

# NAMAS IN THE WASTE SECTOR: CHALLENGES AND OPPORTUNITIES

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Cumbre de los Pueblos  
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# WASTE IS A MIRROR OF WHAT IS WRONG WITH TODAY'S CONSUMER SOCIETY

LOS RESIDUOS SON UN ESPEJO DE LOS PROBLEMAS  
DE LA SOCIEDAD DE CONSUMO



# THE TRANSFORMATIONAL POTENTIAL OF THE WASTE SECTOR EL PODER TRANSFORMADOR DE LOS RESIDUOS

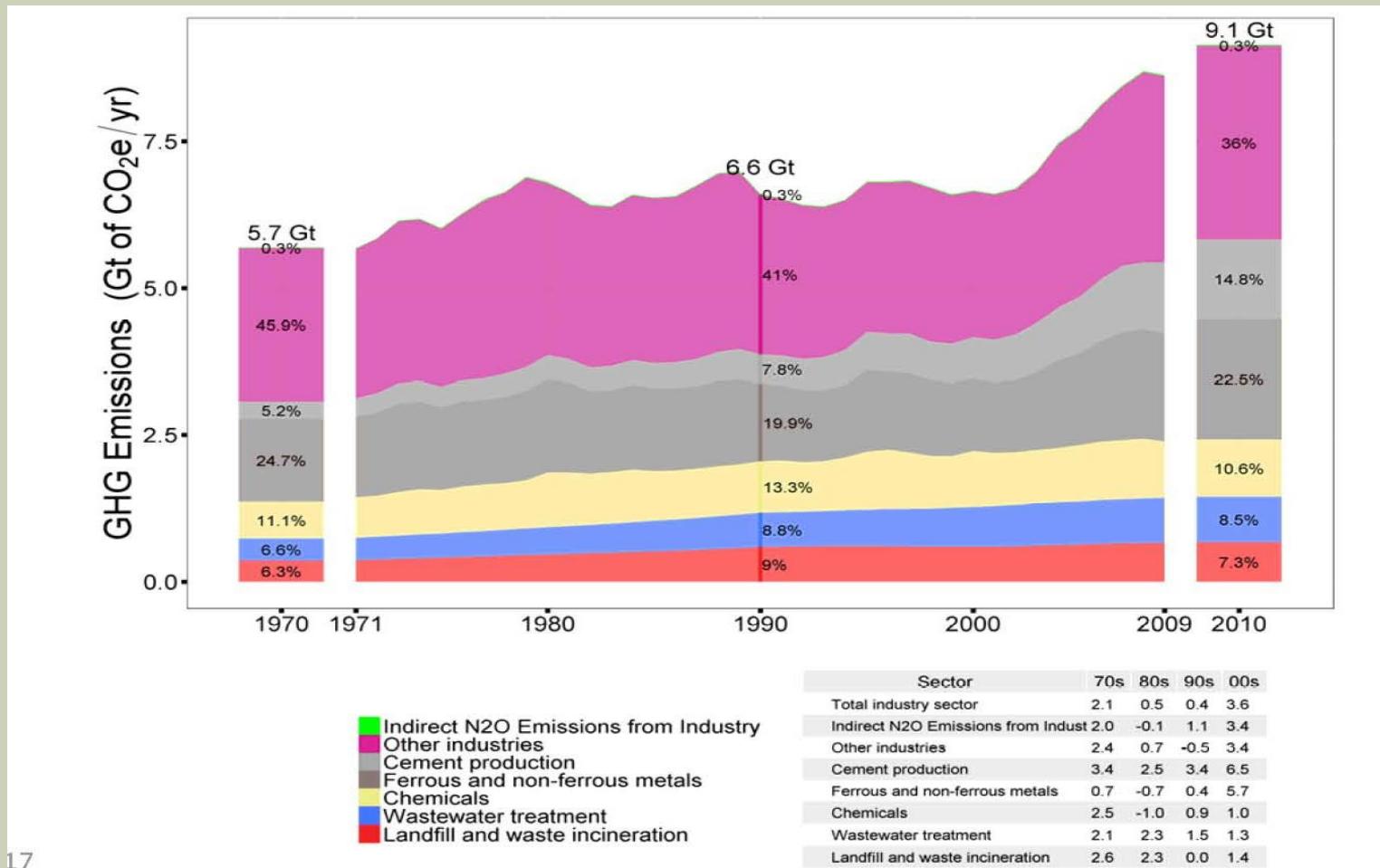
By changing the way we deal with waste, we also change society.

