

Beyond Bricks

Recommendations for PAN LAC

Next Steps and Linkages with other Regional Efforts within and
Outside Latin America
(deliverable 11)

Policy Advocacy Network for Latin America
for Clean Brick Production
(PAN LAC)

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Foreword

The following document consists of *Recommendations, Next Steps and Linkages with other Regional Efforts in Latin America*, for SLCP Reductions, through Policies, Capacity Building, and/or Institutional Strengthening for the Policy Advocacy Network for Latin America for Clean Brick Production (the PAN LAC), comprised under the *Bricks Initiative* of the Climate and Clean Air Coalition (CCAC).

This document complies with **Deliverable 11** of the PAN LAC to the CCAC as established by contract between the CCAC and the Center for Human Rights and Environment (coordinator of the PAN LAC) under the oversight of the Institute for Governance and Sustainable Development (IGSD) which read as:

“Proposing recommendations for PAN LAC next steps and linkages with other regional efforts within and outside Latin America”.

The content of this document derives primarily from a *Bricks Initiative* project proposal submitted to the CCAC in 2015 with the title *Beyond Bricks*, which was approved for financing by the CCAC in the same year and which will be implemented by the CCAC and partners during 2016-18. *Beyond Bricks* was conceived with a view to propose *next steps* for evolution of traditional brick sector engagement in Latin America (as well as other regions). In this context the Coordinator of the PAN LAC (The Center for Human Rights and Environment CHRE/CEDHA)—author of these *Recommendations*, included in the *Beyond Bricks* proposal the vision and next steps for the PAN LAC. As such, this Deliverable 11 of the PAN LAC, closely mirrors the PAN LAC relevant content of the *Beyond Bricks* project. We extracted PAN LAC relevant content, and have supplemented information where necessary, for these *Recommendations*.

These recommendations take into account and should be considered in conjunction with the *other* evolving products (deliverables) of the PAN LAC network, developed under this same project cycle, including:

- [Framework Document of the PAN LAC](#) (developed in late 2014)
- [Regional Strategy of the PAN LAC](#) (developed in late 2015)
- [Regional Guidelines of the PAN LAC](#) (developed in May 2016)
- [Compilation of Existing Policy Frameworks](#) (developed in early 2015)
- [Capacity Building Course for Public Policy on Brick Production](#) (developed in late 2015)

It is also important to note that each of these programmatic and strategic documents of the PAN LAC are *first edition* documents in evolution and are being modified as the PAN LAC advances into subsequent stages and continues to draw experience and input from local government activities and programs involving the traditional brick sector.

Characterization of the Latin America Brick Sector

[Further details on the Latin American Brick Sector at: [PAN LAC Regional Strategy](#), or in the [PAN LAC Regional Guidelines](#)]

Bricks for household and commercial use have been produced for many hundreds, and even thousands of years. The process for producing bricks is rather straight forward and generally involves utilizing clay extracted from nearby land, molding the clay into the desired brick or tile form, drying the raw brick/tile under the sun or in kilns (ovens), and then cooking the brick in a makeshift temporary oven built of the same bricks being cooked (*clamp* or *scove* design), or in a permanent oven structure, utilizing available wood or other biomass as fuel. In certain cases, waste (including toxic waste such as car tires) is sometimes used as fuel.

There are an estimated 42,000 brick producers in the Latin America region,¹ with nearly 200 million tons of bricks produced yearly from traditional kilns². Solid brick production dominates the industry although hollow bricks made with basic low-cost machinery have significantly reduced the input of raw materials (including mostly clay) as well as fuel consumption. Informality is widespread in the traditional brick sector, with little or no social, economic or environmental public policies targeting traditional brick production. Lack of data leads to poor accuracy in determining overall regional sector emission or in the ability to gauge the region's portion of global contributions. Emissions *vis a vis* other sectors such as transportation and energy are also probably undervalued as these other sectors have more robust baseline and technological data to calculate total emissions. Wood is the dominant fuel for firing brick kilns in the region, spurring deforestation. Other fuels include coal, tires, plastics, manure, coconut husks, cardboard, battery cases, agricultural wastes and natural gas, producing a suite of pollutants when burned.

Traditional brick production is also oftentimes a seasonal activity where land used for agriculture or for some other activity is temporarily used for brick production. Since brick ovens are built from the very bricks that are being produced and that will be sold to market, makeshift kilns can appear out of nowhere, and then be dismantled immediately after cooking so that bricks can be sent off to buyers. This dynamic adds to the difficult task of formally inventorying the number of kilns (which would help formalize the sector) or establishing the location of kilns, as they can only be counted when they are actually in production. A kiln operated by a producer may be at one location at a given moment, and then because of a land use decision (for example and obligation to move), the same producer may construct the next kiln down the street, in another neighborhood or in an entirely different town across the region or country. Not all kilns are temporary in nature. More advanced designs introduce permanent structures. A single producer may construct anywhere from a few to a few dozen kilns per week or per month. When production is underway, a neighborhood may be overrun by kiln smoke from hundreds of kilns burning at once, whilst in non-production times, the skies might be crystal clear and no kilns may be in sight.

