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The Role of Civil Society Organizations in the Achievement of SDG 15 in Bolivia

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The present version of this thesis has been modified since the original submission and the thesis defense in order to reflect necessary revisions following the publication of the partner organization's (LIDEMA) Strategic Plan for 2019-2023.

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Anna SERVAY

#### **CENTRAL EUROPEAN UNIVERSITY**

**ABSTRACT OF THESIS** submitted by:

Anna SERVAY for the degree of Master of Science and entitled: The Role of Civil Society Organizations in the Achievement of SDG 15 in Bolivia

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The Sustainable Development Goals (SDGs) comprise a set of seventeen global goals adopted by the United Nations General Assembly in 2015 with the aim of bringing about transformative change that unites environmental, social, and economic sustainability. Achieving the SDGs requires near universal uptake, yet there is a scant amount of academic research regarding the contributions that civil society organizations (CSOs) can make to further SDG progress. The present work investigates the role that the Bolivian network of environmental CSOs Environmental Defense League (LIDEMA) plays in furthering Bolivia's progress towards SDG achievement by using SDG 15 (terrestrial and freshwater ecosystems) as an entry point. Surveys and interviews were used to gather data to assess whether and how the network has collectively contributed to SDG 15 since 2015, as well as to identify plans to make future SDG 15 contributions and ascertain the capacities needed to make such future contributions. This study finds that LIDEMA members contribute to multiple SDGs in Bolivia, and their contributions to SDG 15 cover a range of targets that supplement existing implementation efforts and help to fill data and implementation gaps. At the same time, the organizations reported that their work related to SDG 15 has decreased in the post-2015 period, owing largely to external factors such including an 'obstructed' civic space and changes in international financing structures. This study demonstrates that there is ample room to enhance CSO contributions to the SDGs in Bolivia, but doing so demands changes from a range of actors.

**Keywords:** Sustainable Development Goals (SDGs), SDG 15, Civil Society Organizations (CSO), Terrestrial and Freshwater Ecosystems, Bolivia

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## List of Abbreviations

ABT	Bolivian Land and Forest Authority (for its acronym in Spanish)
ACSC	African Civil Society Circle
AFPs	Agencies, Funds, and Programs
CBD	Convention on Biological Diversity
CEU	Central European University
CITES	Convention on International Trade in Endangered Species
CSO	Civil Society Organization
CSR	Corporate Social Responsibility
FAO	Food and Agriculture Organization
FSC	Forest Stewardship Council
HLPF	High Level Political Forum on Sustainable Development
IBAT	Integrated Biodiversity Assessment Tool
IEAG	Independent Expert Advisory Group
IT PGRFA	International Treaty on Plant Genetic Resources for Food and
	Agriculture
JPOI	Johannesburg Plan of Implementation
KBA	Key Biodiversity Area
LAC	Latin America and the Caribbean
LDN	Land Degradation Neutrality
LIDEMA	Environmental Defense League (for its acronym in Spanish)
MDGs	Millennium Development Goals
MOI	Means of Implementation
MOOCs	Massive Open Online Courses
MSPs	Multi-Stakeholder Partnerships
NBSAP	National Biodiversity Strategy and Action Plan
NGO	Nongovernmental Organization
NPP	Net Primary Production
ODA	Official Development Assistance
PDES	Bolivia's Economic and Social Development Plan 2016-2020 (for its acronym in Spanish)
RLI	Red List Index
SDGs	Sustainable Development Goals
SDSN	Sustainable Development Solutions Network
SNA	Social Network Analysis
SSDC	South-South Development Cooperation
TIPNIS	Isiboro Sécure Indigenous Territory and National Park (for its acronym
	in Spanish)
UDAPE	Unit of Analysis for Social and Economic Policies (for its acronym in
	Spanish)
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDAF	United Nations Complementarity Framework for Living Well in
	Bolivia 2018-2022 (for its acronym in Spanish)
UNDP	United Nations Development Programme
UNGA	United Nations General Assembly
UNODC	United Nations Office on Drugs and Crime

## 1. Introduction

The Sustainable Development Goals (SDGs) comprise the actionable set of goals and targets included within the 2030 Agenda for Sustainable Development adopted by the United Nations General Assembly (UNGA) in 2015 (UNGA 2015). The SDGs were approved in 2015 with the 2030 Agenda, and they represent a "novel type of global governance where goal-setting features as a key governance strategy", as opposed-to other methods of governance such as legallybinding treaties, regulation, or market-based approaches (Biermann *et al.* 2017, 26). The SDGs constitute global recognition that the trajectory of our collective development is unsustainable and urgent actions are needed to maintain the planetary conditions upon which we depend. They seek to achieve transformative global change by 2030 through a set of 17 goals and 169 targets, and they conceptualize sustainable development as being comprised of economic, social, and environmental dimensions (UNGA 2015). The SDGs were designed to further the work started by their predecessor, the Millennium Development Goals (MDGs) (UNGA 2015); however, there are a number of notable differences between the two sets of goals.

