



CATIS-Mexico year end report for the Board of Directors meeting. Prepared by CATIS-Mexico Staff.



# CATIS-MEXICO

Y E A R - E N D R E P O R T

*After several years of testing, preparation, and trials, CATIS-Mexico began distribution of its ceramic water filter systems to numerous families throughout communities in Guanajuato. The following is a synopsis of current work with the ceramic filters.*





# CERAMIC WATER FILTERS

This was a key year for the Ceramic Water Filters. We finalized our mixes, began in-house water quality testing, started distribution in local communities, began selling in other local markets, started a filter sponsorship program, trained outreach workers for wider distribution, received incredibly positive feedback from users, and quantitatively measured extreme improvements in drinking water quality at household levels. Here are some of the highlights.

## Local Community Pilot Programs

CATIS-Mexico received funding from the Audubon Society of Mexico and 100 Women Who Care to begin two community pilot programs. The pilots focused on:

- Educational workshops and educational material development,
- Filter system distribution and tracking,

- Pre and post family interviews,
- Follow-up monitoring and water quality field testing of filters in-use.

These pilot programs were a resounding success and ensured both proper use/maintenance of the filter systems and continued use. We believe this is due to the combination of education and continued monitoring. Since the program started in August 2013, CATIS-Mexico:

- Gave more than **a dozen educational workshops** (photo below) on water contamination, hygiene, sanitation, and filter use and maintenance;
- Developed a community-based user's manual (to complement both English and Spanish manuals developed earlier in the year);
- Distributed **more than 75 filter systems** in 3 local communities;
- Built up the CATIS-Mexico lab to perform extremely accurate and high-quality bacteria testing;
- Performed **over 100 in-house tests** for both total fecal coliforms and e.coli on dozens of filter systems;
- **Recorded a 100% 'no-detect' removal** rate in all e.coli (the strongest indicator of bacteria removal) testing, regardless of how contaminated the influent water was;
- Performed **interviews with nearly 60 families** in 2 local communities;
- Expanded the program to community schools, distributing more than **a dozen filters in 4 community schools** and created plans to expand the program to a total of **21 community schools** for 2014;
- Witnessed a **100% continued use rate of the filters in local family households.**



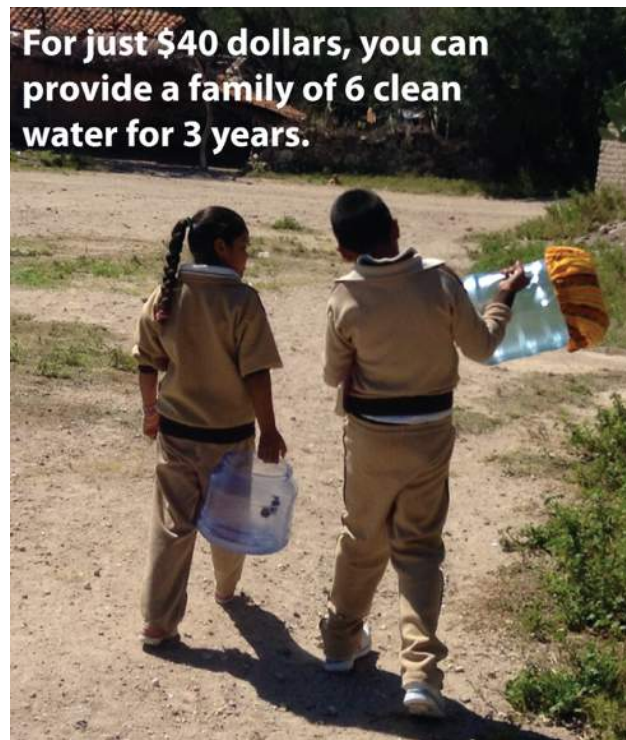
## Expanding Filter Sales



Along with the community pilot programs, CATIS-Mexico expanded filter sales in various venues and markets this year, especially in the last quarter:

- We opened a filter section at Via Organica's store;
- We sold at local fairs and events, such as the CEDESA annual producers fair in July, the TPP pre-tribunal, and the National Assembly of Environmentally Affected Peoples;
- We opened a table at the local organic farmers market (pictured above), **selling more than 20 full priced filter systems in just 4 days** of business;
- We sold several filter systems to partners at a sustainable campgrounds near Puerto Vallarta;

- Put filter systems with colleagues in Mexico City to prep for wider-scale distribution in the Federal District;
- Sold 10 filter systems to the government of neighboring state, Queretáro, for a potential long-term and large-scale filter program (see boxed text to the right);
- Developed a long-term distribution and sales plan with Outreach Workers at CEDESA and CODECIN in December. Currently there are 10 outreach workers trained and we will sign a contract with CEDESA in early 2014.
- Started a 'filter sponsorship' program (below) to help continue the aforementioned community projects. Since its inception in November 2013, we have received more than **USD \$2,000**.



