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IMPROVING PUBLIC AWARENESS, WILLINGNESS TO PAY AND
CIVIC COOPERATION IN THE OPERATION OF WATER SERVICE
PROVISION THROUGH BEHAVIOR CHANGE COMMUNICATIONS

USAID/MEXICO COMPETITIVENESS PROGRAM

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IMPROVING PUBLIC AWARENESS, WILLINGNESS TO PAY AND CIVIC
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Lester M. Hunt, III

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INTRODUCTION

Currently, there are more than 2,000 water utility operators in Mexico. They all face the same problems, which include: decaying infrastructure, lack of capital investment in infrastructure, inadequate water coverage, high percentages of non-functioning and stolen water meters, large percentages of non-paying customers, illegal water taps, low pressure due to illegal taps, system-wide leaks, interrupted service, lack of trained motivated personnel, and most importantly large numbers of customers dissatisfied with the service. The water utilities are often not able to meet their operations and maintenance costs with customer revenues, thus many are servicing significant debts sometimes without government subsidies. Investments in infrastructure have fallen far behind demand, thus creating blocks of those without access to water. In addition, most operators are small and do not have the ability to mount social marketing and behavior change campaigns to change the misconceptions of their clients and inform them about their pricing, operations and infrastructure investments. All of these factors may have been manageable, all things being equal, but due to climate change and population growth, water utilities are experiencing increasing pressures in a politically charged environment.

1. Historical Context

Few countries in the world have focused as much public attention on water as Mexico. In the Olmec civilization, over 3,400 years ago, the god of rain played a pivotal role. The following major civilizations all had rain gods: the Zapoteca (Cocijo), Azteca (Tlaloc), and the Maya (Chaac). The importance of these gods was acknowledged by human sacrifice, which represented a form of supplication for water. Ironically it was the tears of the rain god that were said to represent or be the rain. The Catholic church co-opted and assimilated the rain god in the form of Saint San Isidro Labrador. The only god from the pantheon of Meso-American gods to have survived history and retain an active following is the rain god, which is still acknowledged today through modified rituals. No doubt the environmental conditions and agricultural reliance on cyclical climatic phenomena like El Nino have played an important role in maintaining the relevance of the rain god to Mexican culture. To say that history and tradition have lessons to teach us, would be stating the obvious, as we venture into a world whose destiny is shaped and altered more and more by human hands.

2. Water Politics

Traditional antecedents and modern concerns about water make it an issue that is highly politicized in Mexico. Opposition leaders regularly use the press against each other on regional water issues and seem quite ready to sacrifice their opponent's political career. One of the most prominent national Mexican newspapers, *El Universal*, had the following headline on the front page as their lead story on September 1, 2009: "Lack of Water Will Result in Violence." This is relevant considering that eight million people in Mexico City had a water stoppage for three days in April 2009. According to the *New York Times* (2009) article states that Mexico is suffering its

worst drought in seventy years. The nation's reservoirs are half-empty and 40% of the crops surveyed by the government are parched. This perfect storm of climatic related water shortages, inadequate service and political recrimination, have the potential to create serious social discord further aggravating the tenuous relationship that water utilities have with their customers. Given that there is no national communications strategy for social communication during shortages, water utilities will encounter serious social turbulence if current trends continue. Water shortages in Mexico have always been challenging but the additional pressures caused by global warming and population increases make being prepared that much more important.

