

Support for the Implementation of the Climate Compatible Development Plan of the Dominican Republic in the Cement and Waste Sectors



Adapting the Legal Framework for the Co-Processing of Waste in the Cement Industry



Presidencia de la República Dominicana
Consejo Nacional para el Cambio Climático
y Mecanismo de Desarrollo Limpio

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Zusammenarbeit (GIZ) GmbH

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Support for the Implementation of the Climate Compatible Development Plan of the Dominican Republic in the Cement and Waste Sectors

Adapting the Legal Framework for the Co-Processing of Waste in the Cement Industry

Application of Capacity Works, update and lessons learned from the Dominican Republic

Acronyms

ADIPLAST	Dominican Plastic Association
ADOCEM	Dominican Association of Portland Cement Producers
AIRD	Association of Industries of the Dominican Republic
ASIBEGAS	Association of Soft Drinks
ASONAHORES	National Association of Hotel Owners
BMU	German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
CCN GIRE SOL	National Coordination Committee for Integral Solid Waste Management
CH ₄	Methane
CNCCMDL	National Council for Climate Change and Clean Development Mechanism
CO ₂	Carbon Dioxide
CONEP	National Council for Private Enterprises
EcoRed	National Network for Corporate Support to the Environmental Protection
EPR	Extended Producer' Responsibility
FEDOMU	Dominican Federation of Municipalities
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
INFADOMI	Pharmaceutical Industry of the Dominican Republic
LMD	Dominican League of Municipalities
MEPyD	Ministry of Economy, Planning and Development
NDC	National Determined Contributions
NGOs	Non-Governmental Organisations
ONEC	National Office of Commercial Offices
RDF	Refuse-derived Fuels
SMEs	Small and Medium Enterprises
SWB	Solid Waste Bill
UNFCCC	United Nations Framework Convention on Climate Change

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Executive Summary

The use of appropriate waste materials as an alternative fuel in the cement industry, or co-processing, is commonly regarded as a means of reducing greenhouse gas emissions in the production of clinker. The ZACK Project, financed by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), and executed by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH working with the National Council for Climate Change and the Clean Development Mechanism¹, supports the implementation of the Dominican Republic's Climate-Compatible Development Plan in the cement and waste sectors.

Adapting the legal framework of the Dominican Republic's legislation on waste is a precondition for co-processing in the cement industry in order to comply with international standards and environmental good practice, safeguard investments in co-processing and promote a circular economy – a requirement for the economic use of residue-derived fuels. Hence, one component of the ZACK Project is to support the Dominican Republic's institutions in adapting the legal framework on waste management to support co-processing.

Legislative processes usually take several years of drafting, public hearings and assessments in the relevant commissions and the re-drafting of bills. This process may stretch well beyond the life cycles of technical cooperation projects as different opinions and the expectations of a range of stakeholders need to be reconciled, consensus sought, and resistance addressed.

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH developed a methodology and tools, based on several thousand projects, to manage complex cooperation systems and agree on common objectives, manage multifaceted stakeholder landscapes and potentially conflicting interests, set up participative project-steering structures, remove hierarchical barriers, create transparency and disseminate knowledge. This approach, called Capacity WORKS, was applied to the reform of the Dominican Republic's legal framework for the waste sector.

To facilitate the reform of the legal framework for the waste sector, the project focused on the five success factors in the Capacity WORKS approach: 1. Building a strategy based on analysing the status quo in waste management, its legal framework, work in progress and identifying gaps to support co-processing and a circular economy. 2. Strengthening an existing platform for dialogue, clarifying the roles and responsibilities of the various players (where necessary) and designing a strategy to include communication on international best practice, capacity building directed at institutional and individual level, round tables and work sessions and communication to raise awareness among target groups at institutional level and the general public. 3. Integrating key players in the project's participative steering structure. 4. Focusing on project

¹ Consejo Nacional para el Cambio Climático y el Mecanismo de Desarrollo Limpio (CNCCMDL).

execution processes as well as the pre-parliamentary consensus-building phase and the parliamentary legislative process. 5. Knowledge management and the dissemination of best practice through conferences, study trips and publications.

Because of this approach, innovative concepts, which had not received due consideration in previous versions of the Solid Waste Bill (SWB), were included in the legal draft. These included classifying waste; the legal concept of Extended Producer' Responsibility; defining co-processing as part of the circular economy; strengthening the informal waste pickers in waste management; climate change; measuring, reporting and verifying greenhouse gas emissions in the waste sector; institutional roles and responsibilities in waste management and sanctions.

The Capacity WORKS approach is an important management tool in addition to the legal and technical issues to be addressed in this reform process, and it lends itself to other reform processes with complex stakeholder landscapes and challenges for building consensus.

1. Introduction

The Dominican Republic's cement industry emits about 9% of the country's carbon dioxide (CO₂) inventory into the atmosphere each year. The cement industry has the largest share of CO₂ emissions in the industrial sector and contributes significantly to global warming (Climate-Compatible Development Plan DECCC, 2010).

About 60% of these emissions are produced from the transformation of limestone to clinker (calcination), an intermediary product of the cement manufacturing process. The remainder are emissions from the combustion of fossil and/or alternative fuels in the cement rotary kiln and electricity consumption.²

In many countries, especially in Europe, the cement industry has been using refuse-derived fuels (RDF) for more than 30 years as a substitute for fossil fuels in clinker production and has, over the years, reached thermal substitution levels of up to 70% or more.

Substituting fossil fuels with waste materials, or co-processing, helps to reduce greenhouse gas (GHG) emissions in cement production and methane emissions in landfills. However, in emerging or developing countries, the substitution of fossil fuels with suitable waste materials remains at low levels or has not been implemented at all.

