



**Doctoral Studies Support Program (DSSP) between the Center for
Development Research (ZEF) - University of Bonn and the Institute for
Environmental Studies (IDEA) - National University of Colombia.**

**Research Agenda
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I. INTRODUCTION

In December 2017, the Institute for Environmental Studies (IDEA) of the National University of Colombia and the Centre for Development Research (ZEF) of the University of Bonn signed an academic cooperation agreement to carry out the Doctoral Studies Support Programme (DSSP) between 2017 and 2020. At the end of this period, a second phase of the agreement was approved by the funder and will continue until 2025. The DSSP is funded by the German Academic Exchange Service (DAAD) in the framework of its SDG Graduate Schools Programme to strengthen cooperation between German higher education institutions and academic peers in African, Latin American and Asian countries. The goal is to advance the development agenda proposed by the United Nations through the Sustainable Development Goals (SDGs).

The strength of the DSSP is based on the complementarity and coincidence between the work themes of the ZEF and IDEA in the study of the relationship between human beings and the environment and their inter- and transdisciplinary approach to research. In this sense, the projects developed in the departments of "Political and Cultural Change", "Economic and Technological Change" and "Ecology and Natural Resource Management" of the ZEF, coincide with IDEA's active lines of research and its mission to propose alternatives to Colombia's environmental problems and conflicts. The post-agreement scenario initiated from the signing of the Final Peace Agreement with the guerrilla group Fuerzas Armadas Revolucionarias de Colombia-Ejército del Pueblo (FARC-EP) in Havana (November 2016) and the negotiations carried out with the Ejército de Liberación Nacional (ELN) establish the challenge of implementing strategies for sustainable peace, possible only by taking up the problem of the unequal distribution of land, the pluralistic legal visions on land and the social demands for the materialisation of territorial rights and sustainable use.

Added to this are global aspects such as hegemonic development models and historical processes of inequality and social injustice. For all these reasons, the relationship between the environment and the armed conflict in Colombia is varied and complex. The diverse ecosystems of the country, which is considered one of the mega-biodiverse countries, can appear as the causes (due to disputes over the appropriation of its natural resources), the victims (deforestation, fumigation, etc.), or the beneficiaries (through the protection and conservation of places of high biodiversity that have been banned during the presence of armed actors) of these conflicts.

In this complex scenario, the Colombian-German production of knowledge based on inter- and transdisciplinarity within the agreement aims to make various contributions at a time when the recent signing of the Havana peace agreements is testing society's capacity to find solutions to the country's historical environmental pressures related to extractive activities, environmental protection figures and the participation and inclusion of the population in decision-making to manage environmental conflicts. The DSSP aims to contribute to the understanding and construction of proposals through the following objectives:

Objective 1: To introduce interdisciplinary, integrative and innovative approaches, concepts and methods in the study of the relationships between environment, territory, development and conflict.

Objective 2: Develop a research agenda that addresses the Sustainable Development Goals (SDGs).

Objective 3: Internationalise science and foster comparative analysis between regions with transnational and regional partners.

Objective 4: Explore and critically reflect on the role of higher education for the SDGs.
Objective 5: Consolidate and extend information and data management systems.

This document presents the DSSP's research agenda as the result of a participatory process of reflection and identification of priorities, themes and lines of research that are already underway and also constitute points of reference for the continuity and design of new research projects. The second section of the document describes, in general terms, the context of the current peace process in Colombia, with its vicissitudes and challenges regarding territorial land use rights and access to natural resources. The third section describes the methodology followed to construct the agenda, the fourth section highlights the most relevant results of the agenda discussion event, and the fifth section details the research themes and sub-themes. The document concludes with a proposal of strategic lines for the development of this agenda.

II. THE GENERAL CONTEXT

Since the signing of the Havana peace accords between the Colombian government and FARC-EP and the now interrupted negotiations with the National Liberation Army (ELN), Colombia faces a unique historical challenge. The "post-conflict" (post-agreement) era is marked by uncertainty about the end of the armed conflict, which has become more complex as criminal groups linked to drug trafficking appear and consolidate in some areas of the country. In addition, during the current government of President Iván Duque, the process for the fulfilment of the agreements reached between the FARC-EP has slowed down compared to the process carried out by the previous government of President Juan Manuel Santos Calderón. For some years now, Colombia has also been experiencing tensions related to migration resulting from the humanitarian crisis in Venezuela, which represents the world's second-largest refugee crisis after Syria (UNHCR, 2020).

Despite this panorama, peace processes continue and strong public opinion and international pressure are influencing the continuation of peace agendas implemented through various instruments such as the Development Plans with a Territorial Approach (PDET), attention to victims and the implementation of the Special Justice for Peace (JEP). Far from being a challenge exclusively for Colombian governments, building a sustainable peace is the responsibility of the whole of Colombian society, including academia.

The relationships between the environment and the armed conflict in Colombia are multiple and make the various ecosystems and natural assets appear as the cause, the victim (deforestation, fumigation) or the solution (through the concerted and intelligent use of the high biodiversity characteristic of the country) of these conflicts. Biodiversity in Colombia is increasingly threatened by environmental degradation due to various extractive activities such as mining for export, mega-constructions, extensive monocultures (oil palm and sugar cane plantations) and intensive use of agrochemicals (OECD and Economic and Development Commission for Latin America and the Caribbean, 2014; Morales, 2017, Humboldt Institute, 2017 and Baptiste *et al.*, 2017). The expansion of these industries, coupled with conflicts over land use following the signing of the peace agreement and changing weather patterns have exacerbated the number and intensity of environmental conflicts in several territories (Ortega-Guerrero, 2018, MADS n.d.). Conflict is also associated with institutional weakness and poor governance at all levels of the state (Dávalos *et al.*, 2016). Therefore, there is a strong affectation of the environmental services on which communities depend. Given the lack of clarity on the consequences of rapid socio-economic and political changes on the state of ecosystems, their biodiversity and services, efforts are needed at various levels to improve both research and spaces for transdisciplinary dialogue on the environment in Colombia (Sierra *et al.*, 2017). Indeed, Colombia is one of the five mega-diverse centres of the planet, which makes it a biodiversity *hotspot* for the region (Mutke *et al.*, 2011) and therefore capable of providing ecosystem services for the dignified life of the entire population.

