



Q-drum Campaign – Mexico Invent for Humanity

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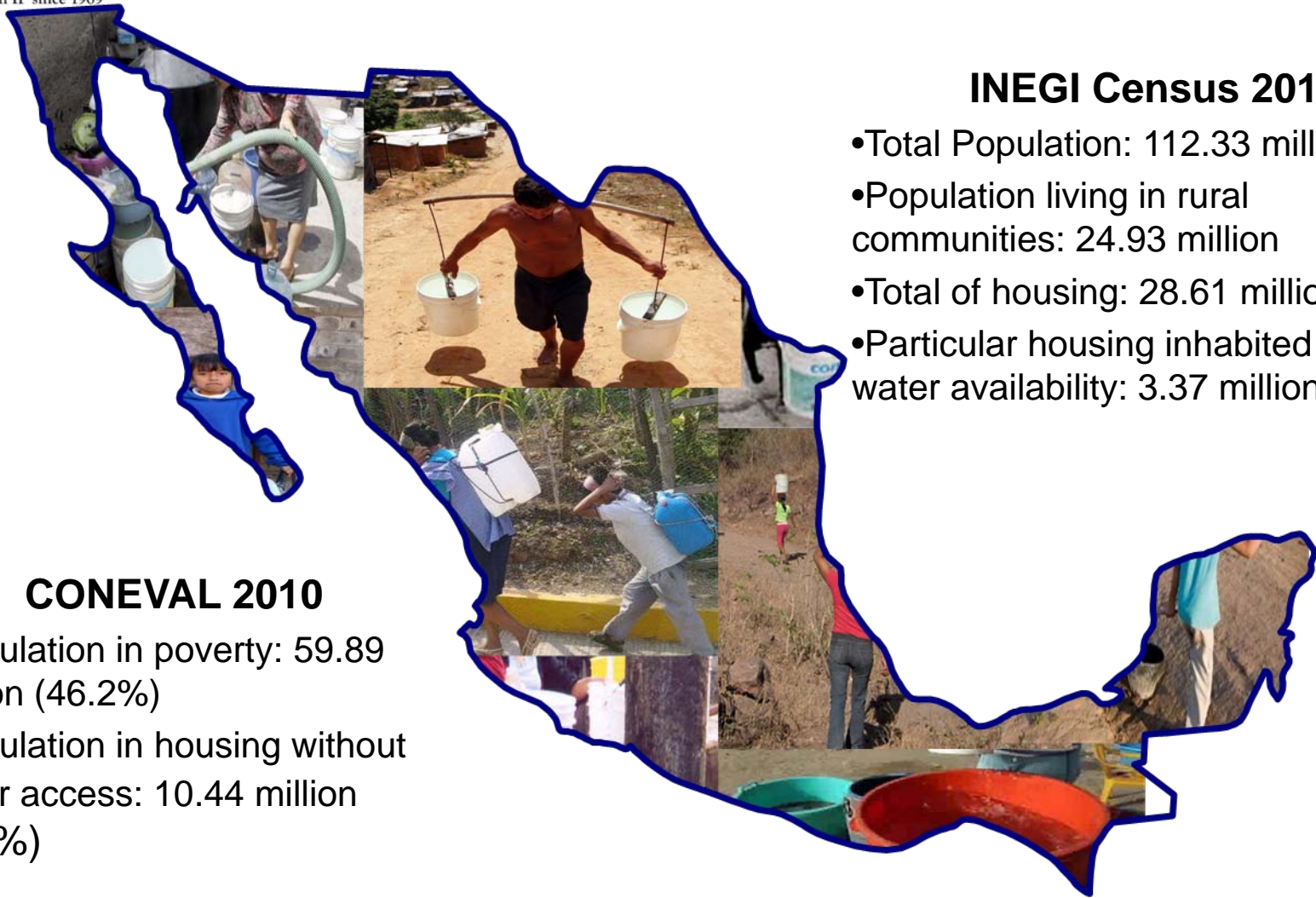
Why Mexico?