The MDGs consisted of eight goals intended to be achieved within the fifteen-year period of 2000-2015; however, the MDGs were met with mixed success as advances were unevenly distributed amongst the goals and both between and within countries (UN 2015; Fehling et al. 2013; Georgeson and Maslin 2018; Sachs 2012). The mixed performance of the MDGs has been attributed to several factors. The formation of the MDGs has been criticized as a top-down process led by powerful nations and international institutions that marginalized the perspectives of developing nations and civil society actors (Fehling et al. 2013). As the MDGs were exclusively intended for developing nations, neglecting to include developing nations in the goals' formation likely limited their commitment to MDG achievement (Fehling et al. 2013). The MDGs were also not designed to be comprehensive. Accordingly, the MDGs have been critiqued for having a narrow scope, with notable omissions in categories such as human rights, democracy, gender, and peace and security owing to political compromises (Fehling et al. 2013). The topics that were included in the MDGs were covered in ways that promoted working in siloes in spite of the fact that the issues themselves are highly interconnected (Le Blanc 2015; Fehling et al. 2013). Data collection to establish baselines and measure MDG progress was also a significant challenge; many countries lacked the capacity for adequate data measurement and analysis, and the comparability of the data collected was a significant challenge due to differences in methodologies and definitions of key concepts (Fehling *et al.* 2013; Sachs 2012; Woodbridge 2015).

The SDGs were designed to avoid many of the MDGs' shortcomings described above, thus distinguishing themselves from their predecessor in multiple respects. The SDGs were developed in a participatory manner over the course of two years through a UN Open Working Group (OWG) comprised of 70 countries working in collaboration with civil society and other actors (UNGA 2015; Woodbridge 2015). This more inclusive approach resulted in a more inclusive set of goals than the MDGs. The SDGs are much broader in scope than the MDGs, and, as they apply equally to all nations, they "identify no country as 'developed' in terms of sustainability, and turn all countries in North America, Europe, East Asia and Oceania into 'developing countries'…" (Biermann *et al.* 2017, 27). This break from the MDGs is significant; rather than representing developed nations as the pinnacle of development, their shortcomings are highlighted and they are held equally accountable for their development progress.

The SDGs were designed to be interconnected, with the 2030 Agenda describing the goals, targets, and means of implementation (MOI) as "universal, indivisible and interlinked" (UNGA 2015, 36). The interlinkages between the 17 SDGs can be seen at the target level. Le Blanc (2015) uses network analysis to demonstrate that many targets include wording that links them to goals other than the ones that they are listed under. He writes that this produces "indirect or 'third party' links among goals", resulting in goals that consist of 'core targets' explicitly listed under a given goal and 'extended targets', which are linked to the given goal through their wording, even though they are officially part of another goal (Le Blanc 2015, 3). Le Blanc (2015) points out that conducting network analysis based upon SDG wording is just one of several methods that can call attention to the interlinkages between the goals, and the identification of these interlinkages is crucial because it facilitates increased policy coherence and mainstreaming. At the same time, the interlinkages between the goals is imbalanced; Le Blanc's (2015) analysis revealed that some goals were far more central than others, and many important conceptual linkages between the goals were not reflected within wording of the SDGs. He concludes that, as such, "the political framework that the SDGs provide does not explicitly reflect the multiplicity of links that matter for policy purposes. Hence, in practice, SDGs will be of limited use in providing guidance to address the various links that exist" (Le Blanc 2015, 14). This assertion has been echoed by other academics who view interlinkages as of the utmost importance to implementation, yet believe that the goals do not go far enough to deliver on their assertions of an 'indivisible' and 'interlinked' agenda (Stafford-Smith *et al.* 2017; Georgeson and Maslin 2018). Nonetheless, the SDGs undeniably facilitate more interlinkages than the MDGs, and nations can promote further interlinkages between the goals during the planning and implementation processes. It should be noted that external linkages are also relevant to SDG implementation; Pínter *et al.* (2016) argue that linkages to external measurements and indicators facilitate SDG mainstreaming and increase the likelihood of SDG achievement. The interlinkages between the SDGs and the external linkages with other processes may be limited within the text of the SDGs and the 2030 Agenda; however, the literature shows that additional linkages can be made, and they are crucial in order for the SDGs to generate true transformation.

SDG 15 (Life on Land) provides an excellent example of the interlinkages between the different goals. SDG 15 focuses on terrestrial and freshwater ecosystems, and its targets address topics including conservation and restoration, forest cover, desertification and land degradation, mountain ecosystems, habitat and biodiversity loss, benefit sharing from the utilization of genetic resources, poaching and trafficking, invasive species, mainstreaming ecosystems and biodiversity into planning, and mobilizing funding to achieve these targets (UNGA 2015). All social and economic systems are dependent upon the provision of ecosystem goods and services, rendering SDG 15 a significant part of the basis upon which all other SDGs can be achieved (WWF 2018a). SDG 15 is of particular relevance for vulnerable communities; the CBD describes that ecosystem goods and services "make up between 50% and 90% of the total source of livelihoods among poor rural and forest-dwelling households- the so-called 'GDP of the poor", which underscores the interconnection between SDG 15 and SDG 1 (No Poverty) (CBD 2016, 3). Furthermore, SDG 15 is key for SDG 13 (Climate Action) efforts to mitigate climate change as terrestrial ecosystems, together with marine ecosystems, sequester approximately 60% of the global GHG emissions emitted by humans (Díaz et al. 2019). SDG 15 was designed in part based upon the Aichi Biodiversity Targets contained within the Convention on Biological Diversity's (CBD) Strategic Plan for Biodiversity 2011-2020, such that both SDG 15 and the Aichi Biodiversity Targets are mutually reinforcing (HLPF 2018; CBD 2018).