At the same time, territorial reconfiguration and the way territory is distributed and used are at the centre of conflicts, but also of any lasting solution. The implementation of strategies for sustainable peace needs to address the problem of the historically unequal distribution of land, social demands for the realisation of territorial rights and the sustainable use of natural assets, over and above the arbitrary exploitation of ecosystems.

Building on this general framework, the ZEF-IDEA bilateral programme addresses the nexus between natural assets, governance and conflict, using innovative and integrative concepts, methods and tools to explore the interdependencies between ecosystems and societies and the pressures of the use of natural resources by human action (local communities, national and international companies, the state, armed groups). The joint production of knowledge based on interdisciplinary exposure and the proposal of integrative measures is of utmost importance for Colombia. The production of such knowledge aims to feed not only the research programmes of universities in Colombia and Germany but also the decision-making of communities and local and national authorities. Therefore, they involve the study of different productive and extractive activities the analysis of their territorial environmental effects, and the recognition of different forms of knowledge, management and appropriation of the territories by populations and communities historically settled in them.

III. AGENDA-SETTING METHODOLOGY

This research agenda was built in a participatory process that started with two meetings between representatives of the ZEF and IDEA in early 2017. In these meetings, initial issues and questions were formulated as a basis for further discussions and the construction of the agenda. Subsequently, on 17 October 2018, a discussion workshop was held around the proposed questions among professors, students and some community representatives, who belong to different academic sectors (anthropologists, agronomists, agronomists, sociologists, biologists, economists, engineers), institutions and social organisations. The analysis that emerged from this activity was finally discussed between ZEF and IDEA counterparts around themes related to environment, development, territory and peace in the framework of the SDGs. This process is consolidated in the present research agenda of the DSSP.

III.I Initial questions

The agenda addresses four issues linked to the relationship between conflict, environment and governance in Colombia. These were broken down into basic questions for the elaboration of research themes and sub-themes.

Theme 1: Relations between conflict and environment and their manifestations. About exploring the complex relationships between conflict (including the peace agreement) and the environment in its different manifestations, seeing natural resources as the reason, the victim and ultimately the solution for conflicts:

- What are the socio-environmental costs and benefits of the peacebuilding process in Colombia?
- What additional environmental conflicts emerge and are reinforced by the new social and economic configurations of the territory after the peace accords?

- What conceptual and technical strategies are required to strengthen the diagnosis of the environmental impacts of different economic activities in the country?

Theme 2: Rural development models. On the analysis of relevant actors and institutions at various scales in land management, deepening the understanding of the institutional and socio-economic framework required for sustainable land cultivation, land use and sustainability of ecosystems for these productive activities:

- What are the processes, advantages and disadvantages of alternative (agroecological) and conventional agricultural production systems and what is their viability within the territorial peacebuilding process?
- What social, economic, technical, symbolic, cultural and political challenges (ethnic diversity, competition between actors, interests and institutions) need to be addressed when including alternative models of rural development?
- What are the main social, economic and technological requirements for strengthening tourism processes in a participatory manner in the context of peace and national development strategies?

Theme 3: Land and territorial rights and their actors. On the analysis of the dependencies and interdependencies of legal, social, cultural and economic factors that foster inequality in access to land and territorial rights in Colombia:

- What historical dependencies (colonisation and colonialism) still explain the deep-seated social inequalities between different sectors of the population in Colombia that are at the forefront of the conflicts?
- What are the strategic actors at different scales and how do they influence the development model(s) in Colombia?
- What impact do these strategic actors and their respective public discourses have on the peacebuilding process in Colombia?

Theme 4: Local people, knowledge and education. Analysis of the potential for strengthening communities in their activities for the use and protection of the environment.

- What are the ideas, strategies and practices used by local people to protect the environment and build a stable peace in Colombia?
- What are the principles, policies and practices of environmental education in different communities? What can science learn from the environmental knowledge of communities?
- What role can higher education play in incorporating the affected population into the peacebuilding process, for example by promoting and strengthening alternative income-generating activities in agroecology and/or alternative forms of tourism?
- What role can higher education play in building a school of environmental thinking that corresponds to the needs of life?

IV. ANALYSIS OF THE AGENDA QUESTIONS

This section summarises the results of the October 2018 event on the themes and questions for the construction of the research agenda. They are presented here as the theoretical basis for the definition of themes and lines of research.

THEME 1: Relationship between conflict and environment and its manifestations

To address the relationship between conflict and the environment, it is necessary to understand the environmental dimension as the complex interactions between nature, ecosystems and cultures. In the case of Colombia, the armed conflict is immersed in the struggle for power and interests that revolve around natural resources. This has not changed with the agreement signed in 2016. There is evidence that shows that the FARC-EP's abandonment of territories has increased the occupation of territories and has led to the degradation of ecosystems, particularly due to deforestation, which translates into higher socio-environmental costs.

It is necessary to differentiate between several concepts that are used interchangeably in debates and research, such as territory and conflict, and to agree on their meanings. The former can be understood as a category that faithfully expresses the environment as it includes the multidimensional interactions between different social actors with land and other natural assets. Conflict, on the other hand, indicates the competing interests of different actors in the appropriation and use of such assets. This implies recognising that the concept of land use has different meanings depending on whether one is dealing with Indigenous, black, *raizal* or peasant communities, or with private companies, state agencies, national or international commercial interest groups, or others.

In the debate, the historical environmental vision that relates the existence of different territorial configurations according to the control that various groups exercised over the ecosystems and natural assets of the territories, especially in those remote areas of the country declared as protected areas (national natural parks, flora and fauna sanctuaries, forest reserves), is gaining strength.