INEGI Census 2010

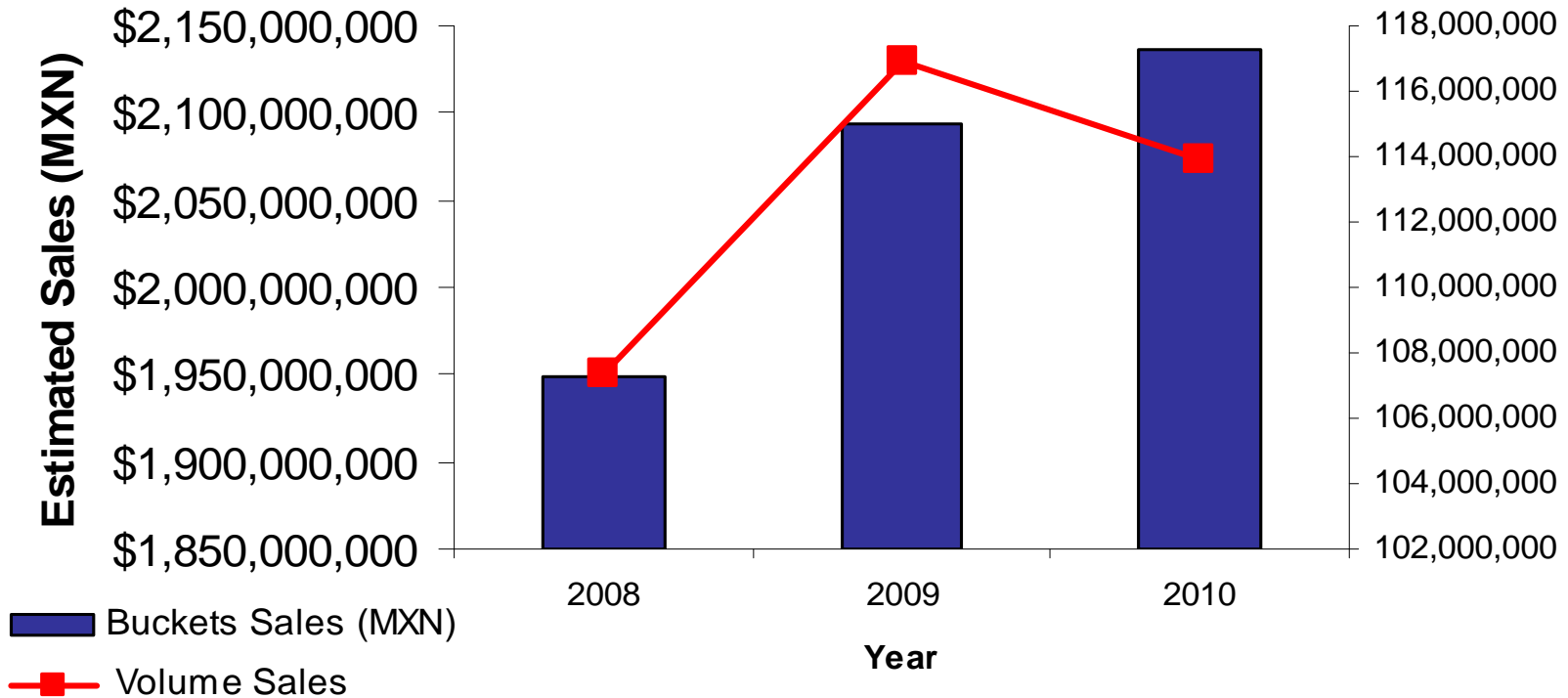
- Total Population: 112.33 million
- Population living in rural communities: 24.93 million
- Total of housing: 28.61 million
- Particular housing inhabited without water availability: 3.37 million

CONEVAL 2010

- Population in poverty: 59.89 million (46.2%)
- Population in housing without water access: 10.44 million (9.3%)



