



## Strategic Environmental Assessment for development programs and sustainability transition in the Colombian post-conflict context



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### ABSTRACT

This article offers a critical analysis of the applicability and relevance of strategic environmental assessment (SEA) in the post-conflict period in Colombia as a means to support societal sustainability transition and avoid the depletion of natural resources and the emergence of new conflicts. Colombia, emerging from decades of war between the Colombian government and the FARC-EP (Revolutionary Armed Forces of Colombia), is experiencing an urgent need to allocate financial resources to large-scale projects with the aim of supporting post-conflict development activities, potentially resulting in rapid and hyper-development conditions and causing severe environmental impacts. Theoretically, SEA can be seen as one way to assist the Colombian government in their strategic decision-making and planning. However, the use of SEA will be bound by the post-conflict conditions and the more general institutional setting in Colombia. This article is focused on identifying the opportunities and challenges arising from the post-conflict context and the SEA action arena in Colombia. By doing this, the article provides a better understanding of institutional processes and resources in Colombia and contributes to the limited scholarly literature that is available on the application of SEA in post-conflict contexts, including research on the institutional capacity involved.

### 1. Introduction

The Colombian government and the guerrilla leftist group FARC-EP signed a peace agreement in November 2016. Since then, 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 show affected communities the immediate development benefits as well as to carry out development plans for generating better living conditions in the places most affected by war and to build peace and stability for the most vulnerable and the poorest segment of the population (Brown et al., 2012). In some post-conflict countries, development programs are partially financed by bilateral agencies and multilateral aid organizations, and, therefore, resources need to be rapidly allocated in the beginning. According to Bouma (2012), official development assistance tends to peak in the years immediately following a peace agreement and tends to gradually decline thereafter.

In Colombia, decisions about development programs are going to be outlined in the “Planes de Desarrollo con Enfoque Territorial-PDET” (Territorially Focused Development Programs, PDET). A total of 16 PDETs are currently being developed, these cover 170 post-conflict

municipalities. These municipalities are located in areas with great wealth in terms of natural resources, such as protected natural parks, wetlands, and the Amazon and Darién tropical forests, among other relevant landscapes in the country. Under these circumstances, the recovery period in post-conflict municipalities can be characterized by hyper-development conditions, potentially causing severe environmental impacts. For this reason, the national government has the challenge of addressing development plans in such a way that environmental protection and management are integrated. Moreover, the incorporation of environmental issues into the development plans has the potential to avoid future conflicts, and the management of natural resources is relevant for peacebuilding and long-term stability (Bouma, 2012; Jensen and Lonergan, 2012; OECD, 2008; Verheem and Switzer, 2005).

One option for addressing environmental considerations in reconstruction planning is to use environmental assessment tools such as strategic environmental assessment (SEA). SEA is an instrument that can assist the formulation and implementation of strategic initiatives (Partidário, 2012) and play a political role in decision-making processes (e.g., Noble and Nwanekezie, 2016).

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As a tool for integrating environmental issues in development processes (Partidário, 2012), SEA has the potential to incorporate environmental management into the development plans in post-conflict scenarios. For instance, UNEP suggests that the SEA approach provides a framework for addressing environmental sustainability and disaster risk reduction during reconstruction and development planning processes in post-conflict contexts (UNEP, 2011). In agreement with this, Jensen and Lonergan (2012) suggest that SEA could be carried out in post-conflict scenarios to identify the sectors and programs that may cause the greatest environmental impacts. 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 the potential impacts of reconstruction and development projects (UNEP, 2003). Nevertheless, developing countries fail to integrate environmental issues into policies, plans, and programs (PPPs) during post-conflict stages because governments are overwhelmed with coordinating aid and arranging institutional responsibilities (Bouma, 2012), because most of these countries do not have a legal and regulatory framework regarding SEA, and because they have neither the institutional nor human capacity to apply SEA to post-conflict reconstruction investments (Verheem and Switzer, 2005).

The current literature on environmental assessment tools, including SEA, applied in post-conflict countries is scarce and the cases currently studied are reported mainly by agencies such as UNEP, UNDP, the World Bank, and the OECD. Nevertheless, there is some literature linking the use of environmental assessment tools and disaster risk management in post-recovery scenarios (Fischer, 2014).

From the reported cases and available literature, it can be said that there is evidence to claim that SEA has the potential to provide an added value for planning and decision-making processes under post-conflict circumstances. For instance, OECD (2008), Jensen and Lonergan (2012), and Verheem and Switzer (2005) present lessons about the opportunities and challenges of applying SEA in post-conflict countries (summarized in Table 1).

Current experience reveals the opportunities that are associated with the use of SEA in post-conflict settings. Further exploration is needed to identify the added value that SEA can provide for environmental management when planning reconstruction (or development) in a country after an armed conflict. With the aim of contributing to this topic, the current study explores and addresses how SEA can be used for integrating environmental aspects into the PDETs in Colombia's post-conflict municipalities, including the influence and importance of the institutional setting. To analyze this, the study identifies: 1) the planning process for development plans in the post-conflict context in Colombia and how this represents opportunities and barriers for undertaking SEA, and 2) the action arena of the institutional context for SEA in Colombia and how this constitutes opportunities and barriers for undertaking SEA.