Cambiando la manera de tratar los residuos, cambiamos también la sociedad



# THE CONTRIBUTION OF WASTE SECTOR TO CLIMATE CHANGE

## CONTRIBUCIÓN DEL SECTOR RESIDUOS AL CAMBIO CLIMÁTICO



# ACCOUNTABILITY OF GHG EMISSIONS IN WASTE SECTOR

## LA CONTABILIDAD DE LAS EMISIONES EN EL SECTOR RESIDUOS

Municipal Waste Dump or Landfill  
Vertedero de residuos

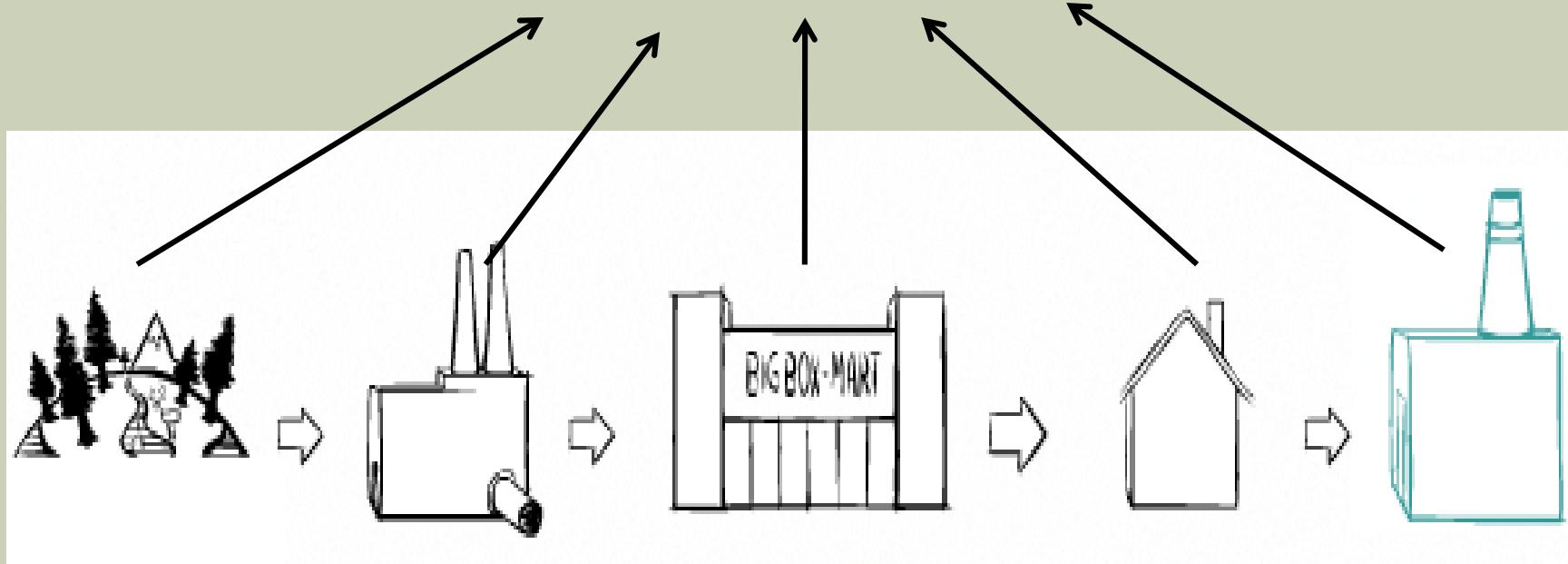


Incinerator of municipal solid waste  
Incinerador de residuos sólidos municipales

# GHG EMISSIONS FROM STUFF

EMISIONES DE GEI DE LAS COSAS

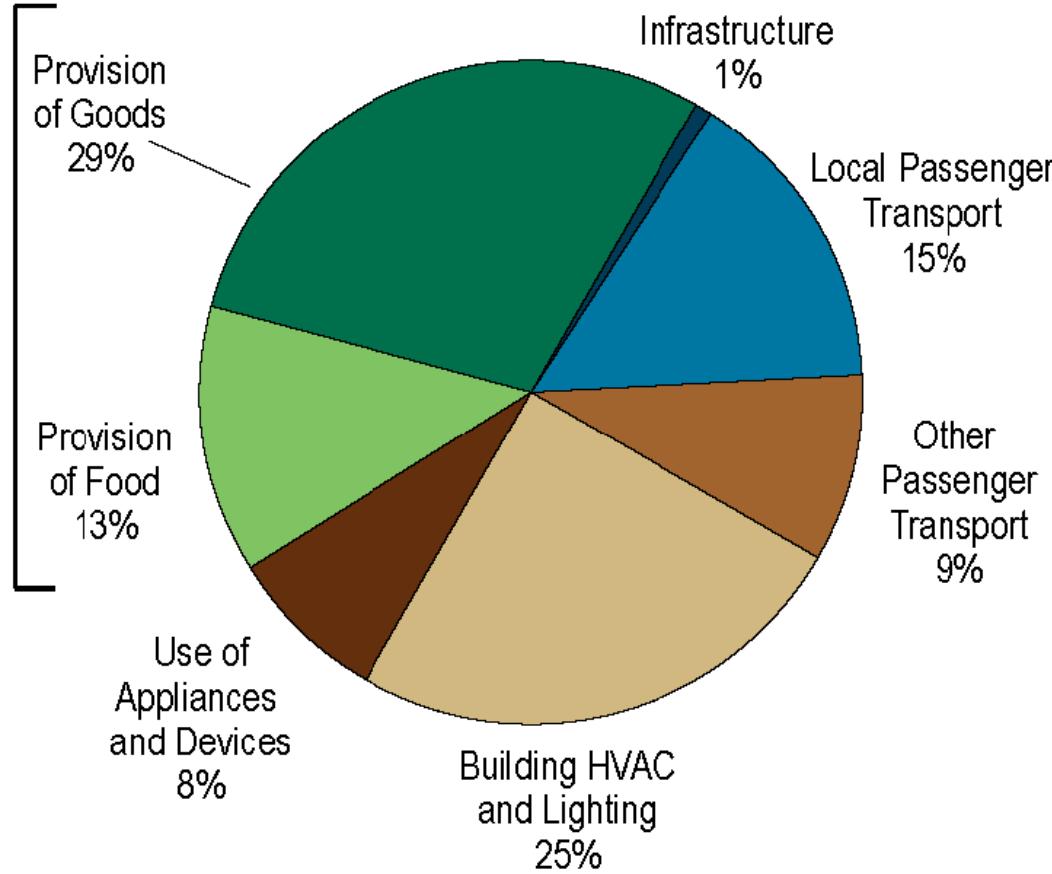
**42% greenhouse gas emissions  
emisiones de efecto invernadero**



# GHG FROM A LIFE CYCLE PERSPECTIVE

## EMISIONES DE GEI DESDE EL CICLO DE VIDA

### Materials Management Policies



Source: Opportunities to Reduce Greenhouse Gas Emissions through Materials and Land Management Practices. U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response. September 2009

# ZERO WASTE – KEY OPPORTUNITY FOR A NAMA IN THE WASTE SECTOR

## BASURA CERO – OPORTUNIDAD DE ORO PARA NAMAS EN RESIDUOS

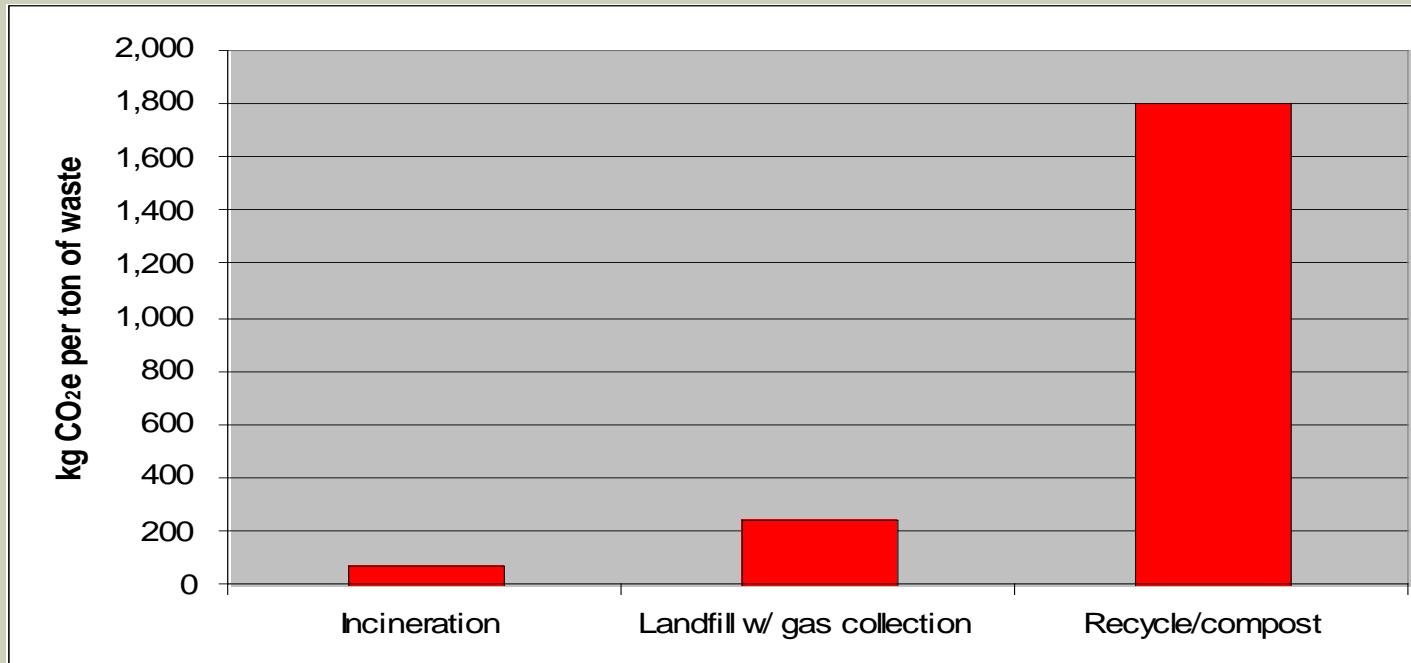
- Zero waste: the goal and strategy of continually minimizing waste disposal through burning and burying towards zero.  
**Basura Cero: el objetivo y estrategia de minimizar continuamente la eliminación y enterramiento de residuos hasta reducirlos completamente.**
- Zero waste solutions include waste reduction, redesign, composting, biogas, producer responsibility, consumption transformation, and recycling.  
**Las soluciones de Basura Cero incluyen prevección de residuos, rediseño, compost, biogas, responsabilidad del productor, transformación del consumo y reciclaje.**