EVOLUTION

1. *Evolution of the Client*

The tinder that can be ignited by firebrand politics is the public's historic hostility towards water utilities. There is an ideological preconception amongst a majority of customers, who believe that water should be provided free of charge. A common saying is, "Dios nos dio agua, entonces ¿debiera ser gratis!" Translated as, "God gave us water therefore it should be free!" However in accordance with the theme of the presentation, I have added, "Pero se ha olvidado de las tuberías, las bombas, los trabajadores, los filtros, el cloro y el mantenimiento de las plantas de agua. Entonces, se paga por el servicio: disponibilidad del agua de calidad en el momento y en el lugar adecuado, asegurando la sustentabilidad para generaciones futuras." Thus the emphasis has changed in that water is NOT the item that the customer is being charged for, but rather the service of providing the water (pipes, workers, filters, chlorine and water plant maintenance), to an exact location, at the time it is desired, with quality assurance and sustainability allowing for continued service delivery to future generations. This approach strives to de-politicize the water issue and focus the public's attention on their role as complimentary to that of the water utilities. In this manner a dialogue can begin to help communities better understand the basic operations of water service, including its costs and investment requirements, and create opportunities for communities to participate in decisions about pricing and operations.

2. *Evolution of the Water Utility Operators*

Water utility operators have often ignored their customers while they focused on what they consider to be the most critical aspects of the business, which is infrastructure, potable water, equipment, and other technical issues. The Mexican Institute of Water Technology (Instituto Mexicano de Tecnología de Agua) has a few hundred highly technical books on their website that freely offers to members the most recent scientific knowledge available to municipal water providers, yet there is not one that deals with the subject of striving to improve the quality and efficiency of customer relations. The water "operators" often seem perplexed as to why customers don't pay their bills, steal water meters, advocate illegal taps, or are openly hostile to

the water company. Thus the following questions serve to be thought provoking and strive to create a new perspective to problem solving:

- What can we do to improve our services?
- What incentives can we use to increase the proportion of clients who pay for water services?
- How can we change messages directed at clients to change their behavior in a positive manner?
- What can we do to encourage water conservation?
- Should we stop serving certain non-paying customers?
- How can we improve the existing culture of water programs?
- How can we create a social consciousness in new generations that encourages payment for water services?

Clearly the operators understand the incentives and benefits of evolving their services and outreach programs to non-paying customers. However the operators remain uncertain about the means of achieving these objectives and increasing their revenues.

3. Social Indicators

Water utilities are extremely savvy when it comes to technical benchmarks and performance indicators. In fact a significant portion of the presentations at water conferences focus on those very topics. However performance indicators in the water industry often focus on empirical technical aspects of service delivery. For example some basic indicators in the water industry are:

- Accessibility (%) = population connected/total population
- Number of employees per each 1,000 connections
- The operations and maintenance costs covered by revenue collected
- Payments averaged by water and sewage by m³
- Ratio of bill collection to gross amount charged
- Debt at the beginning of the period/debt at end of period
- Unaccounted for water/volume of water consumed
- Proportion of hours per day that water is supplied
- What is missing?

Social indicators as a measurement of performance are missing for the vast majority, if not every water utility in Mexico. Thus the water operators are measuring everything but their customer's opinions and satisfaction with service provided. If the operators don't know what their customer's complaints and questions are how will they be able to provide what the customer defines as "good" service? How will they be able to understand their customer's willingness to pay and price sensitivity?

SURVEY

1. *Client survey*

Given the potential for discord and the highly politicized aspects of water provision in Mexico, it is surprising that no nationwide survey has been conducted on non-paying customers or paying customers to find out what their beliefs and attitudes are. Only with data gathered by a survey and focus groups is it possible to understand what the client's critical concerns and misconceptions might be. Thus a survey would allow the water utilities to respond to customer questions, to tailor and prioritize their social interventions and the topics of press releases. In short, water utilities may be able to position themselves as an ally of the public that understands their clients.

2. *Water Survey in the USA*

A simple and effective water survey was carried out in five markets in the USA to find out what customer's concerns were. The results were intriguing when customers were asked, "What do you consider to be the three most important issues?" The results ranked in terms of percentages reveal the following customer requests:

- 55% Want information about how customers can save money on their water bill
- 53% Reasons why water prices increase
- 49% Information about other taxes and charges on a water bill that may or may not be related to water usage, i.e., sewer charges and /or sanitation fees
- 31% Who to contact if a customer has a billing problem
- 30% How much do I pay for different types of water usage costs (shower, car washing, watering the lawn, etc);
- 27% Information about the procedures used by water company ensuring bill accuracy;
- 25% What is the water utility doing to keep costs down;
- 18% Information about the process for resolving billing errors or disputes
- 13% How much does local water cost in comparison with other water utilities

Tatham, C. & Dr. Mobley, J. (2004), *Customer Attitudes, Behavior, and the Impact of Communications Efforts*, Boulder: The Water Research Foundation, p. 51.

