AALBORG UNIVERSITY

STRATEGIC ENVIRONMENTAL ASSESSMENT AS A TOOL FOR INTEGRATING ENVIRONMENTAL CONSIDERATIONS INTO THE "DEVELOPMENT PLANS WITH TERRITORIAL APPROACH" IN COLOMBIAN POST-CONFLICT MUNICIPALITIES

Juanita Gallego Dávila

2017

STRATEGIC ENVIRONMENTAL ASSESSMENT AS A TOOL FOR INTEGRATING ENVIRONMENTAL CONSIDERATIONS INTO THE "DEVELOPMENT PLANS WITH TERRITORIAL APPROACH" IN COLOMBIAN POST-CONFLICT MUNICIPALITIES

JUANITA GALLEGO DÁVILA

MASTER THESIS

SUPERVISOR

LONE KØRNØV

AALBORG UNIVERSITY

CO-SUPERVISOR

TERESA FIDELIS

UNIVERSIDADE DE AVEIRO

JOINT EUROPEAN MASTER IN ENVIRONMENTAL STUDIES-CITIES AND SUSTAINABILITY

DEPARTMENT OF DEVELOPMENT AND PLANNING

AALBORG UNIVERTIY

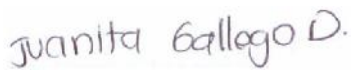
04/08/2017

PREFACE

The current thesis is developed as a requirement for obtaining the Joint European Master Degree in Environmental Studies- Cities & Sustainability (JEMES CiSu) organized by Aalborg University (The Faculty of Engineering and Science), Technical University of Hamburg-Harburg (The School of Civil Engineering), Autonomous University of Barcelona (The Faculty of Sciences) and University of Aveiro (The Department of Environment & Planning). It is presented as established in the Curriculum for the Joint European Master in Environmental Studies - Cities & Sustainability (JEMES CiSu) and under the supervision of the Planning and Geography Study Board of the School of Architecture, Design, and Planning at Aalborg University.

DECLARATION OF AUTHORSHIP

I hereby declare that the Master Thesis presented here is, to the best of knowledge and belief, original and the result of my own investigation and has not been submitted in part or whole, for a degree at this or any other university.
All the information derived from the work of others has been acknowledged in the text and in the list of references.



Juanita Gallego Dávila

ACKNOWLEDGMENTS

I would like to extend all my gratitude to:

The European Union and Jemes-CiSu coordinators for giving me the opportunity to reach my professional and personal dreams. Especially to Martin Lehmann for giving me one of the best news in my life and Line Vittrup for helping me that much since the beginning.

My coordinator Lone Kørnøv for her guidance, time, trust and her positive energy. As well as my co-supervisor Teresa Fidelis for her support.

My entire family and friends in Colombia who could make me feel their love in the distance. To Juanita Barrera and Amalín Bendeck for providing support in every step for the last 2 years. As well as my Jemes family, my folks in adventures both in the class room and the outside world.

For the unique moment that my home country Colombia has given to me and my generation by trusting in a peace process.

Finally to all the people in Colombia who had time for giving me part of their time to solve my questionings during the interviews: Juan Azcárate, Maria del Carmen Cabeza, Mario Orlando López, Juan Carlos Bello, Olga Patarroyo, Diego Saens, Jessica Zapata, Patricia Falla, Marcela Bonilla, Óscar Amaya and specially to Debby Camacho.

ABSTRACT

The current document constitutes a thesis description about the use of Strategic Environmental Assessment in the Colombian post-conflict scenario. Post-conflict periods are characterized by rapid and hyper-development conditions and an urgent need to allocate financial resources to large scale projects to support post-conflict recovery and reconstruction (Bouma, 2012). These conditions can result in severe environmental impacts. Therefore, efforts should support ways of sustainable development, and to avoid the depletion of natural resources and the emergence of new conflicts. Strategic Environmental Assessment (SEA) has the theoretical potential to assist this task of the Colombian government as a tool and strategic thinking to support decisions. The project is focused on identifying the opportunities and challenges arising from the post-conflict context and the SEA institutionalization in Colombia. By doing this, the main aims of the study are: a) to contribute to the limited scholarly literature available about the application of SEA in post-conflict context, hereunder research on the institutional capacity involved, b) to support the Colombian government with a mechanism for reaching sustainable development plans in the post-conflict municipalities through the action-research approach.

INDEX TABLE

LIST OF ABBREVIATIONS AND ACRONYMS

ANLA: Autoridad Nacional de Licencias Ambientales. National Environmental Licensing Authority

ART: Agencia de Renovación Territorial. Territorial Renewal Agency

CAR: Corporación Autónoma Regional. Autonomous Regional Corporations

CONPES: Consejo Nacional de Política Económica y Social (National Council for Economic and Social Policy)

EIA: Environmental Impact Assessment

IDB: Interamerican Development Bank

MADS: Ministerio de Ambiente y Desarrollo Sostenible. Ministry of Environment and Sustainable Development

NCEA: Netherlands Commission for Environmental Assessment

NPD: National Planning Department

NDP: National Development Plan

ODA: Official Development Assistance

PDT: Plan de Desarrollo Territorial**.** Territorial Development Plan

PDET: Programa de Desarrollo con Enfoque Territorial. Territorially-Focussed Development Programmes

POT: Plan de Ordenamiento Territorial. Territorial Arrangement Plan

PPP: Policies, plans and programs

SEA: Strategic Environmental Assessment

UNEP: United Nations Environment Programme

UPME: Unidad de Planeación Minero-Energética. Mining and Energy Planning Unit

INTRODUCTION

Since the signature of Peace Accord between the Colombian Government and the guerrilla denominated FARC-EP in November 2016, Colombia has entered a post-conflict stage that is expected to last 20 years (DNP, 2016). After a peace agreement in a country, there is political pressure to prove immediate development benefits to affected communities. Also to carry out development plans to generate better living conditions in the places most affected by war, to build peace and stability and to improve social dividend for vulnerable and poor population (Brown et al., 2012). These development programs and plans are supported financially by bilateral agencies and multilateral aid organizations, and therefore, resources need to be allocated in the first years. According to Bouma (2012), official development assistance tends to peak in the years immediately following a peace agreement but they tend to gradually decline after.

In Colombia, decisions about development initiatives are going to be outlined in the "Planes de Desarrollo con Enfoque Territorial-PDET" (Territorially-Focussed Development Programmes). A total of 16 PDETs are going to be developed and implemented in more than 170 post-conflict municipalities. These municipalities coincide to be in areas with a great wealth in term of natural resources as protected natural parks, wetlands, and the Amazon and Darién tropical forests, among others. For this reason, the national government has the challenge of addressing development initiatives in a way that the environmental protection and environmental management are integrated. The incorporation of environmental issues into the development plans can serve as a peacebuilding mechanism since it has the potential to avoid future conflicts (Bouma, 2008; Bouma, 2012; Verheem and Switzer, 2005).

One option, to address environmental considerations in reconstruction planning is Environmental Assessment (EA) tools such as Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA). The aim of the first tool, EIA, is to identify the potential impacts of projects and measures to mitigate them. While the second tool, SEA, can be described as "A strategic framework instrument that helps to create a development context toward sustainability, by integrating environment and sustainability issues in decision-making" (Partidario, 2012 p.11). A UNEP expert argues that the approach that this last mentioned tool provides can lead to integrate environmental sustainability and disaster risk in reconstruction and development planning processes in post-conflict contexts (Estrella, 2011).

Reported international experience on applying SEA in post conflict scenarios remains low as well as empirical evidence to claim that this tool provides an added value for planning and decision-

making processes under these specific circumstances. Nonetheless, some positives outcomes have resulted from conducting SEA in post-conflict contexts (Bouma, 2012; Jensen and Lonergan, 2012; Verheem and Switzer, 2005). Both opportunities and challenges have emerged from the few cases in which SEA (or project level environmental assessment, EIA) has been applied in post-conflict countries.

Nevertheless, deeper exploration is needed in the international context to explore the potential of SEA to make environmental management a relevant issue when planning reconstruction in a country after an armed country. With the aim of contributing to this topic, the current study explores and address the following research question:

How can Strategic Environmental Assessment be used for integrating environmental aspects into the “Planes de Desarrollo con Enfoque Territorial-PDET” (Territorially-Focused Development Programmes) in Colombia post-conflict municipalities?

For analyzing this, the study focuses on identifying:

1. How is SEA application appropriate in the post-conflict context in Colombia? And what are the opportunities and barriers for undertaking SEA in this specific post-conflict context?

2. What is the legal, institutional and policy framework for SEA in Colombia? And how this legal, institutional and policy framework constitutes opportunities and barriers for SEA undertaking?

To address this matter, the study consists of the analysis of data obtained from a first phase of documentation review and a second phase of field data collection in Colombia through personal interviews. A theoretical framework developed by Slunge and Tran (2014) for analyzing constraints to the institutionalization in SEA is used.

The document is divided into six chapters: the first chapter explores the theory about SEA definitions, role and approaches and its use in post-conflict situations; chapter two contains the methodological aspects of the study; third chapter describes the post-conflict context specifications and explores if SEA application is appropriate, also opportunities and barriers for SEA undertaking in the post-conflict scenario are presented; in chapter four, the general context in which SEA is applied in Colombia and what opportunities and constraints result from this features are addressed; analysis of results are presented in chapter five and conclusions and recommendations in the final six chapter.

1. THEORETICAL FRAMEWORK AND BACKGROUND

In the following section, information about the Strategic Environmental Assessment concept and different approaches to apply this tool is given. Then, links between the current SEA theory and institutional analysis is presented. Finally, the concept of post-conflict context and some practice of environmental assessment tools in this specific conditions is described.

1.1 Strategic Environmental Assessment: Multiple definitions and approaches

The term “Strategic Environmental Assessment” was first introduced in 1989 by Wood and Djeddour in the “interim report to the European Commission on Environmental Assessment of Policies, Plans and Programmes and Preparation of a Vade Mecum” (Wood and Djeddour 1989). The vision at this time, and very often today, is that SEA must be undertaken to address some limitations of Environmental Impact Assessment (EIA) as consideration of impacts in early decision-making stages, to deal with cumulative effects and to set the direction for project-level decisions (Noble and Nwanekezie, 2016). In this sense, SEA appears to have the same objective as EIA of assessing impacts but applied to different objects: policies, plans, and programs (PPPs), instead of projects (Vicente and Partidário, 2006). As a consequence of this link with EIA, the SEA practice during the 1990s and early 2000s were to a large extent rooted in traditional project-based EIA principles and methodology (Glasson et al., 2005). Nowadays and after almost three decades of experience, practitioners and academics seem to be still divided regarding SEA definition and concept (what is it), its role (what should it deliver) and its different approaches (how it should perform) (Bina, 2007; Vicente and Partidário, 2006). But certainly, SEA evolution in research and practice has gone from a one focused on PPP impact assessment to one more strategic. For example, in the present, SEA is seen as an instrument that can assist the formulation and implementation of strategic initiatives and can have a political role in decision-making process (e.g. Noble and Nwanekezie, 2016). According to Partidário´s (2012) view, the actual purpose of SEA is to provide a better understanding of the development context of PPP and to assess environmental and sustainable options that can lead to reaching strategic objectives. The last mentioned author argues that “SEA is about introducing a form of systematically checking, at each decision-making point, what are the cause and effects that may determine significant impacts at subsequent levels of development, and how that can be avoided by following different strategic options” (Partidário, 2000, p. 658).

This evolution of the SEA concept has resulted in a variety of definitions given by practitioners and academics. Figure 1 shows different proposed definitions of SEA. All these definitions show what SEA is a multifaceted and multidimensional assessment process with diverse purposes, from evaluating existing PPPs to appraising institutional frames that influence the implementation of strategic initiatives (Noble and Nwanekezie 2016). In accordance with this, it has been suggested that SEA should be seen as a "family of tools" (Partidário 2000, p.655) and as an "overarching concept rather than a unitary technique" (Brown and Thérivel 2000, p.186).

Evolution of SEA definitions		
Author	**Year**	**Definition**
Riki Thérivel and Maria Partidário	1996	The systematic and comprehensive process of evaluating at the earliest possible stage the environmental effects of a policy, plan or program and its alternatives
Barry Sadler and Rob Verheem		Systematic process for evaluating the environmental consequences of proposed policy, plan or program initiatives in order to ensure they are fully included and appropriately addressed at the earliest appropriate stage of decision-making on par with economic and social considerations
Bram F Noble	2000	The proactive assessment of alternatives to proposed or existing PPPs, in the context of a broader vision, set of goals, or objectives to assess the likely outcomes of various means to select the best alternative(s) to reach desired ends
William R. Sheate, Suzan Dagg, Jeremy Richardson, Ralf Aschemann, Juan Palerm, Ulla Steen	2003	A decision support tool, designed to integrate environmental and social issues into higher-order PPP decision making processes, bringing together different aspects of problems, different perspectives, and providing possible solutions in an accessible form to the decision maker
OECD	2006	Analytical and participatory approaches that aim to integrate environmental considerations into policies, plans and programmes and evaluate the inter linkages with economic and social considerations
CCME	2009	A process designed to systematically assess the potential environmental effects, including cumulative effects, of alternative strategic initiatives for a particular region…and in doing so inform the development of policies, plans or programs
Maria Partidario	2012	A strategic framework instrument that helps to create a development context toward sustainability, by integrating environment and sustainability issues in decision making, assessing strategic development options and issuing guidelines to assist implementation

Figure 1. Definitions of SEA. Adapted from Noble and Nwanekezie(2016, p. 2)

In regards to SEA role, this can vary for each planning and decision-making contexts and also lead to multiple and distinctive expectations about SEA outputs (Partidário, 2012; Bina, 2007). The decision-making contexts in which PPPs operate are remarkably dynamic, thus, SEA role should be based on the exact matter that SEA

is going to address (Noble and Nwanekezie, 2016). Some examples given by Fundingsland Tetlow and Hanusch (2012) about the role that SEA can play are : to raise environmental awareness of people involved in the planning process; to provide a "checking mechanism" to ensure the consideration of environmental issues in planning; improve environmental quality and performance of policies; and it can contribute to achieving consistency and compatibility between the goals and strategies of a plan. In a more general way, the SEA major key role is to facilitate the decision-making process by engaging key stakeholders, enabling dialogues and providing a long-term and large scale perspective when evaluating development options (Partidário, 2009).

Concurrently, with its multiple definitions and purposes, there is not a universal approach to SEA. As Fundingsland Tetlow and Hanusch (2012, p.21) state "there is no one-size-fits all SEA and the family of SEA approaches is large and diverse". Taking this into account, Noble and Nwanekezie (2016) developed a conceptualization of SEA as an instrument operating in a spectrum (see figure 2). In one side of the spectrum, SEA is characterized as Impact Assessment-based and, on the other side, as a more Strategy-based type of SEA. The different approaches along the spectrum have to do with the purpose of SEA, undertaking and the presence of strategic elements in its design, intent, and implementation.

Figure 2. The spectrum of SEA approaches. Adapted from Noble and Nwanekezie (2016, p.4)

Elements described in figure 2, according to Noble and Nwanekezie (2016),are explained in the following lines:

- Impact Assessment Based SEA: Is when a direct assessment of PPPs potential environmental impacts is undertaken.

  - ✓ Compliance-based: Evaluates if (and in what extent) a proposed PPP is aligned with other existing PPP objectives and identifies the option to ensure compliance prior to the policy, plan or program adoption. In this way is verified if the PPP supports, or at least does not contradict, other legislation or policy goals.

  - ✓ EIA-like: Provides information about the identification and mitigation of potential impacts of proposed PPP.

- Strategy-based SEA: This approached is rooted in recent strategic thinking about the role of environmental assessment going beyond traditional impact assessment

  - ✓ Strategic futures: Is focused on appraising the potential implication of alternatives scenarios; evaluating risks and opportunities associated with each of them. In this sense, it provides a strategic direction or preferred course of PPP action and it tends to influence next decision levels.

  - ✓ Strategic transitions: Is oriented to analyze the institutional environment around strategic initiatives and the factors that can enable or constrain their success. At this level, SEA can influence institutional and governance transformations to achieve more sustainable outcomes. Here, the analysis of decision-making process is prioritized.

  Very similar approaches are mentioned by Partidário (2009): marginal approach, compliance approach, and constructive approach. Explained as follows:

  - Marginal approach: The assessment is done to provide base studies about the diagnosis of environmental and social issues and assess the effects of proposals, resulting in a “fat formal report”. Often the result is irrelevant to decision-making because the output is not what decision-makers need to know.

  - Compliance approach: SEA is a tool to control compliance with legislation and policy requirements. The priority, in this case, is to fulfill legal terms, and therefore, what is established in legislation is the road map for conducting SEA

  - Constructive approach: when relevant issues for decision-making are the focused of SEA, thus, SEA purpose is to guide strategies towards better environmental and sustainability integration in development initiatives. In this approach, SEA needs to be highly flexible, agile, in such a way that can be molded to each decision case and can bring added-value to decision-making.

Summing up, SEA has evolved from an EIA-based and relative reactive mechanism to a more proactive process for reaching sustainable solutions in the planning process. Also, there is no one specific definition that fit all the forms of doing SEA, in fact, its conceptual evolution still continues (Fundingsland Tetlow and Hanusch, 2012; Jiliberto, 2011). Nevertheless, for the purpose of this project, SEA is understood as a systematic process to integrate

environmental considerations during the design, implementation, and monitoring of PPPs.

1.2 Strategic Environmental Assessment and its link with institutional analysis

As it was pointed out in the last section, part of the current SEA research has concerned SEA's definition, conceptualization, and analysis of the role that it should play. Jiliberto (2011) states that the current debate about SEA definition is not only a theoretical matter but that this issue has relevant consequences for SEA practical application and for the evaluation of its effectiveness. This last mentioned researcher identifies three basic stages of the evolution of SEA definition: First, a very early definition highly related to environmental impact assessment (EIA) tradition. Second, a decision-oriented SEA definition. And third, a more recent definition based on SEA institutional dimension (Jiliberto, 2011).

As explained before, SEA theory was initially dominated by a technically EIA orientation in which the analysis of environmental consequences of decisions was at the heart of the assessment. This understanding was product of the assumption that objective and quantifiable evidence on the environmental effects of decisions will lead to a better decision-making process and outcomes (Fundingsland Tetlow and Hanusch, 2012; Slunge and Tran, 2014). This theory has been challenged by several authors who argue that having technical extensive information does not necessarily influence the decision-making process (Bina, 2007, 2008; Kørnøv and Thissen, 2000). This rationality led to a more decision-oriented definition of SEA, in which applying SEA has a more proactive interaction with the decision-making process, with the aim of improving this from an environmental perspective (Jiliberto, 2011). Under this SEA definition, several authors have argued that SEA practitioners must understand the decision-making process within which they operate (Runhaar and Driessen 2007; Nilsson and Dalkmann 2001; Brown and Therivel 2000). Furthermore, academics have recognized that decision-making processes vary with respect to the institutional planning framework and the particularities of the policy, plan or program; and that these last are influenced by a number of social, economic, cultural and political factors (Fundingsland Tetlow and Hanusch, 2012). Indeed, scholars are promoting a change in current SEA thinking towards a policy, institutional, integrated and strategic-oriented approach, in a way that it could provide a better understanding of complex institutional and governance conditions affecting the decision processes (Noble and Nwanekezie, 2016). This, gives as a result, a definition of SEA based on its institutional dimension. From this perspective, there is a recognition of the important role that the

context play for the effectiveness of the SEA process (Jiliberto, 2011). In fact, several authors argue that a strategy-based approach on SEA has to determine the institutional context to facilitate desirable outcomes (Noble and Gunn, 2015; Partidário, 2012; Fundingsland Tetlow and Hanusch, 2012; Partidário, 2009).

