

## Market Assessment Context

This document summarizes the Mexican Cookstove and Fuels Market Assessment conducted by Accenture Development Partnerships (ADP) on behalf of the Global Alliance for Clean Cookstoves. Sixteen assessments were conducted across the world as part of a broader effort by the Alliance to enhance sector market intelligence and knowledge. They are intended to provide a high level snapshot of the sector (based on mid 2012). Further detail on these assessments can be found at the end of this document.

## The Mexican Cookstove Market

Despite recent economic success having driven Mexico into middle income country status, a significant part of the population, mostly rural (22%<sup>i</sup>), still lives in high and very high levels of marginality. Over six million households use firewood as the primary or secondary fuel source to cook<sup>ii</sup>, even when gas and electricity are accessible, and this is unlikely to change in the short-medium term. Improved wood burning stoves are critical to address indoor air pollution (IAP), especially in the many rural households using open fires.

The Mexican cookstove market is dominated by government initiatives; with the main driver being the target to reduce greenhouse gasses (GHG). Historically, the government lacked access to key data regarding IAP, but, in recent years, detailed information has been compiled and multiple programs have been launched to also address poverty and IAP. However, partly due to the dispersed nature of the population (almost five million rural dwellers lack access to roads<sup>iii</sup>), only 10% of the target market has received ICS<sup>iv</sup>. The government plans to implement ICS for 600,000 families by 2012<sup>v</sup>, but that still leaves several million households that are not covered by government or NGO cookstove programs.

The private sector, although notably smaller, is focusing on addressing the areas not currently served by government programs. Most programs distribute in-situ improved wood burning stoves, although a small number of solar cookers are available. Several NGOs have also focused on improving cooking practices as a method of reducing cooking time. At present, the academic sector is involved in the industry primarily through research, focusing on stove design and the impact on deforestation.

There are currently 21CS open program of activities (PoAs)<sup>vi</sup>, although Mexican programs will be dependent on voluntary carbon markets as of 2012. Whilst still in their infancy, these PoAs have considerable potential to increase access to carbon financing for ICS implementers nationwide.

Although the basic stove principles are consistent across Mexico, e.g. incorporating a skillet to cook tortillas, there are very distinct regional preferences, and several previous implementers have experienced suppressed demand by not catering to the local market. These differences relate to the design (number/size of burners, comales etc.), but also to the functional aspects – with some areas using the stoves to smoke away insects within the house or to heat water.

The main conclusions of the Market Assessment are illustrated in the table below.

		Situation	Hypothesis
<b>Fostering an enabling environment</b>	<i>Regulation &amp; Testing</i>	The lack of an independent, certified stove testing facility results in implementers self-monitoring stove performance based on guidelines. As such, the benefits of ICS projects are hard to demonstrate and there is limited visibility to best practice. This has reduced the longevity and quality of ICS use in households.	By building on the stove standards being developed by Instituto Politecnico Nacional (IPN) and ensuring that there are interim regulations for stove production, stove quality will increase and boost demand. Enabling product differentiation will also assist the private sector to expand and support quality products.
	<i>Awareness</i>	Awareness of health implications of solid fuels remains circumstantial with limited research available. Stoves are subsidized and families are provided with little awareness of the benefits and limited follow-up, thus reducing buy-in, consumer demand, and stove durability.	Increasing awareness of the link between ICS and clear health benefits will boost demand. Closing research gaps, incorporating the Health Ministry, and working with main-stream media will increase awareness and maintain government focus.
	<i>Support &amp; Funding</i>	Although currently available, government funding is due to expire in 2012 and NGOs are dependent on inconsistent donations. Governments and NGOs tend to work in silos, with limited national coordination.	Improved coordination could identify synergies/reduce duplication of effort. Financing schemes involving a cost to the consumer, such as microcredit, would improve adoption rates and usage. Market based solutions reduce dependence on external funding.
<b>Cookstoves Value Chain</b>	<i>Design</i>	Although there are various stove types available, they are very rarely tailored to the local market, resulting in low uptake or reduced stove use long term. Local customs and cooking preferences are rarely taken into account.	Existing government data regarding the rural population will provide a solid starting point for customer segmentation. A deeper understanding of consumer requirements by region would improve the effectiveness of programs.
	<i>Sales &amp; Distribution</i>	Though many households are unable to afford ICS without subsidies, the current level of subsidy has resulted in reduced buy-in from the beneficiaries. The large, dispersed rural community makes distribution difficult and expensive, especially in areas without basic road access. Micro finance rates are currently too high for many households.	Extended payment plans and collective savings schemes will enable more households to afford ICS. Forming partnerships with rural distributors such as DICONSA is beneficial. Access to their vehicles and warehouses is affordable through their non-profit offerings and could greatly improve access to ICS.
	<i>Repair &amp; Replacement</i>	Many households lack the capital and knowledge to maintain the stoves. Once broken, many stoves go unused. Carbon financing could be used for improved maintenance programs, but concerns from implementers are a blocker.	Lowering the barriers to carbon financing through an open PoA could provide funding for stove maintenance long term since. Monitoring also encourages sustained stove use.