The methodology is presented in the following section. Sections 3 and 4 present the characteristics of the post-conflict context in Colombia and the action arena of SEA in the country, respectively. Finally,

**Table 1**

Lessons regarding the opportunities and challenges of applying SEA in post-conflict countries. (Source: own authorship based upon OECD, 2008; Jensen and Lonergan, 2012; and Verheem and Switzer, 2005).

Opportunities	Challenges
<p>Help to identify environmental risks and opportunities for recovering and reconstruction PPPs in early stages of development and ensure that this does not harm peace.</p> <p>Provide appropriate resource management frameworks and governance, and minimize potential causes of new conflicts.</p> <p>Strengthen and restore the natural resource base and livelihoods in resource-scarce settings.</p> <p>Help in reducing opportunities for natural resource-based trade to fuel war economies.</p> <p>Identify cumulative effects of PPPs that could be missed when only the potential impacts of individual projects are considered.</p>	<p>Possible resistance to applying a comprehensive and extensive SEA due to the urgent needs for humanitarian relief, reconstruction, and security.</p> <p>The local governments may not see the relevance of considering environmental issues in planning in the early stages of reconstruction.</p> <p>Institutional mandates and capacity of authorities are usually weak, making it difficult to implement SEA in the early stages of post-conflict development.</p>

the last part of the article provides an analysis of the findings and summarizes them in the conclusions.

## 2. Methodology

The approach used in the current study considers the relevance of the contextual factors for conducting SEA in Colombia. Currently, several authors have argued that SEA practitioners must understand the complex institutional planning framework and governance conditions affecting the decision-making processes within which they operate as well as the role that the context plays in SEA effectiveness (see Marsden, 1998; Brown and Thérivel, 2000; Nilsson and Dalkmann, 2001; Fischer, 2005; Runhaar and Driessen, 2007; Jiliberto, 2011; Fundingsland Tetlow and Hanusch, 2012; Noble and Nwanekezie, 2016).

For this reason, the current study analyzes two different contexts: the institutional context, relating to practical issues of applying SEA (referred to as *action arena*), and the post-conflict context affecting the development planning process in post-conflict municipalities. The purpose of this analysis is to identify the constraints and opportunities related to applying SEA to PDETs.

The institutional analysis is based on the analytical framework developed by Slunge and Tran (2014). This framework is based on Williamson (2000) and Ostrom's (2005) previous works, which study institutions at four different levels: 1) *social embeddedness* (customs, norms, traditions, religion, culture, etc.), 2) *the institutional environment* (formal rules and power distribution), 3) the location of *institutions of governance*, and 4) *the action arena* that captures the practice dimension. The current study analyzes only the action arena dimension of the practice of SEA in Colombia. *Action arena* refers to the practical aspects of SEA in Colombia, such as the current experience in using the tool, the level of awareness about SEA in the government, the capacity and knowledge of applying these types of assessments, and the financing mechanisms to support SEA undertakings.

This framework level was selected for two main reasons. First, it is recognized that contextual factors affect the practice of environmental assessment systems. Second, the authors claim that their proposed framework, developed from experiences in Vietnam, may be useful in countries such as Colombia where formal and informal institutions differ considerably from those in Europe and the United States. Table 2 shows how the analytical framework was used by Slunge and Tran (2014) to analyze the empirical data and how it was used in the current article (this is only related to the action arena level):

On the other hand, to contribute to the understanding of the post-conflict context in Colombia, official and public documents from the Colombian government, policy documents, press releases, and reports from non-governmental organizations were analyzed. Furthermore, the office of Sustainable Development of UNDP was contacted informally in order to verify whether SEA was a planned activity or whether it was a requirement linked to the funds supporting the post-conflict activities. It was found that SEA was not a requirement or an activity related to the funds or to the UNDP agenda for post-conflict. In addition, it was

**Table 2**  
Description of the “action arena” dimension from the analytical framework. Sources: Slunge and Tran (2014) and own authorship.

Slunge and Tran (2014)	Current article
How is the SEA system working in practice?	Mechanisms to implement SEA SEA financing mechanisms Influence of SEA experts on SEA implementation Capacity to conduct SEA
Does it contribute to improved analysis and information about environmental concerns related to strategic decision-making?	Awareness of the tool's existence Knowledge about the usefulness and/or added value of SEA
Does it contribute to improve integration of environmental concerns in decision-making?	SEA success SEA influence on decision-making
Which incentives do government officials and other actors face in relation to SEA?	Encouragement to institutionalize SEA

found that UN Environment is the agency with information regarding SEA in the post-conflict scenario, and a person there was identified as the key source of information about the application of SEA in the post-conflict setting. Moreover, for analyzing the specific application of SEA in the post-conflict context in Colombia, criteria proposed by Verheem and Switzer (2005) were used. Note, the term “appropriately” referred to here is the applicability and relevance of conducting SEA for the specific post-conflict conditions in Colombia.