Non-human nature, which was at the heart of the origin of armed conflicts in the country (especially land use, tenure and appropriation), can constitute the basis for peace alternatives and the construction, not only of sustainable development but also of a collective good life. This collective good living includes other key categories such as human health, food security, sovereignty and autonomy, and the generation of income based on non-extractive processes such as tourism or scientific exchanges around biodiversity.

The need to estimate or calculate the environmental costs and benefits of post-conflict and peacebuilding processes arises as a backdrop for the necessary political debates that lie ahead. To this end, it is necessary to reflect on the following questions: From whose point of view and for whom are the costs and benefits given? From what ideological and political positions are the costs and benefits valued?

Environmental costs and benefits touch not only on processes of recovery or management of soils, mineral deposits, water, flora and fauna, but also on many others related to their appropriation and use within the framework of the rules of law, orientations and budgets of research programmes, productive activities and employment generation, gender roles, presence of state institutions, available technologies, markets, means of communication, satisfaction of basic needs, infrastructure, provision of services and, in general, a series of cultural variables that relate to a possible new era of reconciliation among Colombians.

Valuation of environmental costs and benefits is more than valuation *per se*. It is about establishing the central criteria for such valuation, its priorities and the search for integrative and inclusive methodologies. As a whole, this represents a challenge for researchers to link their interdisciplinary visions with the communities' knowledge and stakes, in line with the limitations and opportunities offered by the Colombian state to consolidate peace in the country.

It will be necessary to recognise the differences that exist between the methodological approaches in Latin America, and in particular in Colombia, and other proposals that come from northern countries and whose

conceptual and practical tools differ substantially from those required by the tropical environment. In this scenario, many private companies "skip" the environmental regulations of the countries in which they operate, again showing asymmetrical power relations reflected in the corporate behaviour of many multinationals. It is not business ethics but investor confidence that applies.

As a corollary to the preceding paragraphs, it is accepted that there are profound relationships between conceptions of positive science, visions of efficiency and competitiveness for the exploitation of natural resources (no longer goods), the exercise of transnational power, the accommodation of government elites and the exclusion of local communities about territorial disputes. Nevertheless, the entire planet is living in an era of enormous circulation of information and data that move through social networks and thus update the debates and conflicts surrounding the appropriation of natural resources.

The current landscape of abundance and speed of information and communication exchange creates new challenges for scientific communities in terms of both their action in learning and cooperation networks and their positioning in global debates. Approaches and concepts that challenge the hegemonic positions of corporate capitalism are required.

Some key elements of academic responsibility revolve around the goal of productive relations. The emphasis on efficiency, profit or financialisation is replaced by a focus on complex processes related to the maintenance of life, on vital relationships that intertwine the human with the non-human, and on values of respect, love and generosity. In other words, the displacement of selfishness as a symbol of limitless accumulation by altruistic values and of life as the main purpose of human endeavour.

It is worth asking whether the post-agreement period has generated or will generate new social and economic configurations in the territories, and what conflicts or environmental solutions will result from them. The power vacuum left by armed actors in areas of environmental interest or strategic zones has generated new or exacerbated old conflicts, as this vacuum has not been filled by the state, or has been filled only very weakly. Although the nature of the conflicts themselves may not change (deforestation, erosion, contamination, loss of biodiversity, displacement, violence, poverty), it is possible that their intensity or directionality will change. Territories that were "protected" by the normative demands imposed by the guerrillas (no hunting, no fishing during closed seasons, no entry into the area, no logging) and that preserved their tree cover and water quality, are now entering into new dynamics of violent disputes, spontaneous settlements, pressures from external agents or productive or extractive activities that did not exist before and that generate new ecosystemic and cultural problems.

The exploration of possible oil or mining deposits and the prospecting of areas for *fracking* or tourism have emerged as new ways of using natural resources in many of the country's territories. Tourism in particular has been revealed as a great bet in the peacebuilding scenario, but its positive or negative effects will depend on the model that is implemented: modalities, owners, state incentives, community participation and the infrastructure that is planned to be established. The characteristics of the areas, their fragility or their ecosystemic and socio-cultural potential will also play a role. This activity, while it can generate satisfactory income for different actors and benefits for communities, can also be predatory and generate profound changes in social relations. Around tourist areas, there can be problems of concentration of property ownership, increase in land value, water scarcity, prostitution or significant changes in land use for agricultural production. Therefore, it is pointed out that there should be complementary activities so as not to be completely dependent on tourist activity.

All of the above points to the need to establish and comply with land-use plans that emerge from the communities themselves, in consultation with the local authorities. Part of these new forms of concerted territorial planning are condensed in the Peasant Reserve Zones (ZRC), seen by many in contrast to the Zones

of Economic and Social Development Interest (ZIDRES), decreed without community participation by the state, as the ZIDRES obey criteria of competitiveness and economic efficiency rather than criteria of equity or environmental sustainability.

Issues that affect and necessarily pass through the territory, such as environmental conflicts and peace, have the possibility of being studied from interdisciplinary perspectives in which human geography, political ecology, ecological economics and environmental thought converge. These perspectives would contribute as a theoretical and conceptual basis for the necessary diagnoses and for the implementation of alternative solutions that recognise the complexity of the conflictive situations experienced by the country in its different natural regions. Therefore, they will have the potential to propose alternative solutions following the environmental characteristics of the territories.

An interdisciplinary research agenda also includes historical studies on the initial conditions and evolution, both of the symbols hidden behind the armed events and the reconfiguration of rural landscapes and makes visible the roles of institutions (development plans, planning, watershed management), communities and other stakeholders.

Issues such as human and non-human health, alternative production systems (e.g. agroecological), gender relations and discussions on technological changes (energy generation, mining, transgenic plants, pesticides) are also part of these thematic agendas for the study of territorial reconfiguration.