As we learn more and more about traditional brick sectors around the world, we find that governments oftentimes know very little about emissions from the traditional brick production sector. We know that brick kilns contaminate (and lots) because of the black smoke we see fuming from the haphazardly constructed kilns (sometimes called clamp kilns), but little data and technical capacity exists to actually *measure* contamination. This is partially the case because many kilns are temporary and have no chimney or contained way of precisely measuring the specific emissions from the kiln without capturing other contaminants that may already be in the air (including from other kilns but also from other industries or household burning such as from wood-fired stoves). This makes measuring emissions from the most traditional kilns, nearly impossible.

¹ CCAC, Swisscontact. 2015. Portfolio of technologies in the brick sector in Latin America

² Estimated from: <http://www.redladrilleras.net/website/web/stats.php>

The Context of PAN LAC's Action

The Climate and Clean Air Coalition (CCAC) has decided to tackle reducing emissions from the production of traditional bricks, and in doing so has created a network of experts and government officials as well as civil society organizations to coalesce and collaborate on this effort.

The CCAC's *Bricks Initiative* is the only global initiative that brings together brick producers, experts, and public policy officials working in-country, regionally, at a global scale *and* across regions to reduce contamination from traditional brick production. During the first several years of the *Bricks Initiative*, the CCAC focused its energy and efforts at harnessing global knowledge about brick production. This included science and technical know-how about existing emissions contamination from brick kilns and evolving innovative and cleaner brick production technologies. CCAC also created technical and policy expert networks in Asia and Latin America (one of which is the PAN LAC—and is soon to initiate another network for Africa) to share knowledge about the brick sector's evolution. The focus of the CCAC's work centers on emissions reduction and production efficiency. In its effort to better understand the sector, the CCAC is working to gather regional sector data in Asia and Latin America, it has commissioned market studies about the brick sector, developed inventory protocols for black carbon emissions, and held regional public policy dialogues to catalyze State engagement and begin to change the way States understand and organize their ministries and agencies and their policies to address the impacts of traditional brick production.

Thanks to and after the initial phase of CCAC projects, member States and partners in Asia, Latin America *and soon in Africa*, are ready to implement policies, strategies and programs to achieve SLCP emissions reductions from bricks, and they are asking the CCAC for help. The *Brick's Initiative* of the CCAC, following an initial first stage of operations in 2014-15, proposed a follow-up program and set of activities for 2016-2018, which has been constituted as the *Beyond Bricks Initiative* which has already received financing from the CCAC (in 2015) to take on proposed activities. *Beyond Bricks* takes advantage of the evolving work in the traditional brick sector, and extends its reach into Asia and Latin America to the next level, helping member States move beyond initial engagement, *to implementation, to strategy and policy development and to training local producers in the adoption of low-emission technology* and helping them carry out technical innovations that will deliver emissions reductions in the near term, improve air quality and human health near kilns, while raising the productivity and quality of life of traditional producers and impacted communities.

The PAN LAC, which stands for *Policy Advisory Network for the Promotion of Clean Brick Production*, is the policy arm of this initiative for the Latin America region, engaging governments and experts, to help guide governments to tackle policy developments in their brick sectors. PAN LAC is also working with partners in Asia (in its sister network, PAN ASIA) to advance the same lines of actions, and will soon also expand its collaborative reach to include emerging actors in the Africa region with the same objective (PAN AFRICA).

These Recommendations bring together the experience from Latin America of the first phase of action (2014-2015) and propose a second stage (2016-2018) strategy deepening activities from the initial phase, taking initial policy reform steps towards the phase of implementation, and projecting a scaling up of initial actions, while capitalizing on past experiences of the CCAC's Bricks Initiative.

Programmatic Approach of the PAN LAC (and of the CCAC)

The *Beyond Bricks* approach which sets the stage and framework for the PAN LAC is built on 3 *interrelated and complementary components that work in an interlocked and mutually reinforcing manner*. PAN LAC is mostly centered on the *first* of these, but works closely and in an integrated manner with the other two component sets. These are:

- 1) *Public Policy Guidance, Engagement and Support*, continuing to engage and advise policy makers in one-on-one and in collective settings to create an enabling environment to promote policy reform and program implementation.
- 2) *Targeted Sector Support*, expanding and deepening the knowledge base on the evolving brick sector, focusing on the technical, economic and social dimensions of traditional brick production.
- 3) *Capacity Building and Training for Producers*, strengthening local technical innovation capacity of producers and other actors in the sector.

The types of actions envisioned by *Beyond Bricks*, and specifically the type of engagement that the PAN LAC will foster with governments in the context of the *Beyond Bricks Initiative*, will help catalyze State implementation of specific policies and programs for emissions reductions from the brick sector, which will in turn help States improve energy and commercial efficiency of brick production. It has been shown that addressing brick kiln emissions can achieve a 15% to 40% reduction in black carbon and Green House Gas emissions in the short-term (3-5 years) at kilns engaged in reforms. PAN LAC is geared to help government place into motion, actions that can induce a move by brick producers to become more efficient and less contaminating.