Co-processing requires investments in machinery and equipment both at the cement factory and at upstream waste separation facilities, or in specialised operations that provide a steady stream

² CO₂ emissions from electricity consumption are not included as these are classified under the electricity sector according to UNFCCC guidelines. Nevertheless, improvements in electrical efficiency remain an important mechanism to reduce overall CO₂ emissions in the cement industry.

of well-defined, high-quality RDF. Investments of between USD 5 million and USD 10 million may be needed, depending on the type and scale of these operations. To plan and implement these investments, the private sector cement companies require a solid legal framework with clearly defined roles and responsibilities for the various public and private sector parties involved in waste management. This framework includes national waste laws, by-laws and regulations, as well as standards pertaining to emissions, environmental monitoring, the handling and storage of certain materials, and health and safety issues.

External factors, such as the highly volatile cost of fossil fuels, make co-processing less attractive when fossil fuel prices are low and more attractive when they are high. The volatility of fossil fuel prices therefore remains a major barrier to the large-scale implementation of co-processing. However, the legal framework of waste management has several levers to improve the economic viability of co-processing.

1. The economic, environmental and legal concept of *waste separation at the source* is the basis for a circular and resource-efficient economy in which most materials that enter the market and industrial waste will be reused, recycled or will substitute fossil fuels in thermal processes, such as in co-processing or waste-to-energy systems. Separation at the source has a significant cost advantage over waste separation in any downstream process and in turn increases recycling rates, resource efficiency and reduces the cost of RDF preparation.
2. The legal concept of *Extended Producer Responsibility* stems from the logic that the entity which introduces a product into the market retains responsibility for the products' post-consumption phase. In this concept, a public or private sector player may operate a system where a fee is levied according to the type and quantity of product that enters the market, and a discount is given for product returned for reuse or recycling. *Extended Producer Responsibility* is therefore a financial incentive for operating a closed or circular economy.
3. The legal framework for waste management must set out structures, processes, standards and monitoring instruments to capture types and quantities of waste materials, set up a uniform and standardised cost accounting system of waste collection and disposal, and provide a national transparent benchmark for the results. As waste streams directed to the cement factories (RDF supply chains) reduce waste streams directed towards landfills, the accounting system allows cost savings to be quantified. Part of these savings can then be passed on to the cement factories or RDF producers in the form of 'tipping fees'. Although tipping fees are significantly lower than the total costs of waste-management operations, they form an integral and major income component and make co-processing economically viable.

Apart from setting the rules and standards, the waste management legal framework has great potential to reduce the economic risks of co-processing and the costs of waste collection. The legal framework reform³ applies to an extremely large stakeholder community, including public institutions, the private sector and their representations, as well as civil society groups. The reform process needs to integrate highly varied interests, diverse agendas and must deal with

³ The term 'legal framework reform' refers to any of the three categories: the creation of new laws, regulations and norms or their reform or adaptation.

resistance. Therefore, the reform or adaptation process needs to strengthen supporters and convince the undecided. A critical issue may also be the power of individuals or groups and their access to powerful decision-makers.

The German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) is currently funding the 'Support for the implementation of the Dominican Republic's low emissions economic development plan in the cement and waste sectors' project (also known as ZACK⁴, its acronym in German), which seeks to reduce GHG emissions in the Dominican Republic's cement and waste sectors. One of the project's specific objectives is to support the adaptation of the legal framework to create the legal boundaries for co-processing in line with good international practices. The main legal tool in this framework is the SWB which is currently in the final stages of the parliamentary process.

Reforming legal frameworks is usually a complex and long-winded process, which often stretches beyond the anticipated time scale of international cooperation projects. Based on the experience from thousands of projects successfully implemented worldwide, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) has established an integrated approach to managing complex cooperation environments called Capacity WORKS.

The aim of this document is to summarise the Dominican Republic's experience with respect to adapting the legal framework to support co-processing, in line with international best practice, and to create pathways towards a low-carbon, circular economy. To accomplish this project's objectives, we have used selected tools from GIZ's Capacity WORKS that have proven helpful in managing complex cooperation environments.

The project supported a total of three initiatives to reform the legal framework for waste management. Two of these initiatives mainly received technical support, along with regulations on the processing of used tyres and on the use of waste materials in thermal processes, whereas support for developing the SWB was significantly more extensive and included both technical support for the co-processing of waste materials and the concept of Extended Producer Responsibility, as well as procedural support, capacity-building and consensus-building activities. This contribution therefore focuses on the project's contribution to developing the SWB according to GIZ's Capacity WORKS approach.

2. The Capacity WORKS approach to the Solid Waste Bill consultative and legislative process

The Capacity WORKS approach developed by GIZ provides methods and tools to agree on common objectives; manage complex stakeholder landscapes and potentially conflicting

⁴ ZACK: Zement-Abfall-Co-processing-Klima.

interests; set up participative project-steering structures; remove hierarchical barriers and reduce power distance; restructure, set out or analyse complex processes; create transparency and steer the dissemination of knowledge generated during the project.

The Capacity WORKS approach hinges on five success factors: strategy, cooperation, steering structure, processes, and knowledge management. Each of these factors focuses on 'How' the agreed objectives of cooperation projects can be achieved. Capacity WORKS is not a strict guide on how to implement projects nor is it just one more project management tool that defines targets, activities, resources, critical paths, and timelines for its execution. Rather, it is a toolbox organised according to the five success factors from which appropriate tools can be selected to achieve the cooperation project's overall outcome or specific goals.

The project, therefore, selected a few but efficient tools, which helped to advance the SWB and monitor the consultative and legislative processes. Furthermore, Capacity WORKS instruments enhanced public support, consensus building, removed uncertainties and barriers and promoted the law's socio-ecological and economic benefits.

2.1 Success Factor: Strategy

The strategic focus of a project or specific project objective streamlines stakeholders' potentially divergent objectives towards a common goal and joint decision-making and helps to clarify their different expectations. With regards to the 'Strategy' success factor, the ZACK Project focused on evaluating current waste management, the legal context and gaps between the existing legal framework and the legal elements required to support co-processing and foster waste separation aimed at a circular economy and co-processing (De Jesus, 2014).