THEME 2: Rural development models and their actors

This topic aims to discuss how to turn several of the theoretical precepts that accompany environmental and developmental discourses into reality, in the context of a peace policy that is now seriously weakened by the current government's lack of political commitment and by the chronic conditions of inequality and social injustice that characterise Colombia's contemporary history.

Inequality in Colombia is mainly related to land access and ownership rights. Indeed, the country has a long history of colonial dispossession of farming areas and strategic zones containing mineral deposits or forestry assets that historically ended in violent dispossession of territories, displacement and even physical elimination of populations who, nevertheless, maintain strategies of civil resistance. These processes of resistance include political mobilisations, the creation of new legal figures to safeguard territories (Peasant Reserve Zones, indigenous reserves, areas set aside for Afro-descendant communities), and the practical appropriation of alternative discourses (e.g. agroecology).

Several alternative agroecological production processes require academic support, both to demonstrate their economic viability and to broaden the panorama of possible applications in terms of resilience, adaptation and mitigation of climate variability and change, increased food security and sovereignty, reduction of human and non-human health impacts, reduction of demands on social security systems and, in general, of those variables that make up the good life.

An important part of the demands to be faced by a research agenda is connected to the technological transformations necessary to replace the current systems of agricultural machinery, pesticides and monocultures with other systems of greater ecosystemic diversity and greater understanding of the complexity of social interactions. It is also key to identify the necessary transformations within the study and technical training centres that take place at the primary, secondary and university levels, to enable critical analyses of exclusively developmentalist and productivist visions, as these do not allow for an understanding of the integral functions of agricultural systems within the country's rural landscapes. This in turn implies analysing both the complex networks of actors and institutions involved in land management

at different scales and the institutional and socio-economic framework required for the appropriate use of land and the sustainability of ecosystems and human populations.

To this must be added other spheres of greater complexity at different scales. The role of international agencies, for example, needs to be highlighted in the analyses, because many national policies follow the guidelines of provisions issued in international thematic meetings or large multilateral agencies promoting research or development.

Nor can research related to the demands of national and international markets or the influence of private companies on the design of public policies be left out. Many of the guidelines on what to grow, where, with what resources and for whom, emerge from transnational scenarios where interests outside the country and local communities are at stake. Examples include mineral extraction processes, waste disposal, product life cycles and green production chain processes.

The above needs to be framed within a critical analysis of the development model(s) implemented in the country on a sectoral basis *versus* extended governance models, including those with community participation. In the last two to three years, popular consultations at the municipal level have increased. Several have dealt with land ownership and use (the subsoil belongs to the state) and have led to Constitutional Court pronouncements that, for now, postpone optimism about the power of communities to decide on the most appropriate uses of their territories. Such analyses are key when considering the most appropriate development models for the country, especially at a time when the peace process is not receiving strong support from the government and communities see opportunities to decide on their models of peace, self-government and development being postponed.

THEME 3: Access to land and land rights

The factors that foster inequality in access to land and territorial rights in Colombia have been and continue to be complex and diverse. Preliminary questions for discussion focused on the historical interdependencies of this reality, the strategic actors and their role in the construction of a development model, and the repercussions of the actions and discourses of these actors on the peacebuilding process.

Firstly, it is necessary to analyse, from a historical perspective, the strategies developed by local communities in response to their most acute problems. The problems faced, often semi-colonial or colonial in style, need to be analysed in relation to the multi-level actions of other actors, partly to assess the adaptation, application or replication of experiences.

One of the main contributions from academia should be the consolidation of methodologies for the study of development discourses and practices that respond to the multiple perspectives and local proposals, and that disassociate themselves from disciplinary and dominant theories. In this sense, the role of higher education is at the centre of discussions on development and can be considered as the starting point for the construction of comprehensive and innovative proposals.

Many communities promote decolonial knowledge through alternative pedagogical proposals at a level comparable to higher education. The research project developed by the student Claudia Leifkes at the Latin American Institute of Agroecology María Cano, in Viotá (Cundinamarca), for example, has established certain theoretical and practical bases on which the line of research on decolonial education could be developed within the framework of the agreement. This experience highlights the broad participation and autonomy of the members through the farmer-to-farmer methodology; the alternation of work in the school and their territories; the principles of agroecology as the basis of the relationship with the land; interculturality and the horizontality of human relations. Such decolonial thinking implies, in many ways, the abandonment of the most deeply rooted precepts and paradigms of knowledge construction in today's higher education

institutions. One of the essential challenges is to recognise the multiple modes of knowledge outside the academy as valid sources of information and strategic references for research projects. The practice of self-referencing and closed knowledge production in universities has generated a rather large, but sometimes irrelevant body of knowledge for society. The allusion to static theories, for example, can limit the points of view from which a practical problem is approached, just as rigorous methodologies force the production of knowledge in a single path.

The aim is to transgress the boundaries of theory, practice and the disciplinarity of academia to arrive at ethical, interdisciplinary and relevant discussions. In particular, academic practice at the methodological level should not only play the role of a standardisation model of "formal" knowledge but also be reconstructed towards the effective insertion of local knowledge and its dialogue with related conceptual categories. This implies redefining the assumptions on which research is traditionally conducted.

The academy has the responsibility to transmit forms of analysis of phenomena or research methods to society at large so that it too can address its problems from an informed and autonomous perspective.

The above discussion should not be confused with the idealisation of the local. In the construction of this research agenda, it is more important to recognise the strengths and weaknesses of the academy in order to propose transversal and constructive perspectives that bring knowledge into play with what has been built outside the academy (communities, government institutions, private agents), but also within it (other disciplines and techniques). That is to say, to tend towards approximation (visibilisation, support for decision-making, accompaniment of social struggles and other forms of citizenship building) rather than the research questions themselves. In this sense, *top-down* proposals also require theoretical support that is grounded and reinterpreted towards relevance that is closer to the territorial reality (situated knowledge).