The types of technical innovations fostered by *Beyond Bricks* and encouraged by the PAN LAC for governments, can achieve up to 15-40% reductions in fuel consumption³ while a majority of engaged bricks kilns can be converted to cleaner production in a long-term scenario (>5 years). Additional benefits to SLCP reduction that will derive from *Beyond Bricks* activities, and which PAN LAC will promote in the next phase of activities in an integrated multi-sector approach to addressing the brick sector, include improved health, social, economic and labor conditions, reduced informality of the sector, and a general increase in the quality of life for workers and of local communities residing at or near traditional brick kilns.

PAN LAC also will focus its efforts in this next cycle of activities to encourage States (through complimentary action of other partners of the CCAC) to focus on the “economics” of traditional brick production, with a view to increasing producer income while at the same time promoting low-emission and advanced energy efficient fuel technologies⁴.

Some of the results aimed for by the PAN LAC in the next phase of activity (2016-2018) include:

1. the continued and active engagement of public officials to address the traditional brick sector;
[PAN LAC will aim at deepening of activities with governments already highly engaged with PAN LAC such as Chile, Colombia, Peru, and Mexico, and the possible expansion of activities to others that have

³ CCAC, Swisscontact. 2015. Portfolio of technologies in the brick sector in Latin America

⁴ CCAC, Swisscontact. 2015. Report on the scientific assessment of successful technology cases in Latin America

shown interest, such as Uruguay, Paraguay, Dominican Republic, Bolivia, Brazil, Guatemala, Honduras, et.al.]

2. the enabling environment necessary to push forth public policy reforms in the brick sector; [PAN LAC will aim at expanding actions that move initial engagement of countries such as Chile, Mexico, Peru and Colombia, to the next level, evolving from policy discussions to implementation of actions and programs, and use of the tools developed by other partners of the CCAC—such as economic analysis, emissions measurement tools and protocols, capacity training nodes, etc.]

3. the development and implementation of public policy geared to reduce emissions in the sector; [in the countries that have actively engaged to date (Mexico, Peru, Chile, Colombia), PAN LAC will aim at generating emissions regulations evolution as well as the improvement of kiln design or brick quality specifications. PAN LAC will also foster interventions by the State with producers to introduce technological innovations and capacity building]

4. the reconversion of polluting processes to newer climate-friendly and energy-efficient technology; [PAN LAC will aim at fostering that kilns in participating countries be retrofitted with new technologies, or some new modern low-emission kilns built; the actual guidance and technology for retrofitting is an activity that is carried out by other CCAC partners]

5. the empowerment of traditional brick producers in transformational processes; [in the engaging countries, PAN LAC will aim at fostering a dynamic change in producer engagement with new technologies, introducing innovations, upgrading their capital and engaging with evolving policies and the State; the activities with producers is carried out by other CCAC partners]

6. the strengthening of CCAC relations with public officials in SLCP-relevant sectors; [PAN LAC will promote further engagement of the CCAC including the Secretariat, lead partners and implementing partners actively engaged with States that are taking up brick kiln policy reforms and introducing programs]

7. a growing and expanding regional dynamic to discuss traditional brick kiln policies [PAN LAC will work to encourage States to take up opportunities for innovations; PAN LAC will work to promote take up of products and services of the CCAC, by States across the region and will work to facilitate the take up of activities to develop and implement strategies and to more generally advance on efforts to reduce emissions from traditional brick kilns not only through the Bricks Initiative but also through other CCAC initiatives]

8. the deepening of knowledge on technological reforms available to address brick kiln emissions; [PAN LAC will aim at developing a knowledge platform available through the PAN LAC/CCAC and associated partners in the other components of the Bricks Initiative, where learned knowledge regarding policy (theory and implementation) is made available to interested States and that that knowledge is utilized by members]

9. the identification of market opportunities to change traditional brick production; [PAN LAC will aim at ensuring that financial actors come to the table, interested in financing innovations in the traditional brick sector, offer financing tools and services to a diverse set and size of brick producers, so that they can make the necessary investments to reduce emissions and increase efficiency]

10. engagement of new States and institutions not currently CCAC partners or not active in PAN LAC; [PAN LAC will promote CCAC engagement with States that engage with but are not actively pursuing brick sector strategies begin to do so after engagement with the PAN LAC, and that possibly new States not currently members of the CCAC approach the CCAC to work on brick sector strategies]

PAN LAC Vision for Change for the coming phase ...