Waste Management: The Dominican Republic generates about 12,242 tonnes of solid waste per day, equivalent to 0.7 and 1.2 kg per inhabitant (Skoddow, 2014), with significant differences between the urban and rural population and in income distribution. Industrial waste is largely generated in 53 free-trade zones, as well as industrial parks concentrated in and around urban centres (Skoddow, 2014). Recycling rates are low, estimated to be around 5-10% of the total waste generated. Waste separation is largely carried out by informal waste pickers, many of whom are 'undocumented' and of Haitian origin. The informal waste pickers represent the single largest vulnerable group with an estimated 10,000 waste pickers working in the country (Rivera, 2016). In 2017, a semi-automated recycling plant began to operate close to the Raffey landfill site in Santiago de los Caballeros, Dominican Republic's second largest city, processing up to 600 tonnes of municipal waste per day, but with recovery rates of recyclable materials below 10%. Organic waste accounts for 50-75% of all waste generated (Umgelster, 2016, Skoddow, 2014). Together with potentially recyclable materials, such as plastics, paper, textiles, metals and glass, these are dumped at a total of 351 open, uncontrolled landfill sites (Skoddow, 2014). The largest

of these, the Duquesa landfill, located in Santo Domingo North, receives a total of approximately 3,500 tonnes of unseparated household and industrial waste a day (Skoddow, 2014).⁵

Large amounts of waste decompose and produce methane and CO₂ at the uncontrolled landfill sites, contributing 6% of the country’s greenhouse gas emissions (DECCC, 2010). The methane generated and the large amount of plastics, such as PET and polystyrene, used car tyres and other materials are the source of frequent fires at landfill sites causing severe health problems especially for the population nearby.

The use of waste materials in the manufacture of clinker⁶ or co-processing is a technology that uses specific waste materials as alternative fuels in the cement industry, reducing the quantity of waste at landfills and reducing greenhouse gas emissions. However, in the Dominican Republic, co-processing only takes place at one of the four integrated cement producers and still on a very small scale.

National legal context

So far, the country has developed public policy instruments, as well as a range of programmes, plans and by-laws that support co-processing (Table 1). Nevertheless, there is still a lack of a solid legal framework for waste management that legitimises and supports co-processing to enhance the associated benefits.

Instrument	Enactment	Relevance to co-processing
General law on the environment and natural resources	2000	Created by the Ministry of Environment. Establishes administrative processes for environmental issues. The SWB builds on this existing law.
Bylaw on the environmental management of solid waste	2003	Current legal instrument that regulates non-hazardous waste management and the responsibility of the municipalities.
Law on incentives for the development of renewable resources and energy	2007	Best practice of incentives for environmental issues through energy efficiency technology.

⁵ Data based on statistics about national waste provided by the Dominican Ministry of Environment and Natural Resources for the ZACK Project in 2014.

⁶ Clinker refers to an intermediate product in cement production, generated by burning the ground raw meal at temperatures of around 1,500 degrees in the cement rotary kilns.

National policy on sustainable consumption and production	2011	Motivates sustainable consumption and production through incentives.
Low emissions economic development plan	2010	Establishes the emissions reduction goals in general and per sector, identifying solid waste and cement as quick wins through co-processing, and identifying direct benefits and additional socio-economic co-benefits.
Law 1-12: National Development Strategy	2012	The goals defined in the strategy aim to build a society of sustainable production and consumption adapting to climate change: <ul style="list-style-type: none"> • Promoting sustainable consumption through technologies and best practice • Strengthening platforms for dialogue and private-public alliances for sustainable practices • Developing a legal framework for a complete waste-management system • Mitigating climate change by decarbonising the national economy Co-processing contributes to the goals established in the fourth axis of this strategy.
National policy on municipal solid waste management	2014	Establishes lines of action for waste management; integrating the private sector, civil society, municipalities and the central government.
Bylaw on the management of used tyres	2015	Regulates the handling, storage and treatment of used tyres and their use, e.g. in co-processing.
National policy on climate change	2015	Reinforces climate change as a cross-cutting issue through the different sectors and institutions.

Table 1: Summary of national legal instruments that are relevant to the introduction of co-processing in the Dominican Republic

International Commitments: The Dominican Republic’s climate change related legal framework is based on the United Nations Framework Convention on Climate Change (UNFCCC). The ratification of the convention laid the basis for international cooperation and initiatives to mitigate GHG emissions and climate change adaptation. With the ratification of the Kyoto Protocol in 1998, mechanisms and commitments were established to reduce GHG emissions. In 1989, the Dominican Republic also became a signatory to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. The basic principles of waste management such as *reduce, reuse, recycle*, known as the inverted waste-management pyramid, were therefore established as a guiding principle for all future waste policies and legal

framework. The Paris Agreement seeks to enhance the implementation of the Framework Convention and to limit the increase in global average temperatures to below 2°C, pursuing efforts to achieve an increase of less than 1.5°C above pre-industrial levels. Non-Annex I countries that submitted their Intended Nationally Determined Contributions (NDC) to the Convention have committed themselves to implement these and seek more ambitious targets. These mitigation actions are referred to as *Nationally Determined Contributions*. With the submission of these NDCs, the Dominican Republic has committed itself to reducing GHG emissions by 25% per capita by 2030 with 2010 as the reference year.

Instrument	Creation	Ratification	Relevance to co-processing
Paris Agreement	2015	2017	Mandates the transparent reporting of GHG inventories, developing NDCs ⁷ to meet international commitments and stimulating financial support for the implementation of a low GHG emission development strategy
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal	1989	2000	Seeks to reduce the movement of hazardous waste between nations and specifically to prevent the transfer of hazardous waste from developed to less developed countries
Kyoto Protocol	1997	1998	Establishes commitments and mechanisms for reducing greenhouse gas emissions
United Nations Framework Convention on Climate Change (UNFCCC)	1992	1998	Creates a system for enacting climate change policies, as well as a framework for cooperation and the mitigation of greenhouse gases

Table 2: International Legal Instruments to which the Dominican Republic has committed and that are relevant to the implementation of co-processing

The Dominican Republic’s Climate-Compatible Development Plan sees the cement and waste sectors as potential ‘quick wins’ to reduce greenhouse gas emissions. Hence, the ZACK Project

⁷ According to the Paris Agreement, Article 4, Paragraph 2 (2015), parties to the Convention must elaborate their Nationally Determined Contributions (NDC) and identify mitigation measures that will achieve the objectives established under the Paris Agreement.

and the waste sector's legal framework reform represent an important contribution to meeting the country's international commitments under the UNFCCC.