Thus far, global progress on both the Aichi Targets and SDG 15 has been limited. The High Level Political Forum on Sustainable Development (HLPF) (2018) has characterized progress on *action-based* SDG 15 indicators as positive, while progress on *status-based* indicators has

been negative. For instance, while the percentage of Key Biodiversity Areas (KBAs) with protected status has increased, biodiversity decline continues unabated (HLPF 2018). Meanwhile, the CBD (2018) has admonished that global progress on the Aichi Targets does not bode well for the achievement of the SDGs, and it calls for urgent actions to improve the current global trajectory and maintain planetary life support systems intact. The CBD's (2018) findings have only been further confirmed by the IPBES' recently released *Summary for policymakers of the global assessment report on biodiversity and ecosystem services*, which confirms that "Goals for conserving and sustainably using nature and achieving sustainability cannot be met by current trajectories, and goals for 2030 and beyond may only be achieved through transformative changes across economic, social, political and technological factors" (Díaz *et al.* 2019, 5). The IPBES emphasizes that failure to meet the environmental goals articulated in the Aichi Biodiversity Targets and SDGs has negative repercussions for other SDGs, such as those addressing health, poverty, and hunger, as well as other global agenda such as the Paris Agreement (Díaz *et al.* 2019).

The achievement of SDG 15 and its respective targets is important in all countries of the world; however, it is arguably even more crucial in the world's seventeen megadiverse countries, eight of which are found in the Latin America and the Caribbean (LAC) region (ECLAC 2018). The Plurinational State of Bolivia, henceforth referred to as Bolivia, is one such megadiverse country, and, although the nation accounts for just .2% of the global terrestrial surface, it harbors a substantial amount of the world's biodiversity relative to its size (Bolivia 2015; MMAyA 2018). This biodiversity is spread across Bolivia's diverse landscape consisting of twelve ecoregions and their corresponding twenty-three sub-ecoregions (Bolivia 2015). Bolivia is also heavily forested, with forests covering 50.29%<sup>1</sup> of the national land area (FAO 2019), and the nation is home to 6% of the Amazon rain forest (Yale 2019). These physical characteristics alone make Bolivia an ideal target for an in-depth study of SDG 15 implementation, and such study is further justified given that Bolivia has positioned itself as an international leader with regard to the themes of environment and development through its promotion of the 'Living Well' paradigm and rights for Mother Earth (Telesur 2014; UN News 2015; Bolivia n.d.).

<sup>&</sup>lt;sup>1</sup> This datum is from 2016, the most recent year for which Bolivian forest coverage data is available from the Food and Agriculture Organization (FAO).

While each country reports progress on SDG implementation at the national level, implementation itself is dependent upon "all stakeholders, acting in collaborative partnership..." (UNGA 2015, 5). The 2030 Agenda and the SDGs contained within were designed to be uptaken by all, with benefits to be universally delivered to all, albeit while accounting for local conditions. Civil society is explicitly mentioned in several points throughout the 2030 Agenda for its contribution to the formation of the SDGs during public consultations as well as for its role in implementing and reviewing progress towards the achievement of the SDGs. The inclusion of civil society is even embedded into the goals themselves, with Target 17.17 calling for governments to "Encourage and promote effective public, public-private and civil society partnerships...", thus making governments accountable for the inclusion of civil society actors in SDG implementation (UNGA 2015, 32). The roles that civil society organizations (CSOs) can play in achieving the SDGs are diverse and potentially impactful (Long 2018; Hege and Demailly 2018; ACSC 2016), yet the ability of CSOs to make substantial contributions to the SDGs is dependent upon the presence of an enabling environment for CSO operations, which poses a challenge for CSO operation in many national contexts (GANHRI 2018; Open Forum for CSO Development Effectiveness 2011; Fioramonti and Kononykhina 2014). Searches conducted through Central European University's (CEU) EBSCO database reveal that there is little academic research examining CSOs' contributions to achieving the SDGs, likely due to the relative newness of the goals. The present work helps to address this gap by providing an in-depth look at the contributions that CSOs make to SDG 15 achievement in Bolivia by examining the case offered by the Bolivian network of environmental CSOs the Liga de Defensa del Medio Ambiente [English: Environmental Defense League] (LIDEMA).





*Figure 1. The LIDEMA logo accompanied by the logos for each of the network's 19 member organizations. The organizations' full names and acronyms can be found in* **Annex 1.** *Source: (LIDEMA 2019)* 

LIDEMA is a Bolivian network of environmental CSOs, comprising nineteen member organizations (**Fig. 1**; **Annex 1**) and spanning eight of the country's nine departments (LIDEMA 2015, 2019a). LIDEMA was founded in 1985, and, today, the network and its member organizations combined consists of approximately 60 individuals (LIDEMA 2015; LIDEMA representative 1, pers.comm.) LIDEMA is a structured organization that has an assembly that makes larger network wide decisions, as well as a six-member board that attends to the day-to-day activities of the network (LIDEMA 2015; Salinas pers.comm.). The assembly meets approximately once per year, and each organization has equal rights within the assembly (Salinas pers.comm. 2019). Throughout its more than thirty years of operation, LIDEMA and its member organizations have provided support during the drafting of environmental