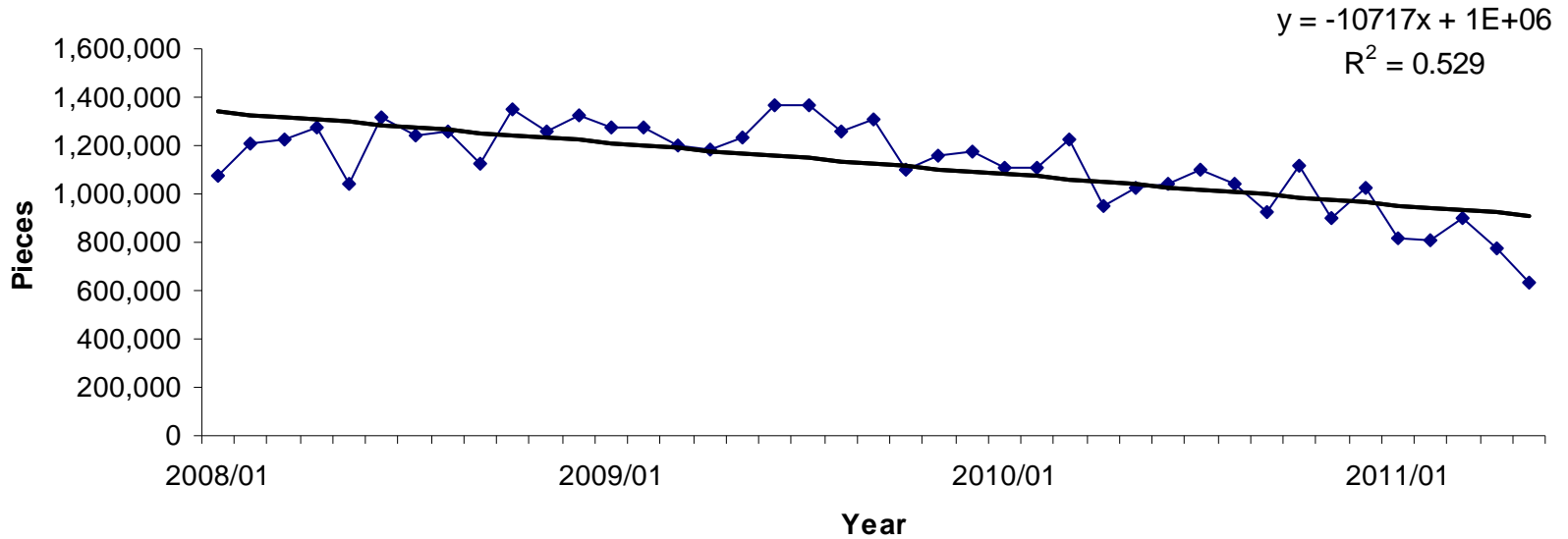
Plastic Containers Market



- **Buckets: Median price \$17.99 MXN (\$1.44 USD)**
- Plastic bottles and the like from 4 to 12 liters
- **Plastic bottles and the like from 18 to 30 liters: Median price \$39.49 MXN (\$3.16 USD)**

Plastic Buckets Market

Estimated total demand of plastic buckets in Mexico



Estimated total annual sales (pieces of buckets)

	Minimum	Median	Maximum
2012	5,205,157	9,191,779	13,178,375
2013	4,331,206	7,648,489	10,965,740
2014	3,457,256	6,105,199	8,753,105

Plastic Buckets Market

How many buckets per year buy a Mexican family?