Gap Analyses: The ZACK Project proposed integrating the following aspects into the future SWB (De Jesus, 2014), based on a review of the Dominican Republic's legal framework governing waste management. The proposed legal aspects were reviewed for their alignment with current legislation and international commitments to avoid potential conflict with existing legislation.

- Co-processing to be considered the preferred option to use the calorific values of waste. Implement a standard to control co-processing.
- The role of waste management in GHG mitigation and the need to establish a national measurement, reporting and verification (MRV) system.
- Extended Producer Responsibility to steer the production towards a circular economy.
- Confirm the role of informal waste pickers within the circular economy to encourage recycling.
- Create a platform for dialogue to seek a consensus between the public institutions, the private sector and civil society.
- Clarify the roles and responsibilities of the various stakeholders in waste management.
- Sanction regimes.

2.2 Success Factor: Cooperation

Capacity WORKS provides a tool to represent the members of a complex system of cooperation. The chart (Figure 1) showing the players involved illustrates the varying degrees of influence and power of veto and is divided according to public or private sector and civil society groupings. The map differentiates between key, primary and secondary players. Key players, such as the Congress of the Dominican Republic, the legislative branch, are institutions in the public sector that have a direct influence over the project's specific goal. The public sector institutions with some influence and involvement over the passing of the law are primary players; these include the various ministries and the National Climate Change Council.

Although GIZ is seen as a key player in the overall execution of the project, it fundamentally needed to change its role with respect to this specific objective. Adapting the national legal framework is entirely in the hands of the public institutions through consultations assisted by representative organisations from the private sector and civil society.

During the entire process of this specific goal, GIZ took on the role of facilitator, guiding the platform for dialogue to achieve a consensus and support the institutions involved to present a unified proposal for the SWB to Congress.

Some of the players involved in the waste sector legal reform are not formally tied to the project implementation and the link between them and the project's steering structure is only temporary

and focused on very specific issues. The project’s formalised cooperation system therefore needed to be extended in the form of a network or **platform for dialogue**.

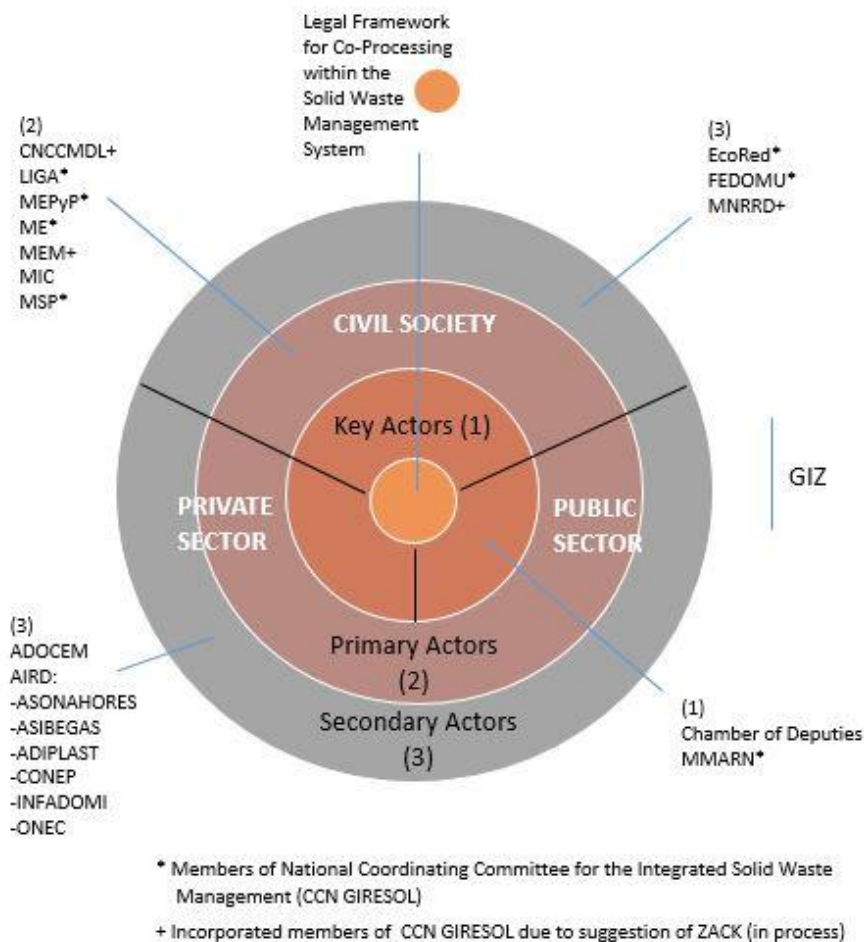


Figure 1: Actors map related to the specific objective of the “legal framework reform”.

When the ZACK Project became operational in January 2014, it built on an existing platform for dialogue, which was created in 2008 under a triangular cooperation project between Germany, Mexico and the Dominican Republic, funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by GIZ. The objective of this platform or *National Coordinating Committee for Integrated Solid Waste Management (CCN GIRE SOL*, its acronym in Spanish) is to push forward public policies and actions on strengthening integrated solid waste management; to enhance cooperation and dialogue between different players and stakeholder groups to achieve the desired change, ensure ownership, sustainability and set up mechanisms for policy dialogue aimed at legal framework reform. Members include the MEPyD and the National Council for the State Reform, the Ministry of Public Health and Social Services, Ministry of Education, the LMD and EcoRed.

ZACK integrated most of the CCN GIRE SOL members into the project’s steering committee, energising CCN GIRE SOL through subject matter conferences, capacity development activities, advisory services, study trips and work sessions.