Three main stakeholder groups were identified in relation to the undertaking of SEA for PDETs: governmental institutions, international agencies, and Colombian experts in SEA. Experts were considered to be people with more than 10 years of experience in introducing, using, and promoting SEA for integrating environmental aspects in PPP in the country. First, governmental institutions both as entities in charge of the planning processes in Colombia (in a regular and post-conflict context) and regarding the implementation of SEA. Second, international agencies as supporters for peacebuilding and SEA promoters. And, finally, SEA experts as sources of information for understanding the application of SEA in Colombia, its relevance for the peace process, as well as constraints and opportunities for its use.

The selection of potential persons to interview was done through data triangulation and snowball approach: a combination of a comprehensive documentation search, identification and contact potential participants through informal phone calls, and finally contact of other possible candidates suggested by the initial identified participants. This selection process was used due to the lack of a formal mechanism to conduct SEA in Colombia and therefore, the lack of clarity about agencies and people with knowledge about this tool, specially in the post-conflict context. After this process, seven semi-structured interviews were conducted with individuals from different organizations in Bogotá, Colombia. This type of interview allows open-ended questions and can provide details of the interviewees' perceptions (Leech, 2006); in this case, regarding SEA implementation in Colombia and potentially applying SEA in PDETs. One of the interviews was undertaken as a group interview (I). The interviewees were:

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), 22 March 2017, Bogotá-Colombia. Governmental Institution.

Interview II: Juan Carlos Bello (regional coordinator, Science Division, Latin America and Caribbean Office, United Nations Environment Programme), 24 March 2017, Bogotá-Colombia, and 17 April 2017 (phone call). International agency.

Interview III: Anonymous (asesora de asuntos ambientales, Unidad de Planeación Minero-Energética UPME), 29 March 2017, Bogotá-Colombia. Considered an SEA expert in Colombia.

Interview IV: Diego Sáenz (coordinator of management of biodiversity and ecosystem services, Environmental and Sustainable Development Subdirector. National Planning Department), 30 March 2017, Bogotá-Colombia. Governmental Institution.

Interview V: Anonymous (magistrado del Consejo de Estado y Procurador Delegado, Sala de Consulta y Servicio Civil del Consejo de Estado, Sala de Consulta y Servicio Civil del Consejo de Estado; teacher and researcher in Environmental Law Department, Externado University), 31 March 2017, Bogotá-Colombia. Considered an SEA expert in Colombia.

Interview VI: Patricia Falla (conservation and development consultant, High Council for Post-Conflict, Human Rights and Security-Presidency of the Republic), 20 April 2017, Bogotá-Colombia. Governmental Institution.

Interview VII: Debby Camacho (Dirección General Agencia de Renovación Territorial), 28 April 2017 (Skype interview). Governmental Institution.

All the recordings were transcribed. Subsequently, a codebook was created for analyzing qualitative data. A codebook consists of setting codes, definitions, and examples used as a guide for analyzing interview data (Decuir-Gunby et al., 2011). The codes are understood as “tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study” (Miles and Huberman, 1994, p. 56). These codes were assigned to the information from the interviews according to three different types: theory-driven codes (codes from existing theory or concepts; in this case, the analytical framework developed by Slunge and Tran (2014) was used to generate these types of codes), data-driven codes (codes from raw data), and structural codes (codes related to the project's research goals and questions). Each code has a name and a description that clarifies when a specific code is assigned to quotations in the interviews. This codebook is attached as an annex to the current article. From the codebook, it was observed that there are several mentions of the utility of SEA in a post-conflict context (8) and environmental issues in a post-conflict setting (10); some of the quotes related to these codes are used to present results in section three. Furthermore, quotes related to the encouragement to institutionalize SEA (14 mentions), the capacity of conducting SEA (11), and knowledge about the usefulness and added value of SEA (11) are used to analyze the institutionalization of SEA in Colombia, this information is presented in section four.

### 3. SEA in the post-conflict context in Colombia: Relevance recognized

This section shows the results of the research regarding the post-conflict circumstances in which the planning processes of PDETs is taking place and how environmental aspects are considered. Several authors have recognized understanding the context in which SEA could take place as a relevant issue since SEA is sensitive to the decision-making context (see e.g. Bina, 2008; and Noble and Nwanekezie, 2016).

#### 3.1. The current post-conflict scenario: The peace agreement in Colombia and its links with environmental management

After more than 50 years of war between the Colombian government and the FARC-EP, both parties decided to end the internal armed conflict. The negotiation process began in August 2012 and came to an end in November 2016 in La Habana, Cuba. As a result of this process, the agreement “Acuerdo General para la Terminación del Conflicto y la Construcción de una Paz Estable y Duradera” (General Agreement on Conflict Ending and the Construction of a Stable and Lasting Peace) was signed between the parties. This agreement is the main document leading peace reconstruction efforts in Colombia. The first chapter of the peace agreement establishes the need to carry out an Integral Rural Reform (Reforma Rural Integral, RRI), this encompasses the target of transforming rural areas to create better living-conditions.

One aspect that can be noted about the agreement is its focus on territory. This emphasis is due to the fact that war has influenced the occupation of the national territory, a process that has frequently been spontaneous and unplanned (Morales, 2017). Especially in places with a high incidence of conflict, there is a history of problems associated with the territorial organization that are related to deficient existing planning processes and the institutional weakness of local authorities. This dynamic has created conflicts about land use and occupation, as well as large gaps between rural and urban areas. In areas most affected by the war, 25–50% of the territory has land-use conflicts due to over or underutilization (Ministerio De Agricultura, 2014).