*"The water I want to drink is collected from the rain, but it always gave me stomach problems. But, now that I have my filter, my stomach doesn't hurt and I love the taste!"*

*- Citlali Caldera,  
Interdisciplinary Environmental Action Group*

# CLEAN WATER FOR QUERETÁRO

In early December 2013, CATIS-Mexico delivered 10 filter systems to the Queretáro Government. Through connections by Dr. Robert Marquez, **the filters were requested directly by the Director of the State Water Commission.** They will undergo exhaustive testing through early February 2014. Due to laws recently passed, the State Water Commission in Queretáro has received new funding to expand low-cost access to potable water in the state, and they are looking at the filters as a possible option. After the testing phase, the filters will receive **official certification from the Mexican Government** and lead to **orders of 500-2000 systems** and potential workshops and other strategies for long-term distribution.



# WORKSHOPS

We had great turn-outs at our workshops this year. We continue to grow and become more and more efficient - bringing in more money to the organization, providing high-quality education, and utilizing a fraction of the staff time and resources we have needed in the past to pull off such an endeavor.

- **July 25 - 27 Compressed Earth Block (CEB) and Natural Plasters Course:** The CEB Workshop was very successful, with 14 paying students from diverse backgrounds in Mexico and the US. Once the final fees were collected our profit will exceed \$1,300. During the workshop, the students helped lay block for the new composting toilet located on the Institute site just next to the laboratory. One highlight was the relationship building with Dr. Charles Graham of Oklahoma University. Charles is the Dean of Architecture and long time earth block proponent. He did a series of mortar tests during the workshop, which was the first step in conversations about developing an OU field school in the future.
- **November 7 - 9 Mexican Domes and Vaults (pictured above):** Building off the July workshop, students completed a traditional Mexican “Boveda” (vaulted dome) on the composting toilet that was finished after the July workshop. This workshop truly highlighted the diverse nature of our educational programs with students from African, Guatemalan, Mexican, and US descent. The 12 Students traveled from as far as New York City and even Ireland just for this workshop!



*CATIS-Mexico's Jeff Rottler teaches plaster techniques at the July CEB workshop.*

# FIELD SCHOOLS

In addition to the community water-based workshops and the on-site Compressed Earth Block courses, we began discussions on various field school opportunities and officially scheduled our first field school for 2014.

The goal of these field school opportunities are to offer high-quality, University accredited courses that take students from the classroom to rural communities and put course topics into the appropriate social and cultural contexts. Instructors combine University Professors, local experts, community outreach workers, local community members, and CATIS staff.

## Analyzing Earth Friendly Technologies: Studying Context, Culture & Design, July 2-19

This 17-day summer school program was developed in partnership with Engineers Without Borders - UK (EWB-UK) and IRRI-Mexico. The response for this course has been incredible, with **15 of the 17 slots already reserved**. Profits from the **USD \$1,495.00/student tuition**, will be split between CATIS-Mexico and IRRI-Mexico. Students fly into Mexico City and work with IRRI-Mexico before coming to San Miguel to work with CATIS-Mexico, CEDESA, and CODECIN on the second half of the trip. See the course brochure for a full breakdown of this offering. **Students from the UK and Northern Illinois University receive university credit** for this course, opening wider opportunities for the future.

## Furthering Education with Northern Illinois University

CATIS has long been in dialogue with Northern Illinois University about potential field school opportunities. Currently, we are in talks with Dr. Lenczweski about a water-based accredited course that will start in 2015. Recently, Dylan and George Terrell met with engineering, nonprofit management, business, and latino studies departments at NIU about future development.



*Above: Saúl Juarez of CEDESA teaches a water workshop in a local community. Saúl is one of many 'non-traditional' professors that students will work with in the upcoming field school programs.*

## NIU Masters Studies

Along with the Field School development, CATIS is hosting an NIU Masters Student in Hydrogeology who will focus her thesis on groundwater problems in the region. Under the guidance of Dr. Lenczweski, the student will arrive for her first site visit in March 2014.