# KEY ACHIEVEMENTS OF ZERO WASTE

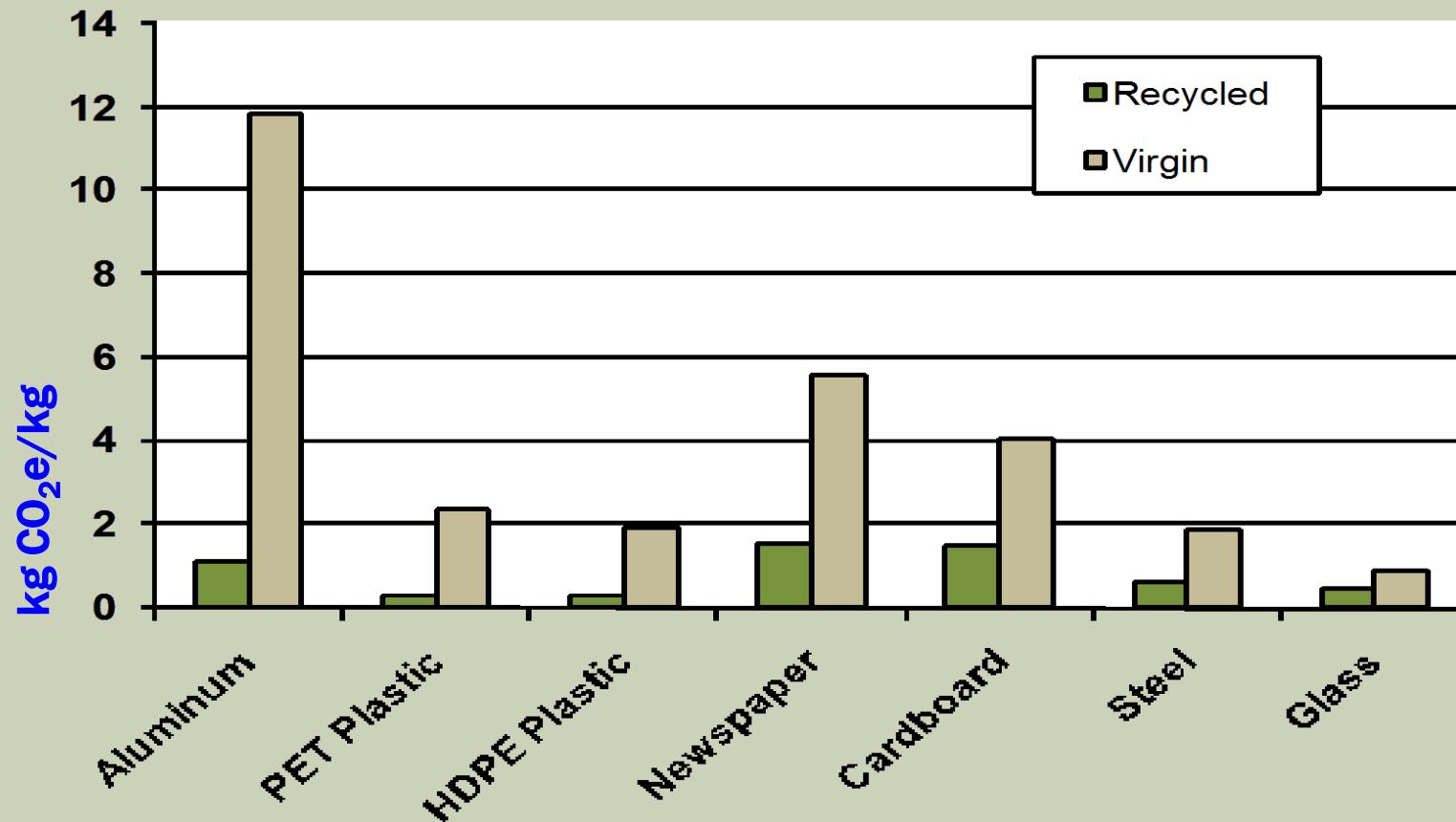
## LOGROS CLAVE DE BASURA CERO

1. Reduction of GHG emissions in every household.
1. Las reducciones de emisiones de GEI en todas las casas.



FUENTE: Assessment of Materials Management Options for the Massachusetts Solid Waste Master Plan Review, Tellus Institute December 2008.