legislation, policies, plans, and instruments (including the national Law on the Environment and the previous National Biodiversity Strategy); built capacity for environmental management and public participation amongst governmental and non-governmental actors; conducted and distributed research on socio-environmental themes; monitored and facilitated resolution of socio-environmental conflicts; promoted the conservation of forests and soils; worked with communities to reduce their vulnerability to climate change; provided environmental education and materials to schoolchildren and the general public; in addition to other actions not listed here (LIDEMA 2015). As a network, LIDEMA supports the work both of its member organizations and external entities, including small volunteer groups, local communities, mining cooperatives, among others (LIDEMA representative 1, pers.comm. 2019). LIDEMA adheres to the Istanbul Principles for CSO Development Effectiveness, and LIDEMA's Strategic Development Plan for 2019-2023 describes that the network's work is based on the four areas of environmental management, sustainable production, social development, and institutional development and sustainability, with the themes of gender and intergenerational equity integrated into this work (LIDEMA 2019b). The plan presents a set of specific objectives for each axis, and it is explicitly linked with the broader agenda of the SDGs, with specific mention of SDG 15, as well as Bolivia's Economic and Social Development Plan (PDES) and the Istanbul Principles (LIDEMA 2019b). The present work aims to assess whether there is alignment between LIDEMA's work<sup>2</sup> and SDG 15 targets and, if so, to show how this alignment is manifested. The nature of LIDEMA's work on environmental themes in Bolivia and the network's focus on the SDGs make LIDEMA an ideal focus of study in order to understand the role that Bolivian CSOs play in the achievement SDG 15. Such work is needed in order to facilitate understanding of the role that CSOs can and do play in achieving SDG 15, where global progress is currently lacking (HLPF 2018; CBD 2018).

 $<sup>^2</sup>$  This is understood to include both LIDEMA's overall work as a network and the work of LIDEMA's individual member organizations.

## 2. Research Questions and Objectives

The present work seeks to identify the role that CSOs can and do play in the achievement of SDG 15 in Bolivia by focusing on the work of LIDEMA, a Bolivian network of environmental CSOs, and its respective member organizations. This is to be achieved by answering the following research questions:

How do members of the Bolivian network of environmental CSOs LIDEMA contribute to the achievement of SDG 15?

How can LIDEMA's members enhance their contributions to SDG 15 achievement, and what capacities do they need to develop in order to achieve this?

The research questions above are to be answered through the following objectives:

- Present an overview of SDG means of implementation, the role of CSOs in SDG implementation, enabling environment for CSOs, civic space in Bolivia, and general SDG planning and implementation in Bolivia.
- 2. Identify the implementation status for each of SDG 15's twelve targets in Bolivia and determine the presence of data and/or implementation gaps.
- Analyze the overlap between SDG 15 and LIDEMA member organizations' work since 2015, as well as their planned future work. Describe the factors that characterize and influence this work.
- 4. Integrate the findings from Objectives 1-3 to analyze the contribution of LIDEMA members to SDG 15 within the larger context of national SDG 15 implementation in Bolivia. Frame these integrated findings as actionable information that can facilitate further contributions to SDG 15 and the 2030 Agenda.

The objectives listed above are consistent with the vision presented in LIDEMA's *Strategic Plan for 2019-2023*, and they have been designed to help facilitate the network's progress towards its expressed goals of increasing institutional alignment with the SDGs and promoting greater cooperation within the network and with outside actors. This work also elucidates the role that CSOs can play in national SDG achievement, thus holding the potential to strengthen the linkages between policy makers and CSOs, either via formal partnerships or informal

arrangements, as both entities are ultimately working towards the same agenda (ACSC 2016). Fortifying the connection between government actors and CSOs is particularly important in the Bolivian context because the relationship between the national government and CSOs has been characterized as strained, with "the government see [ing] CSOs as allies or threats depending on whether or not they toe the government line" (Fundación CONSTRUIR 2014, 44). This is problematic because CSOs rely upon government's provision of an 'enabling environment' in order to operate effectively, and, although the Bolivian legal framework generally provides for such 'enabling conditions', the actual environment in which CSOs operate in the country diverges far from these ideals (Open Forum for CSO Development Effectiveness 2011; Fundación CONSTRUIR 2014; Civicus 2019, 2017; Rivera Mendez 2018; LIDEMA 2019b). Making the role that LIDEMA's member organizations play in SDG achievement explicit can highlight the synergies between the agendas of the government and CSOs, and this could represent a first step towards improving the relationship between the two actors. At the same time, this research does not limit itself to exploring the relationship between LIDEMA's member organizations and the government (divided into the categories of national government, subnational government, and autonomous indigenous government); it also investigates partnerships with the following groups: international organizations, primary and secondary educational institutions, universities, other LIDEMA CSOs, non-LIDEMA CSOs, national businesses, and international businesses. Although these groups may not have the same level of influence that the government has on CSO operation, they are nonetheless relevant actors with whom LIDEMA members can and do partner.

Highlighting the alignment between the work of LIDEMA's member organizations and SDG 15 is an important exercise grounded within the framework of the 2030 Agenda. Long (2018) points out that the 2030 Agenda clearly states that 'relevant stakeholders', including CSOs, should report their role in advancing the Agenda and the SDGs contained within. The benefits of publicizing such contributions go beyond answering the 2030 Agenda's call for CSO reporting; they include facilitating improved relations with governmental and other actors, and they potentially open the door to additional funding opportunities available to CSOs that contribute to SDG implementation.

## 3. Methodology

The methodology used is presented in Figure 2 and then described in detail in the text below.



Figure 2. Research methodology components

#### 3.1 Methodology for Objective 1

*Objective 1: Present an overview of SDG means of implementation, the role of CSOs in SDG implementation, enabling environment for CSOs, civic space in Bolivia, and general SDG planning and implementation in Bolivia.* 

To address this objective, a literature review was conducted. The literature review began in December 2018 and continued throughout the entirety of the research project. The literature review was conducted in order to provide necessary background information on the following topics: SDG means of implementation; the role of CSOs in SDG implementation; enabling environment for CSO operation; civic space in Bolivia; and SDG planning and implementation in Bolivia. The types of literature reviewed during this process included both peer-reviewed academic literature and grey literature. The literature review was conducted in both English and Spanish using Central European University's (CEU) EBSCO database. Google was also used to find Bolivian government documents and SDG implementation data, in addition other relevant grey literature not found within CEU's EBSCO Database.