# PERMANENT PEOPLES' TRIBUNAL

A highlight of the year was the Permanent Peoples' Tribunal (PPT) held in late September. The ethical tribunal was the culmination of years of preparation by CODECIN (Coalition in Defense of the Independence Aquifer) who presented for nearly 4 hours at the event. The event was a resounding success, with more than 700 people in attendance! The coalition was headed by CATIS-Mexico's Natalie Long who built a 500+ page case document with more than 30 witness testimonies she collected during her 8 months on the ground. Along with the case development and event, CATIS-Mexico and NIU tested wells in more than 60 rural communities this past year, and the results of these tests were included in the case.

The following is a Human Rights Summary Report prepared by Natalie Long.



# HUMAN RIGHTS SUMMARY REPORT

This past September 20, 2013 in San Miguel de Allende, Guanajuato, the Coalición en Defensa de la Cuenca de la Independencia (CODECIN) held the National Preaudience on the Devastation of the Mexican Hydraulic System. Below is a summary of both the Preaudience, and the General Assembly of the Asamblea Nacional de Afectados Ambientales (which took place from September 21-22, 2013).

## Summary of the Case Presentation

The CODECIN held the Preaudience on Friday, September 20, 2013, in the event hall “El Mezquite.” The event hall is located on the highway between the cities of San Miguel de Allende and Dolores Hidalgo, Guanajuato. The CODECIN presented its case before a panel of six judges of high moral authority, who represented the Permanent Peoples’ Tribunal: Martha Bañuelos Cárdenas, Narciso Barrera Bassols, Juan José Consejo Dueñas, Laura Carlsen, Patricia Ávila García, and Felipe Macías Gloria.

The session began around 10:30am with a brief introduction by Andres Barrera, one of the guarantors of the Tribunal in Mexico. The archbishop of Celaya also provided introductory comments. Several government officials were observed to be present, including a representative from the National Water Commission.

The CODECIN case presentation began at roughly 11:00am. Four Coalition community organizers presented the case, and an additional six persons provided witness testimony. The witnesses represented the municipalities of San Miguel de Allende, Dolores Hidalgo, San Diego de la Union, and San Luis de la Paz.

Case presentation lasted approximately one hour and a half, aided by a litigation PowerPoint. The organizers and witnesses conducted multiple rehearsals prior to the hearing date to prepare for the exposition.

Following the CODECIN case, compañeros representing the case of the Rio Laja spoke briefly, sharing testimony about the destruction of the local river system. Another individual presented a brief testimony denouncing a highway project being started in the state.

After the case presentation and the additional two testimonies, the panel of judges addressed the CODECIN with questions and comments.

## Summary of Additional Preaudience Events

Compañeros from the north, south, and center of Mexico presented an additional twelve cases before the Tribunal over the course of the day. Expositions finished around 8:00pm, with a cultural event concluding the evening.



*Natalie Long takes witness testimony in a local community in preparation for the case.*



### Participation of CATIS Members in Preaudience Organization

It should be recognized that all the members of CATIS played an invaluable role in the successful realization of the Preaudience. Team members Dylan Terrell, Jenn Ungemach, Jeff Rottler, and EWB volunteer Javier Sierra provided crucial logistical support which included, to name just a few, the installation and maintenance of a sufficient internet signal for live-stream transmission; the supervision of educational activities for the children present; the coordination of providing drinking water and coffee for attendees; the coordination of media contacts and materials; the handling of financial transactions for the event; and much more.

### Summary of the General Assembly of the Asamblea Nacional de Afectados Ambientales

From September 21-22, 2013, the Asamblea Nacional de Afectados Ambientales held its General Assembly in the Sanctuary at Atotonilco in San Miguel de Allende, Guanajuato. The events most pertinent to the work of CATIS included:

- i. the raffling of five CATIS water filter systems;
- ii. the decision by the Assembly to hold the Environmental Audience of the Tribunal in Mexico City this coming November;
- iii. the decision by the CODECIN case attorney to assist in the construction of the thematic complaint on water to be submitted in November; and
- iv. the releasing of a preliminary verdict by the judges regarding the thirteen cases presented during the Preaudience.

### Current State of CODECIN Case

The CODECIN submitted both its complaint and its supporting evidence to the Tribunal in August 2013. At least one copy of the complaint and its evidence will remain with the CODECIN, with another copy remaining with the case attorney.