## Summary of Illustrative Priority Intervention Options

Although the large number of cookstove projects and market players in Mexico is encouraging, more coordinated efforts could help to address existing gaps, such as awareness, cookstove certification, distribution, monitoring and maintenance. The current lack of coordination also results in less of a long-term vision for the sector – in part due to government leadership changes every six years.

- Create a coordinating body to develop a holistic, long-term program that can connect the many market players working in silos today. This will increase visibility of ICS initiatives and foster key relationships with traditional funding channels and potential donors.
- Establish an independent testing facility and associated ICS standards – ideally with INE-CGCENICA as the lead agency. The facility needs to consider international best practice, but also include requirements specific to Mexico e.g. comal, height.
- Through training, build a market of certified masons to ensure stoves in the field reflect the results obtained by the testing facility. This will enable masons to differentiate themselves in the market and stimulate the private sector.
- Perform key research regarding the health implications and associated economic cost as a result of IAP. Highlight the improvements in quality of life and life expectancy.
- Raise awareness through multiple channels e.g. petition the Health Ministry to monitor health improvements of communities with ICS, encourage rural health workers to educate families about IAP and work with mainstream media.
- Consider the wide range of traditions of different ethnic groups in order to fully address the potential target market of over six million households. Multiple stove designs might be needed, all of which require at least one iron comal.
- Create a portal of key market information – test facility results, best practice, key policies, regional preferences, and leveraging current government data e.g. Oportunidades program
- Build key partnerships with financiers, local communities (potentially incentivizing community leaders to take leadership roles within initiatives) and rural distributors e.g. DICONSA
- Improve access to financing for implementers through supporting the PoAs and lowering barriers to carbon financing and creating a sustainable financing scheme which lowers subsidization of stoves (increasing program size, and proving additionality for carbon financing).

## Market Assessment Approach

- This is one of sixteen such assessments completed by the Alliance to:
  - Enhance sector market intelligence and knowledge; and
  - Contribute to a process leading to the Alliance deciding which regions/countries it will prioritize.
- Full slate of market assessments include studies in: Bangladesh, Brazil, Colombia, East Timor, Ethiopia, Ghana, Indonesia, Kenya, Mexico, Nigeria, Peru, Rwanda, South Africa, Tanzania, Uganda and Vietnam.
- Each assessment has two parts:
  - Sector Mapping – an objective mapping of the sector; and

- Intervention Options – suggestions for removing the many barriers that currently prevent the creation of a thriving market for clean cooking solutions.
  - In each Alliance study a combination of ADP and local consultants spent 4-6 weeks in country conducting a combination of primary (in-depth interviews) and secondary research. They used the same Market Assessment ‘Toolkit’ for each country so that comparisons can be made. The Toolkit is available free of charge to all organizations wishing to use it in other countries.

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### References

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<sup>i</sup> World Bank Data 2010

<sup>ii</sup> WHO Indoor Air National Burden

<sup>iii</sup> PDZP 2012

<sup>iv</sup> Interview Notes

<sup>v</sup> Interview Notes – government

<sup>vi</sup> [Microsol](#); [CDM](#)