### 3.2 Methodology for Objective 2

*Objective 2: Identify the implementation status for each of SDG 15's twelve targets in Bolivia and determine the presence of data and/or implementation gaps.* 

A multi-step process was conducted to address Objective 2, as described below. This process included document review, expert interviews, and collecting, mapping, and analyzing SDG 15 implementation data.

First, Bolivian government documents were reviewed to identify Bolivia's SDG strategy and locate any established national targets corresponding to SDG 15. This document review provided information on the means of SDG implementation in the country, as well as the responsible entities. The main documents reviewed include the following:

- Patriotic Agenda 2025
- Economic and Social Development Plan 2016-2020 (PDES)
- United Nations Complementarity Framework for Living Well in Bolivia 2018-22
- SDGs for Living Well
- Agenda for Living Well
- Plurinational Policy and Strategy for the Integrated and Sustainable Management of Biodiversity (NBSAP)

The document review also searched for non-official SDG 15 indicators used by CSOs operating throughout the country; however, no such CSO SDG indicators were found existing at the national level.

Second, the document review was supplemented with information obtained from interviews with representatives from two of the United Nations (UN) agencies operating in Bolivia, United Nations Development Programme (UNDP) and the Food and Agriculture Organization (FAO). The findings from these interviews have been incorporated into relevant sections throughout the text.

Third, the list of official SDG indicators was consulted, and national data on these indicators was sought for each of SDG 15's twelve targets. The official indicators were selected here because Bolivia does not have an official national list of SDG indicators, and, in general, it does not have clear, time-bound quantitative targets that are used to assess SDG 15 progress. Bolivia has not submitted a Voluntary National Review to the HLPF, nor does it have a publicized SDG

database containing information on implementation status on all SDGs and their respective targets<sup>3</sup>. As such, data was collected from an assorted group of international and domestic sources. Where the implementation status of official indicators was unavailable, a qualitative assessment was provided.

Fourth, the data collected for each indicator was plotted into a time series graph to show the progress towards each target, accompanied by information to place the progress on each target into context. A gap analysis was also conducted during this stage to identify gaps pertaining to implementation status (implementation gaps) and data availability (data gaps). Here, it should be noted that the ability to identify implementation gaps was constrained by a general lack of national targets established for SDG 15.

Finally, the data collected was analyzed in order to evaluate Bolivia's overall performance on SDG 15.

## 3.3 Methodology for Objective 3

*Objective 3: Analyze the overlap between SDG 15 and LIDEMA member organizations' work since 2015, as well as their planned future work. Describe the factors that characterize and influence this work.* 

To achieve Objective 3, surveys and semi-structured interviews were used to gather information from LIDEMA's member organizations regarding work related to terrestrial and freshwater ecosystems conducted since 2015, planned future work related to terrestrial and freshwater ecosystems, the capacities needed to develop such planned future work, and underutilized capacities. These inputs were then used to assess how LIDEMA's work overlaps with SDG 15. Select data obtained from the surveys were subjected to stakeholder analysis. The results obtained from the surveys, interviews, and stakeholder network analysis were shared with

<sup>&</sup>lt;sup>3</sup> In a conversation on March 26, 2019, a UNDP representative confirmed that Bolivia has not yet publicly reported on national SDG progress. With that in mind, the National Statistics Institution (INE) has an Excel spreadsheet available for download on its website that is designed to track progress towards the PDES, and this database includes alignment between PDES goals and SDG goals and targets. The database includes SDG indicators for select targets, but most of these do not contain any data. It is unclear as to whether INE's database truly indicates the SDG targets that Bolivia is focusing on, especially given that the targets aligned with the PDES in the database differ from those listed official SDG documentation. When asked about this discrepancy, the UNDP representative explained that this is likely because INE has only recently begun to work on the SDGs and the PDES, not the SDGs, is INE's priority.

LIDEMA and its member organizations prior to publication, and they were given the opportunity to request corrections if they perceived that the information they provided had been misrepresented.

#### 3.3.1 Surveys

Each organization was sent an online survey through Microsoft Forms designed to measure alignment with SDG 15 via collection of quantitative and qualitative data, which were used to generate descriptive statistics and which served as an input for the network analysis. The survey (see Annex 2) was designed to gather information pertaining to the following categories: background information, familiarity with the SDGs and importance of the SDGs for the organization, alignment with SDG 15 targets and relevant partnerships, and organizational capacities. Each SDG 15 Target was represented in the survey; however, while Targets 15.1-15.9 were granted their own section, Targets 15.a, 15.b, and 15.c (pertaining to the MOI to achieve the other 9 targets) were incorporated into the other sections. The decision not to grant separate sections to Targets 15.a, 15.b, and 15.c was taken to reduce survey length and avoid repetition. The survey design included a total of 83 questions; however, branching was employed so that each respondent only saw the questions relevant to him/her depending on his/her previous answers. The maximum number of questions that an individual could be asked was 64, and the minimum number of possible questions was 28. The survey began with a brief description of the research and an explanation of whom to contact in order to withdraw one's consent to participate or to ask further questions. This was followed by a question in which the respondent was asked to confirm whether or not he/she gave his/her consent to participate in the research. If an individual selected "no", the survey ended immediately. The survey consisted of a combination of multiple-choice, checklists, short-answer, and Likert-type questions.