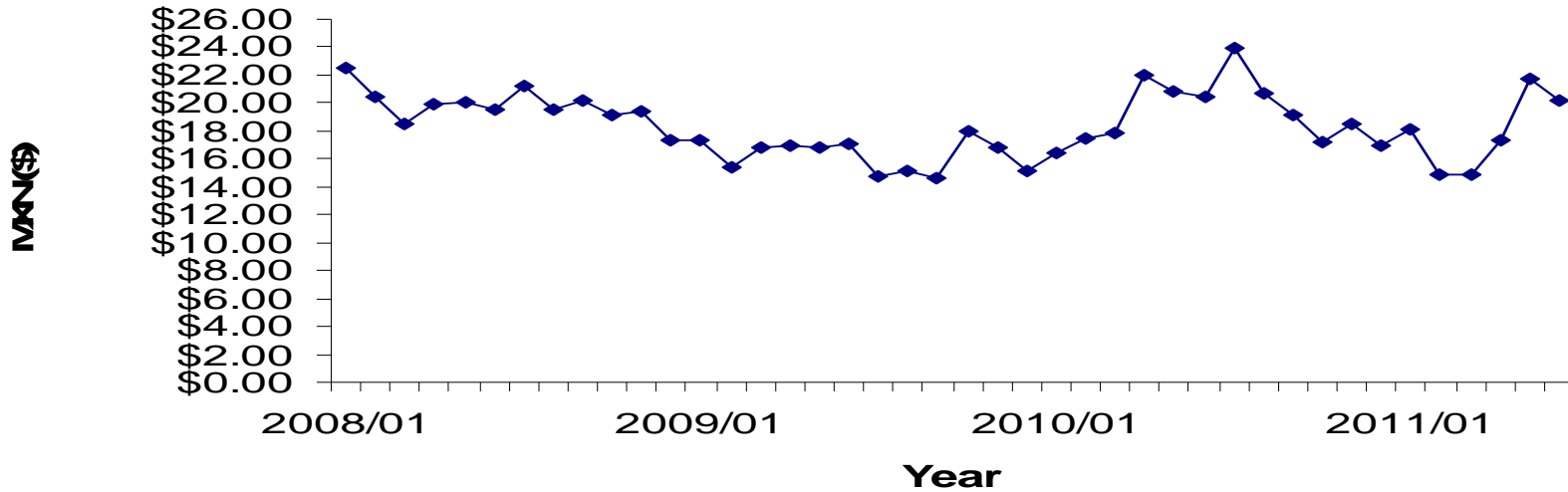
- Total of housings in Mexico = 28,614,991
- Total of buckets sold in 2010 = 12,572,484

$12,572,484 \text{ buckets} \div 28,614,991 \text{ houses} = \mathbf{0.4394 \text{ buckets/house per year}}$



Estimated price of buckets

Estimated price of plastic buckets



	Estimated price (MXN)	Estimated price (USD)*
Average	\$18.35	\$1.47
Median	\$17.99	\$1.44
Standard Deviation	\$2.12	\$0.17

*Using an exchange rate: 1 dollar = \$12.50 MXN (Source: BANAMEX, www.banamex.com)

Potential Market of Q-drum in Mexico

❖ From a demand approach:

- 0.4394 buckets/house per year
- Total of houses inhabited without water availability= 3,376,569
- 1 Q-drum = 2 buckets

