entrepreneurs in East Nepal cannot stabilize their product and ECCA has organised transport from Kathmandu to deliver the suitable product.

Figure 7: Bottles of WATASOL chlorine, stabilised by ECCA

In terms of economic figure, sale commission has been defined and provided to the sales agent, which could be, teachers, sales outlet shop owner, women group, local youth group, social mobilizers and other individuals. Hence, the distribution of chlorinated WATASOL is continued through women group, sales agent and sales outlet. Furthermore, in 2014, ECCA is now working in developing new distribution channels for the commercialization of WATASOL. ECCA – and its commercial arm, Future Now pvt. Ltd., are keen to develop a sustainable model in the long run, selling a branded flasks with a mark-up of 1 or 2 NRS but also selling the Antenna WATABlue quality test services to the population, as an instrument for households to test the residual chlorine in their treated water.

2.2.2 Delivering in Kathmandu slums water kiosks

ECCA partners with village community (sometimes women group) and supply chlorine for the community tank. The sales description is as follow:

- The water tank (3,000L) is filled with - usually contaminated - water delivered by water tankers.
- The women group purchase WATASOL chlorine to disinfect the community storage tank and purify the water.
- People from the community can pick up treated water every day from the main tank for a monthly fee.

Ms Shirisha, Safe Water Manager, Naya Pauraki community

"The women group of the village have appointed me to manage the water tanks of the community and we purchased stabilised chlorine from ECCA since 2010 to chlorinate the water tank of your community village. We have 3 tanks of 3'000L that were constructed by an NGO 4 years ago. Now, we can afford to add WATASOL chlorine in the water distributed every morning and evening. Villagers are paying 12 NRP per month for the service and are satisfied with the prestation."

2.2.3 Delivering chlorine to sales agent /women Groups

ECCA is also providing chlorine to women groups during fairs or social events. Indeed, many women's group has been given WATASOL orientation and can promote the solution in their community. As women take care of their household and use WATASOL for different household activities, the women groups have become one of the focal point for WATASOL distribution. The women are also promoting WATASOL door to door in their community and as a result they were successful in creating awareness in different community.

Additionally, other sales agents are able to promote and sell WATASOL to larger companies like Mineral Water Company, Jagadamba Printing press, poultry farm, mushroom farm, in small hotels and restaurants. Also, they are distributing WATASOL through different shops and also in different schools where there is no WATA device.

2.3 Social marketing

Awareness creation and an effective commercial and social marketing mix are important factors. Selling a product to people living at the bottom of the pyramid (BOP) is not an easy task, because they have to be cautious about where they want to spend the little money they have. Before buying anything, they will critically think about the benefits the product offers. Another difficult task is to change the behaviours of the targeted population. Many poor people are not aware of the benefits of safe water and would not pay anything for it as long as they have water available in their well.

2.3.1 WATASOL promotion campaign to the community

a) ECCA Stall promotion

In the rural places like Morang, people gather in a small market and sell their goods once in a week. WATASOL stall was installed in such market place during the local festival for instance and kept by the sales agent. Students also promote WATASOL during events inside the school.

c) Promotion through local Health Post

In Southern Lalitpur region, ECCA developed links with local health post and local women health volunteers. In the beginning, these volunteers were briefed about safe drinking water and WATASOL. While they were visiting households as part of their regular work, they also promoted WATASOL sales, supporting also the after sales service (the refill/resale) and monitored its usage. In the first month, WATASOL was distributed free of cost but was later on sold.

2.3.2 WATASOL promotion materials

To enhance the visual impact, wall painting on the theme safe drinking water was implemented by ECCA on different external walls of the schools. Wall painting became a very effective technique to disseminate information to the community. It is also the most sustainable promotion technique as the painting resist a long time to all exterior

possible degradation (rain or wind) but is also perceived as an additional value for the community: it is beautiful and show an elevation of status for the school. Parents are thereof proud of it and happy to send their children to school.

Additionally, communication material was also developed to promote WATASOL chlorine. ECCA designed and printed manuals, posters, flex, hoarding boards, flip charts, stickers for bottles, flyers, WATA bags, T-shirt and caps as described as follow and in Figure 8.

- **Bottles:** Initially ECCA was promoting WATASOL in 50ml bottles only but after the promotion of WATASOL for sanitation purpose as well, plastic bottles of high capacity (200ml and 1000ml) were also manufactured and distributed according to the demand.
- **Stickers:** Bottle stickers (with a brand name WATASOL) were designed and printed for all three-size bottles.
- **Flex:** Two different sizes of flex were developed and printed. The flex developed included information on water borne diseases, WATA device and multiple uses of WATASOL. These flex were distributed in the schools, the communities and were also used in the stall at market place, in different events and in the orientation program on the use and importance of WATASOL.
- **Information Board:** In order to improve visible presence of WATASOL, information boards were designed and installed in the market place of Morang and Kathmandu.
- **T-shirt & Cap: F**or the promotion of WATASOL, T-shirt and caps were printed, which were distributed to social mobilizers, field coordinators and project staffs. They were also used as prize for the winners of different one day program and competitions.
- **Flyers:** To spread information of WATASOL in household level, flyers were designed and printed. It also contained information about Free Residual Chorine (FRC) test.
- **F**lip charts: In order to motivate people to use WATASOL during the marketing and door-to-door visits, some documents were felt necessary. Hence, flip charts were designed. The flip chart contains some water facts; data related to water borne diseases, some purification methods, chlorination and multiple uses of WATASOL They were distributed to the social mobilizers, field coordinators and in the schools.