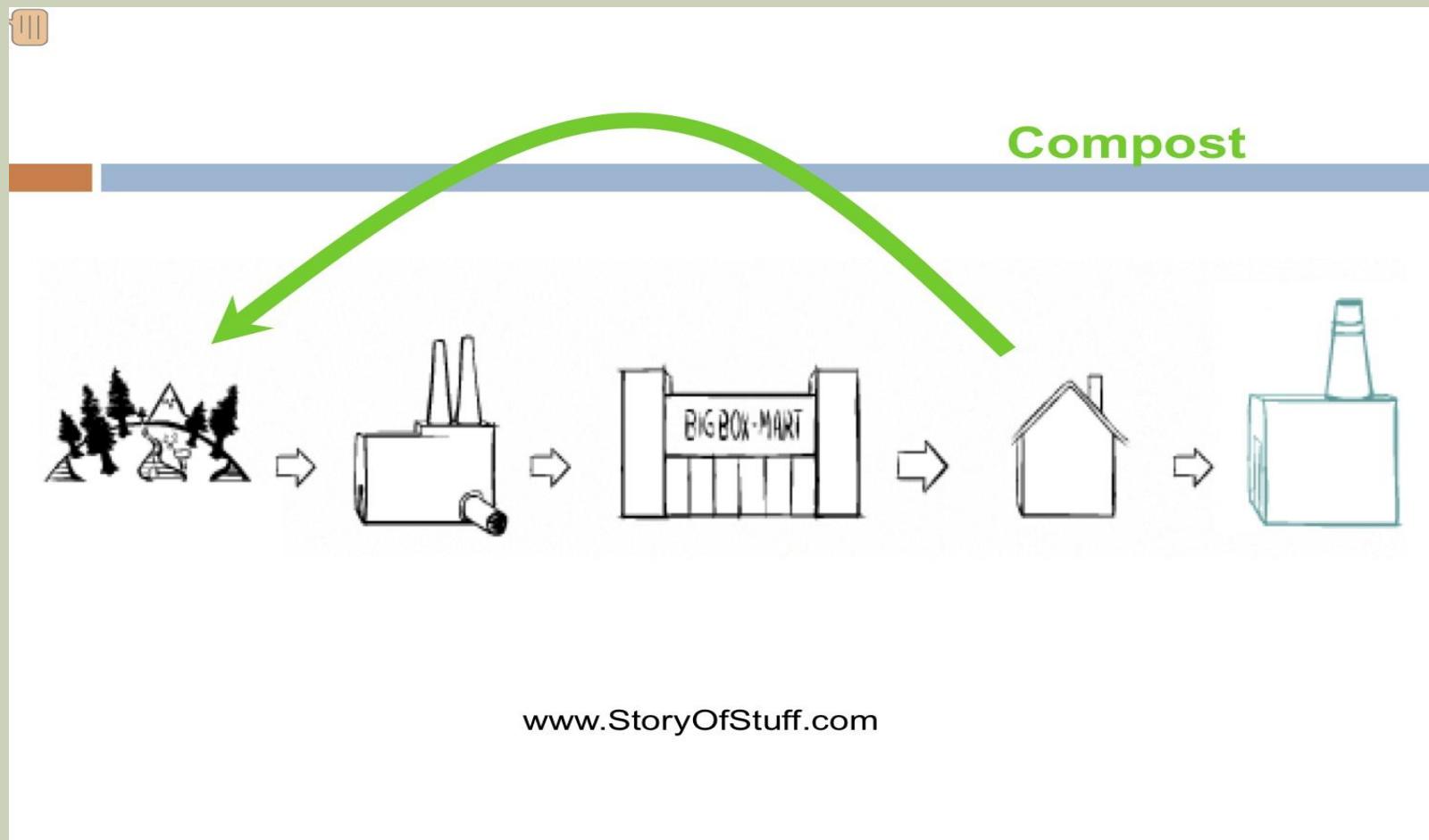
## 2. REDUCTION OF GHG EMISSIONS AT THE PRODUCTION LINE. 2. REDUCCIÓN DE EMISIONES EN LA LÍNEA DE PRODUCCIÓN



Sources: Morris, "Comparative LCAs for Curbside Recycling, Versus Either Landfilling or Incineration With Energy Recovery." *International Journal of Life Cycle Assessment*. (2005); 13(3) 226-234. Schlesinger, *Aluminum Recycling*. CRC Press, 2006.

### 3. SOIL RESTORATION WITH COMPOST AND INCREASE OF CARBON SINK CAPACITY

### 3. RESTAURACIÓN DE LOS SUELOS CON EL COMPOST E INCREMENTO DE LA CAPACIDAD PARA CAPTURAR CARBONO



See <http://www.marincarbonproject.org/marin-carbon-project-science> for the latest bibliography on this work.