The use of institutional analysis is still limited in SEA practice and academic research, however, some examples can be highlighted. For example, Wirutskulshai et al (2011) examine the introduction of SEA in Thailand, stressing the particular Thai planning context as well as the governance structure as a critical factor to influence the extent, substance, and form of adoption of SEA; they conclude that the "context is critical to the success and progress" of SEA (Wirutskulshai et al 2011, p.358). Marsden (1998) argues that a greater understanding of context may help to measure the effectiveness of SEA, the author evaluates three contextual dimensions: sociopolitical, environmental-economic and legal-administrative of study cases in Canada. Further, Bina (2008) analyses four dimensions: social, cultural, political and values, to evaluate how contextual factors limit the effectiveness of the Chinese environmental assessment system. Other studies analyzing the implication of institutional factors on environmental assessment systems are presented by Boyle (1998), Slunge and Loayza (2012), Turnpenny et al. (2008) and the World Bank et al. (2011).

All these examples to say that Strategic Environmental Assessment operates within an institutional arrangement, in a formal or informal way; and it could adapt to different policy and planning cultures (Noble and Nwanekezie, 2016). The current study recognizes this aspect of SEA and it develops an analysis of the institutional aspects in the Colombian context that affect the application of SEA in general. Also, a specific analysis of the post-conflict context is done to identify constraints and opportunities to apply SEA to the development plans in post-conflict municipalities.

1.3 Strategic Environmental Assessment in Post-conflict contexts

The post-conflict is a period that initiates after the signing of a peace agreement between two or more parties and it ends successfully with the satisfactory compliance of agreed topics (DPN 2016). The United Nations (1992) have identified that post-conflict processes are determined by two relevant moments: First, the signing of a peace agreement, in which there is a willingness ratification of the parties to end or to transform in a positive way, an armed conflict. And second, a period of stabilization in the medium term and the complete implementation of the agreements in a long term. Colombia signed a peace agreement with the FARC-EP guerrilla group and the government is projecting a 20 years scenario for conflict recovery (DPN 2016).

Success post-conflict countries pass over different stages to reach peace and economic development, these stages are not the same in all places, but three major ones can be distinguished, as well as some priorities activities in each of them (Kievelitz et al., 2004):

Phase	Time Horizon (months)	Absorptive capacity	Economic growth	Recovery priorities
Stabilization/ transition	12	Low	Low	Security Political framework Macro-economic framework Restoration of essential services and infrastructure Meeting humanitarian needs Return refugees Dialogue and trust building between former conflict parties
Transformation/ Institution building	12-36	Rising	Low	Political, economic and judicial reform Institutional capacity building Security sector reform Restoration or improvement of infrastructure and productive capacities Extension of essential services Food security Reconciliation process/social healing
Consolidation	36-120	High	High	Continuation and deepening of reform processes Institutional capacity building Extension of infrastructure and services Reconciliation/social healing Inclusive policies

Figure 3. Main stages in post-conflict processes and characteristics of each of them. Adapted from (Kievelitz et al., 2004, p. 6)

Countries entering into a post-conflict period experience enormous pressures to alleviate urgent humanitarian needs and support post-conflict recovery and reconstruction. Consequently, there is an urgency to provide jobs, create revenue and generate peace dividend. Simultaneously, the local government in post-conflict countries tends to receive financial resources from bilateral agencies and multilateral aid organizations, and therefore a lot of resources need to be allocated during the stabilization and transformation phases, this also accelerated reconstruction projects (Bouma, 2012). Additionally, according to Brown and colleagues (2012) most post-conflict countries lack on manufacturing or services business, therefore, economic growth relies on the exploitation of natural resources.

As a result of all these conditions, rehabilitation periods are characterized by hyper-development, causing severe environmental impacts. For instance, the rapid rebuild can generate high demands of natural resources as water, wood, sand, gravel, iron, and petroleum. These negative impacts could generate future conflicts as environmental and natural resources often contribute to violent confrontations, in fact, Jensen and Lonergan (2012b) asserts that the management of the environmental and natural resources are relevant for peacebuilding and long-term stability. About this, the last mentioned authors suggest that reconstruction plans, programs, and projects (PPPs) should be subject to environmental impact assessment to ensure that they do not create environmental impacts that could exacerbate conflicts. In the same way, the experience of UNEP in post-conflict assessment has shown that there is a need to build institutional capacities for environmental management immediately after the conflict, in order to ensure sustainability by identifying potential impacts of reconstruction and development projects (UNEP, 2003). Nevertheless, developing countries fail to integrate environmental issues into PPPs during post-conflict, since governments are overwhelmed with coordinating aid and arranging institutional responsibilities (Bouma, 2012); also because most of these countries do not have a legal and regulatory framework on SEA; either institutional and human capacities to apply SEA to post-conflicts reconstructions PPPs and investments (Verheem and Switzer, 2005).

The current literature of environmental assessment tools, including SEA, applied in post-conflict countries is scarce and the current studied cases are reported mainly by agencies as UNEP, UNDP, the World Bank and the OECD. Furthermore, there is limited evidence of SEA (or EIA) successfully applied to post-conflict PPPs. In 2005, the World Bank, jointly with the Netherlands Commission for Environmental Assessment, prepared a short note on possible approaches to SEA in countries affected by war during planning reconstruction activities (Verheem and Switzer, 2005). This note discusses the purpose of SEA in post-conflict context; how and when to apply SEA and if this process differs from current SEA practice in non-conflict situations; and finally how to build capacity and where to start the process. This short note was prepared based on cases in Republic of Congo and Haiti. In addition, in 2008, the OECD publishes an advisory note that discusses the use of SEA in post-conflict situations and it intends to guide planners and policy makers on applying SEA to post-conflict reconstruction policies, plans, and programs (Bouma, 2008). Later, Bouma (2012) provides learned lessons from three cases in which EA tools were used to address the possible impacts and risks of reconstructions programs in Afghanistan and Iraq during 2004 and 2005, and Sudan in 2008. One of the key contributions of these three case studies is that Official Development Assistance (ODA) are suitable entry points for the application of SEA.

In Afghanistan, Iraq, and Sudan, the entry points were a donor-assistance database, a UN multi-donor trust fund, and UN work plans, respectively. Finally and most recently experience was reported in Sri Lanka, in where a modified SEA was pilot-tested in 2010 and 2011 with the aim of establishing a sustainable development framework in the Northern Province just after the end of the conflict (Mallawatantri et al., 2014). In this occasion a participatory approach was adopted, producing a "development opportunity map", this map provides the distribution of space and resources available for development with low environmental and disaster risks. This assessment involved more than 25 national government agencies from multiple sectors as well as civil society, the private sector, and academia.

Some of the lessons from the current literature (Bouma, 2008; Jensen and Lonergan, 2012a; Verheem and Switzer, 2005) about the opportunities and challenges on applying SEA in a post-conflict are:

Opportunities:

- Help to identify environmental risks and opportunities of recovery and reconstructions PPPs in early stages of development and ensure that this does not harm peace
- Provide appropriate resources management frameworks and governance, and minimize potential causes of new conflicts
- Strengthen and restore natural resource base livelihoods in resource-scarce settings
- Help in the reduction of opportunities for natural resource based-trade to fuel war economies
- Identify cumulative effects of PPPs that could be missed when only potential impacts of individual projects are considered

Challenges:

- Possible resistance to apply a comprehensive and extensive SEA due to the urgent needs for humanitarian relief, reconstruction and security
- Local government may not see the relevance of considering environmental issues in planning in early stages of reconstruction
- Institutional mandates and capacity of authorities are usually weak, making difficult to implement SEA in the early stages of post-conflict development.

In conclusion, the current experience of SEA and in general environmental impacts tools applied to post-conflict PPPs is still limited. Further research should be developed to identify the added value that can provide in this specific contexts and to test its potential benefits on avoiding further degradation of natural resources and in preventing the emergence of future conflicts.

2. METHODOLOGY

The current study is developed based upon the first phase of documentary research and exploration of stakeholders, a second phase of conducting interviews and a third phase of analyzing qualitative information obtained. Each of these phases contributed to develop the analysis for the two research sub-questions, describes as follows:

Phase 1. Documentary research and exploration of relevant stakeholders

On one hand, with the aim to understand the post-conflict context in Colombia, official and public documents from the Colombian government, policy documents, review of press release and reports from non-governmental organizations were analyzed. The information obtained was organized in three main groups: general information about the peace agreement and the post-conflict scenario; the specific planning process of the PDETs and its differences with the ordinary planning process in Colombia; and the identification of relevant stakeholders for the planning process under the post-conflict context.

Due to the recent peace agreement signature and the lack of deeper information published by the Colombian government about this matter, in February and March of 2017 informal phone-interviews were conducted. Specifically, an informal phone interview with Maria del Carmen Cabeza, a worker in the Ministry of Environmental and Sustainable Development, was carried out. During this interview updated information about the use of SEA in Colombia was obtained. Namely, information about the use and upgrade of the available guidelines in Colombia to conduct SEA; also about the execution of workshops, courses, seminars or similar about SEA the last years; and also training activities with environmental authorities about the use of the tool; the SEA cases in the last years; and finally if there was a relationship between SEA and the PDTs. All this information was used to prepare the further interview within this Ministry.

Another two informal phone interviews were done with official workers of UNDP office in Colombia. On one hand, Jessica Zapata, a person part of the Sustainable Development department, clarified information about the role and activities in charge of UNDP in the Colombian post-conflict scenario. None of the activities she mentioned was related with the application of SEA. One positive outcome from this interview was to find out that during the month of March, UNEP was on a scoping mission in Colombia to identify mechanism of collaboration with the local government in regards to the post-conflict activities. It was possible to establish contact with one of the persons in this mission for a further interview. On the other hand, Daniel Vargas, a person with knowledge about the funds for post-conflict projects was also interviewed. The intention with this last mentioned person was to verify if SEA was a planned activity or if it was part of

a requirement of any donor agency or entity. As mentioned in sub-section 1.3 of the current document, ODA as multi-donor trust fund can be entry points for the application of SEA. Nevertheless, SEA was not a requirement or an activity related to the funds.

Other calls were made to the National Planning Department, the BID, and to Marcela Bonilla, in order to make the requests for personal interviews. Additionally, a meeting with Rob Verheem, a Director member of the Netherland Commission for Environmental Impact Assessment, was conducted in March of 2017. The main goal of this meeting was to seek orientation about SEA applied in post-conflict scenarios.

In conclusion, as result of this phase, three main stakeholders groups were identified in relation to the undertaking of SEA for PDETs: Governmental institutions, International Agencies and Colombian experts in SEA. First, governmental institutions both as entities in charge of planning process in Colombia (both in regular and post-conflict context) and regarding implementation of SEA in the country. Second, international agencies as supporters for peacebuilding and SEA promoters. And finally SEA pioneers and experts as sources of information to understand the application of the tool in Colombia, its relevance for the peace process as well as constraints and opportunities for its use. The dialogue with these key stakeholder gave a significant basis for identifying institutions and the relationship among them, see figure 4. Description of each stakeholder is provided in chapter four.

On the other hand, to determine if the application of SEA was appropriate for the post-conflict context in Colombia, criteria proposed by Verheem and Switzer (2005) was used (see chapter four for a description of criteria). The term appropriate is referred in here as the applicability and relevance of conducting SEA for the specific post-conflict conditions in Colombia. Further information to frame the application of SEA in the post-conflict scenario was obtained from scientific articles accessed through platforms as Google® Scholar, Springer Link, ELSEVIER, Science Direct and Aalborg University Library services. The terminology and keywords used for the search include “Strategic Environmental Assessment and post-conflict”, “post-conflict environmental assessment”, “post-conflict and natural resources”. Mendeley Desktop® program, version 1.17.6, was used as the referencing system

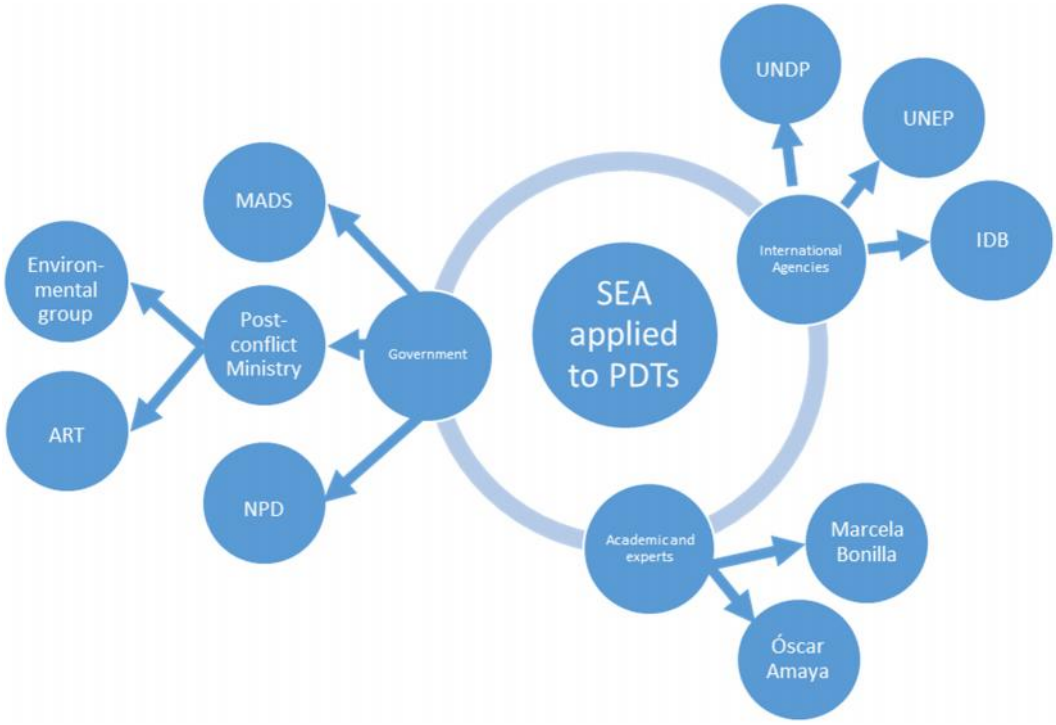


Figure 4. Stakeholders identified for SEA application to PDETs in Colombia (own model)

These last mentioned search engines were also used to access to scientific articles, books, and reports about SEA theory, focusing the research in documents related to the study of SEA institutionalization, and it studies of SEA within specific contexts. Terms and key words, in this case, were "Strategic Environmental Assessment and context analysis", "SEA and institutions", "SEA and decision-making process", "SEA and planning process", "SEA and institutional theory".

Phase 2. Field data collection

After identifying relevant documentation on SEA and post-conflict and SEA and institutions analysis, seven semi-structured interviews were conducted with individuals from different organizations during the months of March and April of 2017 in Bogotá-Colombia. This type of interview allows to have open-ended questions and can provide details of the interviewees perceptions (Leech, 2006) regarding SEA implementation in Colombia and potential SEA application in PDETs. Questionnaires about general SEA in the post-conflict context as well as specific ones according to the entity and the interviewer were prepared (See the description of interviewees and questions in Annex I). During the interview process the main goal of the study, along with its scope and limitations, were explained to the interviewees, as well as the academic use of their answers. All the interviews were recorded for transcription and further analysis. The transcripts documents sum more than 100 pages, therefore, they were not included as an annex

in the current document. Nonetheless, the files of this transcriptions can be found in the following link: https://www.dropbox.com/sh/z1cmpgxsq8woqkf/AACXwuzlGhRAv4v-EnTBVIwGa?dl=0

The personal interview with the worker from UNDP was not possible to conduct (Interview II, Annex I). Additionally, interview V was discarded for the analysis because of the lack of relation between IDB with SEA and PDETs planning process. Interviews VII, VIII AND IX were added after interview IV, during the meeting with this interviewee it was identified the importance of these participants. It could have been meaningful to conduct interviews to higher levels of decision-making. For instance, conducting interviews with ministers, to establish their awareness of the SEA use. Furthermore, the perception of this tool could have been compared among different bureaucratic levels. Unfortunately, due to the constraints of time and resources, this was not possible.

The main goal of this phase was to collect information from individuals regarding further details about the post-conflict context and specifically regarding the planning process of PDETs; the recognition and confirmation of relevant stakeholders for planning in the post-conflict; analysis and discussion of SEA applicability and relevance for the PDTs; identification of barriers and opportunities of apply SEA to PDETs; identify characteristics of SEA legal, policy and institutional framework and; analyses opportunities and barriers for applying SEA in Colombia. In summary, the interviews provide information covering all the research-sub questions that the current thesis attempts to drive.

Phase 3. Analysis of raw data collection

During the third phase, the information registered in the recordings was transcribed, using oTranscribe online platform. A codebook was created as an essential tool for analyzing qualitative data. This consist in setting codes, definitions, and examples used as a guide to analyzes interviews data (Decuir-gunby et al., 2011). Codes are “tags or label for assigning units of meaning to the descriptive or inferential information compiled during a study” (Miles and Huberman 1994, p.56). During this exercise theory-driven codes (codes from existing theory or concepts), data-driven codes (codes from raw data) and structural (codes related to project’s research goals and questions) were used. An overview of the codebook is presented in annex II.

With regards to data analysis, the analytical framework developed by Slunge and Tran (2014) for analyzing constraints to the institutionalization in SEA was used for generating the theory-driven codes and analyzing the gathered data. This framework was selected for several reasons. First, the project recognizes that contextual factors affect the practice in environmental assessment systems. In this case, the context of post-conflict plays a fundamental role. Second, the authors claim that their proposed framework may be

useful in countries where formal and informal institutions differ considerably from the ones in Europe and the United States. They developed their study based on a country experience in Vietnam, which has the same condition of being a developing country as Colombia. Third, this methodology was coherent with the results obtained during the interviews, this means that according to the first perceptions obtained during the interviews there was a potential to analyze the results from an institutional and governance perspective. And fourth, and most important, this framework is appropriate and oriented to answer the research questions about the legal and institutional framework and to identify the barriers to conduct SEA in the post-conflict context.