During the presentation, water utility operators were asked to raise their hands if their clients had ever voiced some of the same aforementioned concerns. Every single operator in the crowd raised their hand. Many of concerns of clients in the USA were similar to those in Mexico.

3. *Mexican Water Survey?*

Although similar in many ways, Mexico and the USA are also very different, especially concerning water and the influence of social economic factors. It would be relatively easy to conduct small surveys in Mexico. The survey questions already exist but they would need to be translated and adapted to Mexico. Willingness to pay survey questions also exist. It would be

necessary to conduct the surveys in different locations as determined by national representatives of the water operators, the Mexican Institute of Water Technology (IMTA), which represents hundreds of water utility stakeholders nationwide, and in consultation with the National Association of Water and Sanitation Enterprises (ENEAS). Ideally the survey would be done on both the water poor North and the water rich South. In addition, the clients would be a mix of urban and rural given that each face unique structural constraints. The results of the survey would be analyzed and a report would be written. Representatives from the National University of Mexico have expressed interest in participating in this process. Once the analysis is complete and the report written, it would be possible to begin the process of establishing a communications strategy for the water sector.

BEHAVIOR CHANGE

1. *Communications Strategy*

The water operators that have public relations or outreach programs have limited guidance in their campaign themes and topics. Some operators have been using the same message for years, which can be boiled down to one repetitive word...”PAY!” With the results of the survey report, and in consideration of the national objectives of the water sector as established by the government, a communications strategy can be developed. The strategy would be client driven but created for the operators. It would respond to the concerns of the clients, while addressing possible solutions and behavior change approaches that the operators can take. The communications strategy will target key audiences (payer, nonpayer, youth) with topic specific key messages (illegal water taps, costs, maintenance, saving money, conservation, reporting leaks, etc..) that should be used for those populations. The communications strategy will also consider social communication approaches during water shortages and temporary water stoppages. These approaches will be reviewed, edited and approved by the key players like, representatives of the water operators, the Mexican Institute of Water Technology and the National Association of Water and Sanitation Enterprises. The communications strategy will also recommend certain media mediums like: radio, TV, newspaper, SMS, and twitter. This approach assures that there by-in and that there will be a degree of national uniformity based on the government’s national water objectives and those of the communication strategy. In short, a communications strategy will provide guidance on the social communication programs for more than 2,000 water utility operators.

2. *Scientific Process*

Behavior change communications is a scientific and strategic approach to promote positive client and water utility related outcomes. The foundation of behavior change communications is proven theories and models and it is a logical sequential process. Formative research (client survey & focus groups) and analysis (survey report) is followed by communication planning (communications strategy), implementation, and monitoring and evaluation. Target populations receive key messages and materials, which are pre-tested by a sample group from that target population. Mass media and interpersonal channels are used in the roll-out of the campaign. However it will be necessary to develop a cadre with technical skills necessary to: conduct client

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research, use the results of the water survey and the accompanying report, develop/adapt communication materials, test materials in the target population, and implement monitoring and evaluation. Water utility operators will have to undergo training in the effective use of behavior change techniques, as well as in the development and roll-out a behavior change communications campaign.