The roles and responsibilities of the various stakeholders in the platform for dialogue are summarised in Table 3.

Body	Role	Responsibility
National Climate Change Council	National coordination of climate change related activities, Nationally Appropriate Mitigation Action (NAMA), Clean Development Mechanism (CDM) and NDC coordinator, political partner of the ZACK Project	Leads the implementation of the Climate-Compatible Development Plan in the waste and cement sectors at political and strategic level
Ministry of the Environment and Natural Resources (MMARN)	National governing body on waste management, Green Climate Fund coordinator	Process leader on waste-related legislation, technical and legal expertise on all waste-management and environmental issues
Ministry of Energy and Mines (MEM)	National governing body on national energy and mining policies	Process leader on the thermal use of waste material, technical and legal expertise on all energy issues
Ministry of Economy, Planning and Development (MEPyD)	High-level coordination of all international cooperation projects via the Vice-Ministry of International Cooperation	Inter-institutional planning, coordination and monitoring of international technical and financial assistance projects
Ministry of Industry and Commerce	Strengthening and sustainable development of industry, commerce and MSMEs ⁸	Promotes micro, small and medium enterprises in the waste sector
Ministry of Education	National governing body on education, member of CCN GIRE SOL	Includes health aspects in the legislation
Ministry of Public Health	National governing body on public health, member of CCN GIRE SOL,	Includes health aspects in the legislation
National Network for Corporate	Network of private sector national and international enterprises,	Technical and legal strengthening of the SWB through the expertise

⁸ MSMEs: Micro, Small and Medium Enterprises.

Support to the Environmental Protection (EcoRed)	promoting environmental issues and representation of the private sector on environmental issues	of their member organisations and subject matter legal and technical experts, disseminates best practice, coordinates the various members, represents private sector views
National Coordination Committee for Integrated Solid Waste Management (CCN GIRE SOL)	Inter-institutional coordination and promotion of international good practice in waste management in the form of a dialogue platform	Strengthens cooperation between the various institutions and communicates best practice
National Movement of Waste Pickers (MNRRD)	Represents the interests of the informal sector	Promotes the role of the informal sector in waste management (separation and recycling)
Dominican Association of Industries (AIRD)	Represents the industrial enterprises	Organises private sector capacity-building workshops, highlights private sector concerns
Dominican Federation of Municipalities (FEDOMU)	Represents the interests of the individual municipalities	Secures the information flow to the municipalities and integrates these to shape opinions
League of Municipalities of the Dominican Republic	Technical and administrative support to the municipalities, monitoring the performance of municipal services	Represents municipalities on waste legislation
Individual deputies and senators	Represent the will of the public in the Chamber of Deputies and the Senate	Promote the SWB
Chamber of Deputies	Government of the Dominican Republic Legislative Branch, entry point to legislative process	Reads, discusses and votes on laws submitted to the chamber
Permanent Commission on the Environment	Permanent technical commission of the Chamber of Deputies, technical and legal review of draft, issues reports to the Chamber of Deputies and the Senate	Reviews technical and legal aspects of legislation submitted by the Chamber of Deputies
ADOCEM	Represents the interests of the cement sector	Provides expert advice on the technical and legal aspects of co-processing,

GIZ	Project implementation agency for the ZACK Project on behalf of BMU	Capacity building, facilitation and monitoring of the legislative process, secretary to the public hearings, outreach
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Table 3: Roles and responsibilities of the various parties in the platform for dialogue on adapting the legal framework for co-processing. Organisations that are members of the project-steering committee are in bold. CCN GIRE SOL is represented on the steering committee by its members, EcoRed, MMARN and FEDOMU.

When the ZACK Project came into operation in January 2014, the SWB was already more than three years old. The SWB was first submitted to the National Congress of the Dominican Republic on 26 July 2011 by Deputies David Herrera, Santos Ramirez and Aquiles Ledesma. However, the bill did not pass the first hearing as it could not build multi-sector consensus and some technical and legal aspects required significant amendment.

EcoRed subsequently used legislation from Costa Rica, Peru, Mexico and Spain as examples of best practice to strengthen the SWB’s technical and legal aspects. In 2013, EcoRed and CCN GIRE SOL began consultations on the SWB with the private sector, civil society organisations, the informal sector represented by the National Movement of Waste Pickers, the municipalities, and the health and tourism sectors. Although the SWB achieved a higher level of consensus, at this stage many different proposals, draft versions and amendments were in circulation but there was no agreement on one single version.

One of the first challenges that the project faced was to seek clarification on the various versions of the draft SWB; conduct a comparative analyses from Latin American peer countries and the European Union, followed by an assessment which parts of the legislation to update and which new aspects needed to be included in the SWB to support co-processing in line with good international practice. The full spectrum of interventions is shown in Figure 2 and explained in detail in table 4.