It is important to understand the background of Slunge and Tran´s (2014) work. They begin by taking the definition of institution from North's (1990) which is *"The humanly designed constraints that structure human interaction…made up of formal constraints (e.g., rules, laws, constitutions), informal constraints (e.g., norms of behavior, conventions, self-imposed codes of conduct), and their enforcement characteristics".* Then, they describe institutionalization as *"A process of internalizing a new set of formal norms into an existing system of formal and informal norms so that the new norms become rules that are actually used in practice"* (Slunge and Tran 2014, p.54).

Moreover, Slunge and Tran (2014) built their analysis for studying institutions at four different levels, this based on Williamson (2000) and Ostrom (2005) previous framework. The first level of analysis is called **Social Embeddedness** in which customs, norms, traditions, religion, culture, mores, etc. are located. The second level is the **Institutional Environment,** which contains the formal rules corresponding to laws, constitution and executive, legislative functions of government, as well as power distribution across its different levels. This level is not subject to analysis in the present work due to the lack of data. The third level is where **Institutions of Governance** are located, this includes different parts of government bureaucracy, regulations, and legal framework. Finally, the fourth level is **Action Arena** which captures the practice dimension of SEA. Figure 5 represent these levels and the interaction among them.

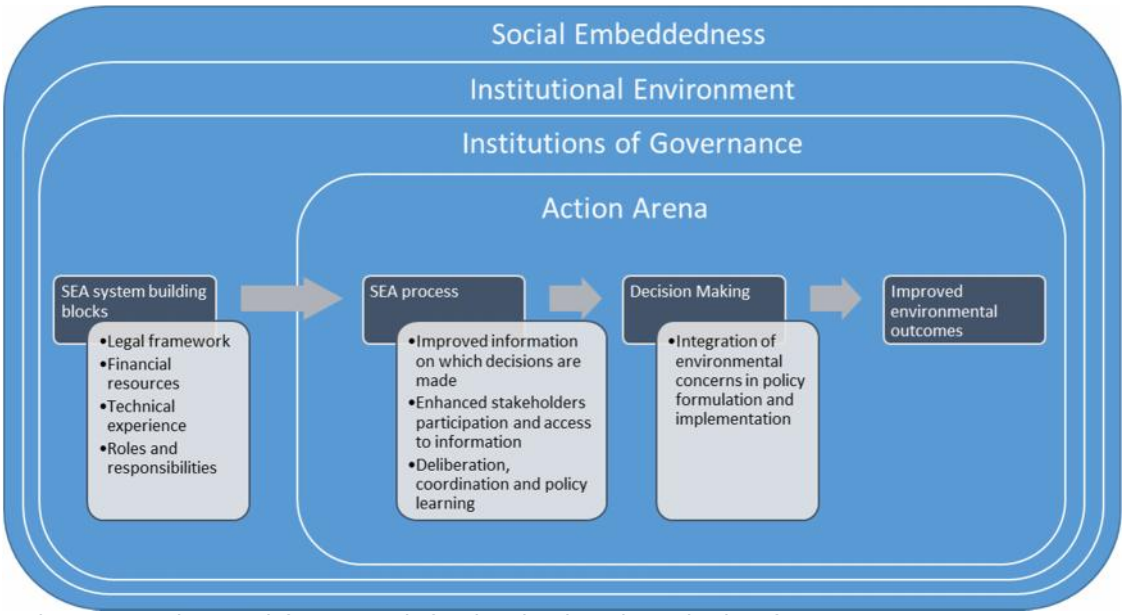


Figure 5. A layered framework for institutional analysis of SEA systems. Source: (Slunge and Tran, 2014, p.56)

With the aim of summarize the methodology used in the current thesis, as well as to have a holistic picture of it, a timeline is presented in figure 6:

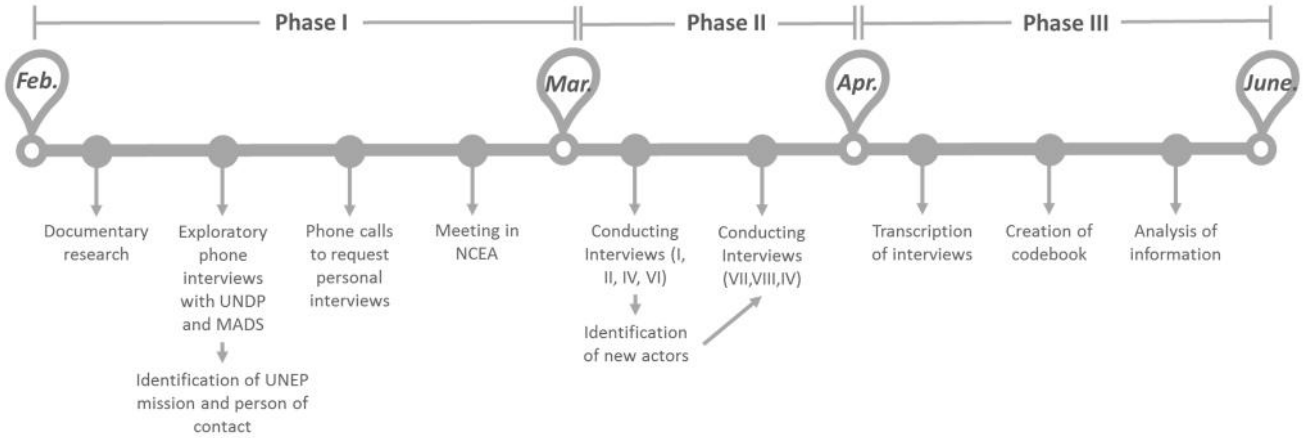


Figure 6. Timeline of methodology carry out in the current thesis

3. SEA IN THE COLOMBIAN POST-CONFLICT CONTEXT

This third chapter shows the results of the research process regarding the post-conflict circumstances in which planning processes of PDETs will take place and how environmental aspects are going to be taken into account. Understanding the context in which SEA could take place has been recognized by several authors as a relevant issue, for instance, Bina´s (2008, p.718) states “It is the context within which planning and assessment occur… that makes the difference”, in the same, way Jensen and Lonergan (2012, p.439) argue that “a good SEA is tailored to the context in which it is applied” and Noble and Nwanekezie (2016) suggest that one characteristic of SEA is its sensitivity to PPP and decision-making contexts. The information about the post-conflict contexts was obtained from governmental reports but also from the interviews. At the same time, the description of relevant stakeholders in both planning process and environmental actors is presented. Finally, the applicability and relevance of the SEA to these plans is discussed, regarding the specific context described above.

3.1. *The peace agreement in Colombia and current post-conflict scenario*

After more than fifty years of war between the Colombian Government and the FARC-EP (Revolutionary Armed Forces of Colombia), the oldest and biggest guerrilla in Latin America, both parties decided to end the internal armed conflict. The negotiation process began in August of 2012 and came to an end in November of 2016 in La Habana, Cuba. As a result of this dialogue process, an agreement was signed between the parties under the title “Acuerdo General para la Terminación del Conflicto y la Construcción de una Paz Estable y Duradera” (General Agreement on the Conflict Ending and the Construction of a Stable and Lasting Peace) this agreement is the main document to lead the peace reconstruction in Colombia.

This main document is composed by six different agreements. The first one is the “Integral Rural Reform”, this is the transformation of rural areas to create better living conditions for its inhabitants, closing the gap between rural and urban areas. The second one is about “Political participation: democratic opening to build peace”. The third agreement is the “Bilateral and Definitive Ceasefire and Hostilities and abandonment of arms” and is complemented with the “Reincorporation of the FARC-EP into the civil life-in the economic, social and political aspects”. The fourth point consistss of a “Solution to illicit drugs problem” and the fifth is dedicated to the victims and the compensation processes. Finally, the sixth agreement is about “Mechanisms for implementation and verification” this allows the government, FARC-EP members, and the international community to monitor the agreement compliance” (Acuerdo Final para la Terminación del Conflicto y la Construcción de una Paz Estable y Duradera, 2016).

One aspect that can be noted about the agreement document is its focus on the territory. Since the conflict has affected some areas more than others, considerations about the economic, cultural and social specificities of territories will be taken into account before applying any measure. The peace agreement document establishes that prioritization must be employed first and foremost to the incidence of war, then poverty levels, followed by institutional and administrative weakness and, lastly, in the presence of illegal crops. Post-conflict prioritized municipalities should be the main focus of development projects. Decree 983 of 2917 establishes the list of post-conflict municipalities (Ministerio de Agricultura y Desarrollo Rural, 2017). Figure 3 shows the high incidence of war municipalities classified by UNEP.

The main characteristic of these towns is that they are underdeveloped. Thus, the high poverty indexes are explained by problems with coverage and educational quality, the lack of access to health and social protection, a high percentage of informal jobs and a low coverage of public services (DNP, 2016). For instance, of 187 towns with high to very high war incidence, 43% are in early stages of development, these areas are disconnected from national markets, present a low contribution to national GDP and their economies are not specialized (Departamento Nacional de Planeación, 2017). In contrast, the main urban centers in the country have companies utilizing "state of the art" processes for industrial production and generating employment along with economic growth for the country. In these cities, the population has access to basic public services and goods, education and good quality hospitals. Ramírez et al. (2016) suggest that the high poverty levels have a direct relationship with the isolation of these towns and their disconnection with urban centers due to the lack of accessible roads. This supports the idea that road infrastructure is a key aspect to connect territories and decrease poverty.

The peace agreement addresses such underdeveloped regions by defining the implementation of PDETs. The main goal of these is to transform rural areas in order to develop an equal relation with urban areas. Part of the actions to be done are the identification of the territory, problems and needs, the prioritization of projects to implement and services to provide; also the definition of financing mechanisms, deadlines, and stakeholders during the operation and monitoring phases. The PDETs are the mechanism to implement the national development plans for rural transformation (“Acuerdo Final para la Terminación del Conflicto y la Construcción de una Paz Estable y Duradera,” 2016) in prioritized municipalities. These national plans consist of:

- National plan for tertiary roads: construction of roads to connect municipalities with urban centers and to connect regions
- National plan for agricultural irrigation and sewage system: for improving agricultural production and to guarantee the access to water resources
- National plan for electrification and connectivity: Improve and amplify the electrical and internet infrastructure and coverage
- Construction and improvement of health access and infrastructure; construction, reconstructions, and improvement of educational infrastructure
- National plan to construct and improve social housing

On the other hand, the conservation and sustainable use of natural capital, should direct projects towards an integrative territory organization to decrease the activities that cause environmental deterioration; improve environmental governance in the head of Ministry of Environment and Sustainable Development; recover and conserve strategic ecosystems, for example, through the implementation of ecosystems services payments (DNP, 2016). For instance, United Nations Colombia (2014) suggests that activities like industries based on the use of biodiversity, forestry, ecotourism, sustainable farming systems, exportation of ornamental fish, commercialization of natural products, medicinal plants, oils, among others, are good options to explore. In addition, an environmental consultant for the High Council for Postconflict (Interview VIII) not only sees the PDETs as a possibility to have alternative development activities with a sustainability orientation but also indicates that this has implication for all economic sectors in the country. So this development has to happen with some limitation regarding strategic ecosystems. She expresses that "...of these PDETs what I see is the possibility of productive developments that hopefully are the most sustainable possible productive alternatives. And that is a big challenge for the country and that also implies being able to work with hydrocarbons, mining, with all sectors... Now, with some limitations of not touching strategic ecosystems" (Interview VIII).

This notorious agreement emphasis on territorial aspects relies on the fact that war has been a determining aspect of ways to occupy the national territory, this process has been frequently spontaneous and in absence of a planning process (Morales, 2017). Especially in places with a high incidence of the conflict, there is a history of problems with the territory organization related to the existing planning processes deficiency, jointly with the institutional weakness of local authorities. This dynamic has created conflicts about land uses and occupation as well as big gaps between rural and urban areas. The National Planning Department in Colombia (Departamento Nacional de Planeación, 2015) has established that, regarding planning tools, 85% of the POT in the country are outdated and only 3% of these include rural areas.

In the same way, the protected areas (including badlands, wetlands, indigenous reserves, among others) are not well delimited or their precise delimitation is in process (is the case for Natural Parks).In municipalities with high war incidence, this situation is alarming as 42% of forests and 50% of natural parks are located in there. Figure 7 shows the distribution of post-conflict municipalities and the overlap with these with natural parks and forest reserves.

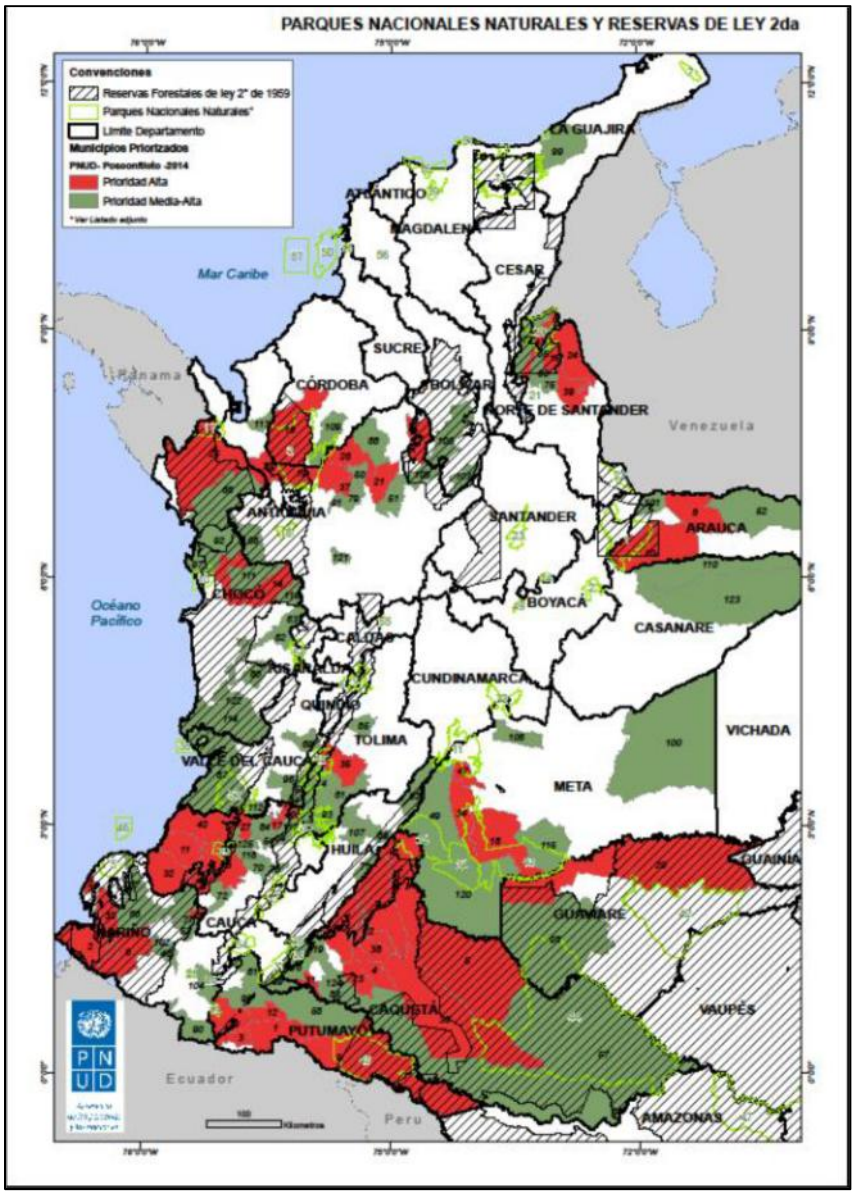


Figure 7. Post-conflict municipalities and overlaps with Natural Parks and forest reserves. Source: (United Nations Colombia, 2014 p.36). Legends: Reservas Forestales de Ley 2ª de 1959 (Forest reserves Law 2nd of 1959), Parques Nacionales Naturales (National Natural Parks), Límite Departamento (Department Limit), Prioridad Alta (High priority), Prioridad Media-Alta (Medium-High priority).

The conditions previously described post-conflict municipalities make an integral planning process of the territory, and its sustainable exploitation, difficult. On the other hand, in regards to land-use issues, in areas most affected by the war, between the 25% and 50% of the territory has land-use conflicts for reasons of over or underutilization. For instance, in the amazon region, it has been identified inadequate land uses in 35% of the territory. Also, 35% of the national territory is used for cattle raising when only 17% should be dedicated to this activity; and only 50% of the areas that could be used for agriculture are cultivated (Ministerio de Agricultura, 2014). Consequently, in the Pacific area, the illegal crops and illegal exploitation of minerals are the biggest problems. Finally, in the center of the country (Antioquia and Eje Cafetero), 13.000 hectares are illegally deforested annually and there are conflicts on land use in the 25% of the area (DNP, 2016).

As a response to these problems, the peace agreement sets up the elaboration of an environmental zoning (one for each PDET zone) and the closure of the agricultural frontier (cierre de la frontera agrícola) and to protect the areas of special environmental interest. This environmental zoning must update (and amplify if necessary) the inventory of forest reserves, high biodiversity areas, strategic and fragile ecosystems, basins, wetlands and other hydric resources. In addition, it indicates the adequate land uses, this with the aim of protecting biodiversity and the civil right to water access ("Acuerdo Final para la Terminación del Conflicto y la Construcción de una Paz Estable y Duradera," 2016). This environmental zoning is going to be an important resource of information when designing the PDETs.

To date, the Ministry of Environment has published a methodology for doing the environmental zoning and with this outcome has done already nine environment zoning areas, (of 16 PDTs zones identified), that concurs in a 70% with the potential prioritized zones (Interview VIII). The government is expecting to have the 16 environmental zoning at the end of 2018. Nevertheless, according to the plan, the PDETs must be finished by March of 2018 (Interview IX).

5.2. *Planning process under regular context and under post-conflict context*

Conditions for the planning process of PDETs vary significantly from the regular planning process in Colombia. First, there is a new institutional arrangement to implement the compromises signed in the peace agreement, and second, the planning process must be done under considerably less time and resources. In this subsection, the planning process under regular and post-conflict context will be explained. In addition, it offers a brief explanation on how environmental considerations are taken into account during planning.

A. The planning process in Colombia: definition of policies, plans, and programs.

Colombia is a republic divided administratively and politically in 32 “departments” and the capital, Bogotá. At the same time, these departments are divided into municipalities, as the second order administrative division, with a total number of 1.122 municipalities in the country. The resources are distributed from the national government to the departments and from there to the municipalities. The highest authority in the departments are governors and mayors in the municipalities. The territorial entities are the departments, municipalities and additionally districts and indigenous territories. Districts are municipalities with a special legal, political, fiscal and administrative regime.

Planning in Colombia is a decentralized process in which development is defined in three existing levels of governance: National, departmental and municipal. The main planning tool is the development plan, this is a political, technical, democratic and participative instrument where different territorial entities define decisions, actions, means and resources to execute in a specific governmental period. The development plan must be articulated with policies, programs, and plans proposed in the different government levels (DNP and ESAM, 2007). The National Development Plan is the most important governmental tool of public policies management and the main “road map” for the planning process in the country (Interview VI), this establishes direction for PDT which are at the department, municipal and district levels.