3. *Behavior Change*

How does behavior change relate to water? What kind of behavior and attitudes of the clients and the water operators can be changed? Examples of what might be achieved:

- Clients understand and accept the pricing schedule
- There is social participation of the community and local NGOs
- Clients help to maintain the water system
- Water operator and their clients respect quality service
- Children, adults and water utilities work together to promote the culture of water
- The infrastructure development activities of the water utilities are known and respected
- Clients are satisfied, informed and comprehend the work of the water utilities
- Friends are created instead of enemies

Thus in addition to knowledge acquisition by the community there is also positive participation and customers are proactive in issues like water conservation, while having an understanding of their role and responsibilities. The water operators change standard operating practices in order to encourage and aid the customer's enlightenment process.

4. *Water focused behavior change programs*

Possible examples of programs that can use to change the attitudes and behaviors of customers and are quickly noted below to be elaborated on further in the document:

- Social and civil participation
- The culture of water
- Educational programs in schools
- Media campaigns (radio, TV, newspapers, internet, and SMS)
- Social events that provoke mouth to mouth and interactive communication

5. *The Press and the Politics of Water*

The press represents and underexploited resource that all operators should exploit. Reporters should have open access to the water utility directors and press officers. Reporters should be actively educated on water issues and key messages to prevent misleading articles from being published. Using the press is a cost effective manner to inform and educate the population. Numerous opportunities exist to use the press, like interviews, events (World Water Day), water programmed shortages, water culture, water saving techniques, the comics, and press releases. Themes and key messages developed in the Water Communications Strategy should all be used

repeatedly to change the perceptions and behavior of the public. For example, the majority of the water industry's infrastructure is invested in underground pipes which the public can't see to appreciate. Thus it is recommended that every time a major stretch of pipe is laid there should be a press release stating: "*Gracias a sus pagos podemos financiar esta construcción en el barrio.*"

6. Customers without information

Customers without information from the water utility operator may rely on the uninformed or those deliberately misinforming them. These customers may exhibit some of the following behaviors or understandings:

- Do not report illegal water taps;
- Do not know that water is a communal resource;
- Don't know how their prices are calculated;
- Don't understand that leaks increase the cost of service provision;
- They think that their water meter doesn't function properly;
- Don't know what their responsibilities are as clients nor does the customer understand the responsibilities of the water municipality;
- Maybe they don't pay their bill(s)

7. Customers with information

Customers with information from the water utility operator may exhibit some of the following behaviors and understandings:

- They know how their bill is calculated;
- They proactively look for leaks and report them to the water operator;
- They know that, "*He who uses more pays more*", and that it is not the fault of the water utility if the bill is higher one month because they can read their water meter and gauge their water usage;
- They understand their responsibility to safeguard the entire water system;
- They know why it is important to pay their water bill;
- Clients know that the water bill is comparatively cheap for the service offered.

In short, these customers are the ideal clients that every operator dreams of having in quantity.

SOMETHING'S IN THE WATER BILL

1. The Water Utility Bill

Who likes paying bills? Nobody! The same customers that pay their telephone, gas, and electricity bill will complain bitterly about paying their water bill. That is precisely why the water bill needs to be attractive and appealing. Cost effective and cheap messaging can be used on the water bill to educate and inform the client on conserving water, lowering consumption and

reducing costs. Everyone would like to pay less on their water bill and the reverse side of the bill can be used to by the water utility operator to show they client how to achieve this objective. Thus a dual purpose can be achieved – the bill can be paid while informing / educating the client. Six to twelve messages can be provided on a yearly basis. This represents an opportunity to change an antagonist into ally. Simple easy to understand graphics can rapidly communicate information on usage like the “Stoplight of Consumption”, which is displayed below and indicates to the customer where they stand relative to other clients. A chart is extremely useful in its ability to graphically display consumption over the past year. With just a quick glance of the eye the customer knows what he has consumed. This transparency builds confidence and trust in the water utility operator and makes information readily available.