The PAN LAC vision for change derives from the *Beyond Bricks Initiative*'s stated vision:

We have a goal for change: to reduce SLCPs in a sector that has been identified as priority

We harness knowledge (or create it) to better understand sector dynamics and opportunities for transformation

We bring the right people together to lead change

We find champions of change in engaged and motivated member States and actors that can implement at scale

We use our resources, contacts and knowhow to assist States usher in policy, technology and science

We help guide implementation of change overcoming barriers that prevent sector evolution and sustainability

PAN LAC Promotion of Opportunities for Transformation of the Brick Sector

Experts in CCAC-commissioned studies during the first phase of the *Bricks Initiative* have identified over a dozen simple and inexpensive costs-effective control measures (already in existence) involving simple technological and procedural modifications to production that will significantly reduce SLCPs emissions, improve air quality (improving human health), lower input costs and raise productivity of traditional brick production. PAN LAC will actively engage governments in the region, particularly those working with the PAN LAC to develop strategies for their traditional brick sectors, to consider and adopt these types of control measures and innovations.

These innovations include modifications to clay preparation, changes in drying techniques, fuel choice and mix, air injection to *and control of* the burning process, kiln design (including making permanent structures, adding chimneys and channeling heat), cooling techniques, recovering heat, and others. With a very low investment cost and better access to credits, if these innovations were implemented at scale, they would greatly reduce black carbon and other emissions from brick production and greatly improve sustainability of the sector.

PAN LAC Addressing Structural and Cultural Changes in Traditional Brick Production

The philosophy of the *Beyond Bricks Initiative* and the PAN LAC's role as a core partner of this initiative proposes fostering significant cultural, policy, process and structural changes to an activity that has existed for centuries and even millennia.

Some barriers of this sector, which the PAN LAC will work (in some cases through partner collaboration) to bring down in this next phase include:

- The lack of incentives to induce change in producers
- The invisibility of the sector for public officials
- Few or no regulations or lack of enforcement of laws (on emissions, land use, product quality, labor, child labor, health standards, etc.)
- Lack of information of available and profitable low-emission technology
- Low entrepreneurial know-how, cost calculation, marketing, etc.

- Low access to finance/credits
- Lack of knowledge of the impact in health and climate, and costs related to these impacts

The broader *Beyond Bricks Initiative* addresses these problems through three essential approaches and PAN LAC envisions a direct or supplementary role in each of these:

- 1) **Enabling public policies and assisting States:** It is important that governments have a clear *official* vision of what characterizes their brick sector, that they know how the sector is evolving around the world, and what potential public policy levers exist that they can employ to catalyze opportunities to reduce emissions and increase sustainability. More precise data and inventories, *peer to peer* dialogue, *one-on-one* advisory assistance, examples of clear and effective policy and regulations, sector engagement and monitoring, cross-ministry collaboration and deeper knowledge of market dynamics of the sector, are some recipes that *Beyond Bricks* is devising and taking locally to help States achieve structural transformation and policy reforms and respond to demand-driven requests from States to the CCAC.

PAN LAC will be the CCAC's key driver in this arena, during the next of phase of action to ensure that States are exposed to the opportunities before them to advance on brick sector strategies.

- 2) **Building and Exchanging Scientific Knowledge of the Sector:** Knowledge on black carbon emissions and other contaminants from brick production as well as their impacts must be harnessed and deepened. Emissions measurements, kiln design and cultural tradition are three large challenges for public officials wishing to regulate the sector and catalyze innovation. The sector's high level of informality and lack of data monitoring (environmental, social and economic) make it difficult to understand the potential costs and benefits of technological innovation. Reliable economic and financial data are also crucial to understand the basic drivers of production decisions and market direction. *Beyond Bricks* will deepen and expand technological and economic data to accompany this transformation prioritizing measurement and efficiency-gain related technologies to hone in on pollution quantification and cleaner designs, as well as on economic analysis to improve economic efficiency.

While not directly producing scientific studies or guidance, PAN LAC's role in this area is critical for the program area's success. PAN LAC's task in this arena is to make the work of other partner scientific activities known to State actors, offering the type of services and products produced by other partners to States that are engaging the brick sector, so that their traditional brick sector strategies are informed and guided by the best available knowledge coming from the sector, and so that States can the tools being developed by CCAC partners.

- 3) **Promotion of awareness and incentives for producers:** Producers need technical assistance, guidance and encouragement to understand where opportunities lie to improve efficiency, meet environmental standards and anticipate long-term market trends. This can range from technical modifications to the production process, to enabling financial market access. Identifying low-cost innovations that can quickly reduce fuel consumption and emissions that are simple to implement, is key for small producers. Specialized assistance to larger or more technologically advanced producers, or the formation of associations of small producers to scale up innovation can better focus engagement and training on production in an environmentally efficient and cost-reducing manner. *Beyond Bricks* proposes generating a targeted and producer-focused enabling environment for change.

PAN LAC's role in this arena is to promote knowledge sharing, allowing for States to identify, harness and transfer information the sort of information that is being produced in this arena, to public officials and eventually to producers.

Engagement with stakeholders

As a *public policy* focused initiative, the most obvious and direct stakeholder for the PAN LAC is the State, since the State and the various agencies that may wish to engage the brick sector (Environment, Climate, Mining, Production, Labor, Health, etc.) is the actor that will most benefit from PAN LAC's products and services. Nonetheless, PAN LAC should consider and incorporate a vision and work strategy that both identifies and collaborates with other key stakeholders.