The planning system in Colombia can be divided into three phases: Formulation and approval, implementation and monitoring and accountability. The following figure 8 shows the three steps and the different instruments used:

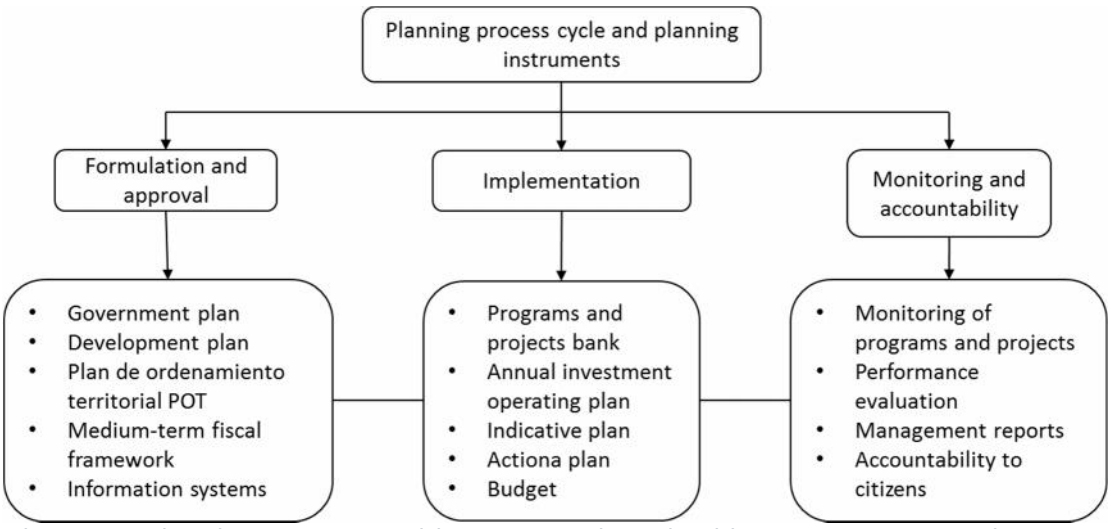


Figure 8. Planning process and instruments in Colombia. Source: DPN and ESAM (2007, p.13)

Regarding planning authorities, the next figure shows the authorities and institutional arrangement for planning in Colombia:

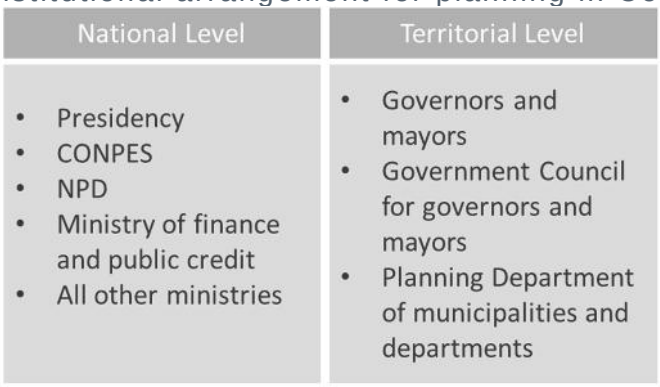


Figure 9. National and territorial authorities in Colombian planning process. Adapted from DPN and ESAP (2012, p.64)

The President is required to produce a National Development Plan PND to provide as a ground for policies for each elected term (four years). The role of the National Planning Department is to design, implement and monitor this PND by developing public policies in coordination with ministries and different territorial entities. It is important to clarify that the most important policy co-ordination institutions in the government is the National Council for Economic and Social Policies CONPES (OECD,2013) as an entity for advising the national government in regards to all economic and social development issues. To reach this, it coordinates and orients the other actors in charge of economic and social directions in the government by publishing CONPES documents. The NPD functions then as a technical secretariat, by coordinating all the process and presenting the necessary information to build the CONPES documents (Gaviria, 2016). As it can be seen in this arrangement, the planning process in Colombia follows a top-down process.

In Colombia, the inclusion of environmental issues in PPPs is not mandatory, nevertheless, there are guidelines regarding environmental management in the National Development Plan in each presidential term. Also, the vision regarding the environment depends on global agreements that Colombia sign and the suggestions from each government to include the Sustainable Development Goals proposed by United Nations Assembly in 2015. Also, during the proposal of CONPES documents, there are technical instances in which environmental issues can be discussed.

Regarding SEA use in the planning process, the NPD published the first SEA guide in Colombia in 2004 under the name “Una propuesta conceptual y metodológica para la aplicación de la EAE en Colombia DNP” (A conceptual and methodological proposal for SEA application in Colombia). Nevertheless, they do not use SEA to define PPPs. According to one DNP employee (Interview VI), they have seen the SEA implementation in different sectoral plans and their role has

been related to ensure that the assessment takes into account the instructions that MADS has presented in their policies. Moreover, this also accounts for strategic ecosystems in the country and protected areas. This person also explains that the SEA procedure has been proposed for the construction of some CONPES documents but not as a mandatory requirement. Instead, the tool is proposed when it seems to be necessary for the sector.

B. Planning process in Colombia in the post-conflict context

The planning process under the post-conflict context includes the design, implementation, and monitoring of PDETs that are going to take place in prioritized municipalities. The entity in charge of doing this is the ART (more information about institutional arrangement will be presented in the next section). The ART defines the PDET as a "sub-regional program built through the effective participation of actors in the territory, for the transformation of rural areas and to reach an equitable relationship between countryside and cities" (Colombian Government, 2017).

A government official working for ART general direction (Interview IX), explains that they have developed a methodology for the construction of PDETs as a result of communities' joint work. She explains: "...We are already working on a methodology that is born from working with communities..." (Interview IX). According to her, the planning procedure has two crucial moments: The first is the moment of preparation and the second is the definition of the PDET in a participatory way.

The preparation stage is done in two steps: the first is a diagnostic in the territories that involves talking to key stakeholders from the sub-region for a better understanding of how they are organized and to receive specific orientations since every territory has it dynamics. A second step is to do a pre-assembly in which the results of the diagnostic are discussed with some members of the community to improve information.

After the preparation moment, the PDETs begin to be constructed when diagnostic information presented in the pre-assembly is socialized and discussed in the Asamblea comunitaria (Community Assembly) with the aim of complement and validate it. "All the community in these territories must be present in the Community Assembly" (Interview IX). The participatory construction can be understood from the figure 10.

Figure 10. Methodology to build PDETs. Source: (Colombian Government, 2017). Legends: Asamblea comunitaria (Community Assemby), Comisión Municipal de Planeación Participativa (Municipal Commission for Participative Planning), Comisión Subregional de Planeación Participativa (Subregional Commission for Participatory Planning)

At the base of the pyramid is the Community Assembly. This assembly is composed by people from the different veredas* in the region, representing all the community. This veredas form clusters called "núcleos veredales". Here, thematic boards are divided according to the national plans intentions agreed in the peace agreement (see previous section 4.1.1), environmental aspects of development are going to be part of these thematic boards. In these boards, information about community needs are discussed by all the members, according to the government official perception (Interview IX) here is where "the construction of the territory vision starts". This stage will start once the FARC members are re-integrated to civil life so they can participate as community members.

After getting a consensus about the development needs of the community, the information is transferred up the pyramid to the "Comisión Municipal de Planeación Participativa" (Municipal Commission for Participative Planning). At these level, delegates from communities present their demands to different municipal authorities such as the mayor or any municipal entity that has a presence in the territory and wants to participate in the exercise.

Finally, the last level in the pyramid scheme is reached, where delegates from the community (level one) and municipal entities (level two) deliver information to the "Comisión Subregional de Planeación Participativa" (Subregional Commission for Participatory Planning) to sub-regional authorities like governors and any entity present at the departmental level.

Vereda*: specific places in which people have settled in rural areas. The aggrupation of veredas result in corregimientos and these are part of the territorial division in municipalities.

PDETs have to be ready in nine months, therefore, the previously described methodology has to be applied at the same time in the 16 PDETs zones. Starting the exercise in June and finishing in March 2018. What is notorious in this planning process is its participatory aspect, which makes decision-making a bottom-up approach. This is a great distinction from the regular planning process in Colombia.

In regards to the environmental considerations of these PDETs, a consultant working for the team in charge of environmental issues in the High Council for Post-conflict Office, comments that this group has three main focus: the environmental zoning, the closure of the agricultural frontier and finally to have clear information about appropriate land uses. She clarifies: "...point one (of the peace agreement) contains four things that are specific: one, is the participatory environmental zoning; two, the closure of the agricultural frontier; three, a proper use of the soil ... therefore...these are the three points that interest us" (Interview VIII).

The environmental zoning is an exercise to establish which zones have strategic character, or that are sensitive to climate change, in need of ecological conservation or that can be used for sustainable practices. The main interest of the environmental group is to carry out these three commitments described in the peace agreements, especially, they want this information to be an important input for the design of PDETs and to reach "development most in line with land uses" (Interview VIII).In addition, this consultant considers that alternative and sustainable development activities will help to reduce the number of people in post-conflict areas working in illegal activities like coca crops planting, deforestation, and illegal mining. About this recognition, from the government and the FARC, of the importance of including environmental issues in the peace agreement a member of the ART highlights "I also think that it is important that the FARC embraced this (the topic about environmental matters) and when you read the agreement you see that the environmental issues are (included) in point one and in point four. They also recognize that there are some ecosystems that must be recovered and that one must promote all the development of activities that are sustainable. Therefore, I think that (environment) topic is key" (Interview IX).

On the other hand, from the perspective of this last mentioned civil servant working for ART, environmental issues should not be only the ones included in an explicit manner in the peace agreement. She comments "...internally (inside the ART) what I have tried to convey is that the environmental issues should not be restricted to an environmental project, but that this must be from the decision-making scenarios" (Interview IX). She makes a distinction between operative and strategic environmental aspects. On one hand, the operative issues correspond to the discussion about environmental zoning, and closure of the agricultural frontier. At this operative level they will have

three lines of action: sustainable production strategies, environmental strategies, and environmental governance. On the other hand, in regards with strategic dimension, she strongly believes that environmental dimension must be integrative, participative and cross-cutting. Integrative in the sense that there are also technical, legal, political, institutional and cultural circumstances to consider. Participative because all actors must be part of the exercise, entities with knowledge about environmental conditions should give inputs about the territories and this must be discussed with the community. It also must be cross-cutting since the responsibility is not just at the project level, it goes beyond that, environmental dimension should be present in the decision-making process to define in an effective way which alternatives are better than others. Finally, she argues that the interventions in the municipalities should contribute to a sustainable use of natural resources and the process they are leading should allow the decrease of post-conflict negative effects.

3.3. Stakeholders in post-conflict planning process

As explained in chapter 2 (methodology), of the present document, some relevant stakeholders for the undertaking of SEA to PDETs were identified. Some of these actors have been mentioned in previous paragraphs. Notwithstanding, this section explains in more explicit way the different institutions involved in the post-conflict planning process.

The National Planning Department (DPN) published in 2016 a strategy for institutional preparation addressing the peace and post-conflict in Colombia. This document serves as a framework to orient policies and programs at different government levels (DNP, 2016). In this document, the Government has settled an institutional arrangement in charge of orienting, coordinating and monitoring the post-conflict interventions. The following diagram shows this arrangement and after that, some brief explanation about the most relevant entities is given

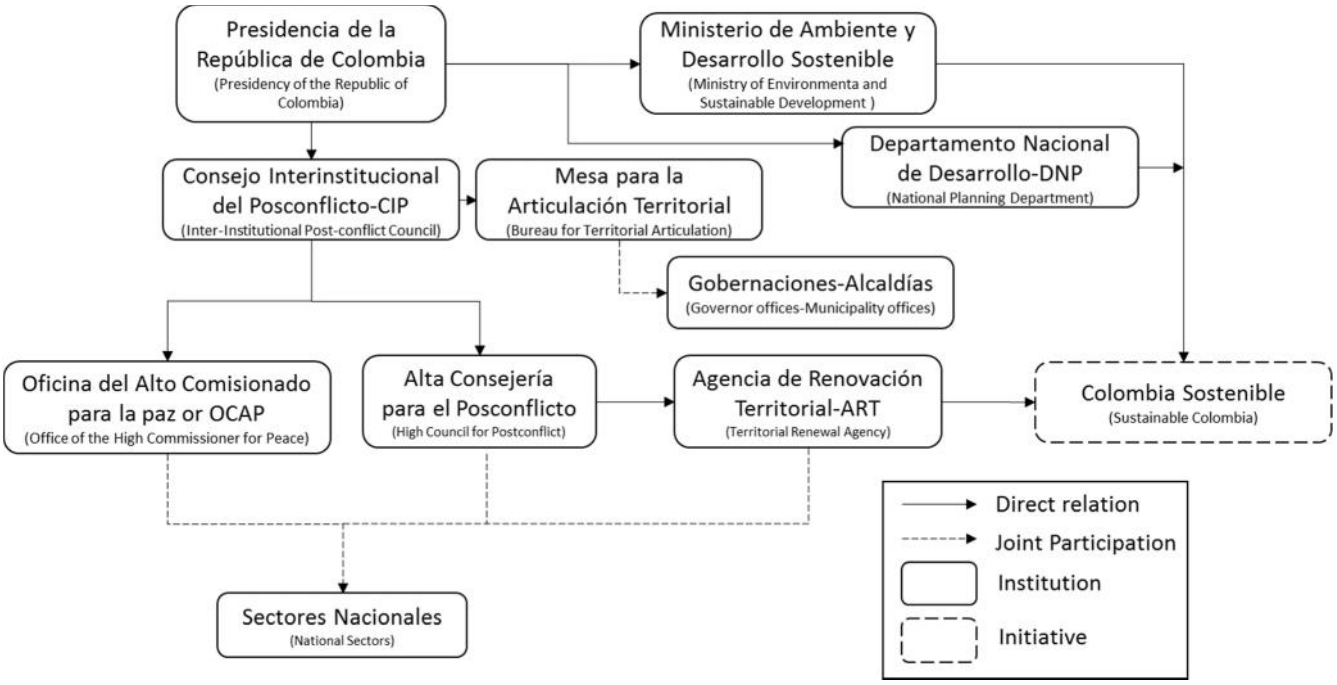


Figure 11. Institutional coordination scheme for peace and post-conflict, adapted from (DNP, 2016 p.65)

- Consejo Interinstitucional del Postconflicto-CIP (Inter-Institutional Post-conflict Council): The CIP is the maximum decision-making body for planning, monitoring and verifying the peace and post-conflict actions and recommendation defined.

- Mesa para la Articulación Territorial (Bureu for Territorial Articulation): This part of the CIP is a mechanism to maintain open and continuous communication with local authorities about the peace agreement plans implementation and other post-conflict conflicts in national territory

- Gobernaciones y Alcaldías (Governors and municipalities offices): they will be in charge of defining priorities that must be included in PDETs.

- Oficina del Alto Comisionado para la Paz-OCAP (Office of the High Commissioner for Peace): Is in charge of giving advice to the President regarding the structuration and development peace policies, formalizing and celebrating of peace dialogs, involving different society sectors on the peace process, among others.

- Alta Consejería para el Posconflicto (High Council for Postconflict Office): Its function is also to give advice to the President in the formulation, structuration, and development of policies and programs related to peace and post-conflict. This entity also has to verify the accomplishment of the programs and their alienation with the Government Plan.

- Agencia de Renovación Territorial-ART (Territorial Renewal Agency): It coordinates the interventions in national and local entities in rural zones most affected by war. This, through the implementation of PDETs. Regarding these plans, this agency has the responsibility of developing and implementing a different mechanism to ensure the participation of public and private territorial actors, civil society, social, community and productive organizations in the construction of plans, programs and projects for territory intervention. At the same time, they must develop and implement participation, monitoring and evaluation mechanisms in the local, regional and national level for the programs defined.

  Since the approval of the peace agreement in 2016, this agency has been officially operating from February of 2017 with administrative, technical and financial autonomy.

- Iniciativa Colombia Sostenible (Sustainable Colombia Initiative): is a country-wide initiative designed by the Colombian National Government and Inter-American Development Bank, "that takes a systemic approach to addressing climate change, social inequality and post conflict challenges—built on the sustainable development goals" (Banco Interamericano de Desarrollo, 2015). This initiative will focus on rural development, climate change and sustainability in regions characterized by armed conflict. It is designed to support a number of programs and receive international funding for activities within twelve thematic groups: Mitigation and adaptation to climate change, Comprehensive care for vulnerable populations, Alternative development to replace illegal crops, Physical and social infrastructure for rural productivity, Environmental and social land use planning, Payment for environmental services, Recovery of areas degraded by mining and illicit crops, Alternative development of forests areas, Strengthening of local institutional capacities, Strengthening of National Parks and Protected Areas, Promoting silvopastoral and agroforestry systems and Results-based payment.

- Corporaciones Autónomas Regionales-CAR (Regional Autonomous Corporations): These are the regional environmental authorities in Colombia, as such, they have to prioritize and support the interventions regarding sustainability, territorial organization, and protection to areas of particular environmental importance under their jurisdiction

3.4. Applicability and relevance of SEA in Colombian post-conflict scenario

Conducting SEA has the potential to improve the environmental profile of a program or plan but this assessment requires time and financial resources. For this, it is important to define in which situations it is convenient to do it. In the case of mandatory SEA systems, as the European, there is a list of activities that must be object of SEA; but in countries where is not mandatory to conduct SEA,

as Colombia, some criteria are available to orient this decision. The guideline published by the Ministry of Housing and Territorial Development (Current Ministry of Environment and Sustainable Development) suggests that SEA must be applied to plans and programs that are related to agriculture, fishing, mining, industry, transportation, waste management, management of water resources, telecommunication, tourism, rural and urban land management and land use. Also, they propose some characteristics of plans and programs that should be object of SEA and characteristics of the type of effects that these plans and programs can have (Jiliberto Herrera and Bonilla Madriñán, 2008).

Nonetheless, the analysis of SEA pertinence and relevance, in this case, should take into account the characteristics resulting from the post-conflict context specifically. In regards with this, the main reason to undertake SEA in a post-conflict situation is to identify the risk and opportunities of programs or sectors that have the potential to cause the greatest environmental impacts and to ensure that this information is included in the decision-making process for developing post-conflict PPPs (Bouma, 2012). Another potential use of SEA is that it can help to develop proper frameworks for resources management, decreasing the possibility for renewed conflicts. Consequently, Verheem and Switzer (2005) suggest that the most important outcome of SEA should be on prevent natural resources from becoming a source of further conflict. Supporting this claim, a government official working for ART general direction maintains that “If we (ART) do not do this (considerate environmental dimension in renovation process of the territory) in an adequate way, we are going to prolong a conflict that has lasted 50 years, because we are going to generate other types of conflicts” (Interview IX).