The treatment of land and territorial rights in relation to the peacebuilding process leads one to consider the accords as the opportunity that the country had or still has to generate a dialogue between actors whose problems had long been put aside. The proposal of the accords, beyond the laying down of arms, implies an approach to historical problems from joint perspectives that, while they may not agree, can engage in dialogue. This dialogue will, of course, include academia as an essential actor, and it is there where this research agenda can find a starting point that can be thought towards the different sectors of society and propose alternatives to the direction that peacebuilding in the country has taken with the current government.

THEME 4: Local people, knowledge and education

With regard to the capacity to strengthen communities in their activities for the use and protection of natural resources, which the academy should propose from an environmental perspective, the initial questions for discussion focused on the identification of ideas, strategies and local practices for the protection of ecosystems and peace-building. We assumed that the research agenda should contribute to identifying what principles, policies and practices underpin environmental education and what the academy can learn from local communities. Related to this discussion is the analysis of the role of higher education in the promotion of productive alternatives based on biodiversity (including agrobiodiversity), conservation and strategies for the construction of a society with environmental thinking. It is proposed to understand the school of environmental thought from its dimensions as an academic activity not limited to the classroom or environmental research institutes and centres.

As an area of research in its own right, environmental thinking must have the possibility of entering into dialogue with other ways of knowing and forming environmentally aware individuals. In response to the intrinsic complexity of the environmental issue, education is nourished by a large number of experiences not

necessarily linked to the university. These experiences highlight the importance of purely ecosystemic issues, relating to population dynamics, habitats and intra- and inter-species relations of non-human beings. It highlights the unsustainable use or exploitation of goods by communities that can lead to local extinction processes and generate biophysical imbalances that, in boomerang effects, also affect human settlements. Education in this sense is based on accumulated local experience, but also on the knowledge of different regions of the country and the planet, which guarantees the adequate management of natural resources for the purposes not only of sustainable development but also of general good living in terms of the preservation of life.

A call for attention is made to focus, as well as on the activities or practices of the communities, on the actors and networks of actors formed in the territories. This implies recognising the cross-cutting principles behind the communities' decision-making and their forms of organisation in relation to the territory. Recognising the identity of the actors and their networks is based on the particularities of the territories and the forms of participation and dialogue that exist in each one of them. Additional perspectives, such as the gender perspective, make it possible to understand non-traditional ways of organising society in relation to natural resources. The gender perspective is very important for revealing hidden roles and practices that are often at the basis of many productive, organisational and family processes, which are basic to understanding local territorial dynamics.

By way of conclusion on the agenda questions

The participants of the meeting to identify a common direction for the next activities of the ZEF - IDEA agreement recognise the complexity of the environment expressed as ecosystem - culture interrelations and understand the difficulties of the peace process in Colombia.

They highlight the four pillars proposed by the members of the two universities (peace, territory, environment and development), indicating that it is necessary to strengthen inter- and transdisciplinary approaches to achieve substantial effects of research processes. This includes the recognition of the contributions of local communities in the study and formulation of their solutions, which must be accompanied by the academy.

In this sense, rather than promoting projects based on research questions, it is proposed to do so in terms of fields of study in the proposed themes, a strategy that facilitates the approach to different topics, while promoting interdisciplinarity and dialogue of knowledge, in an inclusive vision of different problems and alternative solutions.

V. THE DSSP RESEARCH AGENDA

V.I Research at the ZEF and IDEA

The agreement for the establishment of the DSSP was made possible by the overlapping research and capacity-building agendas of the ZEF and IDEA.

ZEF research areas	IDEA research programmes
Land, water, food and energy	Economy, environment and development
Health, nutrition and ecosystems	Environmental Management
Governance, conflict and natural resources	Agricultural environmental studies

Mobility, migration and urbanisation		Environmental thinking and education
Markets and public services		Ecology, environmental conflicts and territory
Innovation, knowledge and political science		

ZEF: <https://www.zef.de/2138.html>

IDEA: http://www.idea.unal.edu.co/inv/prog_inv_idea.html

From the previous work of both academic organisations in their respective areas, a critical approach to the environment, peacebuilding and development in Colombia emerges as a framework for the DSSP.

In addition to the thematic convergences, both centres position their research from a theoretical-practical and interdisciplinary approach. Within the ZEF, the Department of Political and Cultural Change (ZEFa) draws on expertise from various disciplines, such as human geography, social anthropology, sociology, political science, history, development studies, as well as law and planning. Its empirical work is characterised by interdisciplinary social science research carried out at various scales, with a particular focus on the local. IDEA's mission is to contribute, within the framework of interdisciplinary and inter-institutional work, to the knowledge of the environment, understood as a vision of reality in which ecosystemic and cultural processes interact, to the sustainable use of its potential and to the solution of the problems of the tropics, to improve the quality of life through the creation of thought, the generation of educational processes, scientific research and technological development.

Within the framework of the thematic and methodological convergences mentioned above and in line with the agenda questions, the DSSP aims to:

1. The exploration of the complex relationships between conflict (including the peace agreement) and the environment in its different manifestations, considering natural assets as the reason, the victim and ultimately the solution for conflicts.
2. The analysis of relevant actors and institutions at various scales of land management, deepening the understanding of the institutional and socio-economic framework required for both sustainable land use and ecosystem sustainability.
3. The analysis of the dependencies and interdependencies of social, symbolic (legal), technological, political and economic factors that foster inequality in access to land and land rights in Colombia.
4. Analysis of the potential for strengthening communities in their environmental use and protection activities.

V.II. DSSP research themes and sub-themes

As mentioned above, the proposal of research topics is proposed in terms of fields of study to facilitate the approach of complex topics and, at the same time, promote interdisciplinarity and dialogue of knowledge, in an inclusive vision. The specification of research themes and sub-themes contributes to the clarity of priorities of the DSSP and the facilitation of communication between the programme and external actors. The research sub-themes are presented as guidelines and therefore do not need to be covered in their entirety, nor do they exclude other sub-themes that may arise in the future. It is possible, and advisable,



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that two or more sub-themes are combined in research work, for example, when considering the gender dimension in research or including technological changes in the analysis of territorial reconfigurations.