These include:

- Active States (to deepen activity)
- Non-Active States members at broad CCAC level (to initiate activity)
- Policy makers at interested States (key targets who will utilize PAN LAC's services and products)
- Technical experts on brick related issues (to inform PAN LAC but also to introduce to States)
- Producers/brick makers (to inform PAN LAC)
- Development Agencies (to introduce them to program/financing opportunities in the brick sector)
- Other partners in the CCAC (to channel their work to States)
- The CCAC Secretariat (to help identify State actors for channeling other CCAC services/products)

During the early stage of the CCAC's Bricks Initiative in the Latin American region, PAN LAC's *initial* engagement was with governments with a view to advance policy discussions to address brick sector pollution. Initial steps by the PAN LAC helped the CCAC establish channels of engagement with the most interested States. Initially these were Mexico, Colombia and Peru. Further engagement with Chile has also created innovative opportunities which are taking shape as programs to be implemented, as we move into the next PAN LAC phase (2016-2018).

PAN LAC will continue to promote policy knowledge about the brick sector in the Latin America region, and take advantage of the services and products being developed by other partners of the CCAC, as these are finalized and can be offered to States as tools for addressing the traditional brick sector (market study, emissions measurement protocol, etc.).

Future steps of the PAN LAC will prioritize ongoing engagement with countries which *have already* made tangible commitments, and where there have already been initial activities and which have made tangible progress towards objectives during the previous phase of implementation. This new phase of activities will deepen past activities, pilot cleaner technologies and innovations in engaged countries, push for the development of concrete strategies, reforms and implementation programs in the sector that have been built during initial engagement. *Beyond Bricks*, and hence PAN LAC, targets countries that are actively demanding CCAC assistance for introducing action to move forward with reducing emissions from brick production. Some of these countries are Mexico, Colombia, Peru, Chile, and Brazil. New countries will be added as interest, commitment and tangible engagement from member States materializes and funding permits.

Country Engagement Selection Criteria:

Countries to be added to PAN LAC's engagement are selected based on the following priority criteria (these priorities are established by the Beyond Bricks Initiative. Not all priorities need apply):

1. CCAC partnership
2. Expressed public sector interest (national, regional and/or local) in engagement, demand for advisory assistance, program implementation, scaling-up efforts, and emissions monitoring
3. Existence of viable and committed implementing partner
4. Potential as a regional learning site
5. High mitigation potential of the brick sector in the country
6. Established contact network and/or previous projects implemented in the brick sector

The PAN LAC, and the *Bricks Initiative* more generally, builds country engagement closely through ongoing CCAC Secretariat and Member *peer-to-peer* engagement and dialogue, ensuring that relationships that are forged survive beyond the engagement of the implementing partner. Regional policy workshops held in and sponsored by member States are producing tangible demand for ongoing CCAC assistance to develop strategies to address the brick sector. Generally this engagement is initiating in most cases, through interests in engaging with the CCAC on a policy discussion.

The PAN LAC and the Relevance of the CCAC's 5-Year Strategic Plan

The four key strategies of the current CCAC *5-Year Strategic Plan* are to:

"Catalyze Action", "Build Support", "Mobilize Finance", and "Enhance Science".

The central objective of the CCAC is to help avoid the *near-term impacts* of global warming over the next few decades through the *reductions of short-lived climate pollutants (SLCPs)* – most notably methane, *black carbon* and hydrofluorocarbons (HFCs). The CCAC also stresses that SLCP emission reductions can be achieved through quickly identified and *rapidly implementable cost-effective solutions* that also advance *national development priorities* such as *growing strong economies, improving air quality, protecting public health* or promoting food security.

The PAN LAC and the *Beyond Bricks Initiative* more generally work specifically to each of these ends, including to **catalyze public policies and related actions** towards the adoption and implementation of policies, regulations and practices to reduce SLCPs and other contaminants in brick production. This is clearly PAN LAC's main focus in terms of the 5-year plan. PAN LAC also works through the *Beyond Bricks* partners by **supporting partners** to identify opportunities in the brick sector for technological improvements, and engages financial partners of the CCAC and national agencies of partnering States, to explore ways to **mobilize finance** to achieve sector transformation. By encouraging States to consider partner guidance products and services (sector studies and country-focused studies), PAN LAC works to **enhance the science** governing and informing the brick sector.