Nevertheless, SEA may not be applicable in all post-conflict scenarios. Verheem and Switzer (2005) argue that resources should be addressed to SEA only when its priority can be demonstrated. They propose two criteria to determine whether or not to use SEA where both need to be met:

1. If environmental, including related social issues are a priority in reconstruction and only
2. If SEA is doable.

The authors provide a list of conditions to consider environmental issues as a priority in a post-conflict scenario. With the aim to discuss if SEA is relevant and applicable in the Colombian context, these criteria are applied.

Figure12. Environment as a Priority in Reconstruction. Source: (Verheem and Switzer, 2005 p.6)

The Colombian conflict features match with the characteristics described in figure 12 in points one and two.

First, the war has caused greatest impacts on natural resources in conflict communities. Morales (2017) argues that some of the main effects of war on the environment have been deforestation, loss of biodiversity, soil and water degradation as well as the increase in greenhouse gas emissions. The author asserts that four of seven causes of deforestation in Colombia are related to the conflict: forced displacement, illegal logging, illegal mining and plantation of coca crops. These last activities are some of FARC´s financing mechanisms. According to the NPD (Gaviria, 2016) 75% of deforestation activities happen in conflict municipalities, where deforestation rate is three times higher than in other places: 6.5 ha versus 2.6 ha (number of hectares deforested per every 1.000 hectares of forest). In total 3 million hectares have been deforested in conflict areas, generating around 1.300 tons of CO_2. At the same time, the financing of criminal activities has resulted in the release of toxic substances. For instance, the extraction of cocaine from coca leaves requires an intensive use of chemicals like Sulfuric Acid, which is very often released in soil and aquatic environments. The 87% of illegal crops are located in conflict zones, while 42% of Natural National Parks were affected by coca crops, putting in risk the water supply of 50% of the national population (20 million people). Other toxic

substances like mercury and cyanide are used for illegal gold mining. The 86% of national gold production in Colombia is done in illegal conditions, this practice has been identified in 36% of conflict territories. As a result, it is estimated that 75 tons of Mercury are released every year in Colombia (the second country in the world with more amount of mercury release after China). Additionally, the FARC have perpetrated attacks against oil pipelines, causing a spill of 4.1 million of oil barrels in the last three years (16 times greater than the amount spilled in Exxon Valdez accident). As a result of this, around 782 water sources were affected. The 60% of water sources in the country have been affected by illegal mining and oil spills (All these numbers were taken from (Gaviria, 2016)). Finally, the conflict has caused an internal forced displacement of more than six million people and their migration to big cities.

Moving the attention to point two of figure 12, the lack of an adequate planning process has a potential to damage areas of global environmental significance. The conflict zones house an important part of the country's natural heritage as well as zones with worldwide relevance due to their crucial role in climate change mitigation and equilibrium with continental ecosystems. For instance the coral reefs in the Caribbean, the tropical forest in Darién and Amazon and the moor system in Andes mountains. Conservation in Colombia forest is very important for the reduction in 20% of greenhouse gasses emission in 2030 (COP 21) since it is the eighth country with the highest forest cover in the world, and therefore a significant carbon sink (Morales, 2017).

On the other hand, regarding the second criteria of "doable", Verheem and Switzer (2005) do not explain the condition of doable in any explicit way. This must be taken into consideration since the condition of doable can lead to a wide discussion. Nevertheless, for the purposes of the current study, the understating of the "doable" character is linked with what these authors propose, which is:

SEA will be effective if at least three conditions are met:

1. There is an institution in the country that has the mandate and the capacity, including funds, to follow up on agreed actions. And willingness to take the lead in the SEA process and use its results
2. Key stakeholders are willing to participate
3. It is possible to involve stakeholders without putting them at risk.

As mentioned in the sections 4.1.2 (B) and 4.1.3, the government has defined an institutional arrangement for post-conflict activities and the ART plays a role of leading development activities. They have the mandate and capacity to include environmental issues in the planning process. Since the planning process is done in the territory and with the community, it can be said that stakeholders can be engaged without being in danger and ART.

However, more than capacity and mandate, SEA will take place if the willingness to do it is on the table. During the interviews, it was possible to identify that there is an ongoing discussion between UNEP and the High Council for Post-conflict Office about the pertinence and added value of conducting SEA to key post-conflict interventions, specifically the ones regarding mining.

In June of 2016, the President of Colombia, Mr. Juan Manuel Santos, requested to UNEP support in three main issues regarding Environmental Dividends of Peace, among them the "Undertaking strategic environmental assessments for key interventions, particularly for the improvement of tertiary road networks, the development of infrastructure and the promotion of economic alternatives" (United Nations Environment Programme, 2017, p.9). As a result, a scoping mission took place in Colombia in March 2017. According to one of the UNEP mission member team, the main goal of this intervention was "to define the scope of the support that UN Environment will give to the peace process, to sustainable development agenda and post-conflict in Colombia" (Interview III).

The results of this mission were presented on the 15th of March 2017 in Bogotá to several government members from Ministry of Environment, Mining and Energy Planning Unit (UPME), Territorial Renewal Agency (ART), High Council for Post-Conflict Office, among others (some of the people interview for the present study assisted to this meeting). During this presentation, UNEP members exposed their findings as seven "key concepts for consideration", the fifth point was related to Strategic Environmental Assessment. The mission team member that was interviewed declared that UNEP´s proposal was to perform a SEA in prioritized post-conflict zones for the mining sector, as a part of the collaboration, where they will be in charge of finding the monetary resources for funding the process (Interview III).

Nevertheless, in April of 2017 the same UNEP member, through an informal phone call, confirmed that the High Council for Post-conflict Office decided to exclude this recommendation of the report, and therefore the official document "Environment for Peace UN Environment´s proposal contribution to the post conflict development of Colombia" do not discuss the implementation of SEA "(United Nations Environment Programme, 2017).

Concerning the government´s position, one civil servant working for UPME comments that during the meeting, one of the discussion points was that the government does not need SEA to give an extra diagnostic (in a "over-diagnosed country") and generic orientations. On the contrary, the government needs to do evaluations that allow taking decisions about how to manage the environmental implications of development and investment interventions (Interview IV).

However, a consultant working for the team in charge of environmental issues in the High Council for Post-conflict Office

confirms that, for now, SEA is not going to be applied in the post-conflict context, first because they do not have funds to do it. Second, she recognizes that SEA is necessary but, specifically for the current relevant issues, a rapid response is required for investment decisions, and therefore, the orientation from the High Council for Post-conflict Office was another one. Finally, she believes that doing SEA could be interesting but that they should have been applied before as an alert system to indicate decision directions (Interview VIII). These arguments coincide with what Bouma (2008) has observed, namely, the governments in post-conflict countries may not see the relevance of mainstreaming environment in planning and decision-making in the early stages of reconstruction processes.

In contrast to this point of view, a government official working for ART general direction (see in figure11 that ART is part also to the High Council for Post-conflict) sees the important potential use of SEA, especially for the PDETs planning process (it is noteworthy to mention that the initial proposal of UN was to apply SEA to the mining sector and no to the PDETs). She awards the final decision of not doing SEA to the fact that, in the country, people are not recognizing the value of SEA results since it is not a very well-known tool and there is a lot of ambiguity regarding its purpose. With regards to this, she points out that “There is confusion still, the tool is not well known, and they are not giving it the value (the government). And, when they said it (referring to UNEP suggestions of doing SEA during the presentation of the scoping mission results) I said: perfect! Because it seems super cool if we do it because it would also serve a lot to give a little more impulse (to the tool)” (Interview IX)

Finally, to add some additional views to the current discussion, one government official working for the Ministry of Environment, a SEA expert in Colombia and a person working for the DNP, see the tool as appropriate fir the post-conflict scenario and as an opportunity for peace building.

The first one thinks that regional SEA (a SEA to PDETs has a regional character) are necessary to involve the different economic sectors in a region, giving a clearer perspective of the territories. He states “The instrument and the tool (SEA) are very appropriate (for applying in the post-conflict scenario) And, in fact, that is the reason why we are planning to make Strategic Environmental Assessments for a given region…So we believe that there would be very valid to apply a tool like this one, as long as the results of the study would be applied” (Interview I).

The person working for the DNP adds “The tool is valid and is becoming more necessary. Especially for what we are going to face regards to climatic changes and post-conflict. That forces us to think strategically all the sectorial planning with the environmental approach, that is a necessity” (Interview VI).

And finally, the SEA expert sees the post-conflict scenario as a unique opportunity to build new public policies and to take political decisions by consensus. With the vision of reinserted members of FARC, he believes that “this is a historical opportunity that is not going to happen again, is one time now and it won’t happen again” (Interviews VII).

The potential use of this thesis, along with the challenges it addresses, is to provide relevant information and solid arguments to the ongoing discussion about if SEA should or not be applied to PDETs. The initial results in this chapter have the purpose of describing the context in which SEA will take place, this is a first step for recognizing potential opportunities and barriers to undertake SEA.

4. INSTITUTIONAL FRAMEWORK FOR SEA IN COLOMBIA: THE BROADER CONTEXT

Beyond the post-conflict specific conditions, the recognition of the institutionalization of SEA in Colombia is a relevant matter to understand the broader context, in which SEA takes place. This information is presented in three different institutional levels: social embeddedness, institutions of governance and action arena as proposed by (Slunge and Tran, 2014).

4.1. Social Embeddedness

Two main aspects stood out from the interviews regarding cultural aspects in Colombia: First, the short term approaches and need to address issues that demand urgency. And second, prioritization of decisions in economic development. Regarding the first aspect, a SEA expert thinks that the short term approach is a result of the four years period that each president has for showing results of its mandate (Interview VII) and therefore, ministries and public workers have to show results as well. Beyond this short-term view in the government, Colombian culture has a focus on achieving quick results and less consideration regarding future issues according to Hofstede's cultural dimensions of Long Term Orientation Index (Hofstede, 2017). An example that illustrates the limitations that short-term thinking has on the implementation of SEA in Colombia is portrayed through the fact that the counselor working for the environmental group in the High council for Post-conflict office expressed the need to focus their efforts on providing at least the minimum elements agreed in the peace document: the environmental zoning and the closure of the agricultural frontier (Interview VIII). Another example is the lack of priority given to SEA concerns regarding the agenda that the productive sectors have with the environmental ministry. As explained by one SEA expert working in MADS , the current Ministry of Environment discusses urgent aspects related to norms accomplishment or other punctual matters with other ministries, instead discussing long term affairs (Interview I).

A second aspect is the prioritization of decisions in economic development. In Colombia, environmental issues are seen as an obstacle for development and only as additional requirements to implement their actions and plans (Interviews I, VII, IV). According to one SEA expert: "When we started to talk about SEA there was a prevention for it to be a new requirement (in economic the sectors)". In consonance with Partidário (2000) and Clark (2000), some potential users of SEA prefer to ignore the tool than to increase the nature of decision-making process for information provided in environmental assessment procedures.

These two realities corresponding to culture conditions could remain the same for several years, as Williamson (2000) states, institutions in this level change very slowly: in centuries or millennia.

Therefore, education efforts about SEA should be done as well as its promotion to make sectors more aware about its use and potential value.

4.2. *Institutions of Governance*

The legal framework for applying SEA in Colombia is a crucial aspect for understanding the dynamics that affect the use of this assessment tool in the country. For that reason, the next paragraphs give a brief explanation about environmental legislation and its compliance in Colombia, the main environmental authorities and their roles. A discussion about the legal aspect of SEA in Colombia is presented.

The 1991 Constitution Chart and 99 Law in 1993 are the umbrellas for the conservation of natural resources and the environment in Colombia, since that time the amount of laws and regulations about the environment have increased notably. Part of these regulations is the Decree 2041 of 2014 about the use of Environmental Impact Assessment for projects and the environmental license. However, the OECD (2014) has identified overlapping and inconsistent environmental requirements with other sectors like extractive industries, energy, and agriculture. At the same time, the OECD claims that there is evidence for a high level of non-compliance of current legislation and lack of capacity of environmental authorities to deal with this situation (OECD and ECLAC, 2014). They also point out that the convergence of these conditions makes difficult to assure coherence within environmental bodies and between environmental and other sectors. Concerning the institutional arrangement, Colombia has a variety of entities in charge of environmental policy definition, execution and monitoring at the national and sub-national level.

In regards to environmental authorities, at the national level, in 2011 the Ministry of Environment and Sustainable Development MADS was established (before that it was merged with the Ministry of Housing, Urban Issues, and Territorial Development) as well as the National Environmental Licensing Authority ANLA. This last one is in charge of evaluating environmental impact assessment reports, licensing, and carries out compliance monitoring (Decree 3573 of 2011). At the subnational level, there are 33 Autonomous Regional Corporations CARs, they have the ability to transpose national policies but also develop new ones in the territories under their jurisdiction, impose taxes, issue licenses and permits and ensure compliance of regulations (Ley 99 de 1993). Moreover, municipalities, districts and metropolitan areas with more than 1 million people are allowed to perform the same functions as CARs, they work as urban environmental authorities

Besides these entities, some ministries have responsibilities on specific environmental issues and others have created environmental departments to consider environmental aspects of their work. In

addition, there are agencies to supervise the use of natural resources such as the National Hydrocarbon Agency, the National Mining Agency and the National Fishery and Aquaculture Authority. For coordinating joint efforts among ministries about environmental concerns the National Environmental Council was created in 1993, even though this Council does not have policy integration functions and the decisions taken in that instance are not mandatory. The OECD maintains that this council does not meet and the compromises discussed are rarely followed (OECD and ECLAC, 2014). Finally, as the main orientation document for policy development, the PNDs play an influential role in addressing the environmental and sustainable development agendas in the country (Sánchez Pérez, 2002). The 2006-2010 PND was the first to dedicate a chapter on the environment, followed by 2010-2014 plan by including environmental sustainability transversally. The OECD suggests that the integration of environment into PNDs is essential for mainstreaming environment in economic policies but also that the way how plans are defined limits this integration (OECD and ECLAC, 2014).

In accordance with this, one aspect that came to light during the interviews was the promotion that the last national development plans gave to the implementation of SEA in the country, the PND 2010-2014 chapter VI had a specific indication “To promote the inclusion of environmental variables in sectoral planning, through the formulation of Strategic Environmental Assessment of agricultural and rural development, transportation, mining and energy and living and cities sectors” (PND, 2010). A SEA expert strongly argues that by mentioning this, the government reveals the will of using SEA, even when this does not give a binding character (Interview VII). He sees as a “shame” that this mention was erased from the current PND (2014-2018). In response to that, the DNP officer says that SEA was taken into account in the PND “draft version” but it was discarded in the official one (Interview VI). Despite this, a government official working for MADS and in charge of conducting some SEA, says that even if SEA is not directly mentioned in the current development plan, they have the intention of conduct some SEA during the current presidential mandate (Interview I). But at the same time this last interviewee says that the goal was to perform one SEA each year from 2016 to 2019, but due to lack of funding and interest in economic sectors, and prioritization to other aspects, only two can be done by 2019 (Interviews I, VI and VII). Finally, the 2010-2014 PND was not the first plan mentioning the use of SEA, the 2002-2006 PND in chapter II defined the implementation of six SEA in the critical productive sectors with the aim to reduce the externalities caused by a deficient environmental management. In the same way the 2006-2010, in chapter V the performance of SEA in the transport, infrastructure, mining and energy, tourism and environmental health sectors pretended to strength SEA implementation (Viña Vizcaíno and Amaya Navas, 2016).

Currently, in Colombia, it is not mandatory to apply SEA to any type of activities despite the knowledge, the guidelines and the use of the

tool since 2004. This is a neuralgic topic that raises diverse opinions and perceptions about the legal aspect and also about which sectors should be responsible for embracing the use of the tool. To illustrate this, different positions about the non-mandatory aspect of SEA are shown. On one side some expert claims that there is not a direct correlation between the obligation to conduct SEA and its use since in countries where it is not a legal requirement as well as in countries where it is, have both successful and not-successful examples, like in Colombia (Interview I); this opinion is followed by a DNP worker who adds that there is no need of an extra norm in "the country of the norms", making reference to the wide range of norms in the country (that as described before, are often not fulfilled) and it will add an extra requirement for the economic sectors (Interview VI); Amaya Navas, O., a SEA expert, concurrently contends that making SEA mandatory can generate a "cultural barrier" in the sense that it can stop progress of a project and sometimes social and economic conditions of projects cannot wait until a SEA is conducted to be finished. Besides, this type of assessments are expensive and SEA norm cannot be pigeonholed due to its many ways to be carried out (Interview VII).

A discussion about this matter was presented in the book "Avances y Perspectivas de la Aplicación de las EAE en Colombia" in 2005 (Amaya Navas and Bonilla Madriñán, 2005), in which Jiliberto Herrera,R (an international SEA expert) and the DNP maintain that for applying SEA in Colombia its mandatory aspect should be evaluated and a transition period before making it obligatory should be considerate. Contrasting these opinions, Bonilla Madriñán.M, another book´s author shows her disagreement by saying that SEA should not be mandatory in Colombia because of the limitation on environmental authorities' discretion; the potential use of SEA as an additional requirement for decisions related with development and investment; the high costs associated with SEA; and the inability to apply the SEA always in the same way. Nowadays, this last mentioned expert has changed her point of view, she argues that the last ten years have given enough experience on SEA and maturity to the country, therefore it is a good time to start promoting its mandatory character for certain policies, plans, and programs. Also, making SEA a legal requirement can allow sectors to allocate economic funds to undertake this type of assessment but more important, for implementing and monitoring its results (Interview IV). The OECD also mentions that if the productive sectors do not have environmental targets, they have little incentives to allocate resources for environmental activities and environmental impacts are not part of their performance reports (OECD and ECLAC, 2014)

Simultaneously, all the experts mentioned before agree in one aspect: SEA use should be promoted and a responsibility of economic sectors, this is because their activities are the ones potential to harm the environment, because SEA improves the plan or program planning by having environmental considerations and because an inadequate

management of natural resources will affect all economic sectors in a direct or indirect ways (Interviews I, IV, VI, VII). Although they also recognize that this is a big challenge because there is not a wide interest from economic sectors to drive enough attention to environmental concerns, actually the OECD observes that there is a lack of coherence between sector plans and environmental goals, for this same reason they have proposed to Colombian government to apply SEA to major programmes and projects (OECD and ECLAC, 2014). In fact, the interviewees mention that priorities for economic sectors are centered in achieving development and productions goals, and taking care of the environment is the last of their worries. In this case, experts provide some ideas to encourage the implementation of SEA in productive activities. The main proposal is to show to the different ministries the successful cases and what has been achieved after the SEA, to evidence how early identification of environmental impacts can improve planning process and also can avoid problems in licensing stages; in general to implement pedagogical strategies about the added value of undertaking SEA. Another suggestion is to start talking with presidential candidates to make aware them about this type of assessment and the importance of including it in the national development plans. Besides, two of the interviewees insisted on the need to conduct SEA at the regional level, where several sectors converge including the private sector. Finally, taking SEA discussion to the National Environmental Council will be a way to get ministers and high-level decision makers aware of SEA benefits (Interviews I, IV, VI, VII).