Since the conflict has affected some areas more than others, considerations about the economic, cultural, and social specificities of territories were considered to prioritize municipalities with a high incidence of war. Consequently, post-conflict prioritized municipalities are the focus of PDETs, characterized as being underdeveloped (DNP, 2017). A total of 16 PDETs are being designed and will be implemented, covering 170 post-conflict prioritized municipalities.

On the other hand, the conservation and sustainable use of natural capital should direct projects towards an integrative territorial organization to decrease the activities that cause environmental deterioration; to improve environmental governance in the Ministry of Environment and Sustainable Development; and to recover and conserve strategic ecosystems (DNP, 2016). For instance, the environmental consultant for the High Council for Post-Conflict (Interview VI) not only sees the PDETs as an opportunity for alternative development activities with a sustainability orientation but also indicates that this is a great challenge that implies the participation of economic sectors in the country (e.g., hydrocarbons, mining). So, this development must happen with some limitation regarding strategic ecosystems.

As a response to these problems, the peace agreement mentions the importance of protecting the environment and highlights the need for respecting the nature, the renewable and non-renewable resources and the biodiversity. Besides there are mentions about the importance of guaranteeing a social and environmental sustainability (“Acuerdo Final para la Terminación del Conflicto y la Construcción de una Paz Estable y Duradera”, 2016).

Beyond that, the Agreement sets up specific actions related to the environment. For instance, it settles the elaboration of an “environmental zoning” (one for each PDET zone), the “closure of the agricultural frontier” (cierre de la frontera agrícola), and the protection of 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 use of land, with the aim of protecting biodiversity and the human right to water access (“Acuerdo Final para la Terminación del Conflicto y la Construcción de una Paz Estable y Duradera”, 2016). The inclusion of environmental issues in the peace agreements shows a recognition of the importance that natural resource management has on peacebuilding. In regard to this, a member of the ART (Territorial Renewal Agency) highlights: “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) ... 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] is a key topic” (Interview VII).

### 3.2. The planning process in the post-conflict context: Definition of PDETs and mechanisms for the incorporation of environmental issues

The PDETs are the mechanism to implement the RRI. The entity in charge of the PDETs planning process is ART. This agency 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”

(ART, 2017, p. 3). Decree 2366 (Ministerio de Agricultura y Desarrollo Rural, 2015) establishes that the main purpose of ART is to execute plans and projects for the territorial renewal in prioritized zones affected by conflict. These plans are named in Decree 893 (Ministerio de Agricultura y Desarrollo Rural, 2017) as “Plan de Acción para la Transformación Regional (PATR)” (Action Plan for Rural Transformation, PATR). The PATR are the instruments to carry out the PDETs. These action plans contain a number of initiatives to carry out in each PDET sub-region. Currently, they are being designed and furthermore they must be implemented.

A government official working for ART’s General Directorate (Interview VII) explains that they developed a methodology for the construction of PDETs as a result of communities’ joint work—building upon a goal of a more participatory planning process in which the community and local knowledge are the main inputs for defining which projects are going to be implemented. According to the official government view (Interview VII), “the construction of the territory vision starts” here. What stands out in this planning process is its participatory nature, which makes decision-making a bottom-up approach. This differs greatly from regular planning processes taking place in Colombia.

In relation to the environmental considerations in these PDETs, some legal documents show the government recognizing the importance of environmental issues during the development of post-conflict territories. For instance, Decree 893 (Ministerio de Agricultura y Desarrollo Rural, 2017), which establishes the guidelines for PDETs, mentions that the PATR must be in harmony with the existing environmental management plans, they must recognize the environmental characteristics and the different land uses of each territory. In addition, the document “Plan Marco de Implementación Acuerdo Final para la Terminación del Conflicto y la Construcción de una Paz Estable y Duradera” (Implementation Framework Plan for the Agreement on Conflict Ending and the Construction of a Stable and Lasting Peace) (Gobierno Nacional, 2017) provides an approach for the development of required policies for compliance of the peace agreement between the Colombian Government and FARC-EP. This document refers, among others, to aspects such as the promotion of adequate practices for water use in irrigation systems and preparation for climate change mitigation and the development of restoration processes in zones affected by illegal crops.

Furthermore, the consultant working for the team in charge of environmental and sustainability issues in the High Council for Post-Conflict Office comments that this group has three main focuses: 1) environmental zoning, 2) closure of the agricultural frontier, and 3) appropriate land uses, reflecting the aspects mention in peace agreement document (Interview VI). In contrast, from the perspective of the civil servant working for ART, environmental issues should not only be those explicated in the peace agreement. She comments: “Environmental issues should not be restricted to an environmental project, but that they should also be considered in the decision-making scenarios” (Interview VII). By making a distinction between operative and strategic environmental aspects, she argues for an integrative, participative, and cross-cutting environmental dimension of PDETs. Integrative in the sense that there are technical, legal, political, institutional, and cultural circumstances to consider, and participative because all actors must be part of the exercise. The environmental dimension must also be cross-cutting and should be part of the decision-making process in order to contribute to a sustainable use of natural resources and minimizing post-conflict negative effects.