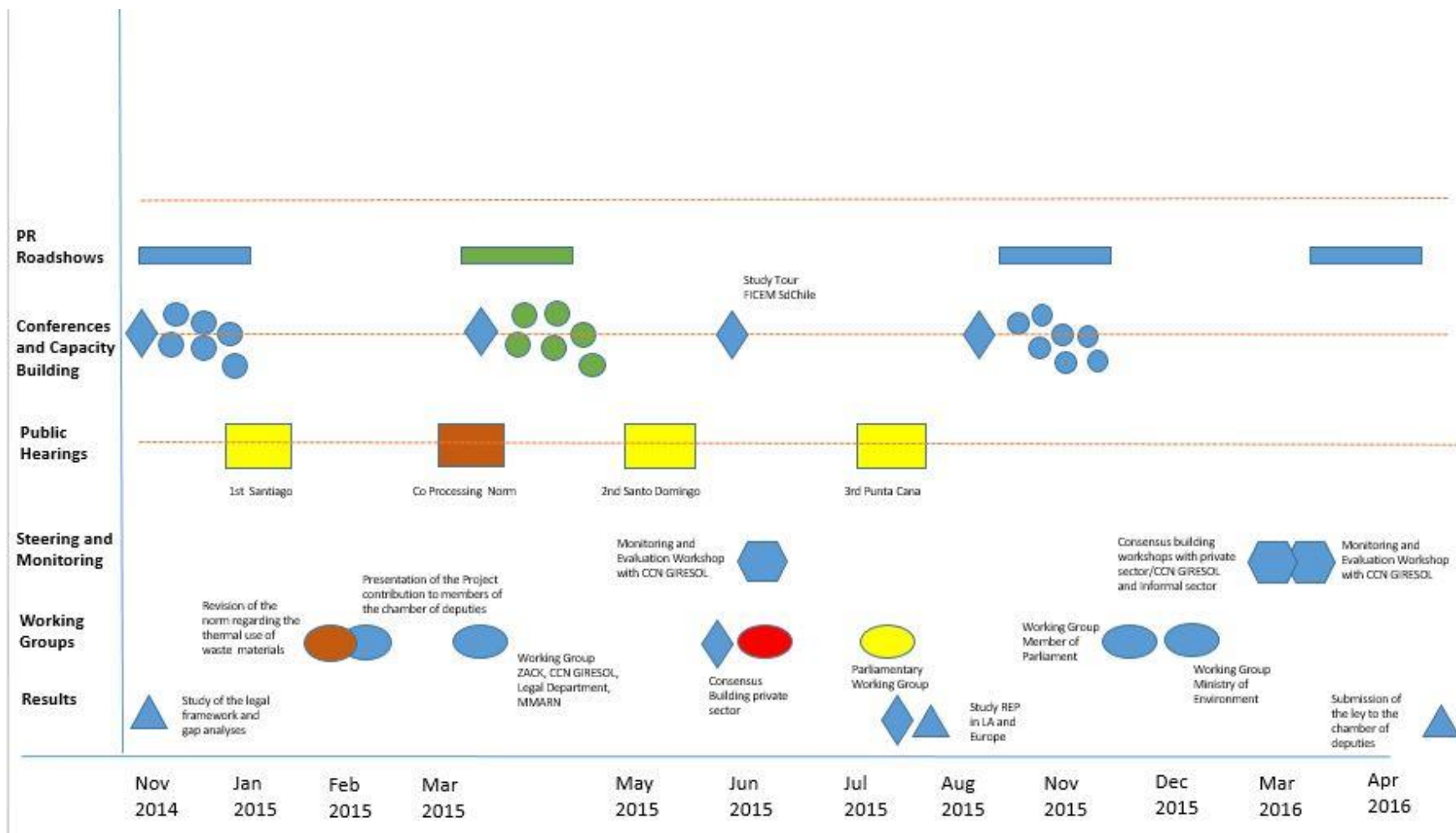

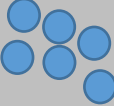


Figure 2: Architecture of intervention. Colour codes refer to the various groups organising or hosting the activities. Blue = ZACK Project, Yellow = Chamber of Deputies, Green = CCN GIRE SOL, Red = EcoRed, Brown = Ministry of Mines and Energy. Time scale approximate only.

The architecture of intervention chart shows the various activities planned or executed and their relationships with regards to content, social (participating groups or individuals), space and time dimensions.

Symbol	Activity Type and Social Dimension
	<p>Communication in the form of road shows to media outlets (press, radio, television) and use of social/digital media and press releases to promote conferences, capacity-building workshops and the need for legal reform to develop integrated solid waste management and co-processing. Journalists were encouraged to report on climate change and waste-management issues through a media competition that rewarded the winners to accompany the national delegation to the COP 21 in Paris.</p>
	<p>Building the platform for dialogue through conferences⁹ hosted by ZACK with capacity-building side events, presenting studies on waste flows at national level, baseline survey and gap analyses of the existing national legal framework on integrated waste management, introducing the concept of <i>Extended Producer Responsibility</i> and co-processing and linking entrepreneurs to assess business opportunities in waste management. The conferences were aimed at experts and decision-makers from public institutions, the private sector and civil society organisations, linking climate change, waste management, the need for waste sector legal reform and socio-economic benefits. The conference hosted by CCN GIRE SOL addressed municipal decision-makers and politicians, focusing on integrated solid waste management and co-processing and promoting the draft bill on integrated waste management. The conferences created ownership and a sense of urgency through high-level ministerial participation in the events. Foro ZACK 2015 was dedicated to reforming the legal framework and provided a platform for presenting and discussing the results of a regional study on Extended Producer Responsibility. The ZACK conferences provided a dedicated space for civil society organisations to present their case.</p>
	<p>Capacity building was delivered in the form of conferences, panel discussions, dedicated side events, group sessions and study tours to co-processing sites, and participation in international conferences. The capacity building addressed private sector associations, members of the Chamber of Deputies, individual senators, the technical commission of parliament, CCN GIRE SOL and waste pickers' associations. In terms of content, the capacity building focused on the legal concept of <i>Extended Producer Responsibility</i>, the socio-economic benefits of a circular economy, monitoring the parliamentary and extra-parliamentary legislative process, co-processing and the role of the informal waste pickers in waste management and establishing their role in the legal framework.</p>

⁹ A third conference, or 'FORO', hosted by ZACK in December 2017 focused on a financing mechanism for climate change mitigation and adaptation projects.





	<p>Facilitating dialogue in the form of public hearings during the legislative process hosted by the Chamber of Deputies and celebrated in Santiago, Santo Domingo and Punta Cana. Project ZACK recorded the individual contributions and consolidated these in the draft SWB.</p>
	<p>Planning, monitoring and evaluating working group meetings. Question and answer sessions with private sector representatives and promoting new elements of the SWB, such as the concept of Extended Producer Responsibility.</p>
	<p>Working groups on the subject matter, facilitated by the project and with contributions from international experts on integrated solid waste management and legal framework reform. Exchange of best practice from European and other Latin American countries.</p>
	<p>Diagnostic studies on the quantity, type and regional distribution of waste materials, the existing legal framework governing solid waste management and gap analyses of legal elements that would need to be integrated into the SWB to support co-processing. Analyses of the application of the concept of Extended Producer Responsibility in Latin America compared with European countries and their impact on recycling and co-processing.</p>

Table 4: Legend and details on the different interventions.