Water bill details from the Ciudad de Mexico water utility (Stoplight of consumption and chart)

In the USA, customers often have to find all of their recent bills, then place them side-by-side to review their consumption, which represents a cumbersome frustrating and often opaque process. The table chart shows this information at a glance providing an incentive for the customer to proactively track-down or study why there are changes in consumption. Instead of the scenario where the customer blames the operator for misreading the water meter, now the customer will consider the possibility that his water consumption pattern may have changed. Thus these simple graphs can serve as behavior modification tools. In addition, few water operators have considered the implications of long client lines during payment days. One operator said, “I don’t have to change a thing that I do because the money is pouring in. The proof is that on bill day the line stretches out the door and around the block.” Obviously, the water utility director has not stood in the line and waited hours to pay his bill. Thus technology can be used on the bill to increase the accuracy and speed of service, as demonstrated by the bar code included in the bill as shown below.



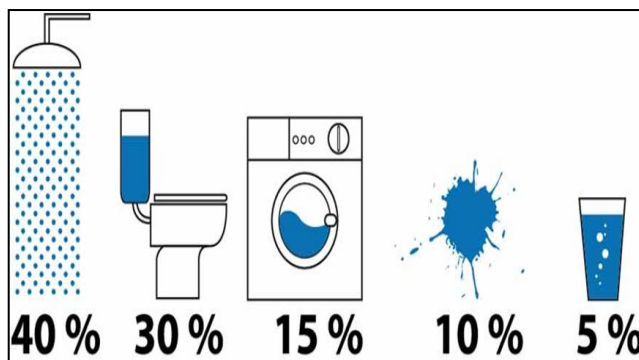
Water bill detail from the Cuidad de Mexico water utility

This bar code also addresses another common complaint that clients are being double-billed, since it is read by a machine there is less potential for human error. Given that this technology has been tested and proven in supermarkets all water operators seem to agree that it may be useful in improving their customer's satisfaction. The only concern operators have is about the cost of introducing this new technology.

During an informal survey in the customer service rooms of six different water utilities where customers were paying their bills, it was noted that seventy to eighty percent of the people in line are women. Thus the addition of brightly colored flowers makes the bill more attractive and friendlier than the standard faceless colorless expressionless bill that we all hate to pay. A bill with pretty flowers is harder to dislike.

2. What am I paying for?

If clients are shown the breakdown of standard household water consumption they can make informed decisions on how they consume water.



ESTIMATED MONTHLY HOUSEHOLD CONSUMPTION

- The washing machine: 100 liters
- A bath in the tub: 200 liters
- A short shower: 80 liters
- Cleaning the car: 500 liters
- Open water faucet: +500 liters an hour

Graphics can be used with words to reinforce learning. In this manner clients can follow their consumption patterns and adjust them accordingly if desired.

WATER METERS

1. *Rejection of Water Meters*

The case of widespread rejection of water meters highlights a complete lack of communication between the client and the water utilities in many parts of Mexico. Most water meters nationwide were installed without the clients having any idea of what the machine thing was that was being attached to their house. “What does it do?” was and a common question. Protests have occurred and frequently water utilities are requested to return to the old system of a general quota fee. As expected the local politicians have often waded into the water meter fiasco. When frustrated, or politicized, or simply ignored by the water company, the customers frequently remove the water meter (“it was stolen”) or if they are less industrious they break it with a hammer or rock. Accordingly statistics are kept for the number of water meters installed and the percentage of those installed that are still functional. The gap between the working and non-working meters varies according to maintenance programs of the utilities and the destructiveness of the customers. In some municipalities over 35% of the water meters do not function or are missing.

2. *Water Meter Campaign*

Hours before my presentation I was asked to develop an example of what a mini-campaign might look like if it was created using the scientific process. The mascot or cartoon character featured a likeable water meter that speaks in a high voice and proclaims, “I am easy to read as one-two-three.” Then the cartoon water meter then demonstrates how to read the meter in three easy steps. The campaign uses different approaches including a poster that demonstrates how inexpensive water is through costs comparisons. The campaign also asks the for water municipal operators to evolve by using modern communications technology like SMS and Twitter. This modern technology can reinforce other messaging provided during the campaign and it is inexpensive. Most materials (posters, leaflets, bumper stickers) are designed to be used on the back of the bill in addition to being used in other mediums. An interactive exercise for children is included that shows children how to measure their personal consumption by creating a daily diary that records data on water usage. The exercise is called “Water Meter”.