With the aim of discussing environmental aspects during the decision-making process, the ART formed a work team within the agency with members of the Sistema Nacional Ambiental, SINA (Environmental National System). SINA is an existing institutional structure that includes the Ministry of Environment and Sustainable Development, the regional environmental authorities and some environmental research groups. This group developed some guidelines to include the environmental strategic aspects during the participatory

planning process of some PATR.

### 3.3. Applicability and relevance of SEA in the Colombian post-conflict scenario

In theory, SEA applied in a post-conflict scenario has the potential to develop proper frameworks for resource management, decreasing the possibility of renewed conflicts (Bouma, 2012; Verheem and Switzer, 2005). In support of this claim, the government official working for ART's General Directorate maintains that “if we [ART] do not do this [to consider the environmental dimension in the 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 VII). Nevertheless, SEA may not be applicable in all post-conflict scenarios. Verheem and Switzer (2005) argue that this type of assessment requires significant amounts of time and financial resources (this is specifically related to the approach and methodology used on the assessment and can vary from case to case); therefore, SEA should only be applied if environmental issues, including social issues, are a priority in reconstruction. Further, the authors propose some criteria for defining the relevance of environmental issues in recovery activities.

Several features of the post-conflict in Colombia match the criteria proposed by Verheem and Switzer (2005, p. 6). First, war has caused the greatest impacts on natural resources in conflict communities. Morales (2017) argues that in Colombia 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. Further, the author asserts that four out of seven causes of deforestation in Colombia are related to the conflict: forced displacement, illegal logging, illegal mining, and the plantation of coca crops. These last two activities were some of FARC's financing mechanisms. According to the DNP (Gaviria, 2016), 75% of deforestation activities occur in conflict municipalities, where the deforestation rate is three times higher than in other places: 6.5 ha versus 2.6 ha (number of hectares deforested for every 1000 ha of forest). In total, 3 million hectares have been deforested in conflict areas, generating approximately 1300 tons of CO<sub>2</sub>. 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 such as sulfuric acid, which is very often released into the soil and aquatic environments. It is estimated that 87% of illegal crops are located in conflict zones, while 42% of natural national parks were affected by coca crops, risking the water supply of 50% of the country's population (ca 20 million people). Other toxic substances such as mercury and cyanide are used for illegal gold mining. Approximately 86% of national gold production in Colombia is carried out under illegal conditions; this practice has been identified in 36% of conflict territories. Additionally, the FARC have perpetrated attacks against oil pipelines, causing a spill of 4.1 million barrels of oil in the last 3 years. As a result, approximately 782 water sources have been affected. In total, approximately 60% of all water sources have been affected by illegal mining and oil spills (from Gaviria, 2016). Finally, the conflict has caused significant internal forced displacement of more than 6 million people from the countryside to the big cities.

Moreover, the lack of an adequate planning process in post-conflict Colombia has a potential to damage areas of global environmental significance. For instance, the coral reefs in the Caribbean, the tropical forest of Darién and Amazon, and the mooring system in the Andes Mountains are examples of such areas, and their conservation is very important. Being the country with the eighth highest forest cover in the world, Colombia's forests serve as a significant carbon sink (Morales, 2017).

On the other hand, Verheem and Switzer (2005) also propose that for carrying out SEA in post-conflict areas, there must be an institution with the mandate and the capacity, including funds, to follow up on

agreed SEA actions—and this also includes the willingness to take the lead in pursuing the SEA process and using its results. The Colombian government has defined an institutional arrangement for post-conflict activities where ART plays a leading role. ART has the mandate and capacity to include environmental issues in post-conflict planning processes. However, more than capacity and mandate, SEA will occur if there is a willingness to do it. During the interviews, it was possible to identify that there was 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 those regarding mining activities (Interviews II, III, VI).

In June 2016, the President of Colombia requested UNEP's support with three main issues regarding environmental dividends of peace. Among them, the “Undertaking of SEA for key interventions, particularly for the improvement of tertiary road networks, the development of infrastructure and the promotion of economic alternatives” (UNEP, 2017, p. 9). As a result, a scoping mission took place in Colombia in March 2017. The results of this mission were presented 15 March 2017 in Bogotá to several government members (some of the interviewees assisted with this meeting). During this presentation, UNEP members presented their findings as seven “key concepts for consideration”, where the fifth point was related to conducting SEA (Interview II). A mission team member declared that UNEP's proposal was to perform an SEA in prioritized post-conflict zones for the mining sector (Interview II). However, this activity was not included in the final official report “Environment for Peace UN Environment Proposal Contribution to the Post Conflict Development of Colombia” (UNEP, 2017b). It has been confirmed that SEA is not going to be applied on the PDETs due to a lack of funds and because a rapid response is required for investment decisions, and, therefore, the High Council for Post-Conflict Office took a different approach (Interview VI). This coincides with what OECD (2008) has observed; namely, that governments in post-conflict countries may not see the relevance of mainstreaming the 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's General Directorate sees the important potential use of SEA and ascribes the decision of not doing SEA to the fact that people in Colombia do not recognize the value of SEA results, since it is not a known tool and there is a lot of ambiguity regarding its purpose (Interview VII).