The project’s main contributions to adapting the legal framework have included support for the consensus-building process among all interested parties, individual and institutional capacity building, the exchange of international best practice, raising awareness of the need for change, and communicating the socio-economic benefits and opportunities of an integrated waste-management system’.

2.3 Success Factor: Steering Structure

The ZACK Project’s steering structure is separated into three levels:

1. Political level: the project’s political partner, the National Council for Climate Change, sets out the project’s overall political framework in line with the country’s climate change policy, working in close consultation with the Ministry of the Environment and Natural Resources and the Ministry of Economics and Planning.
2. Strategic level: all the project’s components are supervised and guided by a steering committee, which has the authority to propose activities and make decisions in line with the project’s objectives, contribute to the annual planning sessions, approve the plan for operations and monitor the project’s progress and impact. The steering committee is chaired by the National Council for Climate Change and includes all the members listed in the project documents.
3. Operational level: each component has a leader who builds networks or establishes technical working groups designed to achieve the project’s specific objectives (outputs). Each GIZ team

member works in tandem with a member of the National Council for Climate Change to ensure efficient communication and shared responsibility for the project outcome.

Although the 'Adapting the legal framework in support of co-processing' project component has greatly extended the project's network, it remains governed by the project's sole steering committee. Following a more fluent structure at operational level, ECORED, CCN GIRE SOL, MMARN, CNCCMDL and GIZ met with different players several times to monitor progress, identify gaps and plan the next steps.

2.4 Success Factor: Processes

Although some of the individual processes described in this chapter find their equivalent in the architecture of intervention, a process links related activity across several hierarchical units or even across different players involved or stakeholders with a single approach towards achieving the objective. The process map asks the following question:

- Where do we want to go, what is the objective?
- Which are the most important steps to achieve this?
- How do we know what stage we are at?
- What kind of support do we need to get there?

The Capacity WORKS approach distinguishes three types of processes: steering processes, core processes and support processes.

The steering processes include identifying the various parties and their roles, integrating and strengthening an already existing platform for dialogue, designing the architecture of intervention, monitoring the progress made and identifying obstacles along the way.

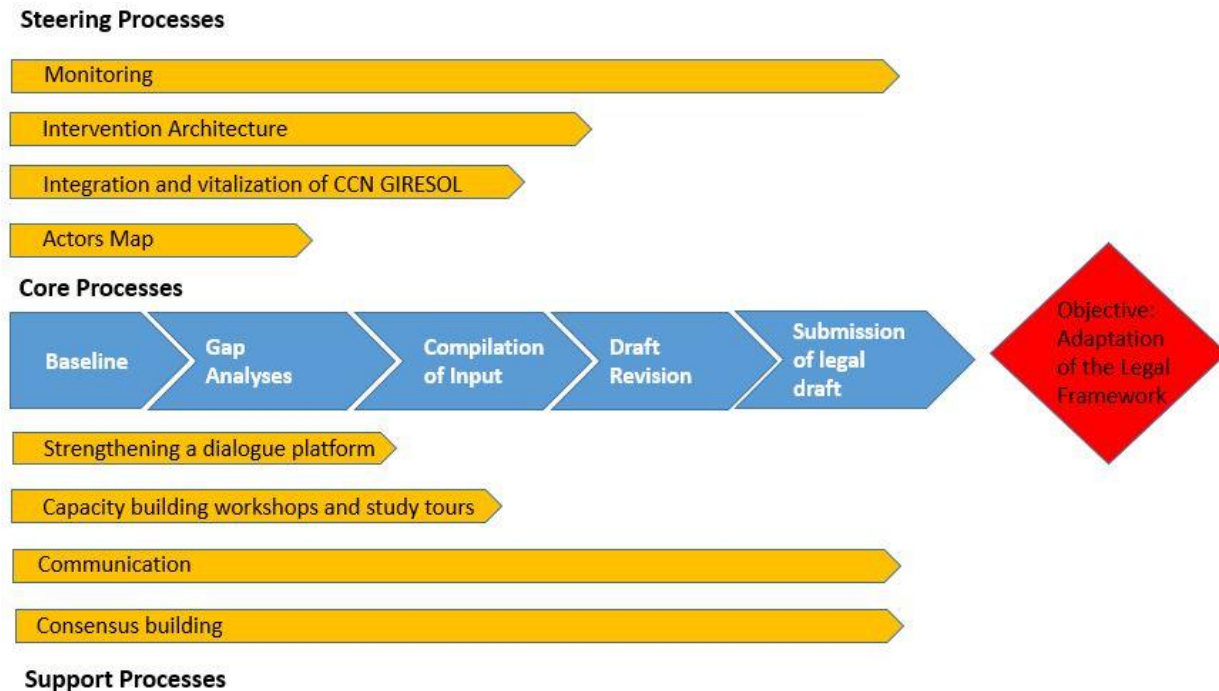


Figure 3: Process architecture in steering and supporting the adaptation of the legal framework.

The starting point of the core processes are baseline studies on waste flows, the existing legal framework and gap analyses of what needs to be integrated into the SWB to support co-processing and a circular economy in general.

Support processes include strengthening the platform for dialogue using existing networks, capacity-building workshops, study tours, working sessions that deal with resistance and help to build consensus among the various players, supported by media work to create transparency and foster public attention for the issue.

Input and feedback received from the conferences, workshops, seminars and public hearings were compiled and synthesised with tracts from the various draft versions of the SWB to build an agreed draft before its submission by the supporting congressman to the Chamber of Deputies and, from there, its referral to the Permanent Commission for the Environment and Natural Resources.