THEME	SUB-THEME	COMPLETED AND ONGOING INVESTIGATIONS*.
<p>I. Complex relationships between environment and conflict</p> <p>1. The exploration of the complex relationships between conflict (including the peace agreement) and the environment in its different manifestations, considering natural assets as the reason, the victim and ultimately the solution for conflicts.</p>	Environmental conflicts and post-agreement	✓ Biocoloniality and ecogenoethnocide in Buenaventura: contributions to the biocentric turn in Afro-reparations and ecological justice (Beltrán-Barrera).
	Historical analysis of territorial configurations from an environmental perspective.	✓ Persuading from the mountains: FARC propaganda in wartime and after the peace agreement (1982-2022) (Antoine-Roux).
	Socio-environmental costs and benefits of the peacebuilding process	✓ History of forests in Colombia and their relationship with the armed conflict. From the Cold War to the Post-Agreement (Ospina-Correa).
	Environment and asymmetrical global-local power relations	✓ Memoria ambiental del conflicto por extracción de hidrocarburos en los esteros y laguna del Lipa, departamento de Arauca, Colombia (Montoya- Dominguez).
	Methodologies for measuring environmental impacts	✓ Formulation and implementation of Development Plans with a Territorial Approach -PDETs- from the perspective of environmental justice and the theory of the effective enjoyment of rights (Sánchez-Supelano).
	Human and non-human nature and the good life	✓ Stories on the air. Hyperlocal journalism and the visibilisation of memories of the conflict in Colombia (Barbosa dos Santos).
	Learning and cooperation networks	✓ Biophysical, social, economic and cultural characterisation of productive systems belonging to the Asociación gestora de desarrollo rural del corregimiento del Arenillo, Palmira Valle del Cauca Colombia (Rugeles-Silva).
	Post-agreement conflict and territorial reconfigurations	✓ Criteria for a public policy framework for the transition to agroecology in Colombia (Vivas-García).
	Conflict and exploitation of natural assets	✓ Towards an integral conception of the right of access to land in the implementation of large-scale rural development policies: the Zidres of Puerto López (Meta) (Aldana-Carrillo).
	Participatory spatial planning	✓ Territorial evaluation model using urban metabolism for urban planning (Quintero-Arias).
	Environmental conflict and the gender dimension	✓ Effectiveness in the implementation of guarantees of the rights of the Atrato River and its inhabitants (Espinosa-Prieto).
	Environmental conflict and technological change	✓ Environmental conflicts in the Cascaloa marshes: illegal appropriation of water and communal beaches (Quinche-Roa).
<p>II. Rural development models and their actors</p> <p>2. Analysis of relevant actors and institutions at various scales of land management, deepening the understanding of the institutional and socio-economic framework required for both sustainable land use and ecosystem sustainability.</p>	Institutional framework towards sustainable land management and ecosystem sustainability	✓ Territorialisation of agroecology: towards an alternative to development in the village of Monquirá de Sogamoso, Boyacá (Colombia) (Avella- Chaparro).
	Analysis of actors and their role in the construction of alternative models of rural development	✓ Contributions of the Participatory Guarantee System in the organisational transformation of the Network of Peasant Agroecological Markets in Valle del Cauca (Escobar-Fernández).
	Alternative (agro-ecological) production systems in the territorial peacebuilding process	✓ Social Metabolism, Sustainability and Territory in the Bogotá River (Tobón-Ramírez).
	Tourism in the context of peacebuilding and territorial development	✓ Building the future - preserving the past: opportunities and challenges of Cultural
	Environmental thinking and development	
	Technological transformations and alternative rural development models	
	Global institutionality for development and research	
	Market chain based on natural resource exploitation and its actors	

		Heritage in Colombia after the Peace Agreement (Schmidt).
<p>III. Access to land and land rights - Access to land and land rights - Access to land and land rights - Access to land and land rights</p> <p>3. The analysis of the dependencies and interdependencies of social, symbolic (legal), technological, political and economic factors that foster inequality in access to land and land rights in Colombia.</p>	Environmental conflict and historical interdependencies of inequity	<ul style="list-style-type: none"> ✓ Air pollution in Bogotá in the 20th century. Historical analysis of the socio-environmental construction of a health problem (Ángel-Macías). ✓ Territorial Expressions of Grief: Why are emotions important for the territory? The Bajo Atrato as a place of reflection (Saldarriaga-Cardona). ✓ Cartographies in territorial peace. Analysis of Puerto Guzmán, Putumayo, Colombia (Cantor-Ávila). ✓ Peasant justice and territorial organisation: a view from the ZRC of San Juan de Sumapaz (Díaz-Gutiérrez). ✓ Construction of a software prototype to measure the impact of research processes in areas where sustainable development and knowledge re-appropriation initiatives have been carried out (Zárate-Ceballos).
	Actors and discourses in the framework of access to and use of land and territorial rights for peace-building	
	Interdisciplinary theories and methodologies of study, from a local perspective.	
	Peacebuilding alternatives from the territories	
	Forms of territorial organisation for the use and management of natural assets by communities	
	Socio-economic intersections (e.g. gender, age) in local organisational and land access dynamics	
<p>IV. Local population, knowledge and education</p> <p>4. Analysis of the potential for strengthening communities in their environmental use and protection activities.</p>	Recovery of local knowledge and practices on the environment and peace-building	<ul style="list-style-type: none"> ✓ Main agroecological structure, functional activity of coprophagous beetles and soil fertility in agroecosystems of the Colombian Andes (Quintero-Silva). ✓ Food sovereignty of peasants in the municipality of Pasto: consequences of neoliberal agrarian policy and agroecology as resistance (Sabogal-Aguilar). ✓ Biocultural memory of the Tul agroecosystem in the Nasa indigenous reserves of San Francisco, Toribío and Tacueyó (García-Díaz). ✓ Resistance and resilience in the post-agreement period, a view from the communities of Nuquí (Chocó, Colombia) (Córdoba-Vargas). ✓ Contribution to the process of transition to agroecology of family farmers of the association APROFRUM Guadalajara de Buga and Guacarí, Valle del Cauca (Trochez-Candamil). ✓ Alternatives to innovation for a different development: Community-based productive processes based on biodiversity in the Colombian Pacific territory (Reina-Rozo). ✓ Contributions of community co-design to territorialise the transition processes towards agroecology (Rojas-Gómez). ✓ Agroecological Restoration in Rural Communities in Southern Colombia (Bravo-Medina). ✓ Collective construction of a strategy with the women dressers of the Tumaco gallery, to promote their "Vivir Bien/Vivir Sabroso" through the use of fish co-products (Portela-Cárdenas). ✓ Rural development and food sovereignty: voices and proposals from the Peasant Movement in Colombia (Díaz-Avenidaño). ✓ Pedagogical models and didactic strategies in the teaching and learning processes of environmental education. Case
	Theoretical and practical foundations for decolonial environmental education	
	The role of higher education in the inclusion of communities in the peacebuilding process	
	Theoretical and practical bases for the confluence of local knowledge and formal science	
	Social dynamics in productive, organisational and family processes.	
	Environmental education and good living	
Languages and artistic expressions on the environment and peacebuilding.		