Finally, the government official working for the Ministry of Environment and Sustainable Development, an SEA expert in Colombia, and a person working for the DNP see the tool as appropriate for the post-conflict scenario and as an opportunity for peacebuilding. The government official considers regional SEA to be necessary for involving different economic sectors and other stakeholders in a region, which would result in a clearer perspective of the territories: “the instrument and the tool (SEA) are very appropriate for the post-conflict scenario. And, in fact, that is the reason why we are planning to carry out SEA for a given region ... So we believe that it would be valid to apply a tool like this one, as long as its results are applied” (Interview I). The person working for the DNP adds that “the tool is valid and is becoming more necessary. Especially for what we are going to face in regard to climate change and the post-conflict context. That forces us to think strategically, all the sectoral planning with the environmental approach, that is a necessity” (Interview IV). 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, one time now and it won't happen again” (Interview V).

## 4. Application of SEA in Colombia: bounded action arena

The use of SEA for PDETs in Colombia is influenced not only by the

specific post-conflict conditions but also by the wider context of SEA application in the country. The current section presents the aspects analyzed in the practical dimension of SEA, named by [Slunge and Tran \(2014\)](#) as the action arena level. Here, the authors include issues such as the awareness of SEA, knowledge about how to apply the tool, and financial aspects. Below is an analysis of the aspects relevant to the Colombian case.

#### 4.1. SEA's background and current experience regarding SEA in Colombia

Some authors assert that procedures applying SEA principles were carried out in Colombia to some projects in the mid-1990s. By this time, the DNP (the National Planning Department) was promoting studies with strategic orientations ([DNP, 2004](#); [Viña Vizcaíno and Amaya Navas, 2016](#))—even though these types of exercises are still far from entirely applying SEA principles. [Amaya Navas and Bonilla Madriñán \(2005\)](#) provides a number of reasons that make these examples non-SEA oriented: the lack of the public participation component, the absence of attention to building the baseline that motivates the assessment, the poor disclosure of results, and a lack of discussion with the public about the suggested action plans.

The first SEA in Colombia was conducted in 2004 in the mining sector, followed by other assessments in the mining and energy, transportation, agriculture, and tourism sectors (see [Viña Vizcaíno and Amaya Navas, 2016](#), p. 178). Between 2002 and 2016, fewer than 20 SEAs have been undertaken in total. Currently, SEA use is promoted by the Ministry of Environment and Sustainable Development (MADS) through inter-ministerial agendas—a communication channel in which MADS defines long-term actions jointly with other ministries (Interview I). Currently, in Colombia, it is not mandatory to apply SEA to any type of activity, despite the existence of knowledge about the tool and guidelines on its use.

#### 4.2. SEA's influence on decision-making

When asked whether final SEA report recommendations were considered, if not entirely then partially, in decision-making, study participants answered as follows: The SEA expert working for MADS mentioned that there are some positive examples, such as the establishment of protocols in the mining sector plans (in [Viña Vizcaíno and Amaya Navas, 2016](#)) (Interview I). It is noteworthy that more than 50% of the SEAs carried out in Colombia have been in the mining and energy sector. This SEA expert also considered the definition of a follow-up methodology for monitoring the incorporation of the recommendations made in the assessment to be an achievement in SEA processes (Interview I).

In contrast, another SEA expert detected that, for diverse reasons, many SEAs result mainly in the “thickening of shelves at public institutions” (Interview V); for example, the SEA on “Energy policy guidance, including liquid fuels and their prices”, where the result was productive in terms of improving knowledge but insufficient to generate changes in environmental development ([Viña Vizcaíno and Amaya Navas, 2016](#); Interview V).

Despite having identified some positive outcomes, SEA recommendations and conclusions often result in extensive reports, which leads to the question of what impact SEA has on decision-making processes. In relation to this, interviewees claimed that, in general, SEA has a limited influence on decisions. The SEA expert working at UPME argued that, in spite of this situation, SEA reports provide important information to different sectors about the context in which policies, plans, and programs (PPP) are happening but added that they have not benefited from it (Interview III). With regard to this, SEA experts at MADS observed that SEA results and discussions are carried out at a technical level and that, in the end, technicians are not the ones making the decisions in economic sectors and ministries (Interview I).

#### 4.3. SEA awareness level

Both the use and influence of SEA on planning processes can be affected by the level of awareness about SEA. If people involved in decision-making processes do not know of or are unaware of the potential benefits of SEA, it is unlikely that they will consider the results and they may not even engage with SEA. Low awareness of SEA and potential benefits was a conspicuous result from the interviews. It was often mentioned by SEA experts working in the public sector that the level of awareness about SEA is low; also, there is fairly low interest and awareness of its importance in the different economic sectors, the DNP, and even within MADS (Interviews I, III, V).