Purposive sampling was used to designate the survey recipients. This method was selected because it is a non-probabilistic method that is appropriate for obtaining information from a specific group of interest that has been selected for its 'presumed typicality' (de Vaus 2002). The surveys were sent to members of the leadership from each organization, which offered the benefit of improving the accuracy of the findings, as individuals with leadership roles in their organization were considered to have a greater knowledge of their respective organizations than someone of lower rank.

The link to the survey was sent to all organizations within the network via email on March 19, 2019. Respondents were asked to respond to the survey within a ten-day period; however, the survey period was later extended so as to increase response rate. In order to accommodate differential internet access and know-how amongst the organizations and to increase response rate, organizations were also given the option to complete the survey via telephone or in person (depending upon geographical proximity and availability). A total of seventeen surveys had been collected by the end of the survey period, accounting for 89% of the member organizations.

At the end of the survey, Microsoft Forms compiled the results into an Excel spreadsheet. Excel was used to generate the statistics and graphics presented in the results section. Data were subjected to further quantitative and qualitative analysis for the stakeholder analysis, as well as during the interpretation of the results.

#### 3.3.2 Interviews

Semi-structured interviews were conducted in order to complement the data collected in the surveys and provide further qualitative information regarding LIDEMA's contributions to the achievement of SDG 15 in Bolivia and the partnerships through which they make these contributions. Two different stakeholder groups were interviewed, and, while each stakeholder group was asked questions about the same general themes with many of the same questions, each stakeholder interviewed also received a tailored set of questions reflecting the individual stakeholder's particular set of circumstances. The stakeholder groups interviewed include: LIDEMA leadership, 2 individuals; and select LIDEMA member organizations (represented by organizational leadership or (an)other representative(s) knowledgeable of the organization's work), 8 organizations<sup>4</sup>. Interviewees were purposefully selected based on their ability to provide information relevant to the research questions. The member organizations interviewed were selected based on different factors including availability, the viability of conducting an inperson interview, and survey responses (i.e. organizations were contacted for an interview when their answers suggested that an interview would generate valuable information, such as when an organization indicated unique partnerships or a higher level of SDG 15 contributions). All

<sup>&</sup>lt;sup>4</sup> One individual who was interviewed represented both LIDEMA's leadership and a specific LIDEMA member organization.

but one interview were conducted in the person; one interview was conducted via email due to the infeasibility of an in-person interview, as well as technical difficulties that arose when a telephone interview was attempted.

The interviews sought information from the following categories for each respective stakeholder group:

- **LIDEMA leadership (2):** composition of the network (past-present), partnerships, the importance of the SDGs for the network, trends surrounding the work that LIDEMA has done in themes related to SDG 15, and operational context (past-present)
- **LIDEMA member organizations (8):** the role of the organization in SDG implementation, the trends surrounding the work that the organization has done in themes related to SDG 15, achievements and challenges related to work on SDG 15 themes, what it means to work in a network, and the vision for the future of the organization

A list of questions was prepared for each interviewee, and, as needed, follow-up questions were asked. Interviewees were asked if their interviews could be recorded. If they consented, they signed a consent form; if they did not consent to a recorded interview, they orally indicated their consent to participate in the interview and notes were taken throughout the interview process. All interviewees were offered a copy of the recording of their interview (if applicable).

All interviews with LIDEMA member organizations and leadership were analyzed using a modified version of the thematic content analysis approach described by Burnard (1991). Thematic content analysis was selected because this method is appropriate for semi-structured interviews consisting of open-ended questions, and it allows for thematic categorization of interview content without necessitating the use of analytic software for the coding process (Burnard 1991). Burnard (1991) describes thematic content analysis as consisting of 14 stages, which can be roughly summarized as interviewing, recording and note-taking; open coding and grouping; reviewing and checking validity; and presenting the findings. The general stages were followed for the present work; however, interview notes were analyzed as recordings were not permitted in all interviews. The process of validating the categories generated during the coding process also had to be modified to reflect the realities of the research being conducted. All interviewees from LIDEMA and its member organizations were sent the notes from their

interview and were given the option to make corrections as they saw fit<sup>5</sup>; however, they were not obligated to do so. The results of the thematic content analysis, as well as the written description of the survey results, were submitted to LIDEMA's leadership, who were given the opportunity to suggest modifications prior to the submission of this work. This step was taken was taken to validate the findings and to prevent any misinterpretations from appearing in the final product.

The interviews with the representatives from UNDP and FAO were not included in the thematic content analysis.

#### 3.3.3 Stakeholder Analysis

Stakeholder analysis has an established use within the field of international development and natural resource management, and it generates actionable information that can be used to empower actors and enhance the likelihood of an initiative's success (Flicker 2014; Reed *et al.* 2009). Stakeholder analysis is a process used to identify the individuals/groups who have a stake in an issue and then to understand the relationship between individuals/groups and the given issue(s) at hand (Flicker 2014; Reed *et al.* 2009). In the context of policy, stakeholder analysis serves to "generat[e] information on the 'relevant actors' to understand their behaviour, interests, agendas, and influence on decision-making processes" (Reed *et al.* 2009, 1934). In the present research, stakeholder analysis was selected to help answer the question of how LIDEMA member organizations can and do contribute to the achievement of SDG 15 by analyzing LIDEMA member organization's general partnerships since 2015, the specific partnerships through which they have conducted work relevant to SDG 15 since 2015, and the specific SDG 15 targets that member organizations contribute to.