4.3. Action Arena

In the following section background on SEA use in Colombia, its current application and practical related lessons are presented.

A. SEA background and current experience on SEA in Colombia

Some authors assert that procedures applying SEA principles (at least regarding its main purpose of including environmental issues in the decision-making process) were conducted in Colombia in the mid-nineties to some projects. By this time the DNP was promoting studies with strategic orientation like the evaluation for alternatives to locate a port in the Pacific (1992); the development of a strategy for dangerous waste management in Bogotá (1995); the departmental road program; and the privatization of the electrical generation infrastructure (Viña Vizcaíno and Amaya Navas, (2016) and DNP (2004)). Even though, these type of exercises are still far from applying entirely SEA principles, Amaya Navas (2005) provides a list of reasons that make these examples non-SEA oriented, among them: the lack of public participation component, the absence of attention to build the baseline motivating the assessment, the poor disclosure of the results report and socialization of action plans suggested.

Afterward, the first assessment made under the SEA concept and methodology was conducted in 2004 in the mining sector, followed by other assessments shown in figure 12. Between 2002 and 2016 in Colombia less than 20 SEA have been undertaken in total. Currently, the SEA use is promoted by MADS in the different economic ministries through the Inter-ministerial agendas, a communication channel in which the ministry of environment defines long term actions jointly with the other ministries (Interview I).

Interviewees from MADS, UPME and SEA experts were asked about their perceptions in relation with some of the SEA cases mentioned in figure 13 in which they were involved. As a result, aspects of SEA effectiveness, its influence in the decision-making process, funding and capacity to conduct SEA are discussed in the following section.

National Development Plans PND	Year	Strategic Environmental Assessment	Sector
PND 2002-2006 "Hacia un Estado Comunitario"	2004	Interconexión Energética Colombia-Panamá	Mining and Energy
	2006	SEA Guidelines for ten agriculture sub-sectors: shrimp, coffe, porcine, corn, cotton, flowers, bananas, palm, potato and raw sugar cane	Agriculture
PND 2006-2010 "Estado Comunitario: Desarrollo para todos"	2007	Programa de Aprovechamiento Sostenible de Minerales en la Sabana de Bogotá	Mining and Energy
		EAE Minería del Carbón en el Cesar Central	Mining and Energy
		Lineamientos de política de energéticos incluidos los combustibles líquidos y sus precios en Colombia	Mining and Energy
	2008	EAE para la formulación de política en materia de salud ambiental para Colombia, con énfasis en la contaminación atmosférica de centros urbanos	Health and Environment
		EAE para biocombustibles	Mining and Energy
		EAE vía Pasto-Mocoa	Transport
		EAE Plan Nacional de Hidrocarburos 2020	Mining and Energy
		EAE en Distritos Mineros	Mining and Energy
	2009	EAE turístico en la zona de Barú, Distrito Turístico de Cartagena de Indias	Turism
	2010-2011	EAE Expansión del sector eléctrico para el Plan de Expansión de Referencia de Generación y Transmisión	Mining and Energy
PND 2010-2014 "Prosperidad para todos"	2012	Implementación de EAE en el Plan Nacional de Hidrocarburos 2020	Mining and Energy
		EAE del Plan Nacional de Ordenamiento Minero	Mining and Energy
	2013	EAE del sector agropecuario Altillanura y Alta Montaña Cundiboyacense	Agriculture
	2014	EA y Social Estratégica (EASE) en el Pacifico Colombiano y la formulación de estrategias y lineamientos integrales de sostenibilidad ambiental.	Mining and Energy
PND 2014-2018 "Todos por un nuevo país"	2014	EAE de la Política Portuaria para un país más moderno	Transport
	2016	EAE plan maestro de transporte intermodal (In review)	Transport

Figure 13. Strategic Environmental Assessments conducted in Colombia from 2002 to 2016. Sources: Viña Vizcaíno and Amaya Navas (2016, pp.178-179) and Cabeza Alarcón, M.C (Personal communication, 27 February, 2017)

A. SEA successful

Participants of this study were asked about their views about successful SEA exercises, by success it means cases in which the recommendations from the final SEA report (if not entirely some of them) were taken into consideration. One SEA expert working for MADS mention that there are some examples as the establishment of a protocol for incorporating the recommendations that resulted from the SEA done in 2008 for the “Plan Nacional de Hidrocarburos 2020” (National hydro carbon plan) from the mining and energy sector. In the same way, a protocol for the sustainability of mining in the Bogotá Savannah as a result of the SEA done in 2007 for the sustainable use of minerals in this zone was established (Viña Vizcaíno and Amaya Navas, 2016). It is noteworthy that both examples are related to the mining and energy sector, in which more than 50% of the SEA done in Colombia have taken place (see figure 9). About this special attention of this economic sector to this type of assessment, one SEA expert working for UPME asserts that the mining and energy sector is highly regulated by laws due to its environmental impacts and that is the reason why they are constantly looking for tools to improve the sector development. Maybe for that reason this sector through the use of SEA and risk assessment methods they have been incorporating some procedures that other sectors have not (Interview IV). On top of that specific examples, the SEA experts in MADS also consider as an achievement in SEA process the fact that they have defined a follow-up methodology to recommendations made in the assessment, this is discussed in the inter-ministerial agenda. The main goal of the follow-up exercise is to evaluate the pertinence and possibilities of applying the SEA suggestions in the short, medium and long term and monitoring the implementation of these measures.

On the contrary, a SEA expert detected that many SEA assessments result on "thicken the shelves of public institutions" for diverse reasons. Namely was the SEA on “Energy policy guidance, including liquid fuels and their prices”. The main goal of the mentioned SEA was to assess the decision-making process by identifying key stakeholders and appropriate decision moments to introduce the environmental concerns into political decisions. The assessment included a diagnosis about the administrative and institutional framework focused on identifying the capacity of entities engaged in applying the environmental measures defined. Unfortunately, there was little interest from participants institutions and the ministry of mining and energy, therefore the result was productive to improve knowledge but insufficient to generate changes in environmental development (Viña Vizcaíno and Amaya Navas, 2016; Interview VII).

B. SEA influence in decision-making and SEA awareness level

As mentioned in the last example, despite having relevant outcomes from SEA studies, the recommendations and conclusions from them often result in just extensive reports. This fact drives the

attention to question the influence of SEA in decision-making processes. In relation to this, interviewees claim that in general SEA does not have a big influence on decisions. A SEA expert working in UPME argues that in spite of this situation, SEA reports provide important information to the sectors about the context in which PPPs are happening but they have not taken benefit from it (Interview IV). About this, SEA experts in MADS observe that the SEA results and discussions are done at a technical level and at the end the technicians are not the ones taking the decisions in economic sectors and ministries (Interview I). They insist that vice-ministers are the ones that are supposed to attend to the inter-ministerial agenda but this happens rarely because they are busy and do not have time, so they delegate some directors or even external counselors for attending these meetings. Moreover very often, these delegates do not take the relevant SEA conclusions and recommendations back to the vice-ministers. Apart from this, staff turnover in ministries are high at all bureaucracy levels, so very often the discussion about environmental issues between MADS and other ministries have to start from the scratch.

The current literature about the impact that SEA has on decision-making is extensive (see Aschemann, 2004; Kørnøv and Thissen, 2000; Morrison-Saunders and Arts, 2004; Nitz and Brown, 2001; Retief, 2007; Sadler, 2004; Thérivel and Minas, 2002). Runhaar and Driessen (2007) discuss some studies about this topic and observes that researchers obtain a different list of factors affecting SEA impact on decisions, mainly because impacts that have been observed in empirical cases are not clearly defined and there is a lack of attention to delve into the decision-making context. In this sense, the opinions mapped during the interviews in the current study are valuable and they can give some idea about possible practical reasons why SEA is not causing changes in the decisions; nevertheless, this is still a superficial analysis about it. For a better understanding of SEA influence on decisions regarding PPPs it is important to conduct a more specialized analysis, without ensuring that these studies will contribute to change drastically the current situation.

On the other hand, both the use and influence of SEA on planning processes can be affected by the level of awareness about the tool. If planners, ministers, directors, and individuals involved in decision-making process do not know the tool or they are not aware of the potential benefits that it can provide, is going to be less likely that they agree on using it or they take into considerations the results of the SEA already done. And this was the most repetitive aspect during the interviews. It was mentioned often by SEA experts working in the public sector that the level of awareness about SEA is low; also, there is fairly interest and conscience about its importance in the different productive sectors, the DNP and even within the Ministry of Environment (Interviews I, IV, XII). Some SEA practitioners working in MADS have the view that even the current Minister and Vice-minister have notions of the tool but they have not seen its strategic focus.

Besides, a SEA experts working in MADS express that three or four years ago there was a discussion between the Ministry of Environment, the DNP and another economic sectors because these last two started to question the usefulness of the tool, saying that was a waste of money (Interview I); however, he says this was a good opportunity for them to show the benefits and to "defend" the use of SEA, at the end he believes that they proved their point since the 2010-2014 DNP promoted the implementation of SEA in the country.

For the specific case of the SEA applied to the PDETs, this lack of clarity about the added value that SEA can provide was notorious during the interview with one external counselor working for the environmental group in the High Council for Post-conflict Office, during the interview she was asking about examples on what would be the benefit of applying SEA. But this matter is common among SEA practitioners, since they often face questions and arguments about the added value that the tool can provide, especially in places without a legal obligation (Partidário, 2000). Some authors observed suitable reasons for this to happen, among others: scare knowledge and inability to use SEA as a fully adapted tool to policy-making and planning processes; lack of environmental interest in public sectors and plan makers on conducting SEA; insufficient incentives to use SEA with real information and real time (Eggenberger et al., 1998; Skagestad and Swensen, 1999).

Nevertheless, a SEA expert working for UPME assures that this situation is starting to change (Interview VIII). She gives an example of how some important projects in the country have presented problems during the licensing stage, causing losses in terms of money. During the analysis about how to avoid these difficulties in advanced stages, the presidency office has started to ask in which way these kinds of problems could be avoided. During these discussions, SEA experts have presented the tool as a mechanism to generate early alerts and to improve and give direction to future environmental impact assessment studies.

C. Influence of "impellers" on SEA implementation

Another feature that influences the use of SEA in Colombia is the actuation of some SEA experts that are convinced about the potential value of the tool, so where they go, they try to enforce and encourage strategic environmental assessment implementation in the institutions they are part of. An example of that is the impact that Marcela Bonilla and Óscar Amaya have had. The first one worked for the Ministry of Environment during 15 years, during this time the Ministry of Environment organized a lot of activities related to SEA, for instance in 2001 the MADS starts a sensitization process with other economic ministries regarding the use of SEA; in 2003 the same Ministry also prepares an International Workshop for Latin America and the Caribbean about SEA jointly with the World Bank; in 2005 they organize an International Course about Strategic Environmental

Assessment for Plans and Programs within the Colombian Context jointly with Externado University; in 2009 a guideline for SEA was published jointly with ECLA (Bonilla Madriñán and Jiliberto Herrera, 2009) in 2009. In 2012, Marcela Bonilla moved to work in the Mining and Energy Planning Unit UPME as an advisor in environmental management.

The second one, Óscar Amaya was the Vice-ministry of Environment in 2005, he is an academic in the field of Environmental Law in Externado University and currently, he is a Magistrate of the State Council for environmental issues. In 2004, both characters compiled the experience of SEA in Colombia and published the book "Avances y perspectivas de la aplicación de las Evaluaciones Ambientales Estratégicas en Colombia" (Progress and Perspective of Strategic Environmental Impact application in Colombia) (Amaya Navas and Bonilla Madriñán, 2005). In 2016, Amaya publishes a second book about SEA named "Las Evaluaciones Ambientales Estratégicas como Instrumentos para el Desarrollo Sostenible en Colombia" (Strategic Environmental Assessments as instruments for Sustainable Development in Colombia" in which the authors analyzed some SEAs done in Colombia and they present the potential use of SEA for peacebuilding in the current post-conflict context (Viña Vizcaíno and Amaya Navas, 2016).

These two SEA experts are recognized in diverse public organizations as such and some in

terviewees recognized their role on SEA implementation in Colombia. They consider themselves to be promoters of the tool and express that institutionalizing SEA is a big challenge, therefore, professionals that are aware of it should promote and encourage its use in the institutions they are part of (Interviews I, IV, VII).

D. SEA financing and capacity to conduct SEA

SEA practitioners in MADS note that one of the main difficulties to conduct SEA are related to funding issues. In Colombia, as explained before, the Ministry of Environment is the one in charge of promoting the use of SEA, therefore, in the major of cases is this sector the one funding the assessments. Some exceptions have been presented in the mining and energy sector due to the enormous gap in the budget between the two sectors. Regarding this the same practitioners express their disagreement on this aspect, explaining that the environmental ministry is one of the ministries with fewer resources assigned by the national government and finally the benefits of SEA results benefit the economic sectors; they say that in this case, the "small sector is financing the big ones" (Interview I). Moreover, in general, environmental protection expenditure in Colombia is low in comparison with other countries, total environmental protection expenditure as a share of GDP was 0,65% in 2010 (DANE, 2012); about this the Contraloría, public spending for environmental authorities is insufficient to properly carry out their functions (CGR,

2011). Finally, it is a big effort to obtain the funds for the assessment so that in the end the ministries “hang the SEA results in their shelves” (Interview I).

Another challenge that practitioners face is the lack of expert companies in conducting SEA, there are a lot of them with knowledge in EIA that apply for the open calls but at the end they do not know how to conduct this type of assessment, causing difficulties and reprocessing. SEA practitioners in MADS give an example about a case in which they called to participate more than ten national and international companies for doing some of the SEAs, in this process around four/seven companies participated. A company from Chile was hired to do this SEA but they did not know the tool at the end, therefore, this company had to sub contract an international expert that had worked before in Colombia. To avoid this situation, the mining and energy sector sometimes open this call but they do not express directly that the type of assessment is SEA because “no one will know what this is”, instead they use another terminology like “social and environmental implications of...” (Interview IV). Some academics experts have been identified in the field of SEA in different universities in Bogotá, but these ones are not dedicated or involved directly in the SEAs performance. Finally, either national or regional environmental authorities are trained to conduct SEA.

To conclude, some constraints to the institutionalization in SEA in Colombia were identified: the short term vision and prioritization of economic aspects of environmental issues; the lack of clarity about which institutions should be responsible for SEA application; the absence of mechanism to obtain funding for undertaking SEA; the low awareness of the tool, its benefits and added value that could provide; the shortfall of SEA to influence decision-making; and finally, the insufficient amount of companies or institutions with enough knowledge to conduct SEA. These results correspond with Steinhauer and Nooteboom (2012) observations, the authors argue that a SEA system is institutionalized when there is expertise in a country to apply SEA; a legal and financial basis for SEA is in place, and there is a clear institutional structure with agreed roles and responsibilities to conduct SEA.

5. DISCUSSION

In the post-conflict scenario in Colombia, as in the majority of post-conflict scenarios, the national efforts are centered towards the construction of infrastructure and development plans that need to be done rapidly to generate trust in affected communities. Additionally, the government has the challenge to encompass sustainable growth into these initiatives due to the important natural resources that are presented in post-conflict municipalities. For these reasons, the peace agreement demands some specific environmental outputs: the environmental zoning and the closure of agricultural frontier. With this in mind, it is an advantage that there is a recognition by the government about environmental management concerns in the post-conflict scenario; these circumstances are key to include environmental aspects in decision-making processes and to conduct SEA. The environmental zoning activities will provide a wider range of information about the environmental conditions in the post-conflict zones and it will facilitate the understanding of the dynamics of specific territories. Nevertheless, they do not guide the decision-making process in a systematic way as Strategic Environmental Assessment does. All this to say that having more information about the environmental conditions in post-conflict zones does not guarantee the incorporation of environmental issues into the PDETs. In this sense, SEA has a potential role in integrating environmental aspects in PDETs design.

Another feature that the post-conflict context has is the distinctive planning process to define the development plans. Normally in Colombia, planning is a top-down process in which the heads of different level positions (the president, governor, major) decide in each elected period their governmental plans. And public participation, even when mandatory, is difficult to establish. Instead, planning in post-conflict is going to be bottom-up (in theory and as established in the peace agreement); in which the base of decision-making is the community and decisions must be taken in consensus with different government levels. This situation differs with other post-conflict scenarios in which SEA has been taken place in where security could not be guaranteed for relevant stakeholders (Verheem and Switzer, 2005) during the participation processes. It could be said that the post-conflict planning process that the Colombian government wants to implement, is designed to favor public participation, and this is a very important aspect for conducting Strategic Environmental Assessment in post-conflict scenarios (Mallawatantri et al., 2014).

Due to the urgency conditions of development needs, the specific timing to define the PDETs and the planning process defined by the government; SEA exercise should have a strategic orientation. By strategic it implies that SEA must be aligned to the planning process with the support of experts that have the capacity of rapidly understand the context and to present results within nine months. For that reason,

SEA should not be a detail EIA-oriented type of exercise, but instead, a very strategic oriented assessment to facilitate decisions and not to delay the PDETs definition process. In this way, a decision-centered SEA is flexible and tailor-made to each decision process, enabling SEA to play a decision support role and to ensure that the assessment is providing an added-value (Partidario, 2000)

Additionally, as described in numeral 4.1.4, it can be said that SEA for PDETs is pertinent and relevant since several conditions are met: the definition of actions in PDETs can have significant impacts on the environment in post-conflict territories; therefore, environmental and related social issues are a priority in reconstruction within post-conflict Colombian context; there is an institution in the country which has the mandate and capacity to lead SEA and use its results: the ART; the government will look for the engagement of all possible stakeholders during the definition of PDETs which means that safety conditions will be guaranteed during discussion process. Nevertheless, the main obstacle for applying SEA is the lack of willingness from the government to perform it. The current ongoing discussion between UNEP and the High Council for Post-conflict Office (even among members of the same office, namely the environmental group and ART members) about the pertinence of implementing SEA shows the lack of awareness about the added value that the tool can provide. Additionally, the government considers that environmental issues are being considerate by having the environmental zoning and the closure of agricultural frontier and that the planning process has a participatory approach. Plus, time and monetary resources are limited. Taking this into consideration, a critical step before conducting SEA is to identify the methods most appropriate for ensuring that it is adding value to the planning process. Addressing this issue, Partidario (2002, p.659) suggests that “SEA preferably should be a function of the actual added value that SEA can bring to decision-making” and determine this value will depend on the stakeholders involved in the process. Identifying the added value that SEA can provide to one of the 16 PDETs can be difficult because, as Partidario proposes, the definition of what can be considered as added value depends on stakeholders and on the specific PDET, therefore, a deeper and participatory exercise must be done to identify this aspect. Additionally, this author argues that the discussion about the role of SEA for better environmental and sustainable decision-making has existed since the instrument inception; and that advocacy in this regard happens in different forms and consequently, there are several interpretations about the role that the tool should accomplish.