For the specific case of the application of SEA to the PDET formulation, a lack of clarity about SEA's added value stood out during an interview with the external counselor working for the environmental group in the High Council for Post-Conflict Office. During the interview, she questioned the benefit of applying SEA in the Colombian post-conflict context (Interview VI). However, this matter is common among SEA practitioners, since they often face questions and arguments about SEA's added value, especially in places that do not have a legal obligation to use it ([Partidário, 2000](#)).

#### 4.4. SEA financing and capacity to conduct SEA

SEA practitioners in MADS noted that one of the main difficulties of conducting SEA is related to funding issues. In Colombia, MADS has been in charge of promoting the use of SEA, and, therefore, in most cases, it has had to finance its application. Some exceptions have occurred, particularly in the mining and energy sector, a sector with the monetary means to fund the application of SEA. With regard to this, the same SEA practitioners explained that “wealthy” ministries should finance SEA application and not MADS, since it is one of the ministries allocated the least resources by the national government. The argument also focused on the fact that the economic sectors benefit the most from SEA results. This problem was expressed by saying that the “small sector is financing the big ones” (Interview I). In fact, 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 ([Oecd, 2014](#)). Finally, obtaining the funds for the assessment implies great efforts that are undervalued when the ministries “hang the SEA results in their shelves” (Interview I).

Interviewees also mentioned that a lack of expert capacity in conducting SEA is a significant challenge for SEA in Colombia. It seems that there are many experts knowledgeable in EIA who apply to carry out SEA consulting calls. However, since they lack SEA capacities, difficulties have been encountered, and neither national nor regional environmental authorities are trained to conduct SEA.

### 5. Analysis

In the post-conflict scenario in Colombia, national efforts are centered around the construction of infrastructure and development plans. Additionally, the government has the challenge of incorporating sustainable growth into these initiatives due to the important natural resources that are present in post-conflict municipalities. For these reasons, the peace agreement demands some specific environmental outputs: environmental zoning and the closure of the agricultural frontier. Aside from this, in other documents, other environmental management directions are mentioned, as explained in [Section 3.2](#). With this in mind, there is a recognition from the government about environmental management concerns and a legal framework to support the inclusion of environmental considerations in PDETs; these circumstances favor the inclusion of environmental aspects in decision-making processes. The environmental zoning activities will provide a wider range of information about the environmental conditions in the post-

conflict zones and will facilitate the understanding of the dynamics of specific territories. Nevertheless, they do not guide the decision-making process in a systematic manner. All this indicates that having more information about the environmental conditions in post-conflict zones does not guarantee the incorporation of environmental issues in the PDETs. In this sense, SEA has a potential role in integrating environmental aspects during the planning process of PDETs. It is important to mention, that the mechanism that ART has developed for including environmental aspects during the participatory planning of PATR constitutes a great opportunity for applying SEA.

Another contextual characteristic is the distinctive planning process for defining the development plans. The planning in post-conflict Colombia is going to be bottom-up (in theory and as established in the peace agreement), in which the basis of decision-making is the community, and decisions must be taken in consensus with different government levels. This situation differs with respect to other post-conflict scenarios in which SEA has been used, where security could not be guaranteed for relevant stakeholders during the participation processes (Verheem and Switzer, 2005). Nevertheless, guaranteeing security is an aspect that can vary within PDETs sub-regions.

Additionally, it can be said that SEA for PDETs is pertinent and relevant, since two conditions are met: First, environmental and related social issues are a priority in reconstruction within the post-conflict Colombian context; Second, there is an institution in the country which has the mandate and capacity to lead SEA and use its results, namely ART. Nevertheless, the main obstacle for applying SEA is the lack of awareness within the government about the added value that the tool can provide in the PDET planning process. In addition, the government considers environmental issues as being taken into account with the environmental zoning, the closure of the agricultural frontier, and with a participatory planning approach. Plus, there is also an issue with regard to limited time and monetary resources. Addressing this issue, Partidário (Partidário, 2003, p. 50) suggests that “SEA preferably should be a function of the added value that it can bring to decision-making” and that its value will be determined by the stakeholders involved in the process. Identifying the added value that SEA can provide to one of the 16 PDETs can be difficult because the definition of what can be considered added value depends on stakeholders and on the specific PDET; therefore, a deeper and participatory exercise must be carried out to identify this aspect.

Taking this into consideration, a critical step before conducting SEA is to identify the methods most appropriate for ensuring that it is adding value. Due to the urgency of development needs, the current study suggests that the SEA application should have a strong strategic orientation and that should be based on the current efforts that the ART is making in regards to include environmental strategic aspects in the planning process. Here, the word *strategic* means that SEA should be aligned with the planning process with the support of experts who have the capacity to rapidly understand the context and to present results within a few months. For that reason, SEA should not be a detailed and technically EIA-oriented 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 tailored to each decision process, enabling SEA to play a decision-support role and to ensure that the assessment provides an added value (Partidário, 2000). One example of this suggested methodology can be found in the modified SEA tool that was piloted by UNEP in a post-conflict zone in Sri Lanka between 2010 and 2011. This methodology was called “Integrated Strategic Environmental Assessment” (ISEA) and was designed to support development planning while ensuring environmental sustainability and risk reduction (UNEP, 2011). This tool was tailored to the local context and guided decision-making by taking into account environmentally sensitive areas and disaster risk. To some extent, ISEA has similarities with the Colombian case (e.g., concerning baseline studies and opportunity mapping). However, the Colombian process calls (according to the peace agreement) for an extensive bottom-up

process with the engagement of local communities—and not only public agencies.