Figure 8: Promotion of WATASOL products (posters and wall paintings)

III. Customers/beneficiaries in Kathmandu

3.1 Pupils reached with ECCA programmes

The below photos are some examples of schools Nature Clubs visited in February 2010.

Secondary School, Kathmandu
Weekly production: 500 ml of SH safe water

Secondary School, Kathmandu
Weekly production: 500 ml of SH safe water

School Name:
Distribution of safe water in dispenser

School Name:
Safe water in primary school

Figure 11: Students from the School programmes in Kathmandu district, Nepal

3.2 Beneficiaries reached by ECCA

The below chart is the number of school supported by ECCA from 2010 to 2013.

SN	School Name	Total (WATASOL users inside the school)	No. of Bottle Sold		No. of family members	TOTAL WATASOL beneficiaries
			New	Refill		
1	Lalit Kalyan Lower Secondary School	167	141	118	1295	1462
2	Prabhat Higher Secondary School	641	213	127	1700	2341
3	Yashodhara Bouddha Secondary School	325	136	97	1165	1490
4	Tri Ratna Cooperative School	266	145	85	1150	1416
5	Namuna Machhindra Higher Secondary School	792	107	107	1070	1862
6	Shikshya Bikas Sec School	729	146	129	1375	2104
7	Laxmi Sec. School	733	183	137	1600	2333
8	Mahabharat Sec. School	300	170	90	1300	1600
9	Budhha Sec. School	732	188	110	1490	2222
10	Ganesh Secondary School	329	164	81	1225	1554
11	Bhagyodaya Higher Secondary School	430	167	123	1450	1880
12	Sarasowti higher Secondry school	374	198	112	1550	1924
13	Harisidhi Higher Secondary School	780	201	142	1715	2495
14	Shree Krishna Higher Secondary Sdhool	373	189	120	1545	1918
15	Mahendra Gram Secondary School	322	167	116	1415	1737
16	Udaya Kharka Secondary School	472	174	144	1590	2062
17	Goth Bhanjyang Higher Sec. School	568	143	131	1370	1938
18	Shree Bagh Bhairab Lower Sec. School	202	141	119	1300	1502
19	Bal Kumari Secondary School	498	172	92	1320	1818
20	Little Flower Boarding School	322	139	44	915	1237
21	Letang Secondary Boarding School	320	134	53	935	1255
22	Kanya Cooeducation School	534	88	38	630	1164
23	Shree Jana Jagriti H igher Secondary School	237	72	34	530	767
24	Shree Magar Gaun Higher Secondary School	478	75	44	595	1073
25	Shree Vidhyadishwori Secondary School	291	97	35	660	951
26	Shree Mahakali Devi Higher Secondary School	465	91	29	600	1065
27	Shree Bagh Bhairab Higher Secondary School	245	78	22	500	745
28	Shree Kali Devi Higher Secondary School	388	83	29	560	948
29	Puspanjali Secondary School	675	54	32	430	1105
30	Jalpa Secondary School	323	53	59	560	883
31	Shree Padma Prakash Secondary School	449	59	0	295	744
32	Shree Madhubani Secondary School	563	37	0	185	748
33	Purna Kesar Secondary School	1118	32	0	160	1278
34	Jamiya Faizul Islam Alsalfiya	515	29	0	145	660
35	Shree Tilaurakot Secondary School	816	28	0	140	956
36	Jante Higher Secondary School	787	54	22	380	1167
37	Chitwan 1	162	25	0	125	287
38	Chitwan 2	162	25	0	125	287
39	Chitwan 3	162	25	0	125	287
	Total	**18045**			**35220**	**53265**

IV. Next steps: going to scale

4.1 Scaling up means a centralised production and a strong social marketing

With a centralised production, ECCA will be able to secure the quality of WATASOL brand and hereby promote the product locally to the population. It exists already several solutions for chlorine such as Waterguard developed by PSI or Piyush, chlorine flasks produced and distributed by the Ministry of Health. However, such products are not sells everywhere (in rural areas especially) and prices are quite high. Hence there would be demand to promote and

produce WATASOL on a larger scale. A study is on going within Antenna Technologies to evaluate the potentials and the require budget that would be necessary to launch such a project.