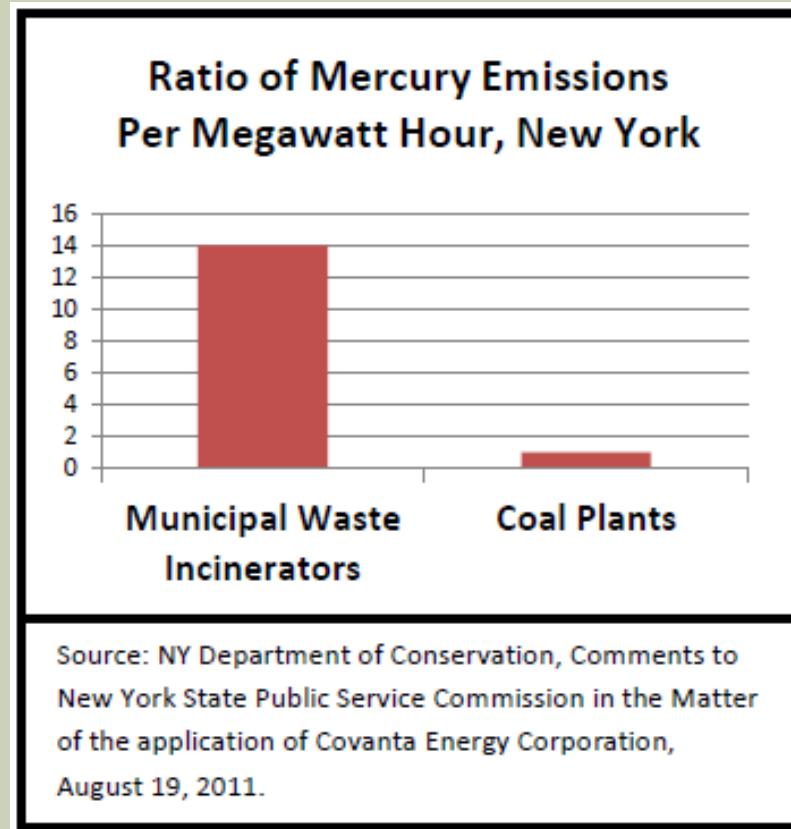
## 4. REDUCTION OF GHG AND TOXIC EMISSIONS FROM WASTE DISPOSAL

### 4. REDUCCIÓN DE EMISIONES TÓXICAS Y DE GEI DE LA ELIMINACIÓN DE RECURSOS

## MOST WIDELY KNOWN INCINERATOR POLLUTANTS OF CONCERN

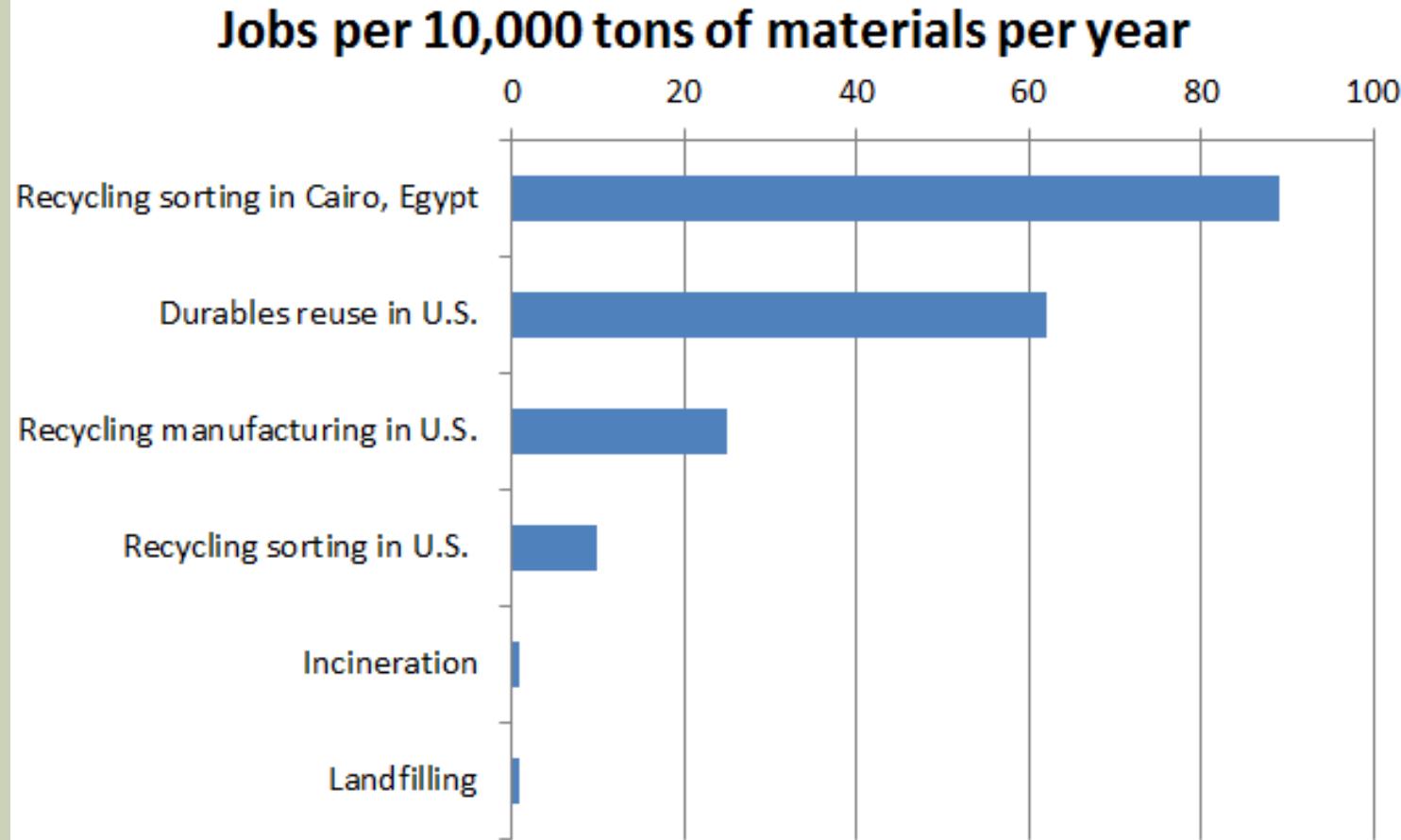
- DIOXINS 二恶英
- PCBs 多氯联苯
- CADMIUM 镉
- ARSENIC 钱
- CHROMIUM 铬
- MERCURY 水银
- LEAD 铅

No place for waste disposal/incinerators due to lock-in situation risk



## 5. ZERO WASTE SOLUTIONS CREATE GREEN JOBS AND REVITALIZE LOCAL ECONOMIES

### 5. LAS SOLUCIONES DE BASURA CERO CREAN TRABAJO 'VERDE' Y REVITALIZAN LA ECONOMÍA LOCAL



# RECYCLERS AROUND THE WORLD

Recycling  
in Tamil  
Nadu



Recycling in Brazil



Recycling  
in Bali

Recycling  
in San  
Francisco



## 6. IT REINVIGORATES AND DEVELOPS OUR COMMUNITIES

## 6. REVITALIZA Y EMPODERA NUESTRAS COMUNIDADES



# CURRENT NAMAS IN THE WASTE SECTOR

## NAMAS ACTUALES EN EL SECTOR DE LOS RESIDUOS

- Colombia – aiming at improving recycling rates through a mechanical-biological treatment (MBT).
  - Generally, MBT facilities increase recycling rates but still produce an important percentage of residual waste.
- Colombia – objetivo de mejorar el reciclaje a través de un tratamiento mecánico-biológico (TMB).
  - Generalmente, las plantas de TMB incrementan el reciclaje pero producen gran cantidad de fracción rechazo.
- Residual waste is converted into Refuse-Derived-Fuel to be burnt in cement kilns.
  - Fracción rechazo se convierte en Combustible Derivado de Residuos.
- The argument is that using waste instead of fossil fuels will reduce GHG emissions, improve the waste treatment.
  - El argumento es que usando residuos en lugar de combustible están generando energía limpia, mejoran el tratamiento de residuos.

# RDF IS MADE OF REUSABLE AND RECYCLABLE MATERIALS

- RDF: 31 % plastic, 13 % paper and cardboard, 12 % wood, 14 % textiles and 30% other materials.

▪ Source: Puig, Fabra, Calaf, *La puerta de atrás de la incineración de residuos*, 2012.

- Materials that end up RDF could be reused, recycled, or the products should be redesigned to do so."



# NOW WASTE ENDS UP...IN CEMENT KILNS

## AHORA LOS RESIDUOS VAN...A LAS CEMENTERAS

- Amount of waste being burnt in cement kilns has increased x5 times, and it's expected to continue rising.
  - La incineración de residuos en cementeras ha crecido x5 y sigue creciendo.
- Global projection: 37% of the fuel being burnt in cement kilns by 2015
  - Proyección global: 37% en 2015.
- Cement kilns burning this waste can receive exemptions from regulations and financial benefits for waste burning, and can add fossil fuel and hazardous waste to the mix without penalty.
  - Las cementeras incinerando residuos pueden recibir excepciones de regulaciones y beneficios económicos por quemar residuos, incluso añadiendo combustibles fósiles y tóxicos.