Despite the lack of certainty regarding the added value that SEA can provide the Colombian post-conflict planning process, some SEA contributions to the formulation of PDETs were identified. First of all, the Colombian government recognizes the importance of directing the development actions in a sustainable way. However, they lack a methodology to measure this aspect. SEA can contribute to monitoring the accomplishment of environmental goals in PDETs, allowing the government to measure and improve development plans in post-conflict municipalities. Also, coupled with a socio-ecological approach, SEA can support and provide an integrated territorial planning mechanism to identify a territory's green structures for connecting its urban and rural areas and for planning for the provision of essential ecosystem services for human well-being. If the national government decides to use SEA to shape the PDET formulation, 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. In addition, performing SEA to the PDET has the potential to address certain regions as a whole, while having a broader holistic vision for some territories; in this sense, the SEA is not carried out only for one sector (as is usually the case in Colombia).

Moreover, the Colombian government has the opportunity to guide the SEA for PDETs in such a way that it helps to improve current weaknesses in its 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 SEA approach. Currently, the majority of implemented SEAs tend to have a high level of technical detail, the SEA results are not discussed in decision-making spheres, and usually, the assessment is not integrated into the planning process. More importantly, the local government has an opportunity to increase capacity for SEA performance. During PDET development, several stakeholders are involved, and engaging these stakeholders in the SEA can increase the level of awareness about SEA, which currently remains low in Colombia.

Despite international aid and the creation of funds to support the Colombian post-conflict process, these funds have to be allocated for development plans and the construction of infrastructure; thus, there are limited resources for conducting studies and processes such as SEA. Consequentially, one barrier to conducting SEA for the PDETs is the notion that these types of studies are expensive, and thus they are not a priority for the post-conflict agenda. Another difficulty in applying SEA to these programs is the idea that they will take a lot of time, and ART has a few months to design and start implementing the PDETs.

Beyond the conditions of the post-conflict context in Colombia, some characteristics of the SEA system in the country may affect the use of the tool. First, the number of SEA cases in Colombia remains low and its non-mandatory character means that it is difficult to use. Second, it seems that the current SEA exercises have failed in influencing decision makers. And third, there are few financial mechanisms and resources to be allocated for SEA and a lack of experts to carry out this type of study.

## 6. Conclusions

This study has explored and addressed how SEA can be used for integrating sustainability and environmental aspects into PDETs in the post-conflict process in Colombia. In doing so, the authors analyzed several characteristics of the Colombian post-conflict context. One such characteristic is that there are explicit compromises regarding environmental issues in the peace agreement. This shows an early recognition from the government and the FARC that the protection of the environment is necessary and that development in post-conflict zones must be done in a sustainable manner. Another significant characteristic is the existence of a clear identification of the institutions that are involved in the process and of their roles and responsibilities, with regard to planning and monitoring activities. This is an advantage for

carrying out SEA, since institutions that could lead the assessment can be identified. With regard to the planning process for the definition of PDETs, it was identified that it has a strong participatory and environmental focus. Through this, the territorial visions and development definitions are being constructed from the bottom-up and environmental aspects are being discussed in the process of defining the PATR.

The last three characteristics mentioned regarding the post-conflict scenario in Colombia are seen as an opportunity to facilitate the inclusion of environmental issues in the planning process of PDETs. Nevertheless, the government does not have a systematic approach to support this process. For that reason, SEA can potentially be used for integrating environmental factors during the strategic definition and design of PDETs for the post-conflict municipalities but more important, during the implementation stage of PATR.

Critical factors for implementing SEA are establishing the added value and securing time and monetary resources in the post-conflict process. Furthermore, in order to support relevant future SEA processes and studies, the analysis of the general SEA framework in Colombia indicates that the following factors are needed:

- Increased clarity of the institutional responsibility for conducting SEA and for which types of decisions and planning are to be made.
- More practical experience in conducting these types of assessment in the country—and experience sharing, which also increases the level of awareness of SEA, its benefits, and potential added value.
- Funding to carry out SEA.
- Institutional capacity building within public and private organizations in order to increase knowledge and experience to conduct SEA.

A recommendation from the above analysis is that SEA for PDETs and PATRs needs to be aligned to the current planning methodology developed by ART and supported by experts who can consider the special contextual circumstances and conduct a tailor-made process and assessment. Conducting a highly detailed and EIA-oriented assessment should be avoided, and a strategic approach to SEA should be taken instead. A pilot case in the post-conflict scenario can provide an opportunity to show the added value that SEA can provide in this context.

Furthermore, for future SEAs in Colombia, increased capacity to conduct these types of SEA approaches must be sought. Finally, for a better understanding of SEAs' influence on decision-making in Colombia, it is recommended to conduct more specialized analyses through continuous follow-up research focused on how decisions are taken, what the influential factors (in general) in decisions are, and which power mechanisms and forces are involved in the process—with the overall objective being to inform and support the sustainability transition of Colombia.

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