		<p>Montferri school, Bogotá Colombia (Guzmán-Bautista).</p> <p>✓ Evaluation of successional dynamics through structural and functional patterns in high Andean areas belonging to an ecological restoration project with native species (Piquer-Doblas).</p>
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*According to the main focus of the research.

VI. RESEARCH STRATEGY AND DEVELOPMENT OF THE RESEARCH AGENDA

The research strategy is based on the recognition of the challenges of sustainable peacebuilding in Colombia since the signing of the peace agreement. IDEA and ZEF recognise that the fundamental challenges are related to the unequal distribution of land, the varied legal visions of land, the social demands for territorial rights and sustainability, and others related to the current development model and the historical processes of inequality and social injustice. The research strategy approaches these challenges through the themes and sub-themes described in the previous section and is operationalised through several lines of action.

Training of UNAL doctoral students. The mechanisms of the research management are marked in the institutional agreement between the ZEF and IDEA and are mainly based on support for the training of UNAL doctoral students. Six candidates for the programme receive scholarships each year for their doctoral work in Colombia and two months of courses and academic exchange in Bonn. The students are supervised by UNAL professors during their doctoral studies and receive scientific support from ZEF researchers during the months of courses and work in Bonn.

Academic exchange. In addition to doctoral research, researchers participate in the annual short-term (three-month) scholarship programme for scholarship holders in Bonn. During their stay at the ZEF, researchers participate in the centre's academic activities and exchange with the academic staff.

Elaboration and implementation of study agendas. The teaching topics strengthen research capacity in the four identified themes and cover at least every year: participatory research methods, critiques and alternatives to development, gender and development, and development models in relation to the use of natural resources. The course contents are developed by the programme's researchers and guests, within the framework of the agenda agreed between ZEF and IDEA.

Collaboration with other organisations and participation in networks. The relationship and confluence with the work of other actors, academic and non-academic, is central to the achievement of the objectives of the DSSP. The management of research in the DSSP is not only a process of implementation but also one of learning and updating as new opportunities arise to strengthen research on the relationship between conflict, environment and governance. Of particular interest to the transdisciplinary approach of the programme is the ongoing dialogue at scientific events and field research. The aim is to accelerate knowledge transfer and learning from other experiences and to ensure the impact of research in the academic community and among decision-makers and global civil society organisations working on the relationship between conflict and the environment.

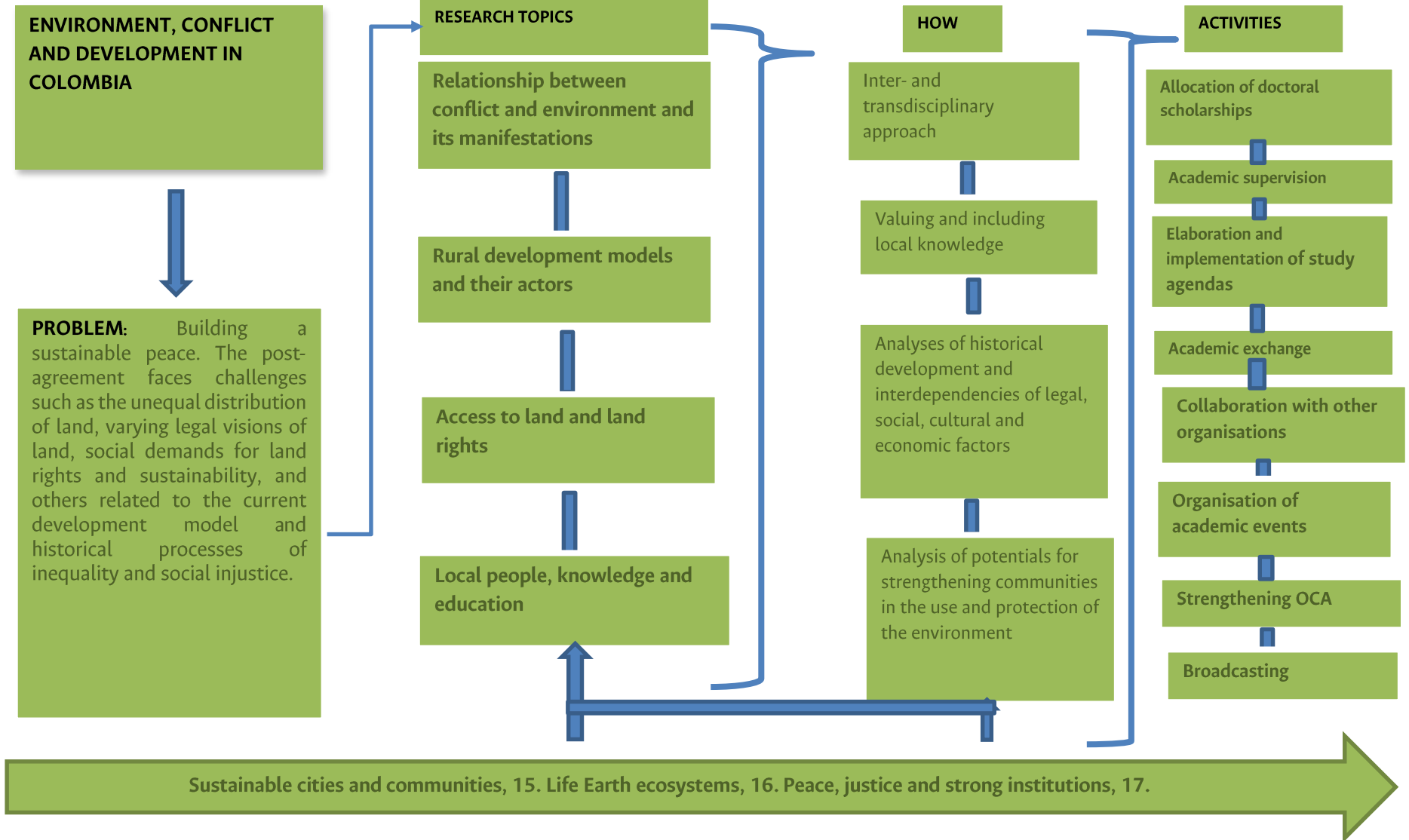
Dissemination. Related to the previous point, but in a more targeted way, the programme publishes scientific articles resulting from research in four areas: doctoral studies, academic events, academic exchange between the ZEF and IDEA and, finally, visits by researchers funded by the programme. In addition, the programme's activities are disseminated through the IDEA-UNAL and ZEF communication mechanisms which, in all cases, have an extensive list of recipients both in Colombia and in Germany.