Social network analysis (SNA) is a common methodology used in stakeholder analysis, and it is the one used in the present research. SNA uses the presence/absence of the ties between actors to create a matrix, which can then be used to generate a visual representation of the data through a network graph (Hanneman and Riddle 2005; Reed *et al.* 2009). Hanneman and Riddle (2005) describe that "being able to visualize the locations of different types of actors in a graph can help us to see patterns, and to understand the nature of the social processes that generated the tie structure" (Hanneman and Riddle 2005, 8). Depending on the type of data available on

<sup>&</sup>lt;sup>5</sup> This excludes the one organization who was interviewed via email.

the network, SNA allows for the generation of various measurements describing both network and actor characteristics.

In the case of the present research, all components of the SNA were conducted using the software UCINET, created by Borgatti et al. (2002). All of the networks that were analyzed were egocentric (i.e. They only looked at the ties that LIDEMA member organizations reported with different partner categories/SDG 15 targets; they did not consider ties between the different partner categories/SDG 15 targets). This means that our knowledge of the full network is incomplete, which limits the analysis. The analyses involving partnerships were also further limited because the different partner categories were organized into groups rather than individual actors/partners. This decision was made to reduce survey length and increase response rate, as well as to limit the data collection to a manageable amount given the vast expanse of the network, which has ties with actors ranging from the local to global levels. As a result, the SNA focused on the production of network graphs and the generation of two key measurements: network density and degree centrality. Network density tells us how 'saturated' the network is using a value been 1 and 0; whereas, degree centrality describes the number of ties each actor has so as to understand their importance within the network (Hanneman and Riddle 2005). Combined with the network graphs, this information can help to assess and compare different actors' levels of influence with respect to partnerships and SDG 15, find 'structural holes' within the network and identify new opportunities, and formulate strategies to increase network resilience and SDG 15 contributions (Hanneman and Riddle 2005; Reed et al. 2009).

#### 3.4 Methodology for Objective 4

*Objective 4: Integrate the findings from Objectives 1-3 to analyze the contribution of LIDEMA members to SDG 15 within the larger context of national SDG 15 implementation in Bolivia. Frame these integrated findings as actionable information that can facilitate further contributions to SDG 15 and the 2030 Agenda.* 

In order to achieve Objective 4, the findings from the literature review (Objective 1) and Bolivian SDG 15 implementation status (Objective 2) were used to interpret the findings from the surveys, interviews, and stakeholder analysis. This included qualitatively assessing the overlap between LIDEMA member organization's SDG 15 contributions and the national SDG 15 data and implementation gaps identified in Objective 2. A SWOT analysis was then conducted in order to facilitate the translation of these findings into actionable information with the potential to advance CSO contributions to SDG 15 achievement in Bolivia.

## 4. Ethical Considerations

All research was conducted within the framework of Central European University's (CEU) *Ethical Research Policy and Guidelines*. All participants freely and voluntarily gave their informed consent, which they understood could be withdrawn any time prior to May 15, 2019. Participants were exposed to no harm, discomfort, or negative consequences as a result of their participation. No vulnerable groups were involved in this research. Identifying participant information collected during surveys was kept confidential, and the information reported from the interviews does not refer to the name of the interviewee; however, given the small nature of LIDEMA's member organizations, it could be possible to discern the identity of an individual where a specific organization is mentioned. In the name of full disclosure, this possibility was communicated to all participants.

## 5. Limitations

The primary limitation of the present work is its narrow scope, which is directed towards the contributions that one network of environmental CSOs in Bolivia makes to SDG implementation, with a particular focus on SDG 15. The small size of the population examined necessitated the use of nonprobability sampling methods, and purposive sampling was selected because this method allows the researcher to select the most appropriate individuals for study (Check and Schutt 2012). This work thus serves as a case study that provides depth and insight; however, its findings cannot be generalized to apply to other groups of CSOs without taking due account of their different contexts. Within LIDEMA, the findings focus on SDG 15, meaning that the findings generally do not capture the role that LIDEMA's member organizations play in the achievement of other SDGs. Although the present work is intended identify which SDG 15 targets the member organizations contribute to, how they make these contributions, and whom they work with in the process; it does not attempt to quantify the number of projects relevant to each target, nor does it clarify if contributions to one target were also represented by another target (e.g. a contribution to Target 15.2 may also constitute a contribution to Target 15.3, as these two targets are mutually-reinforcing). In addition, surveys and interviews were only conducted with select members of the organizations. Although great variation between those within the same organization is not expected, any diversity within organizations was not captured. In spite of these limitations, this work does expand understanding of how CSOs can and do contribute to the SDGs, even in a national context that 'obstructs' civic space (Civicus 2019). This can help to build a foundation for future work on the role of CSOs in the achievement of the SDGs and, specifically, SDG 15, as well as other global agenda.

## 6. Literature Review

The literature review below was conducted in order to establish the context for this research project. The literature review begins with an overview of the means of implementation (MOI) for the SDGs, including a brief overview of one of the main challenges with respect to SDG implementation. Next, the literature review explores the role that CSOs can play in SDG achievement and then proceeds to describe the 'enabling environment' needed in order for CSOs to realize their full potential as development actors. This is followed by general information on civic space in Bolivia. Finally, the literature review describes what is known about overall SDG planning and implementation in Bolivia. Together, the information collected for the literature review was used to influence the research design used for Objectives 2 and 3, as well as to shape the analysis conducted to achieve Objective 4.