Nonetheless, some contributions that SEA for the PDETs can provide were identified. First of all, the Colombian government, in several official documents about the peace agreement implementation, has the discourse of orienting development in a sustainable way but they do not have a methodology to measure this aspect. In theory, SEA has the potential to lead decisions taking into account the desirable conditions for development but for the environment as well. This

means that it is a potential tool to orient decisions towards specific environmental and sustainability goals. For instance, SEA can provide a mechanism to monitor the accomplishment of environmental goals in PDETs in the short, medium and long term. This will allow the government to measure and improve development plans in post-conflict municipalities. On the other hand, the post-conflict Colombian case have different characteristics to other post-conflict scenarios in which SEA has been applied and reported (Bouma, 2012); in the sense that SEA will be supporting the planning process for reconstruction plans and the leadership of the assessment will also be in charge of the national government with support from international agencies but these last ones will have a support role more than executive one. If the national government decides to use the tool to PDETs the resulting experience can provide supporting literature about the role of SEA in reconstruction plans and programs, serving as an example for future application of the tool in post-conflict scenarios. Besides, performing SEA to the PDET has the potential of addressing certain regions as a whole, while having a broader holistic vision of some territories; in this sense, the SEA is not done only for one sector (as usual in Colombia) but it will require the effort and engagement of different economic sectors with influence over one specific region. Such an exercise has the potential to provide synergetic solutions and doing it for PDETs is the first significant step towards exploring this new regional approach.

Moreover, the Colombian government has the opportunity to guide the SEA for PDETs in a way that it helps to improve the current weakness of SEA system. For instance, applying a strategic-oriented SEA (and not an EIA-oriented one) will serve as an example of this alternative type of methodology for accomplishing SEA. Currently, the majority of SEA done tend to have a high level of technical detail, the results are not discussed in decision-making spheres and usually, the assessment is not integrated with the planning process and planning entities. Sometimes, the assessment is done even after the plan or program is already defined. More importantly, the local government has an opportunity to increase capacity for SEA performance. With UNEP support, resources can be allocated to training environmental authorities like CARs (these authorities have not received any training about SEA), to identify and strengthen the input from local experts both in the academy and public entities. At some level, the engagement and improvement of knowledge in local environmental authorities and other relevant stakeholders in regions can improve the results of SEA applied to the PDETs. During the definition of these last-mentioned plans, a lot of stakeholders are going to be involved, including public and private sector, local and regional authorities, national entities, etc. Having the opportunity to engage all these stakeholders in the SEA can increase the level of awareness about the tool that still remains low in Colombia. Lastly, applying SEA in this participatory scenario of PDETs can promote its use among the public economic sectors; and it can gather efforts that SEA “impellers” (individual in MADS, UPME, DNP, SEA academics, etc.) have been made the last years.

Despite international aid and the creation of funds to support post-conflict, these resources must be allocated for development plans and construction of infrastructure; thus, there are not that many resources to conduct studies as SEA. In fact, the High Council for Post-conflict Office has had difficulties with acquiring the necessary money to carry out the environmental zoning and the closure of the agricultural frontier. Consequentially, one barrier to conduct SEA for the PDETs is the notion that these types of studies are expensive and this is not a priority for the post-conflict agenda. Another difficulty for applying SEA to these programs is the idea that they will take a lot of time, and the ART only has nine months to design and start implementing the PDETs. In general, the peace agreement has been implemented through fast-track mechanisms. Therefore, taking into consideration the use of a tool that may cause delays is already unlikely.

The main intention of the information presented above paragraphs is to indicate the opportunities and pertinence of using SEA for integrating environmental considerations into the PDETs and to suggest ideas about how to address this type of assessment according to the specific Colombian post-conflict context. Also, its intention is to indicate some difficulties for undertaking SEA derived from special post-conflict conditions. Nonetheless, as important as it is to indicate opportunities and barriers resulting from the post-conflict context, it is crucial to consider those ones resulting from SEA system and institutionalization in Colombia, as the broader framework. This information is presented as follows.

A cultural issue in Colombia that can represent a limitation for using a type of assessment as SEA is the short-term vision of people and politicians. An example of this is that development through NDP is oriented in different (and sometimes contrary) ways, depending on each presidential term. This makes it difficult to have a long-term vision of the country and also neglects the importance to evaluate and considerate the effects that PPPs will have on the environment in the medium and long term. In Colombia, the major efforts in environmental management are focused on solving current “urgent” situations but prevention measures may not be a priority for planners and politicians. Despite these cultural issues may remain for a long time, one way to deal with this aspect is to promote the use of strategic environmental assessments in the incoming National Development Plans to give some continuation to SEA use in the country. Evaluating and learning from previous SEA performance and experience is an important step to improve national practice and assessment outputs.

Additionally, there is a low interest from the economic sector for environmental issues and consequences of their policies, plans, and programs. Often, environmental requirements in economic sectors are not consistent with national ones. For this same reason, SEA has had difficulties in Colombia on influencing the decision-making process.

Normally, the results of the assessments are discussed among technicians and the Ministry of Environment has had difficulties to take this results to a higher bureaucratic level (like ministers or vice-ministers or even directors). At least, SEA results should be presented to decision-makers individuals to avoid the assessment documents to end merely on thickening the shelves of public institutions.

Lastly, a critical factor affecting SEA practice in Colombia is its legal character. Making SEA mandatory in Colombia is not a guarantee that the tool will be applied or even that it will be effective in improving decision-making processes. This is mainly because in Colombia the level of non-compliance of norms are high and the authorities have difficulties on carrying out fully surveillance work. But most important, because there is no certainty that the mandatory aspect will guarantee SEA success in a country. Even though making the tool mandatory can improve some aspects of SEA system: first, being mandatory, the different economic sectors can allocate resources from their budgets to conduct the assessment and the Ministry of Environment (and environmental authorities) would have more opportunities to improve their level of knowledge on SEA. Also, this can address, at some level, the lack of interest from economic sectors to take responsibility for the environmental consequences of their decisions. Finally, discussions about SEA application and SEA results can be part of the Inter-ministerial agendas, a space that has failed to influence decision-making due to the lack of mandatory nature of the topics discussed there.

On the other hand, some conditions generate opportunities to apply SEA in Colombia. Despite the few number of SEA conducted in Colombia, there are academic experts, studies, guidelines, and books about SEA that can keep adding knowledge and can improve future assessments. More important, there are people aware of the benefits of applying SEA that are encouraging the government to use it and are contributing to increasing SEA awareness level.

6. CONCLUSIONS

The main goal of the current master thesis was to identify how environmental aspects can be included into the PDETs that are going to be defined in post-conflict municipalities in Colombia, through the application of Strategic Environmental Assessment. For this, the general SEA framework in Colombia for undertaking SEA and the specific conditions of the post-conflict context were analyzed. Finally, opportunities and constraints for conducting SEA in both contexts (the general context and the post-conflict one) were identified. The conclusions and recommendations of the study are presented below:

- One feature of the post-conflict context in Colombia is that there are mentions and explicit compromises regarding environmental issues in the peace agreement document. This shows an early recognition from the government and FARC that the protection of the environment is necessary and development in post-conflict zones must be done in a sustainable manner.

- Another significant characteristic about the post-conflict in the country is the clear definition of institutions and their responsibilities in regards to post-conflict processes. Including planning and monitoring activities. This is an advantage for doing SEA since it can be identified which institutions could lead the assessment.

- The planning process for the definition of PDETs has a participatory focus, through this, the territory vision and definition of development will be a bottom-up construction. Also, this methodology suggests the discussion of relevant environmental issues in one of the thematic boards, in which dialogue with the community will take place.

- The last three mentioned characteristics of the post-conflict scenario in Colombia, facilitate the inclusion of environmental issues into the planning process of PDETs. Nevertheless, the government does not have a systematic tool to support this process. For that reason, Strategic Environmental Assessment is a potential tool that can be used for integrating environmental factors during the definition and designed of PDETs for the post-conflict municipalities in Colombia.

- The application of SEA to PDETs seems to be appropriate to apply in the post-conflict context in Colombia. First, environmental issues are a priority in reconstruction in post-conflict Colombian context due to the confluence of important natural resources in post-conflict municipalities and the negative impacts that war has had on them. And second, the national government has established the ART as an entity to implement PDETs, this institution has the mandate to conduct SEA.

- SEA applied to PDETs have some potentials or opportunities: First, to provide the national government a mechanism to monitor

environmental goals defined for these development plans. It also can improve capacity to carry out SEA in environmental authorities and other public economic sectors. In addition, it could serve as an example of the application of SEA in post-conflict scenarios for future cases in other countries. Moreover, there is an opportunity to apply a SEA methodology most aligned with the planning process, serving as future guidance for future SEA in the country. And finally, it can serve to introduce the tool to a larger amount of institutions, increasing the current awareness of SEA in Colombia and encouraging its use.

- Until date, the biggest barrier to implement SEA to post-conflict PPPs is the lack of willingness of the Colombian government to use the tool due to time and monetary resources limitations in the post-conflict scenario. This, despite UNEP, has suggested the use of the tool and has shown disposition to obtain funding to do it.

- The insufficient intentions of the local government to conduct SEA can be explained mainly because of the un-clear added value that this procedure will provide to PDETs planning process. Nevertheless, establishing the added value without having deeper information and stakeholder participation may be difficult and idealistic.

The previous marks are the result of the post-conflict specific context. On the other hand, the analysis resulted from general SEA framework in Colombia can be summarized in the following points:

- One cultural aspect in Colombia affecting SEA undertaking is the short-term vision in decision-making and planning process. That is why tools like EIA focus more on the immediate impacts of a specific project or even SEA with and EIA-orientation are more likely to be used. Also, the prioritization of economic aspects of environmental issues.

- Conducting SEA in Colombia is not mandatory and the opinions about its binding character remain divided. Making SEA mandatory in Colombia may not be a way to guarantee SEA will be used. Especially due to the high levels of non-compliance of current environmental legislation and lack of capacity of environmental authorities to deal with this situation. However, making SEA imperative for some activities can provide a way to improve capacity to carry out SEA in terms of knowledge and financial resources. Also, to increase the level of awareness of environmental issues in high governmental levels in economic sectors.

- Some factors influencing the application of SEA in Colombia are the efforts made by some “SEA impellers” inside public organizations as MADS, DNP, UPME, etc. Also, the inclusion of its use in some National Development Plans.

- Some characteristics of SEA system in Colombia are:

    - The lack of a clarity about which institutions should be responsible for conducting SEA and for which type of PPPs. Also, which entities should promote its use;
    - The experience of conducting this type of assessments in the country remains low, there are around 20 SEAs documented cases;
    - The little influence that SEA results have on decision-making; the low level of awareness of SEA, its benefits, and potential added value;
    - The absence of a mechanism to obtain funding to carry out the assessment; and
    - The insufficient amount of entities (public or privates) with enough knowledge and experience to conduct SEA

    All these features represent the difficulties in the country to carry out SEA.

RECOMMENDATIONS

- SEA for PDETs should be aligned to the current planning methodology developed by the ART. The assessment should be carried out and supported by experts that can be adapted to the special circumstances and can conduct a tailor-made assessment. Also, trained staff that can properly address the time and monetary resources limitations, is necessary. It should be avoided to conduct a high detail and EIA-oriented assessment.

- An opportunity to give some continuity to SEA application in Colombia is to promote its practice in the incoming National Development Plans since this has shown to be a proliferation factor for the use of the tool. Also, the insistence of some SEA promoters to undertake these type of assessments. Showing the positive outcomes of past SEA cases can be a way to promote its use in different economic sectors.

- For future SEAs in Colombia, the government should seek for increasing capacity to conduct this type of assessments.

- The government should evaluate the benefits and implication of making SEA mandatory for some activities in Colombia.

- For a better understanding of SEA influence on decision-making in Colombia, it is important to conduct more specialized analysis focus on how decisions are taken, what are influential factors (in general) in decisions, how power mechanisms and forces act in the process, and how individual interest are managed.

REFERENCES

Acuerdo Final para la Terminación del Conflicto y la Construcción de una Paz Estable y Duradera, 2016.

Amaya Navas, Ó.D., 2005. Evaluación Ambiental de Polítcas, Planes o Programas en Colombia. La Evaluación Ambiental Estratégica, in: Avances Y Perspectivas de La Aplicación de Las Evaluaciones Ambientales Estratégicas En Colombia. Universidad Externado de Colombia, Bogotá, p. 194.

Amaya Navas, Ó.D., Bonilla Madriñán, M., 2005. AVANCES Y PESPECTIVAS DE LA APLICACION DE LAS EVALUCIONES AMBIENTALES ESTRATEGICAS EN COLOMBIA.pdf. Universidad Externado de Colombia, Bogotá.

Aschemann, R. 2004. Lessons learned from Austrian SEAs. European Environment, 14(3), 165–174.

Banco Interamericano de Desarrollo, 2015. El Gobierno de Colombia y el Banco Interamericano de Desarrollo , lanzan la Iniciativa Colombia Sostenible.

Bina O. 2008. Context and systems: thinking more broadly about effectiveness in strategic environmental assessment in China. Environ Manag.42:717–33.

Bina, O., 2007. A critical review of the dominant lines of argumentation on the need for strategic environmental assessment. Environ. Impact Assess. Rev. 27, 585–606. doi:10.1016/j.eiar.2007.05.003

Bonilla Madriñán, M., Jiliberto Herrera, R., 2009. Guía de Evaluación Ambiental Estratégica.

Bouma, G., 2012. Challenges and opportunities for mainstreaming environmental assessment tools in post-conflict settings, in: Jensen, D., Lonergan, S. (Eds.), Assessing and Restoring Natural Resources in Post-Conflict Peacebuilding. Earthscan, London.

Bouma, G., 2008. Strategic Environmental Assessment (SEA) and Post-conflict Development.

Boyle J. 1998. Cultural influences on implementing environmental impact assessment: insights from Thailand, Indonesia and Malaysia. Environ Impact Assess Rev;18:95–116.

Brown, A., Thérivel, R., 2000. Principles to guide the development of strategic environmental assessment methodology. Impact Assess Proj Apprais 18 (3), 183–189.

Brown, O., Hauptfleisch, M., Jallow, H., Tarr, P., 2012. Environmental assessment as a tool for peacebuilding and development : Initial lessons from capacity building in Sierra Leone, in: Jensen, D., Lonergan, S. (Eds.), Assessing and Restoring Natural Resources in

Post-?-Conflict Peacebuilding. Earthscan, London, pp. 1–17.

CCME, 2009. Canadian Council of Ministers of the Environment. Regional Strategic Environmental Assessment in Canada: Principles and Guidance. CCME, Ottawa, ON.

CGR. 2011. Estado de los Recursos Naturales y del Ambiente 2010-2011, Contraloría General de la República, Bogotá.

Clark R. Making EIA count in decision-making. In: Partidário MR and Clark R, editors. 2000. Perspectives on Strategic Environmental Assessment, CRC-Lewis, Boca Raton, FL, pp. 15–27.

Colombian Government, 2017. Agencia de Renovación Territorial Presentation.

DANE. 2012.Cuentas de gasto en protección ambiental y actividad de reciclaje 2009-2010, press release, Bogotá, Colombia: Departamento Administrativo Nacional de Estadística.

Decuir-gunby, J.T., Marshall, P.L., Mcculloch, A.W., 2011. Developing and Using a Codebook for the Analysis of Interview Data: An Example from a Professional Development Research Project. Field methods. doi:10.1177/1525822X10388468

Departamento Nacional de Planeación, 2017. Tipologías [WWW Document]. URL https://www.dnp.gov.co/programas/desarrollo-territorial/Estudios-Territoriales/Estudios-y-Ejercicios/Paginas/Tipologias.aspx (accessed 1.1.17).

Departamento Nacional de Planeación, 2015. Fondo Colombia en Paz. Consejo Nacional de Política Económica y Social, Bogotá.

DNP, 2016. Conpes 3867. Estrategia de preparación institucional para la paz y el posconflicto. Consejo Nacional de Política Económica y Social, Departamento Nacional de Planeación, Bogotá.

DNP, 2004. Una propuesta conceptual y metodológica para la aplicación de la EAE en Colombia DNP. Bogotá.

DNP, ESAM, 2007. El proceso de planificación en las entidades territoriales: el plan de desarrollo y sus instrumentos para la gestión 2008 - 2011. Bogotá.

DNP, ESAP, 2012. Planeación para el desarrollo integral en las entidades territoriales. Bogotá.

Fundingsland Tetlow, M., Hanusch, M., 2012. Strategic environmental assessment: the state of the art. Impact Assess. Proj. Apprais. 30, 15–24. doi:10.1080/14615517.2012.666400

Gaviria, S., 2016. Dividendos Ambientales de la Paz, in: Director General DNP. Departamento Nacional de Planeación.

Glasson, J., Thérivel, R., Chadwick, A. (Eds.), 2005. Introduction to Environmental Impact Assessment. Routledge, London

Hofstede, G., 2017. Hofstede's Long Term Orientation Index [WWW Document]. URL https://geert-hofstede.com/colombia.html (accessed 5.18.17).

Jensen, D., Lonergan, S., 2012a. Natural resources and post-conflict assessment, remediation, restoration, and reconstruction: Lessons and emerging issues, in: Jensen, D., Lonergan, S. (Eds.), Assessing and Restoring Natural Resources in Post-Conflict Peacebuilding. Earthscan, London.

Jensen, D., Lonergan, S., 2012b. Assessing and Restoring Natural Resources in Post-Conflict Peacebuilding. Earthscan.

Jiliberto, R., 2011. Recognizing the institutional dimension of strategic environmental assessment. Impact Assess. Proj. Apprais. 29, 133–140. doi:10.3152/146155111X12959673795921

Jiliberto Herrera, R., Bonilla Madriñán, M., 2008. Guía de Evaluación Ambiental Estratégica.

Kievelitz, U., Schael, T., Hahn, H., Virwerk, S., 2004. Practical Guide to Multilateral Needs Assessments in Post-Conflict Situations (No. Paper No 15), Social Development Papers. Conflict Prevention & Reconstruction. Washington DC.

Kørnøv, L.,W Thissen 2000. Rationality in decision- and policy- making: implications for strategic environmental assessment. Impact Assessment and Project Appraisal, 18(3), 191–200.

Leech, B.L., 2006. Asking Questions : Techniques for Semistructured Interviews. Polit. Sci. Polit. 35, 665–668.

MADS. 2011. Por el cual se crea la Autoridad Nacional de Licencias Ambientales -ANLA- y se dictan otras disposiciones. Ministerio de Ambiente y Desarrollo Sostenible. Bogotá

Mallawatantri, A., Marambe, B., Skehan, C., 2014. Integrated Strategic Environmental Assessment of the Northern Province of Sri Lanka. Central Environmental Authoruty & Disaster Management Centre of Sri Lanka.

Marsden,S. 1998. "Importance of context in measuring effec- tiveness of strategic environmental assessment", Impact Assessment and Project Appraisal, 16(4), pages 255–266.