Organisation of academic events. The proliferation of conflicts related to the use and exploitation of natural resources in the framework of unsustainable development models generates global learning. The programme aims to learn and support the construction of knowledge and reflect this process in academic events with the participation of community representatives and decision-makers. These events take place primarily in Colombia.

Strengthening the OCA. One of the programme's strategic activities consists of strengthening IDEA's Environmental Conflict Observatory (OCA). The DSSP also manages external resources through responses to calls for scientific exchange between Colombia and Germany. So far, these responses have concentrated on supporting IDEA's Environmental Conflict Observatory (OCA) to strengthen its capacity to generate participatory theory and practice in conflict monitoring in Colombia. A central aspect of the proposals is the generation of innovative technological instruments for the harmonisation of local knowledge and scientific knowledge in the diagnosis, monitoring and proposed solutions to local environmental problems.



Research Strategy





The implementation of the DSSP is made possible thanks to the support of the DAAD in the framework of its Sustainable Development Goals (SDG) Graduate Schools (<https://www.daad.de/en/information-services-for-higher-education-institutions/further-information-on-daad-programmes/sdg/>)

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ANNEXES.

Annexe 1: List of research agenda workshop participants

- Alejandro Mora Motta, doctoral student, ZEF-University of Bonn
- Ana Patricia Noguera, Senior Lecturer, IDEA-UN, Manizales Branch
- Ángela Camargo, student PMAD - IDEA, Bogotá office
- Antonio Rogmann, data manager, DSSP
- Blanca Robayo, Professional, UPRA
- Carlos Arturo Aristizábal, doctoral student, UN Palmira campus
- Carlos Nupia, CAPAZ Administrative Director
- Carolina Tobón Ramírez, DSSP scholarship holder
- Cindy Alexandra Córdoba, Postdoctoral Researcher, Interdisciplinary Centre for Development Studies (CIDER) - Universidad de los Andes.
- Claudia Leifkes, Graduate, University of Bonn
- Dayra Blandón, ZEF doctoral fellow, Universidad Nacional Autónoma de Nicaragua
- Dennis Aviles Irahola, researcher, DSSP
- Dorothee Schwab, DAAD Representative
- Emilia Schmidt, Research Assistant DSSP
- Eva Dietz, researcher, DSSP
- Fernando Castrillón, project coordinator, Semillas group
- Giovanni Reyes Moreno, PhD in agroecology, Universidad Nacional de Colombia.
- Ingrid Quintero, DSSP scholarship holder.
- Julián Vivas, DSSP scholarship holder, DSSP
- Juliana Cepeda Valencia, postdoctoral researcher, DSSP.
- Juliana Sabogal, DSSP scholarship holder.
- Lars Gerold, DAAD representative
- Laura Mateus Moreno, Advocacy Advisor, NGO Grupo Semillas
- María del Pilar Grobli Ramírez, guest lecturer, IDEA- Universidad Nacional de Colombia, Bogotá office
- María del Rosario Rojas, Associate Professor, IDEA-UN, Bogotá office
- Mariana Pinzón, communications area, IDEA-UN Bogotá office
- Markus Rudolf, Bonn International Conversion Centre (BICC)
- Mauricio Alberto Ángel Macías, DSSP scholarship holder.
- Milson Betancourt Santiago, postdoctoral researcher, DSSP.
- Nathaly Jimenez, Researcher, Universidad del Rosario
- Rommel Zambrana, ZEF doctoral fellow, Universidad Nacional Autónoma de Nicaragua
- Yesim Pacal, ZEF Public Relationships.

Annexe 2: Compilers of the discussion event on the agenda questions

Dr. Eva Youkhana, coordinator DSSP, ZEF - Bonn

Dr. Tomás León Sicard, coordinator DSSP, IDEA - Bogota

Laura Victoria Calderón, assistant DSSP, IDEA - Bogota



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