The PAN LAC and the CCAC's Medium Term Plan for the Brick Sector

The *Bricks Initiative Medium Term Plan* review of the first 2-year plan outlines some of the key activities and recommendations for the next 3-5 years. The resulting plan includes:

1. Strengthening capacity of public officials working with the sector
2. Deepening studies to buttress knowledge and guide the sector
3. Capacity building and training for producers
4. Complementing the focus to supply-side with demand-oriented measures

PAN LAC focuses its efforts on the first of these key activities, *Strengthening the Capacity of Public Officials Working in the Sector*. PAN LAC also must follow development and find ways to promote action in relationship to the other key activity areas. In this regard, it is paramount for the coordination of the PAN LAC to maintain close dialogue with and exchange information and experiences with the other partners in the *Bricks Initiative*, offering States, whenever possible access to the evolving services, products and knowledge being generated by other partners working in the *Bricks Initiative* and in other sector areas of the CCAC (agriculture, municipal waste, diesel, oil and gas, etc.).

Coordinating with other CCAC initiative and activities

The work of the PAN LAC has from the start been carried out in compliment to other CCAC initiatives, openly sharing learned knowledge and experience on an internet-based platform. It should continue to do so in the 2016-2018 phase.

PAN LAC hones in on and seeks to supplement CCAC partner activities where such partnering can mutually reinforce the diverse set of activities that CCAC partners are undertaking in the brick sector. The PAN LAC's focus on partnerships with State officials, offers a unique opportunity to take other CCAC partner work to States, making public officials of engaged States aware of, an potentially take interest in, utilizing the studies and tools being developed by CCAC partners.

Over the course of 2014, in Latin America for example, implementing partners held a knowledge-sharing meeting in Cusco (Peru) and carried out an expert visit to Brazil. In 2015, 3 field trainings took place in Colombia, Chile, and Mexico, while several expert visits were made to Mexico, Colombia, Brazil, Peru and Chile. Policy discussions were a part of each of these engagements, providing fertile grounds for the expansion of PAN LAC's objectives and activities. Conversely, the work underway by other CCAC Partners, such as the market analysis or the emissions measurement protocol, or the training offered by the training nodes, are now in demand by the public officials represented at these events. Country governments that did not participate in, but have learned about these events, systematically request policy guidance to carry out their own similar events and actions.

Other activities carried out by CCAC partners included: training manuals for Latin America, 4 reports on policies, a comparative portfolio of technologies, an assessment of gaps and a scientific assessment of successful technologies. All these activities are contributing to evolving changes in the brick sector and can be harnessed by PAN LAC, packaged and redistributed to engaging State partners, in its objective of sharing knowledge with States about the evolution of the traditional brick sector.

Outside of the Bricks Initiative, the PAN LAC can also benefit from the work of other CCAC partners, such as those participating in the *Black Carbon Finance Study of the Finance Initiative*, studying the potential of promoting black carbon finance. In parallel, PAN LAC can benefit from knowledge gained in the *Domestic Heating and Cooking Initiative* on how to overcome challenges similar to both sectors (eg. informality). Partnerships with financial actors to explore the market value of black carbon emissions reductions from brick kilns can also provide PAN LAC with much needed insight to financing opportunities for the brick sector which can then be transferred to engaging States.

Conversely, PAN LAC can also take *Brick Initiative* knowledge, services and products to other CCAC initiatives. Black carbon protocols on bricks can inform the SAP and other efforts to measure black carbon including the *Demonstrating Impact* effort of the CCAC. The types of activities monitored by PAN LAC and other actors of the *Brick Initiative* can also engage with the *LAC Scientific Assessment* and the *Asia Scientific Assessment of the Regional Assessments Initiative (RAI)*.

Perhaps one of the more overarching ways the PAN LAC can harness its knowledge is to share the design of the *Bricks Initiative*, and specifically the characteristic of this initiative of being grounded on policy dialogue, with other development initiatives, not only in the CCAC but also in other agencies. It should be noted that the same public officials in member States that engage with the *Bricks Initiative and specifically with PAN LAC* generally have interests in working with several of the other initiatives of the CCAC, such as the CCAC's work on Methane Emissions, Transport, Cook Stoves, Waste Management, the Finance Initiative and on Urban Health, or Supporting National Action Planning for SLCPs (SNAP)—e.g. *Mexico, Colombia, Morocco*. In some cases, CCAC member State engagement on Bricks has come from engagement on SNAP, etc. In this regard, working on brick contamination may also serve as an open door to work on many of the CCAC's other agendas, where the CCAC could utilize engagement on bricks to leverage further sector engagement.

PAN LAC – Outreach to Other Global Climate Change Focused Initiatives

Good models to exemplify transformation are needed. Public officials around the world working on environment, air quality, climate change and other sectors that need to reduce emissions, lower contamination and promote cleaner and more sustainable policies need tangible, feasible and implementable solutions to their public policy challenges. It is this urgent need by public officials for success stories and opportunities that fuel the rapid uptake of member States in the CCAC agenda. Public officials see the CCAC as an agency that can deliver results.

The policy makers that today are addressing brick emissions are generally the same policy makers that are engaging on climate change, and as such, they are a subset of policy makers that are of enormous relevance to other agencies (beyond the CCAC) attempting to gain climate-program buy-ins for global actions to contain and reverse climate change.