Miles, M. B., and A. M. Huberman. 1994. Qualitative data analysis: An expanded sourcebook. 2nd ed. Thousand Oaks, CA: SAGE.

Ministerio de Agricultura, 2014. Cartografía para la planificación del ordenamiento productivo y social de la propiedad.

Ministerio de Agricultura y Desarrollo Rural, 2017. Decreto 983 de 2017. Por el cual se crean los Programas de Desarrollo con Enfoque Territorial-PDET. Ministerio de Agricultura y Desarrollo Rural, Bogotá.

Morales, L., 2017. La Paz y La Protección Ambiental En Colombia:

Propuestas para un desarrollo rural sostenible, Diálogo Interamericano.

Morrison-Saunders, A and J Arts eds. 2004. Handbook of EIA and SEA Follow-up. Assessing Impact. London: Earthscan.

Nilsson, M., Dalkmann, H., 2001. Decision making and strategic environmental assessment. Journal of Environmental Assessment Policy and Management, 3, 305–327

Nitz, T and A L Brown 2001. SEA must learn how policy making works. Journal of Environmental Assessment, Policy and Management, 3(3), 329–342.

Noble, B.F., 2002. The Canadian experience with SEA and sustainability. Environmental Impact Assess. Rev. 22 (1), 3–16.

Noble, B.F., Gunn, J., 2015. Strategic environmental assessment. In: Hanna, K. (Ed.), Environmental Assessment in Canada: Practice and Participation. Oxford University Press, Don Mills, ON.

Noble, B.F., Nwanekezie, K., 2016. Conceptualizing strategic environmental assessment: Principles, approaches and research directions. Environ. Impact Assess. Rev.doi:10.1016/j.eiar.2016.03.005

North DC. 1990. Institutions, institutional change and economic performance. Cambridge: Cambridge University Press

OECD, ECLAC, 2014. OECD Environmental Performance Review Colombia 2014. doi:http://dx.doi.org/10.1787/9789264208292-en

OECD. 2013. Colombia: Implementing Good Governance, OECD Public Governance Reviews, OECD Publishing, Paris, doi: 10.1787/9789264202177-en.

OECD. 2006. Applying strategic environmental assessment: good practice guidance for development co-operation. OECD Publishing.

Ostrom E. 2005. Understanding institutional diversity. New Jersey: Princeton University Press

Partidário, M.R., 2012. Strategic Environmental Assessment Better Practice Guide - methodological guidance for strategic thinking in SEA.

Partidário, M.R., 2009. The Future for Interurban Passenger Transport: Bringing Citizens Closer Together. doi:10.1787/9789282102688-en

Partidário M.R. 2004. Designing SEA to fit decision-making. 24th Annual Conference of the International Association for Impact Assessment. Vancouver.

Partidário, M.R., 2000. Elements of an SEA framework - Improving the added-value of SEA. Environ. Impact Assess. Rev. 20, 647–663. doi:10.1016/S0195-9255(00)00069

Ramírez, J.M., Angulo, R., Castañeda, A., Cavalli, G., Vargas, C., 2016. Modelo de gestión para la superación de la pobreza rural en las zonas

priorizadas para el posconflicto. Bogotá.

Retief, F., 2007. Effectiveness of strategic environmental assessment (SEA) in South Africa. Journal of Environmental Assessment and Policy Management, 9 (1), 1-19.

Runhaar, D.H., Driessen, D.P.P.., 2007. What makes strategic environmental assessment successful environmental assessment? The role of context in the contribution of SEA to decision- making. Impact Assess. Proj. Apprais. 25, 2–14. doi:10.3152/146155107X190613

Sadler, B 2004. Evaluating the success of EIA and SEA. Assessing Impact. Handbook of EIA and SEA Follow-up, eds.A Morrison-Saunders and J Arts, pp. 248–285. London: Earthscan

Sadler, B., Verheem, R. 1996. Strategic environmental assessment: key issues emerging from recent practice. Hague7 Ministry of Housing, Spatial Planning and the Environment.

Sánchez Pérez, G. 2002. “Desarrollo y medio ambiente: una Mirada a Colombia”, Economía y Desarrollo, Vol. 1, No. 1, Fundación Universidad Autónoma de Colombia.

Sheate, W.R., et al., 2003. Integrating the environment into strategic decision-making: conceptualizing policy SEA. Euro. Environ. 13, 1–18.

Slunge, D., Tran, T.T.H., 2014. Challenges to institutionalizing strategic environmental assessment : The case of Vietnam. Environ. Impact Assess. Rev. 48, 53–61. doi:10.1016/j.eiar.2014.05.005

Slunge D, Loayza F. 2012. Greening growth through strategic environmental assessment of sector reforms. Public Adm Dev.32:245–61.

Steinhauer I, Nooteboom S. 2012. Capacity development for strategic environmental assessment—the Dutch approach. OECD, 2012. Strategic environmental assessment in development practice: a review of recent experience. Paris: OECD Publishing

Thérivel, R and P Minas 2002. Measuring SEA effectiveness. Ensuring effective sustainability appraisal. Impact Assessment and Project Appraisal, 20(2), 81–91.

Thérivel, R., Partidário, M.R. (Eds.), 1996. The Practice of Strategic Environmental Assessment. Earthscan, London.

Turnpenny J, Nilsson M, Russel D, Jordan A, Hertin J, Nykvist B.2008. Why is integrating policy assessment so hard? A comparative analysis of the institutional capacities an constraints. J Environ Plan Manag.51(6):759–75.

UNEP. 2003. Desk Study on the Environment in Iraq. Nairobi, Kenya: UNEP.

United Nations, 1992. An Agenda for Peace.

United Nations Colombia, 2014. Consideraciones ambientales para la construcción de una paz territorial estable, duradera y sostenible en Colombia.

United Nations Environment Programme, 2017. Environment for Peace. UN Environment´s proposal contribution to the post conflict development of Colombia.

Verheem, R., Switzer, J., 2005. Strategic Environmental Assessments : Capacity Building in Conflict-Affected Countries. Washington DC.

Vicente G, Partidário,M R. 2006. SEA: Enhancing communication for better environmental decisions. Environ. Impact Assess. Rev. 2006; 26:696–706

Viña Vizcaíno, G., Amaya Navas, Ó.D., 2016. Las Evaluaciones Ambientales Estratégicas como instrumentos para el desarrollo sostenible en Colombia. Universidad Externado de Colombia, Bogotá.

Williamson, O., 2000. The new institutional economics : Taking stock , looking ahead. J. Econ. Lit. 38, 595–613.

Wirutskulshai, U., Sajor, E., Coowanitwong, N., 2011. Importance of context in adoption and progress in application of strategic environmental assessment: Experience of Thailand. Environ. Impact Assess. Rev. 31, 352–359. doi:10.1016/j.eiar.2011.01.001

Wood, C. M.,Djeddour, M., 1989. The environmental assessment of policies, plans and programmes. Volume 1 of interim report to the European Commission on Environmental Assessment of Policies, Plans and Programmes and Preparation of a Vade Mecum. Manchester: EIA Centre,University of Manchester.

WorldBank, University of Gothenburg, Swedish University of Agricultural Sciences, Netherlands Commission for Environmental Assessment. 2011. Strategic environmental assessment in policy and sector reform: conceptual model and operational guidance. Environment and development. Washington, DC: World Bank

ANNEX I. INTERVIEWS

Interview I. Mario Orlando López. Luis Ernesto and Ernesto Romero. Advisers in the Direction of Sectorial and Urban Environmental Issues. Ministry of Environment and Sustainable Development.22th of March 2017. Bogotá-Colombia.

Interview II. It was not possible to do it.

Interview III. Juan Carlos Bello. Regional Coordinator, Science Division, Latin America and Caribbean Office. United Nations Environment Programme. 24th of March 2017 Bogotá-Colombia and 17th of April 2017 phone call.

Interview IV. Marcela Bonilla Madriñan. Asesora de asuntos ambientales. Unidad de Planeación Minero-Energética UPME. 29th of March 2017. Bogotá-Colombia.

Interview V. Roberto Esmeral. Climate Change Expert and Specialist. Interamerican Development Bank. 30th of March 2017. Bogotá-Colombia

Interview VI. Diego Sáenz. Professional management of biodiversity and climate change. National Planning Department. 30th of March 2017. Bogotá-Colombia.

Interview VII. Óscar Amaya. Magistrado del Consejo de Estado y Procurador Delegado. Sala de Consulta y Servicio Civil del Consejo de Estado. Teacher and researcher in Environmental Law Department. Externado University. 31th of March 2017. Bogotá-Colombia

Interview VIII. Patricia Falla. Consultor Conservación y Desarrollo. Alta Consejería para el Posconflico, Derechos Humanos y Seguridad - Presidencia de La República. 20th of April 2017. Bogotá-Colombia

Interview IX. Debby Camacho. Dirección General Agencia de Renovación Territorial. 28th of April 2017. Skype Interview.

Semi-structured interview

Specific questions

Interview I

1. For how long and in which areas have you been working for the (institution)?
2. What are your responsibilities or areas in charge? And regarding SEA? To which objective of the Direction these responsibilities correspond to?
3. Do you have a team work that support the activities you have in charge? How many? Do they have training or empirical training on SEA?
4. How is a typical SEA conducted?
5. What motivates the use or application of SEA to development projects?
6. How do you choose to which type of activities apply the tool?
7. What is the role and the use of the existing guidance in the process? Do you consider this as a main source of information for practitioners?
8. Do you have procedures to ensure the quality and relevance of SEAs?
9. Is there any initiative to work with DNP a for applying the tool to PPPs? Training to understand the relation with PPPs
10. Does the country have academics or experts with knowledge in SEA? are there any courses on this?
11. Are there any activities to train people on SEA in the country?
12. Who were the participants in the workshop about SEA in 2012? Did you include environmental authorities?
13. Is there a need for capacity development in the concerned authorities? Have environmental authorities received any training about SEA?
14. Do agencies for sectoral and spatial policies and plans (DNP, ART, CAR) have sufficient knowledge and skills to conduct SEA?
15. About the legal framework of the tool. Have the Ministry consider to develop any policy or regulation that support the application of SEA?
16. Which institutional constraints need to be accepted in implementing the SEA?

Interview II

1. For how long and in which areas have you been working for the UNDP?
2. What is the main responsibility of the Sustainable Development Department inside UNDP?
3. What has been the role of this area in the peace process? How is related? What type of inputs they provide in this process? (See the use of environmental assessment)
4. What has been your experience in the filed regarding SEA or any other environmental assessment tools?
5. Which are the projects or the activities in which UNDP is supporting national government in the rural post-conflict municipalities?
6. Do any of those activities include the evaluation of the PPPs regarding the environment?
7. Regarding the information available on the possible linkages between the conflict and natural resources and the environment, the UNDP published the report “Consideraciones ambientales para la construcción de una paz territorial estable, duradera y sostenible en

Colombia" in 2014. This document mention the importance of environmental impact assessment tools to the development projects in the post-conflict areas and the inclusion of environmental consideration to the POT. Can you expand this information regarding what type of EIA conduct and how to integrate the environmental aspect to the planning tools?

8. Do the UNDP have policies to integrate environmental considerations into their activities? (e.g The 2005 Paris Declaration on Aid Effectiveness, in which a call to donor is made to "develop and apply common approaches for SEA at the sector and national levels)What are these? And are those policies going to be applied in the PPPs of post-conflict municipalities?
9. e.g There are international examples in which SEA is applied to the reconstruction and development plan in the early stage of post-conflict (first year), this SEA has been carried out by UNEP under the framework of Multi-Donor Trust Fund (MDTF).
10. What is going to be the role of UNEP in the post-conflict municipalities in Colombia? Which initiatives are they going to lead and which UNDP (Sustainable Development Division). How is going to be arrange the role of each agency? (regarding responsibilities or focus areas)

Interview IV

1. Can you describe your experience regarding SEA?
2. Does your current job position have any relation with the application of SEA? Can you describe it?
3. What is the role of UPME in the post-conflict plans of development for rural municipalities?
4. What do you think about the State capacity to conduct and SEA in this context?
5. Does the country have academics with knowledge in SEA? are there any courses on this?
6. Do agencies for sectoral and spatial policies and plans (DNP, ART, CAR) have sufficient knowledge and skills to conduct SEA?
7. Do you consider that SEA is integrated to the planning processes and tools? (e.g POT)
8. In your book, you argued that Colombia should not be mandatory (contrary to the opinion expressed by DNP and the expert that conduct the workshop in Cartagena in 2005) because: "The discretion of environmental authorities is limited, because it can be an additional requirement for decisions related with development and investment and because of the high costs that an SEA implies and finally because of the impediment to apply the tool always in the same way. Can you explain to me in detail these arguments?
9. How do think the mandatory character of the tool can affect its implementation?
10. How do you think current experience of the Ministry regarding SEA can contribute to the potential use of the tool to the PPPs in post-conflict rural municipalities?
11. Do the donors and multi-lateral agencies involved in the reconstruction have policies to integrate environmental considerations into their activities?

12. What do you think about the the willingness from the different stakeholders (diverse institutions participating in the design of PPPs in the post-conflict) to conduct and SEA in this context?
13. Do you think is possible to develop an early alliance with the proponents of the PPPs in question to allow sufficient attention to relevant environmental issues?

Interview V

1. For how long and in which areas have you been working for the IDB?
2. What is the main responsibility and task of the Climate Change and Sustainability Division in IDB Colombia?
3. What has been the role of this division in the peace process and in general of the IDB? How is related? What type of inputs they provide in this process?
4. What has been your experience in the filed regarding SEA or any other environmental assessment tools?
5. Can you explain what Colombia Sostenible is?
6. Which are the projects or the activities in which UNDP is supporting national government in the rural post-conflict municipalities?
7. Do any of those activities include the evaluation of the PPPs regarding the environment?
8. Do the IDB have policies to integrate environmental considerations into their activities?
9. How environmental considerations in the activities inside the initiative Colombia Sostenible are going to be included? (In the Colombia Sostenible Document there is a very general part mentioning that environmental assessment should be done).

Interview VI

1. For how long and in which areas have you been working for the DNP?
2. What is the role and main responsibilities and task of the Environmental Sustainable Development and Sustainable Territorial Development departments?
3. What has been the role of this area in the peace process? How is related? What type of inputs they provide in this process?
4. How does planning process work in the country? (How definition PPPs does work in Colombia?) Confirm information form documents
5. How is planning process going to work in the post-conflict context? How definition of PPPs in the post-conflict context is going to work?). Articulation with ART. Confirm information form documents
6. Who are the key stakeholders in establishing the development agenda in the post-conflict setting? Confirm current information
7. Do PPPs include plans for major long-lived/large-scale infrastructure or network development (e.g. road networks, large dams)? Who is responsible for these plans, and is there support for SEA of these proposals?
8. How does the government evaluate environmental results of PPPs in Colombia?
9. How environmental consequences of post-conflict PPPs in rural post-conflict municipalities in Colombia are going to be assessed? When? By whom?
10. The DNP published a guide for the implementation of SEA in Colombia. Does the DND apply this guide for evaluating PPPs?

Interview III, VII, VIII, IX don not have a guide available since this were additional interviews identified during the interview process

General questions for all participants

1. What do you think about the potential implementation of SEA to the PPPs in post-conflict rural municipalities? Regarding feasibility and capacity
2. What do you think about the possibility of developing early alliance with the proponents of the PPPs in question to allow sufficient attention to relevant environmental issues?
3. What aspects (e.g. institutional arrangements, political will, knowledge of decision-makers) pose barriers or present opportunities for influencing the decision-making process in terms of integrating environmental considerations at the strategic level? (within the specific context)
4. Which specific post-conflict circumstances can constrain the assessment of PPPs?
5. How do you think current experience of (the entity) regarding SEA can contribute to the potential use of the tool to the PPPs in post-conflict rural municipalities?

ANNEX II. CODEBOOK.

Related research sub-question	Code name	Description	Type of code	Interviews related	Amount of quotes
1	Utility of SEA in post-conflict context	Mentions about the perception of the benefits of applying the tool in specific post-conflict situation in Colombia	Structural	I, III, VII	8
	Difficulties for applying SEA in post conflict context	Mentions about the constraints when applying SEA in the post-conflict scenario	Structural	I,IV	2
	How to apply SEA in post conflict context	Mentions about suggestions or recommendations to take into account when carrying out SEA in the post-conflict	Data-driven	IV	1
2	Culture in Colombia	Mention of any aspect of Colombian culture	Theory-driven	I, VII, VIII	7
	Influence of SEA use inclusion in NDP	Mention of how the mention and inclusion of SEA has an influence on its use in the country	Theory-driven	I, VI, VII	4
	Mandatory aspect of SEA	Mention about opinions and perceptions of making SEA mandatory in Colombia	Theory-driven	I,IV, VI, VII	12
	SEA responsibility	Mentions about which institutions should be responsible for leading SEA use but also for undertaking SEA studies	Theory-driven	I,IV,VI,VII	6
	Development versus environment	Mentions about perceptions on the importance of environmental issues compared to development and economic growth	Theory-driven	I,IV,VII	3
	Mechanisms to implement SEA	Information about how SEA have been applied in Colombia, under which conditions and motivations	Theory-driven	I, IV,VII	4
	Awareness of the tool existence	Mentions about the awareness that people in the government have about SEA	Theory-driven	I,IV,VII	9
	Knowledge about the usefulness and added value of SEA	Information about the added value that SEA can provide	Theory-driven	I,IV,VIII,IX	11
	SEA financing	References about how SEA studies are paid, by whom and any aspect of the provision of resources for conducting SEA	Theory-driven	I,VII,VIII	8
	Influence of SEA "impellers" on SEA implementation	When one specific person is recognized as having an influence in SEA application or her/his knowledge about the tool	Theory-driven	I,IV,VII	4
	SEA successful	When the person mention an aspect, fact, example, about with him/hers consider a positive outcome from SEA process or what the interlocutor consider as an example of a successful case (which means incorporation of SEA recommendations in PPP) or the contrary case	Theory-driven	I,IV,VII	5
	SEA influence on decision making	Information about the perception of participants about if SEA has had an influence when making decisions in policies, plans or programmes	Theory-driven	I,IV	5
	Capacity to conduct SEA	It refers to any indication about experts to conduct SEA in the country, both perceptions and examples about it	Theory-driven	I,IV	11
	International Agencies and SEA	Information about the role that international agencies have had on SEA implementation in Colombia	Data-driven	I,IV	5
	International Agencies and SEA in post-conflict context	Information about the role that international agencies have had on SEA implementation in the post-conflict context	Structural	III,IV,VIII	6
1	Environmental issues in post-conflict	Information about the inclusion of environmental aspects in any activity under the post-conflict umbrella	Structural	VIII,IX	10
	ART role	Information about activities in charge of ART	Structural	IX	2
	Planning methodology for PDETs	Explanation of the methodology developed by the ART to design the PDETs	Structural	IX	1
2	Encouragement to institutionalize SEA	Suggestions about what to do for encouraging the use of SEA in the country	Data-driven	IV,VI,VII	14