In the context of the project, GIZ and its political partner and members of the project-steering committee assumed the role of process leader with respect to all extra-parliamentary activities. Apart from these project-specific processes that aim to accomplish a specific project objective, we need to take the external processes into consideration, such as the parliamentary legislative process defined by the constitution of the Dominican Republic. Entities entitled to initiate the

legislative process include the senators and members of the Chamber of Deputies, the President of the Dominican Republic, the Supreme Court of Justice for judicial matters and the Central Electoral Board for electoral matters. Furthermore, the constitution provides a special procedure for legislative initiatives when supported by at least 2% of the population.

The Ministry of the Environment and Natural Resources is the process leader for drafting environmental and waste-management legislation. The project focused on the non-legislative phase through a baseline survey, gap analyses, capacity and consensus-building measures. During the legislative process, the Technical Commission for the Environment received support in the form of capacity-building measures and advice on the concept of Extended Producer Responsibility. The project facilitated the public hearings and integrated contributions made to the draft SWB and strengthened document control.

Following a series of working sessions, the ZACK Project merged the different versions of the SWB. This version was then accepted by the Chamber of Deputies' Permanent Commission of the Environment and Natural Resources as the version agreed to by the industrial sectors and civil society. The Permanent Commission issued the report to be presented at the plenary session of the Chamber of Deputies for voting.



Figure 4: Parliamentary process and 'windows' of intervention. The process shown refers to the Chamber of Deputies only. As the current government has a significant majority in the Senate as well, it can be assumed that the Senate will pass the SWB following its approval by the Chamber of Deputies.

The SWB met resistance from the private sector, specifically with respect to the legal concept of Extended Producer Responsibility. The ZACK Project worked with EcoRed and international experts to organise capacity-building workshops and integrated the diverging positions from the different industrial organisations represented by the Dominican Republic's Industry Association (AIRD) into one sole document ('Position of the Private Sector'). Although broad consensus was achieved, the private sector's resistance to the legal concept of Extended Producer's Responsibility remained.

Faced with federal elections in 2016, the new incoming deputies needed capacity building to understand the environmental and socio-economic benefits of Extended Producer Responsibility.

The deputies held individual meetings with the AIRD, deputies, senators and the ZACK Project at which EPR was explained, the benefits for the private sector under the circular economy scheme were highlighted and a consensus was reached on incorporating Extended Producer Responsibility in the SWB.

2.5 Success Factor: Knowledge Management and Lessons learned

To summarise the lessons learned, we first need to review the principal challenges this project component faced:

- A significant lack of a technical and conceptual understanding of integrated waste-management systems. There were three major issues:
 - The concept of a circular economy: separating waste at its origin, its reuse, recycling and reintegration into the value chain as a fundamental pillar to make co-processing (and any other form of reuse or recycling) economically viable.
 - The political decision-makers were not familiar with the thermal use of waste material in the production of clinker in the cement sector.
 - There was no knowledge of financing mechanisms for Integrated Solid Waste Management, such as the legal concept of Extended Producer Responsibility.
- At the start of the project, there were already various drafts of the SWB, with little document control and central coordination.
- Weak inter-institutional cooperation and communication.
- Lack of integration of social aspects into the SWB, such as the role of the informal waste pickers.
- Non-transparent lobbying and consultations by various interest groups.

Knowledge management therefore needs to address the following questions:

Which strategies and processes have led to results in the implementation of the project or project component and efficient cooperation between the players? What can the project learn from this? What can others learn from this? What knowledge will be useful in the future for the parties involved in the project?

Our experience and recommendations to create or strengthen a platform for dialogue as a basis for learning and consensus building in legal reform projects are summarised below:

1. Carry out a solid review of previous work, the current waste-management system and its legal framework and identify legal and technical gaps that need to be filled to accomplish the project objectives.
2. If possible, work with existing structures, rather than dismissing and creating something new and alien to the stakeholders involved.
3. Identify the different players, their roles and responsibilities as well as their interest in the project or the project's outcome.

4. Build or strengthen a platform for dialogue to enhance communication at three levels: the general public, institutions, and organisations and individuals.
5. Use public relations to empower the different stakeholders in the platform for dialogue to become promoters of the project objective and communicators of the work in progress.
6. Strengthen the platform for dialogue through forums, conferences, peer-to-peer exchange, seminars, and one-to-one meetings and use a broad spectrum of available media to enhance the impact of the platform.
7. Needs assessment should be a continuous process and capacity-building measures directed at institutional and individual level with a high degree of flexibility and responsiveness.
8. Identify resistance and deal with it through targeted capacity-building measures directed at focus groups or at individual level.
9. Create credibility by presenting or drafting case studies and disseminating international and regional best practice, assisted by national, regional and international consultants, experts and trainers as well as study tours.
10. Support opinion-leaders, senior public figures and members of the Chamber of Deputies as promoters of the cause and integrate these into the platform for dialogue.
11. Work plans may be too rigid and might require frequent adjustment, need to maintain flexibility.
12. The different methodologies and tools developed by GIZ's Capacity WORKS enhance cooperation systems and facilitate consensus-building in support of transformational change.

We strongly believe that the experience gained from implementing this very specific ZACK Project component may be applied in other contexts, particularly if the management of complex stakeholder landscapes, their coordination and cooperation and consensus-building process represents key success factors for project implementation. The creation and/or strengthening of a platform for dialogue, with a format and content adjusted to a target group's specific issues and three-tier communication that addresses the public, institutions and the individual helps to merge diverging opinions and consensus building.

At the time of writing this report, the draft bill has been approved by the Chamber of Deputies of the Dominican Parliament (July 2018) and is being reviewed by the Senate and experts from *Dominicana Limpia*, a presidential programme on waste management that investigates the possibility of excluding a ban on plastic packaging. The main aspects raised or supported by the ZACK Project have not been significantly altered, however a lack of transparency makes such an assessment difficult.

The Dominican Republic is currently going through a severe waste management crisis. Nevertheless, municipal governments and private entrepreneurs are looking for alternatives to the current mismanagement of waste and seeking to value it as a resource. We sincerely hope that the SWB will soon be voted for in the Senate and will be enacted by the President's signature so that a nationwide, unified waste-management system can be implemented.

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