Effective coordination, appropriate policy and incentives, information and capacity building and realistic access to modest finance, and finding ways to build connections between addressing brick kiln emissions to existing national, regional or global efforts to address climate change, will foster successful reforms, and allow for replicating actions amongst other member States. This will create strong experiences of win-win investments under manageable and realistic public policy.

PAN LAC Activities for 2016-2018 *(adapted from the approved Beyond Bricks Project)*

Public Policy Engagement and Support

This area of work is the entry point for CCAC engagement with States on brick production and is the core focus of the PAN LAC for the upcoming phase of work (2016-2018). Through this set of activities, the PAN LAC engages public officials of national, regional and local government (in different ministries) in *one-on-one* and in *collective regional formats* to exchange experiences on best practices in the sector, to identify tools and knowledge gaps, and provides States with the advisory assistance they need to develop public policy to tackle the challenges of traditional brick production to reduce emissions and improve social, environmental and economic, sustainability.

Select PAN LAC activities planned for the period include:

Public Policy Guidance Engagement and Support	Deliverables
1. Coordination of the Latin American Public Policy Network	Sustained communication/exchange/ harnessing information of network
2. Public Policy Dialogues	Organization of one policy workshop in Latin America
3. Model Policy Document for the Traditional Brick Sector	Publication of one policy guidance document for public officials
4. Policy Assistance to States for Brick Sector Strategies	Direct assistance to States in strategy development

Rationale for Actions

PAN LAC activities in Latin America build on the momentum and advancement generated with priority States under previous CCAC activities of the *Bricks Initiative*, while scoping new linkages and potential areas of work with States that are approaching the CCAC for assistance and partnerships to scale up activities. PAN LAC will prioritize “first mover” countries (Mexico, Colombia, Peru, and Chile), which have shown interest and political resolve to move with designing, adopting and implementing brick sector initiatives and strategies to reduce emissions. PAN LAC will also engage new countries showing interest in CCAC activities (Dominican Republic, Paraguay, Guatemala, Uruguay, Brazil, etc.) as time and financing permits.

1) The Coordination of the Latin American Public Policy Network (PANLAC)

The Policy and Advocacy Network for Clean Brick Production for Latin America (PAN LAC) is a product of initial activities of the CCAC Brick Initiative. This network has established a list of more than 100 key experts and has been compiled to advance science-based knowledge, policy development and implementation, and technology adoption, active in the brick sector. Under this initiative, the implementer will maintain and expand the contact database, administer communications, devise a communication system for the network, and foster regular communications. The implementer will also continue to collect evolutionary materials regarding the traditional brick production sector, news, and information regarding developments, particularly from related other activities of the *Beyond Bricks* initiative, which it will share with the network contacts, including information about new policies, regulations, implementation programs, workshops, reports, financing tools, etc. The implementer will also act as representative of the PANLAC network at relevant events, seeking to promote the network’s interests, engagement and benefit. The implementer will also be attune to demands from States to provide information and guidance and will keep the database and knowledge platform up to date with materials and guidance documents. The PANLAC will also maintain abreast of developments in the PANASIA network and ensure cross-regional communication, information and identification of opportunities for collaboration and mutual growth of networks.

2) Latin American Public Policy Dialogues

A key product stemming from the earlier phase of CCAC work, and particularly of the PAN LAC public policy network is the systematic *physical* meeting of public officials engaged in governance of the brick production sector. The last meeting was in April of 2015 in Chile, as a result of PANLAC action. As a result of this engagement, today, the government of Chile has taken the experience and decided to move forward with several initiatives, including an inventory of its bricks sector as well as a pilot project to design and implement two low-emission kilns. In many cases, these officials met on this topic for the first time not only to gain exposure and build technical knowledge of brick production, but also to meet with brick production experts, visit brick producers, witness production processes, and most importantly to have candid debates about how to address the challenge of transforming brick production to cleaner and more socially, environmentally and economically efficient technologies. Under *Beyond Bricks* two more dialogues will be held in Latin America (at least one each year) to foster specific State engagement and resolve to implement traditional brick sector policies. Already several countries have been identified (or have stepped forward to offer themselves) for future hosting of policy workshops including Mexico, Peru and Colombia, while interest from others to engage in other ways is also present. The dialogues have the added benefit of promoting *peer-to-peer* discussions and exchanges, of building political momentum to engagement across the region, and assisting governments to acquire from each other, ideas of how to design and implement policies in their home countries. The implementer will identify and engage the host, develop the agenda in collaboration with the State and with the CCAC, and will lead the organization of the workshop.