Along with strong sales team and door-to-door promotion, the last mile distribution channel should also be strongly implemented as it represents the most important added value to WATASOL chlorine distribution. Hence, the theatre dramas for the community have been one of the big discoveries of ECCA in terms of social awareness, and should be continued in the next years. The wall paintings are also a discovery in terms of means to convey the message on safe water: not only they promote a product but raise the status of the school and the curriculum.

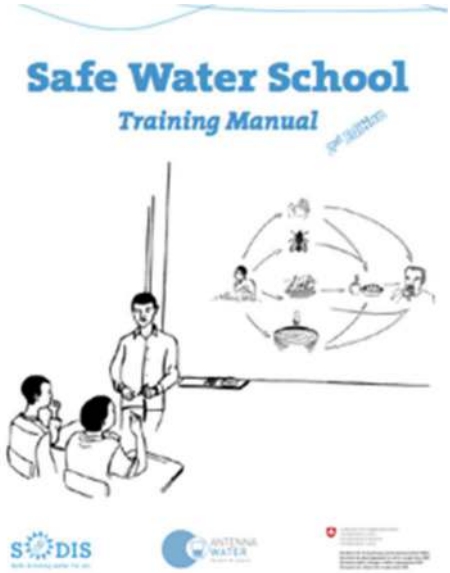
4.2 Concentrate the effort on a vertical scaling up of the programme

There is the need of promoting even further the school programme within the local actors in Nepal, in order that these activities be reproduced on a larger scale. Antenna's vision is that health education should be taken over by the government, and for that it should be structured on the political scene, with the support of all other NGO, such as WHO, UNICEF but also government bodies. On the other hand, providing a private solution, sustainable, is one important mission for ECCA that should be further analysed. Hence, Antenna is right now working toward collaboration with the HWTS network to organise workshop and studies on HWTS solutions, mapping the different actors that could lead to the creation of a National Plan on safe drinking water.

4.3 Continuous search for a stable financial support.

Financing such a business models requires quite a lot of investment and it was quite a challenge to launch such a social enterprise. Since 2010, ECCA and have received, 20'000 CHF per year to promote social marketing and intensely secure the project. Finance is the continuous research of any new business. Scaling up also mean stability of finances, where the company knows it can count on stable income for a medium time frame. It is to be noted that investors really necessary to scale up the business models.

4.4 Replication: Can ECCA be replicated in other countries?



ECCA has proven that a public approach is desirable to promote a sustainable solution. Its schools programmes already inspired Antenna Technologies to replicate it in Haiti, Kenya and Bolivia. In those countries, for the last 3 years, a coherent programme was implemented, reaching more than 130,000 pupils. It also resulted with the publication of the Safe Water Manual (SODIS, 2013), that provides pedagogic methodology to raise awareness on safe water and WASH at school. The main findings were that this programme has to be coordinated with the government (local or national), for this training to be really pertinent and sustainable. In Bolivia, the local government is promoting the implementation of the programme by giving incentive to the teachers but also encouraging the local partner (Fondacion Sodis) to maintain this project. Those experiences would be extremely valuable to be transferred – and obviously – adapted to other countries. It is planned to work on a "toolbox" with concepts for such replications.

CONCLUSION

Through its "Marketing of Promising Technologies in Safe Water" programme, ECCA (Environmental Camps for Conservation Awareness) seeks to improve access to clean water in schools and communities in the central and eastern areas of Nepal. ECCA has been developing three strategies for distributing chlorine over the last years:

a) By schools: Schools produce chlorine for their own use using Mini-WATA devices. This encourages pupils to make their parents, in turn, more aware about water treatment.

b) By entrepreneurs: working door-to-door as health educators, they sell the chlorine that has been produced and stabilised by ECCA. Chlorine use is promoted among both shopkeepers and bottled water vendor,

c) Via reservoirs, where the chlorine solution (stabilised) is injected directly into reservoirs serving the water supply systems of three villages.

They have been promoting water and sanitation practices at school, introducing different technologies to produce safe water. For now more than 4 years, ECCA school programme is showing an interesting social impact in local communities. ECCA is also producing stabilised chlorine to sell in community events, but also distributing them to women groups, developing distribution channels. ECCA relies on increased awareness of good hygiene practices, improved access to clean water and a reduction in school absentee rates due to waterborne diseases. The organisation has developed educational materials on hygiene and chlorine that could be used in any for any social awareness campaigns.

REFERENCE

ECCA 2014, ECCA Final report of activities for Nepal

ENPHO 2014, Environment and Public Health Organisation
http://www.enpho.org/programs.html

NWSC, 2014, Ministry of Urban Development, Nepal Water Supply Corporation
http://www.nwsc.gov.np/

SODIS, 2013Safe Water Manual,
http://www.sodis.ch/safewaterschool/safewaterschoolmanual/safewaterschoolmanual.pdf