**741,777 Q-drums/year
MINIMUM**

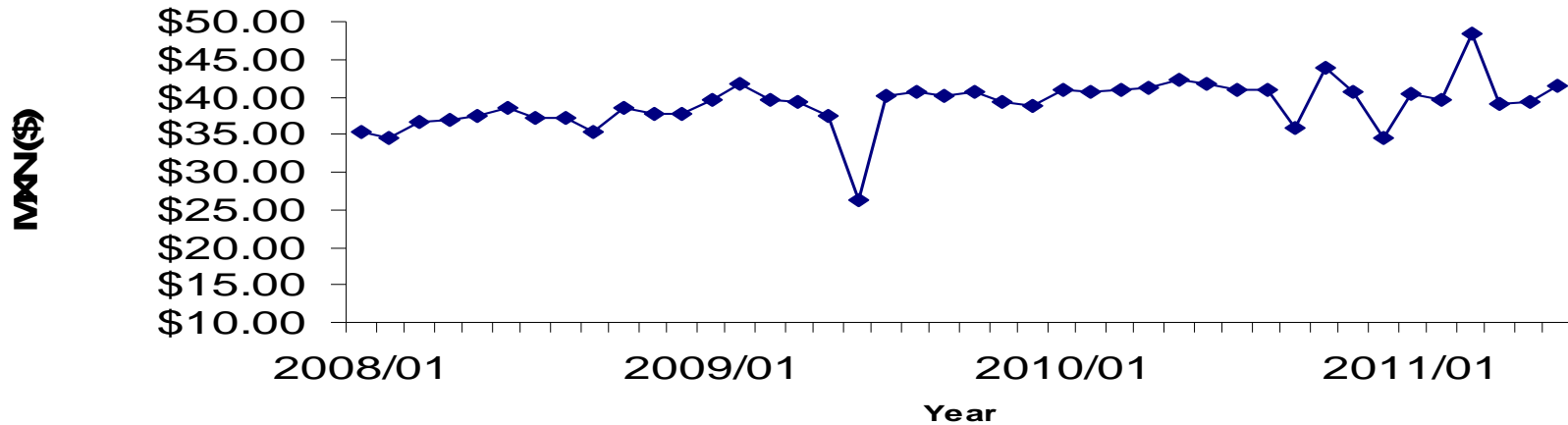
❖ From a water need approach:

- People who do not have access to water= 10,477,341
- Mexican families = 7 members
- 1 Q-drum per family

**1,496,763 Q-drums/year
MAXIMUM**

Estimated price of Q-drum

Estimated price of Plastic bottles and the like from 18 to 30 liters



	Estimates Price (MXN)	Estimated Price (USD)*
Average	\$39.05	\$3.12
Median	\$39.49	\$3.16
Standard Deviation	\$3.30	\$0.26

*Using an exchange rate: 1 dollar = \$12.50 MXN (Source: BANAMEX, www.banamex.com)

Pilot program

General Considerations:

- ✓ Mexican families spend approximately \$7.90 MXN (\$0.63 USD) per year in buckets.
- ✓ The foundation's sponsorship could be:

Sponsorship = Q-drum production cost + Inventor Royalty – Cost covered by Mexican families

- ✓ The pilot program can be initiated by the states in Mexico with the greatest problems in water availability which are: Guerrero, Oaxaca, Chiapas, Tabasco and Veracruz.

Pilot program

Mexico's manufacturing capability:

8 companies in Mexico with rotational molding capability. These companies have at least one of the following characteristics:

- Machinery installed capacity: batch production of until 18,000 pieces per month
- They have authorized distribution centers in all Mexico
- They can fabricate different products according to client's specifications.
- They have capacity to produce the molds for rotational molding
- They have capacity to sell own products
- They can produce in rotational molding any piece from small to large capacities

Conclusions

- The maximum price for a Q-drum would be \$39.49 MXN (\$3.16 USD), but families will not spend 5 times what they currently spend, which is \$7.90 MXN (\$0.63 USD).
- For a manufacturing capacity of 1.5 million Q-drums per year (maximum estimated market) the unitary cost will exceed the expected expenditure and therefore the gap must be filled through sponsorship.
- Through humanitarian campaign Q-drums could position also in the regular market at current market prices for a local manufacturer combining humanitarian and regular sales.

Conclusions

➤ The difference between the cost covered by Mexican families and the Q-drum market price could be subsidized by a foundation's sponsorship. Therefore, the foundation's sponsorship per Q-drum would be approximately:

Q-drum production cost + Inventor Royalty – Cost covered by Mexican families

➤ We are considering the states of Guerrero, Oaxaca, Chiapas, Tabasco or Veracruz as probable candidates for initiating the Q-drum program nevertheless, we are still working in gathering more information to select the best candidate.



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End of Presentation