3) Model Policy Guidance Document for the Traditional Bricks Sector

The *Model Policy Guidance Document for the Traditional Bricks Sector*, will be produced by the PAN LAC and build on the initial [PAN LAC Regional Guidelines](#) drafted and published by the PAN LAC in early 2016 during phase I. This guidance document is specifically designed for member States that are considering engaging on the development of a Brick Sector Strategy and that need to conduct a scoping exercise to analyse their brick sector and then move on to an implementation plan. The document will assist States to sort out their consideration, preparation, and strategic thinking for the development of a national/local intervention strategy for the brick sector. This product is offered in *direct response to demand-driven requests* of CCAC member States (for example, Chile, Mexico, et.al.) who have requested such a guidance document to the PAN LAC Network as they are moving forward with no current policy guidance materials. The document will include strategic guidance on how to plan for emissions monitoring and registering, how to develop terms of reference for kiln and emissions inventories, how to design a proper characterization of the sector, how to feed technological considerations into strategic planning, what considerations to take for promoting specific kiln designs, as well as guidance on how to incorporate a broad and inclusive public sector analysis. The guidance material will also include guidance on financial and investment considerations for the sector and strategy, international assistance considerations, and a review of how market dynamics play into a brick sector strategy, etc.. it is geared towards both high level officials and agency officials that must set national or local standards and strategy for addressing the brick sector, and which must develop State programs for transforming and modernizing traditional brick production.

4) Direct Policy Advisory Assistance to States to Draft Brick Sector Public Policy Strategies

As the PAN LAC devises and implements policy dialogues and engages States (as is already occurring) the network will follow up engagement with committed member States to initiate the development of a Brick

Sector Policy, in which the PAN LAC will offer the collective know-how of the network and its members to committed States and assist the State in the drafting of a Brick Sector Public Policy Strategy. The advisory assistance will take into account the topics mentioned in Activity 1.6 of *Beyond Bricks* (Model Policy Guidance Document) and will offer guidance to the State by categories that are relevant to the State and its Brick Sector Strategy and the topics in which the PAN LAC has in-house capacity on which to provide guidance. This activity is the end result and anticipated product of the PAN LAC network and will help States move towards the implementation of brick kiln policies to reduce emissions and other impacts. States contribute in-kind and financial contributions to this activity by facilitating engagement with local actors, providing meeting space, dedicating staff time to strategy development. Local staff of State agencies also acquire technical knowledge through engagement.

Other relevant CCAC Activities that will Complement PAN LAC Activities 1-4

Promoting Access to Finance (Latin America)

One of the main barriers identified in the brick sector that prevents the uptake of low-emission technology is low access to finance (World Bank, 2015⁵; Finance Initiative, 2015⁶). Other partners of the CCAC participating in the Bricks Initiative will implement projects designed to eliminate financial barriers to the uptake of low-emission technology aimed at lowering distrust by commercial banks, promoting flexible access to credit conditions, and exploring new financial tools that could be used by the sector. This effort will incorporate ongoing work on the Business Case being carried out in Mexico and will bring aboard CCAC partners such as the World Bank and other actors such as the Inter-American Development Bank, the European Investment Bank or other regional financial actors collaborating with the CCAC. The CCAC will also engage local and regional banking institutions in the public and private sector with a view to helping bridge brick producers with policy initiatives.

Deepening and Expanding the Business Case in Mexico

Following on initial CCAC-sponsored activities to develop a business case for transforming the traditional brick sector, the Mexican government's National Institute of Ecology (INECC) program will expand and focus activities to develop a business plan for one of the chosen regions. This activity has also secured government buy-in and counterpart financing, showing how the CCAC can harness national resources for actions. The activity will conduct a detailed business analysis of the chosen pilot region, help identify business opportunities and challenges, carry out a cost-benefit analysis and a detailed analysis of the market as well as a plan for the business case in the region. The activity will hone in on the complete chain of artisanal production, including types of producers, raw materials used in production, to labour organization, to sustainability evaluation of production processes by type, evaluation of assets, characterization of inputs, quality of bricks produced, relevance of types of kilns, and distribution channels on through to final sale, production efficiency and earnings, etc. This business case will be presented to development banks, to private financial institutions, to international development agencies, or to local and federal governments, so producers whose modernization is economically feasible receive the necessary tools to improve their business and modernize the sector. PAN LAC will help give visibility to this Mexico study, with a view to provide interested states with methodology to address the economics of their own brick sector.

Strengthening Training Nodes in Latin America

Building on the past experience and delivery of the training nodes, this activity will work to strengthen existing training nodes on brick technology developed in earlier stages of CCAC activity. The nodes bring together a mix of actors that can collectively promote the overall improvement of the sector with a common

⁵ Black Carbon Study Finance Study Group Report. 2015

⁶ Finance innovation facility feasibility study for the Brick Sector. 2015

understanding of the challenges, opportunities and future direction of the sector. Activities will include assisting training nodes and countries to strategically define their training filling gaps not previously covered by the training nodes, exploring need and opportunity to promote alternative construction materials, defining clear objectives and expected outcomes for training and awareness raising activities on clean brick production themes (e.g. efficient technology, energy efficiency, measuring and monitoring). The nodes will deliver target information according to country needs and actors (eg. policy makers, private sector, academy), maintaining the exchange of information in the region and defining aspects to be covered by activity 3.3. of the *Beyond Bricks Initiative*. PAN LAC will promote the use of these nodes amongst engaging States, with a view to encourage States to aim at training producers on innovation technologies and opportunities in the sector.