### Conclusion

The Preaudience was a socially powerful event for the northern part of the state of Guanajuato. Concrete results include:

- i. investigation and documentation of the CODECIN case;
- ii. strengthening the CODECIN through the organizational process; and
- iii. relationship-building with other social movements, allies, and actors throughout the region and the country.



*The CODECIN Coalition celebrate the termination of the case document.*

# INTO 2014

## MK Kilns

Jeff Rottler met with the Municipal Department of Ecology recently regarding a potential bid to do the curing firings for the 3 MKII Kilns installed at the Brickmakers Industrial Park in San Miguel (PITSMA). The local government agreed with CATIS-Mexico: to achieve brick maker support, they must be paid well for supplying raw bricks, transporting, loading and unloading the kilns. Also the local brickmakers need to be involved in the curing process, albeit from the periphery. The Ecology Department also agreed that it would be counterproductive to have formal brickmaker trainings during this phase. They are aware of the delicate nature of the situation, i.e., there is no brick maker buy in yet. They also noted that additional resources and support will be necessary after the curings if there is any chance for the industrial park to succeed. They are also asking for CATIS-Mexico to submit a bid for constructing more MK2 at PITSMA. CATIS has agreed to submit the bid which will include the stipulation that the proposal is contingent on the three installed kilns being used regularly by the local brickmakers.

The total for the curing proposal is MXN \$250,000 pesos

## Biochar

CATIS staff has been in talks with Rob Lerner (local biochar expert), Steve Rye (CEO of Mercola), Jeff Wallin (Founder and CEO of The Biochar Company), and April Gaydos (President of Audubon Society) regarding an exciting new Biochar project. CATIS is set to build a small-scale MKII Kiln that can fire 200-300 filters at a time. The kiln will be fired by a pyrolyzer with the “waste” being highly useful biochar. Biochar can be used in numerous applications like improving soil for agricultural needs and, potentially, even removing arsenic and fluoride from drinking water! The initial pilot begins in January.

## And beyond...

This year CATIS is also looking to:

- Make a self-sufficient water filter making business;
- Brickmakers buy-in of MK2 kiln fostered; work on ITERSP;
- Outline and Create additional field schools;
- Offer new CEB workshop editions;
- Explore at least 5 possible new funders (grants);
- Receive a new EWB placement with water filters and possibly with Biochar;
- Further biochar research and development;
- Strengthen and further define Board/Staff relationships;
- Cultivate and grow the Board;
- Follow-up on TPP; human rights exploration in international region (especially with arsenic), and further fund a part/full-time position.



*CATIS-Mexico and partner organization CEDESA celebrate with families who just received their filter systems. To date, CATIS-Mexico has provided more than 100 filter systems through this program.*

# SAYING GOODBYE

CATIS-Mexico was lucky to welcome a number of new staff members this year, and we are especially grateful for the (nearly) full-time addition of Director of Development, Jennifer Ungemach!

Unfortunately, it seems like we had to say “goodbye” almost as quickly as we welcomed a couple of staff members. While their positions were temporary from the start, it didn’t make any easier to see Javier and Natalie go.



## Javier Sierra

Javier Sierra was placed with CATIS-Mexico through Engineers Without Borders - UK and RedR International Relief Workers. Javier worked with CATIS for 3 months - creating and giving community water workshops, building up and setting the protocol for the CATIS lab, designing lab manuals and a community filter manual, furthering fluoride testing, helping with the TPP event, and, the list goes on and on. We were spoiled with Javier, and new EWB-UK placements have a lot to live up to in the future!

## Natalie Long

While technically a CATIS-Mexico staff member, Natalie spent most of her time in rural communities and heading the CODECIN coalition. Natalie spent 8 months collecting witness testimony, preparing a 500+ page human rights case, prepping the coalition for the PPT and AANA events, and eventually seeing her case come to trial at the September 20th Permanent Peoples’ Tribunal.



**Million thanks, Javier and Natalie! You are missed.**



## Teresa Martinez

Devastatingly, we also had to say goodbye to Teresa ‘Tere’ Martinez who passed away abruptly, and rather unexpectedly, earlier this year. Tere, one of the directors of CEDESA, where she had been working since she was a teenager, was our friend, colleague, hero, and compañera. Hundreds came to her memorial, in downtown Dolores Hidalgo in April, and in May we all gathered at CEDESA to say goodbye, reflect, and pay our final tribute in the only way she would have approved of....by getting back to work.

Tere was both symbol and substance of all the work we do.



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Thanks to all for such a great year! See you in 2014!