# WASTE INCINERATION IN CEMENT KILNS

## INCINERACIÓN DE RESIDUOS EN CEMENTERAS

### CONCRETE TROUBLES

A report on the emissions from Cement Plants in India and a critique of the ongoing co-incineration of Hazardous Wastes in the Cement Industries



Global Anti Incineration Alliance (GAIA) – India  
&  
Community Environmental Monitoring, The Other Media

January 2014

- Lafarge, Holcim and Cemex in partnership with GIZ – Development Agency in Germany – promoting waste incineration in cement kilns in India.
- Evidence found about exceedingly high levels of heavy metals and carcinogenic emissions.
- Community environmental Monitoring bringing forward a petition to the Green National Court. Some of the demands are:
  - Cancel all permissions for co-incineration of wastes in cement plants across India, in violation of Indian regulations.
  - Transparent research and application of regulations.
  - Define strict guidelines for fuel that can be used in this process.
  - Direct industry to prescribe legal standards for heavy metal emissions in air from cement plants and see through its implementation.

# NAMA IN DOMINICAN REPUBLIC

## NAMA EN LA REPÚBLICA DOMINICANA

- Main action - burning of waste in cement kilns.
- **Acción principal: incineración de residuos en cementeras.**



# NAMA IN DOMINICAN REPUBLIC

## NAMA EN LA REPÚBLICA DOMINICANA



- Reducing GHG emissions from pig farms with anaerobic digestors
- Reducción de los gases de GEI de granjas de cerdos con biodigestores.

# CONCLUSIONS

- NAMAs can be a powerful policy tool to drive investment to climate mitigation policies.
  - NAMAs pueden ser una herramienta para canalizar financiación climática a políticas de mitigación.
- NAMAs have no environmental integrity criteria, no accountability mechanisms, no stakeholder involvement, and therefore it's used to legitimize industrial practices that are contributing to climate change, not mitigating it.
  - Las NAMAs no tienen ningún criterio de integridad ambiental, mecanismos de control o implicación de las partes, y son usadas para legitimizar las prácticas industriales que están contribuyendo al cambio climático, no mitigándolo.

# CONCLUSIONS

- The waste sector represents a major opportunity to mitigate climate change and with further co-benefits, air pollution reduction, green jobs, empowerment of communities, etc...
  - El sector de los residuos representa una buena oportunidad para mitigar el cambio climático y más allá, con co-beneficios en la reducción de la contaminación del aire, creación de empleo verde, empoderamiento de comunidades, etc...
- Unfortunately, NAMAs are greenwashing polluting practices such as waste incineration in cement kilns.
  - Desafortunadamente, las NAMAs están dando maquillaje verde a actividades tan contaminantes como incineración de residuos en cementeras.
- Let's not rely on misleading concepts. Biomass and waste cannot be the new coal because they are not clean energy, and there are not renewable.
  - No confiemos en conceptos manipuladores. La biomasa y los residuos no pueden ser el nuevo carbón porque no son energía limpia ni mucho menos renovable.

# GRACIAS!



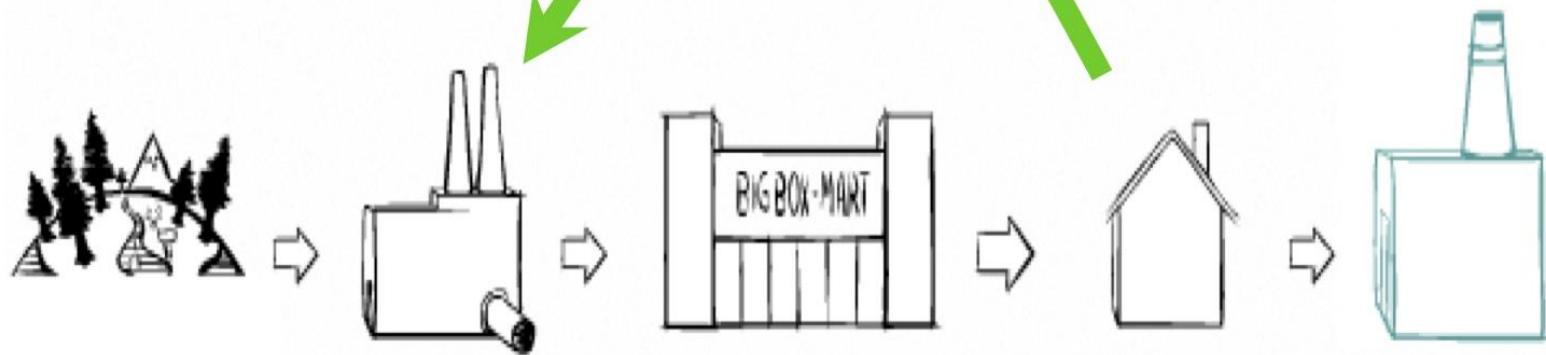
[mariel@no-burn.org](mailto:mariel@no-burn.org)

[www.no-burn.org](http://www.no-burn.org)

[www.zerowasteeurope.eu](http://www.zerowasteeurope.eu)



## Recycling



[www.StoryOfStuff.com](http://www.StoryOfStuff.com)



Re-use



[www.StoryOfStuff.com](http://www.StoryOfStuff.com)

# GAIA: INTERNATIONAL ALLIANCE FOUNDED IN 2000 TO END ALL FORMS OF WASTE INCINERATION AND PROMOTE ZERO WASTE ALTERNATIVES



Our ultimate vision is a just, toxic-free world, and an economy where all products are reused, repaired or recycled back into the marketplace or nature.

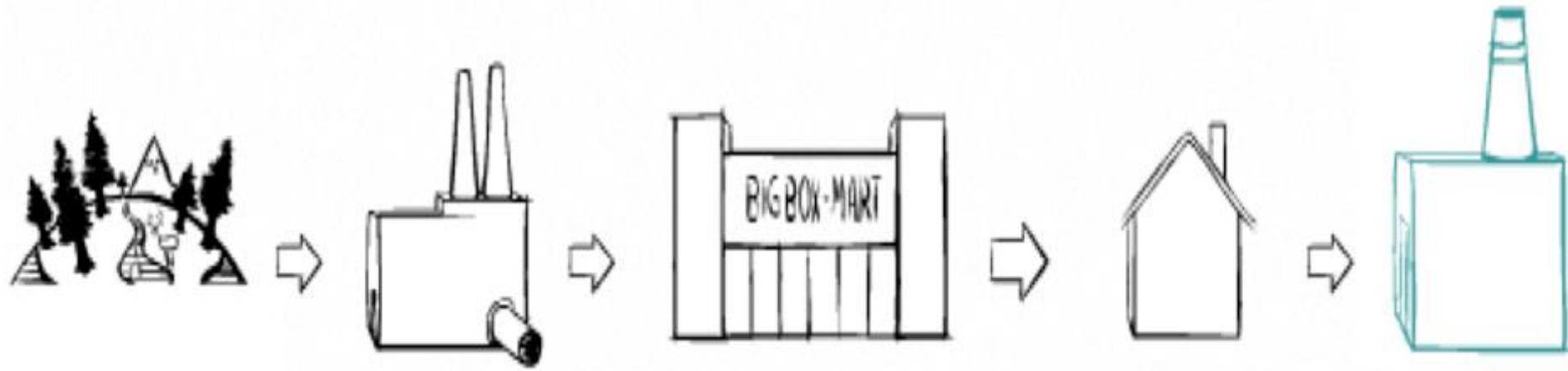


**GAIA: ALLIANCE OF MORE THAN 800 MEMBERS IN 90 COUNTRIES.**  
**WHAT WE DO: SUPPORT TO GRASSROOTS COMMUNITIES, STRATEGIC ALLIANCES GLOBA**  
**CAMPAIGNS AND PROMOTION OF ZERO WASTE SOLUTIONS FOR LOCAL DEVELOPMENT.**