THE CULTURE OF WATER

A definition of the “Culture of Water” would be the set of beliefs, behaviors and community strategies for water use as communicated by social organizations that diffuse knowledge of practices that the community has accepted. Social organizations focused on water have the power and political processes that are influential in the use and protection of water. The culture of water has been highly effective in programs that educate children, as well as adults. Financial support for the culture of water comes from local governments and water utilities, as well as local businesses and international donors. There is general acknowledgement within the water sector that the culture of water represents a strong social investment in the paying clients of tomorrow who understand from an early age the critical role that water plays in the life of Mexico. Support for social communications programs like the culture of water is highly recommended for all water utilities supporting significant populations. However emphasis

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should be placed on monitoring and evaluation of programs for effectiveness and behavior change.

UNO PARA TODOS

1. *Training of water utilities in behavior change techniques*

The water utilities need training in applied behavior change theory and practice. It has been suggested that the training curriculum be added to a forthcoming water conference in Mexico. The people to be trained would be personnel whose job description would involve public relations, social communications, or involvement in the water culture campaign. The emphasis will be to develop technical skills necessary to: conduct client research, use the results of the water survey and the accompanying report, develop/adapt communication materials, test materials in the target population, and monitoring and evaluation. The training will help to ensure a fruitful transition into the science of behavior change. The water operators would also be encouraged to develop a network of fellow social communication specialists to offer mutual support in the development and roll-out of public outreach campaigns.

2. *Operators win by sharing*

Successful Mexican behavior change campaigns exist as directed by specific water utility companies. However each of these operators seems to have a specialty, which they perform significantly better than the majority of other water operators. These industry leaders should be considered as demonstrators of best practices. Some of these operators have already volunteered to share the behavior change campaigns they have produced with the rest of the nation on a website and webpage that is topic specific and designed exclusively for water utility operators. The water utilities willing to share are:

- Program on the Culture of Water = Servicios de Agua y Drenaje de Monterrey
- Program on Child Education = Organismo de Agua Potable, Alcantarillado y Saneamiento de Naucalpan de Juárez
- Client Education Program = Sistema de Agua Ciudad de México
- Radio Programming = IMTA, Morelos
- Social Participation Program = ? (Has yet to be identified)
- Technical Specialists (sector specialists) = Ing. Raúl Sánchez
- Graphic and Computer Arts = Fairfax Water

It is hoped that by establishing a network of leaders who can interact with each other and the water utility representatives that this website will be sustainable. It will be run by Mexican water utility operators for Mexican utility operators.

3. *Social communications website*

A self-sustaining website devoted to water utility operators has the potential to help two thousand water utility operators. The website idea has been informally approved by popular

consensus. The foremost institution that has requested and supported this endeavor is the Mexican Institute of Water Technology (IMTA), which represents hundreds of water utility stakeholders nationwide. IMTA has expressed a willingness to host the water utility social communications website dedicated to the culture of water and behavior change communications. In addition, the National Association of Water and Sanitation Enterprises (ENEAS) is highly supportive of any effort that will help the smaller water utilities become more professional by providing better services to their customers, while conserving water and increasing revenues. Furthermore a group of water industry leaders has stepped forwards and agreed to be considered as demonstrators of best practices. These leaders have already volunteered to share the behavior change campaigns that they have produced within their municipality with other water municipalities nationwide. A website designed and serviced by Mexican water utility operators for water utility operators has the opportunity to be highly dynamic and interactive with blogs, chat rooms, and the posted email addresses of all operators nationwide. Specific pages can be dedicated to themes as required. A section for the press would be exceptionally useful for educating the press and helping ensure that there is proper unbiased coverage. Press releases can be posted with the understanding that they will be downloaded and adapted by a multitude of newspapers, to be supplemented with local stories and facts. Webpages can also be devoted to: surveys (exit polls, willingness to pay, quickie feedback forms and customer suggestion forms), behavior change theory/methodology/practice as used in the water industry, art, cartoons, social events (parades, festivals, lectures), interactive computer games for children and youth, the culture of water (interactive exercises, textbooks, and videos), environmental and conservation issues, as well as monitoring and evaluation tools and assistance. Each thematic page would be managed by the team assigned by the best practices leader from the water utilities mentioned above.