Detroit, US, 2010. Photo by the Ruckus Society

# WASTE: THE TOP OF THE ICEBERG



# THE #AGEOFDECOMMISSIONING (INCINERATORS)



# ZERO WASTE IS HAPPENING!



INFO'S: JURIA GÖTTSCHE, CHRISTOPHER GÖKHART, GERHARD LÖHNER, IRMELA & RONALD

**TOWARDS ZERO WASTE**

BEYOND RECYCLING: BEST PRACTICES ON RESOURCE MANAGEMENT IN THE EU



FOLLOWED BY  
THE PROJECTION  
OF THE FILM TRASHED  
BY JEREMY IRONS IN  
PRESENCE OF THE DIRECTOR

THU, 7TH MARCH 2013, 9:30 TO 13:00  
ROOM A1G3, EUROPEAN PARLIAMENT  
REGISTRATION: [TINYURL.COM/ZERO-WASTE-EU](http://TINYURL.COM/ZERO-WASTE-EU)



# ZERO WASTE is POSSIBLE



# NOW WASTE ENDS UP...IN CEMENT KILNS



- Amount of waste being burnt in cement kilns has increased x5 times, and it's expected to continue rising.
- Globally: 37% of the fuel being burnt in cement kilns by 2015
- In Europe, it's expected to be 60%.
- Cement kilns burning this waste can receive exemptions from regulations *and* financial benefits for waste burning, and can add fossil fuel and hazardous waste to the mix without penalty.

# REFUSE-DERIVED FUEL (RDF) MARKET EXPANDING

- Residual waste generation feeds the production of RDF
  - Europe: 49% of RDF is made of MSW.
- RDF market growth:
  - Spain consumption of RDF
    - 0 en 2007 a 111.794 tonnes in 2011.
  - UK: triples exports in 2013, mostly for incinerators in North Europe.
- Source: Puig, Fabra, Calaf, *La puerta de atrás de la incineración de residuos*, 2012.
- Source:  
<http://www.letsrecycle.com/news/latest-news/energy/rdf-exports-top-1.5m-tonnes-in-2013>



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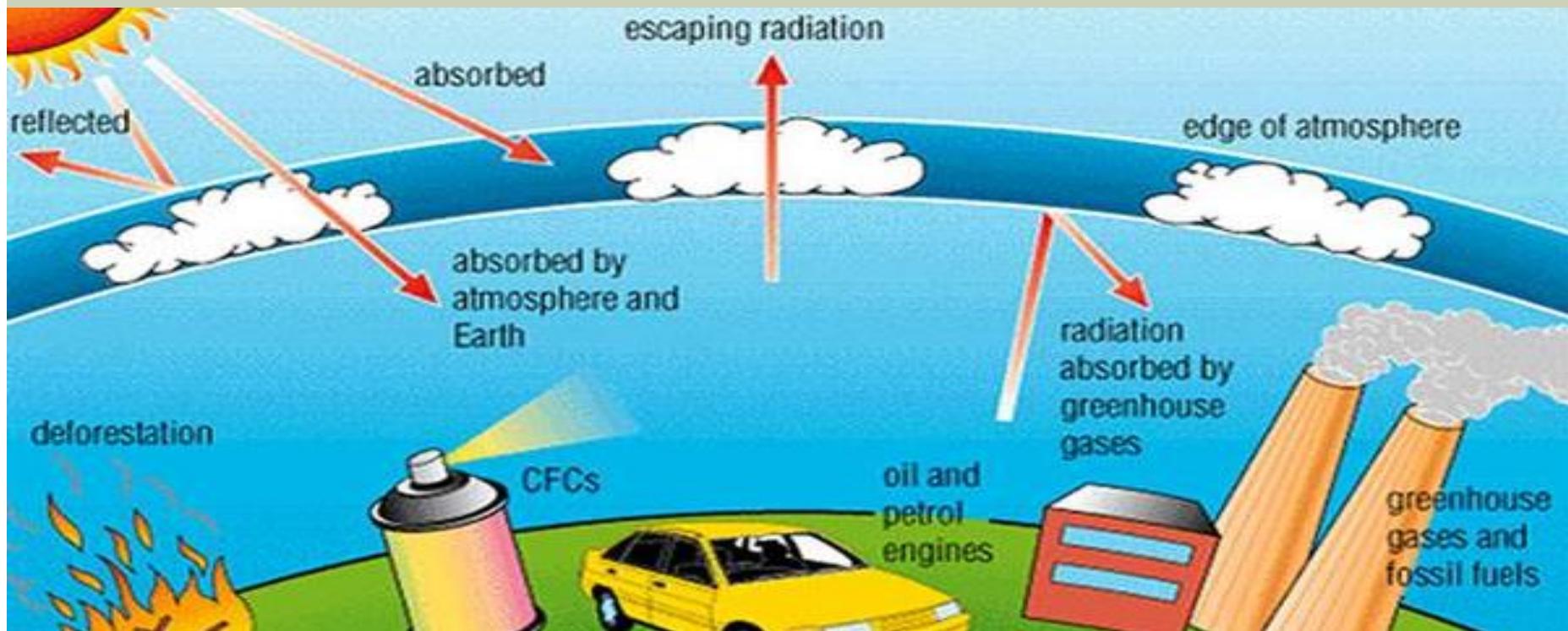
▪ Source: Puig, Fabra, Calaf, *La puerta de atrás de la incineración de residuos*, 2012.

- Materials that end up RDF could be reused, recycled, or the products should be redesigned to do so."



# EMISSIONS AND CLIMATE CHANGE

1. The cement kiln industry emits around 4-6% of global human related carbon emission.
2. Within the 90 companies responsible for 2/3 of historical GHG emissions – Cemex, Holcim, Lafarge, Heidelberg...
  - Carbon Majors – [www.carbonmajors.org](http://www.carbonmajors.org). *Tracing anthropogenic carbon dioxide and methane emissions to fossil fuel and cement producers, 1854-2010: Climatic Change*, online 21 November 2013.



# BURNING WASTE =CLIMATE-FRIENDLY?

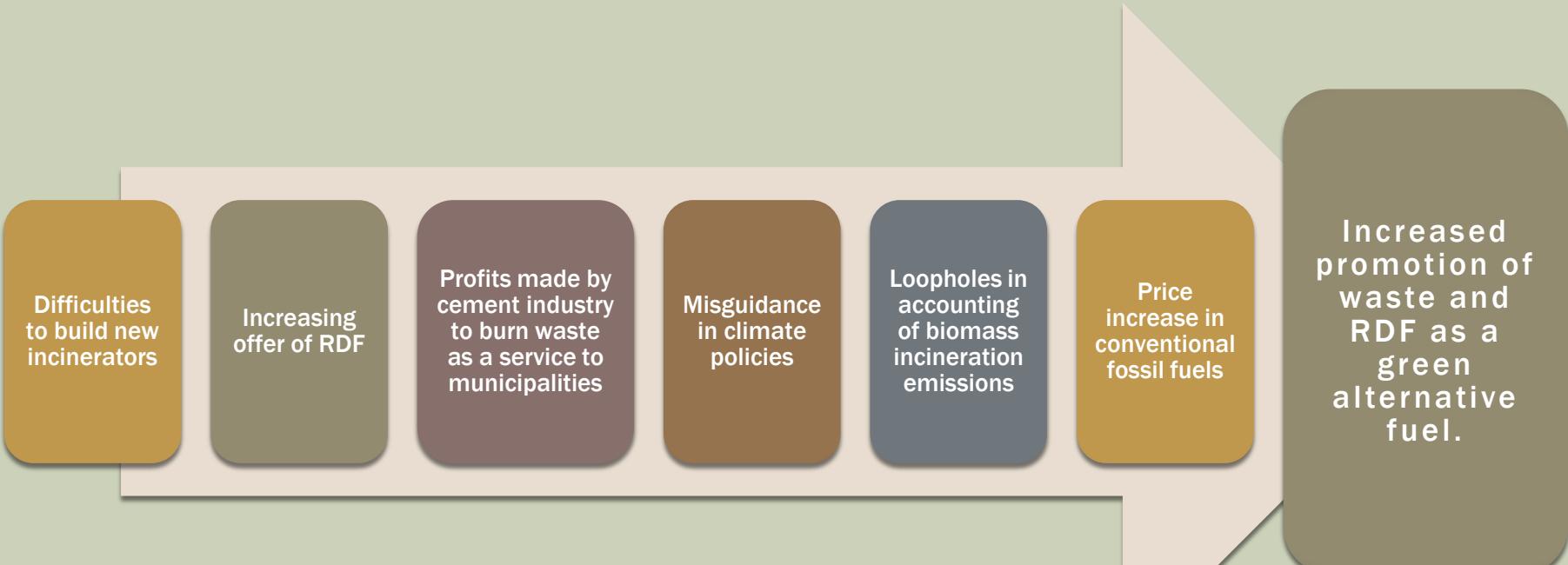
- There is no such thing as sustainable biomass or waste for industrial burning purposes.
- It's increasing GHG emissions (it's not carbon-neutral), and releasing very toxic substances into the atmosphere.
- Burning waste for which there are alternatives for treatment.
- Yet, it receives climate financial benefits from the carbon market.



# INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE WGIII – REPORT ON CLIMATE CHANGE MITIGATION



# THE INCREASING USE OF WASTE AS AN ALTERNATIVE FUEL



- **Devastating consequences:**
  - Environment, health and economy of frontline impacted communities.
  - Global implications: for example in food security.

# WHAT ABOUT THE PRODUCT?

Casa costruita con cemento difettoso e sostanze tossiche: entrambe le cause penali finiscono in bolle di sapone. La prima perché la querela era stata presentata in ritardo, la seconda per la morte dell'imputato.

Alla farmacista di Musestre, nonché parte offesa Elisabetta Merloni non è rimasto che avviare una doppia causa civile da un milione di euro.

Ortolan a pagina XII

**RONCADE** Sarebbe stato utilizzato materiale scadente e nocivo per la costruzione della casa poi abbattuta

## Cemento tossico: chiede un milione

*La farmacista di Musestre Elisabetta Merloni ha avviato un'azione civile per ottenere il risarcimento*

Roberto Ortolan

RONCADE

Non fermerà l'azione civile per il risarcimento del danno lo stop del procedimento penale nel quale un imprenditore, nel frattempo deceduto, era chiamato a rispondere dell'accusa di frode in commercio. Nella sostanza la Mac Beton spa - da quanto emerge dalla causa civile - avrebbe fornito il cemento (ma anche altri materiali) alla "Cfr sas di Rizzo & C." che stava costruendo l'abitazione della farmacista di Musestre Elisabetta Merloni. Da quanto emerso da 5 diverse perizie il

tutti i retroscena è l'avvocato Vincenzo Todaro, che assiste la committente dei lavori nonché parte offesa Elisabetta Merloni e che ha già chiesto un milione di euro di danni a "Cfr" (l'appuntamento con il giudice civile è imminente). «Ma analogo procedimento - puntualizza l'avvocato Todaro - lo avvieremo nei confronti di "Mac Beton". Fino a oggi non lo abbiamo fatto perché attendevamo gli sviluppi del procedimento penale che si è chiuso, senza però arrecare alcun pregiudizio all'azione civilistica».

La ricostruzione del legale della farmacista di Musestre dipinge un quadro a tinte fosche. «Ci troviamo

tra le quali molti bambini. A Musestre non ci è scappata la tragedia perché l'utilizzo del materiale scadente ha immediatamente pregiudicato la stabilità dell'edificio. Ma - precisa il legale - c'è di più. Cinque diverse perizie hanno messo in evidenza che in quel cemento - fatto pagare un terzo in meno del valore medio di mercato - erano presenti ceneri, diossine e metalli pesanti. Sostanze tossico nocive che avrebbero dovuto essere smaltite in discariche speciali e che invece erano finite in un'abitazione civile».

Infine l'avvocato Todaro chiarisce la quantificazione del risarcimento. «Il danno? L'esperto della Procura

LE GAZZETTE  
REVISO

venerdì  
22 Marzo  
2012



# A GLOBAL RESPONSE: MÉXICO, NOVEMBER – 2013: CREATION OF THE NETWORK OF COMMUNITIES IMPACTED BY THE CEMENT INDUSTRY



Ver su pronunciamiento en : <http://www.no-burn.org/pronunciamiento-del-frente-de-comunidades-en-contra-de-la-incineracion-en-mexico>

# A GLOBAL RESPONSE: INDIA - POLLUTION MONITORING AND COURT CASE

## CONCRETE TROUBLES

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  - Direct industry to prescribe legal standards for heavy metal emissions in air from cement plants and see through its implementation.

# QUESTIONS TO DEBATE

- How can we strengthen our local, national, regional and international common actions?
- What would be our most effective strategies to stop this polluting practice?
- What would be our next steps?