ACCOMPLISHMENTS

The following presentations were made:

Mexico City, Mexico. 3 September, 2009

Hunt, L., *Communities Understanding Water Services and their Implications: Basic Operations, Costs, Investment Requirements, and the Importance of Public Participation in Pricing, Efficiency, and Operational Decisions.*
Presented at the 1st International Forum Water Sector and National Competitiveness.

Gomez Palacio, Mexico. 25 September, 2009

Hunt, L., *Helping Communities Understand the Costs and Pricing of Water by Changing How Water Utilities Communicate with Customers*
Presented at the 6th National Conference on Saving Water and Energy in Urban and Agricultural Zones.

CONCLUSION

In Mexico, there are more than 2,000 water utility operators. They all face similar economic, social, technical, and financial problems, as they struggle to maintain a decaying infrastructure. The water utility operators' lack the social communication skills and behavior change communication knowledge required to get their customers to pay their bills, nor can they fight the illegal water taps that undermine quality services by lowering water pressure. Most importantly large numbers of customers are dissatisfied with the water service and the water utilities don't know exactly how to change their disposition. The rejection of water meters in some parts of the country highlights a complete lack of communication between the client and the water utilities in many parts of Mexico. There are numerous opportunities for behavior change interventions to make a big difference. However behavior change communications is a scientific and strategic approach to promote positive client and water utility related outcomes. The foundation of behavior change communications is proven theories and is based on a logical sequential process. Formative research (client survey & focus groups) and analysis (survey report) is followed by communication planning (communications strategy report), implementation, and monitoring and evaluation. The water utilities are in serious need of training in applied behavior change theory and practice. It has been suggested that the training curriculum be added to a forthcoming water conference in Mexico. The people to be trained would be personnel whose job description is in public relations, social communications, or involvement in the water culture campaigns. A group of highly motivated leaders has stepped forward and volunteered to share their municipal behavior change campaigns with the rest of the country. The materials will be placed on a website operated by Mexican water utility operators thus making this a sustainable program that can benefit over 2,000 water utility operators.

RECOMMENDATIONS

The following recommendations:

1. A national survey with focus group on paying and nonpaying customers.
2. Report providing an analysis of the survey.
3. The development of Social Communication Strategy for the water utilities.
4. A training program for the water utility sector promoting the development of behavior change and social marketing materials. The curriculum needs to be developed and added to a forthcoming water conference in Mexico. The people to be trained would be

- personnel whose job description would involve public relations, social communications, or involvement in the water culture campaign.
5. Creation of website upon which all the aforementioned materials will be posted.

REFERENCES

APAS Naucalpan de Juárez, Agua y Educación: Guía General para Docentes de las Américas y el Caribe, UNESCO, 2007.

Booth, W., (2009) Even in Bad Times, the Glad Cry Goes Up, *New York Times*, 17 September, 2009, p. A15.

Encaucemos el Agua: Curriculum y guía de actividades para maestros, Morelos: IMTA, 7th Edition, 2007

Martinez, E & Archandia, M. (2009), Falta de Agua Caussara Violencia: CDHDF, *El Universitario*, 1 September 2009, p. A1.

Tatham, C. & Dr. Mobley, J. (2004), *Customer Attitudes, Behavior, and the Impact of Communications Efforts*, Boulder: The Water Research Foundation.