#### 6.1 SDG Means of Implementation

National governments play the largest role in SDG implementation, follow-up, and review; however, these processes are intended to include the participation of all stakeholders including civil society, academia, and the private sector (UNGA 2015). Within the SDGs, SDG 17 is dedicated specifically to the means of implementation (MOI), and MOI are also included within the targets of the other 16 goals (Elder et al. 2016). There are seven categories of MOI mentioned in the SDGs, including finance, technology, capacity building, trade, policy and institutional coherence, multi-stakeholder partnerships (MSPs), and data, monitoring and accountability (UNGA 2015); however, not all MOI described within the targets are represented by these seven MOI categories (Elder et al. 2016). Elder (2016) argues that the presentation of the MOI in the SDGs is troublesome because it separates goals and targets from the MOI. He conceptualizes many of the goals and targets as "means themselves -in other words, intermediate goals- that contribute to the achievement of the higher goals of human health, wellbeing, and security" (Elder et al. 2016, 2). This perspective facilitates synergies and interlinkages between the goals, which are considered essential for successful SDG implementation (Elder et al. 2016; Allen et al. 2018; Pínter et al. 2016; Le Blanc 2015; Stafford-Smith et al. 2017; Georgeson and Maslin 2018). There are competing aims present within the SDGs which generate trade-offs between the goals; as such, focusing on synergies and interlinkages is needed to help implement the SDGs and ensure that actions in support of one goal are mutually enforcing with others (Elder et al. 2016; Allen et al. 2018; Le Blanc 2015; Pínter et al. 2016; Stafford-Smith et al. 2017; Georgeson and Maslin 2018).

The MOI pertaining to 'data, monitoring and accountability' presented a key challenge during the implementation of the MDGs (Sachs 2012), and, although actions have been taken to improve 'data, monitoring and accountability', this MOI continues to pose a challenge with respect to the SDGs (Sachs *et al.* 2018; Georgeson and Maslin 2018). For this reason, as well as because the present research was constrained by limited data availability in Bolivia, the following two paragraphs focus specifically on the academic and expert literature on 'data, monitoring and accountability' MOI.

The sheer number and complexity of SDG indicators complicate data collection and monitoring; there are currently 232 official indicators to monitor global progress on implementation, with several targets having multiple indicators (UNSTATS 2019). Georgeson and Maslin (2018) describe that "no country is currently capable of measuring against all indicators, let alone with full disaggregation" and that complete reporting at the global level is only possible for a select number of targets (Georgeson and Maslin 2018, 13). One factor contributing to the inability of countries to measure against all indicators is that, as of January 2019, metadata had not yet been published for all indicators. This is likely because approximately one-third of SDG indicators rely on data not captured by traditional official statistics and instead enter into grey areas in which there is a lack of agreement regarding how to define concepts and establish standard methodologies (MacFeely 2019). There are many indicators which provide only partial data regarding their assigned target; thus, even when indicator metadata and data on indicator progress are fully available, there are still pressing challenges with regard to measurement (Elder and Hoiberg Olsen 2019). There are also indicators that treat problems as though they were isolated; what measurement systems can monitor and report with respect to SDG indicators does not necessarily ensure sustainability (FAO representative pers.comm.). The 2030 Agenda does allow nations to develop their own indicators which are more appropriate for their national contexts, which can avoid some of the problems described above; however, this can present challenges when aggregating data at the regional or global levels (ECLAC 2017). There are also concerns with data availability; governments do not always submit reliable data to UN agencies, and UN agencies often lack the capacity to validate the data they receive (FAO representative pers.comm.). On top of these issues, financing represents another key challenge to 'data, monitoring and accountability'. Current funding for data collection ranges from \$250-300 million USD annually, which is far short of the \$650 million - \$1 billion USD estimated to be necessary (MacFeely 2019). In spite of the progress that has been made over the last two decades, the existing 'data, monitoring and accountability' challenges currently serve as an obstacle to effective global SDG implementation.

Improving 'data, monitoring and accountability' requires a combination of both technical and conceptual changes, many of which involve linkages to other MOI categories, such as finance and technology. The UN Independent Expert Advisory Group (IEAG) has tried to address the challenges surrounding 'data, monitoring and accountability' via recommendations to harness the 'data revolution'<sup>6</sup> (IEAGS 2014), and this has been echoed by academics. Harnessing the 'data revolution' entails utilizing data from sources other than national statistics agencies in the SDG monitoring process. This solution to data-related challenges acknowledges that many nontraditional data sources (e.g. CSOs, crowdsourced databases, private sector actors) are already generating data relevant to the SDGs and that the incorporation of data from these sources can reduce costs while expanding data availability (IEAGS 2014; Pínter et al. 2016; MacFeely 2019). Mainstreaming the SDGs has also been presented as solution to MOI challenges by integrating the SDGs into development plans and aligning them with pre-existing budgets and measurement tools (UNDG 2015; Pínter et al. 2016). Mainstreaming could thus help overcome financial and technical barriers to effective 'data, monitoring and accountability' MOI, although mainstreaming could blur the lines between the SDGs and national agenda, resulting in a failure to implement the goals and a "dilution of policy priorities" (Gupta and Nilsson 2016, 262). This last challenge highlights the need to improve 'data, monitoring and accountability' MOI by considering the conceptual governance framework in which indicators are used and the political ends to which they are applied so as to ensure that the measurement systems adopted for the SDGs do not replicate the unsustainable development outcomes that the SDGs strive to break away from (Pínter et al. 2016).

During this early stage of implementation, global progress on the SDGs is mixed. The annual *SDG Index and Dashboards* reports have shown SDG performance by country since 2016 (Sachs *et al.* 2018). The reports constitute unofficial reporting mechanisms produced by Bertelsmann Stiftung and the Sustainable Developments Solutions Network (SDSN), and the

<sup>&</sup>lt;sup>6</sup> The IEAG describes the 'data revolution' as "An explosion in the volume of data, the speed with which data are produced, the number of producers of data, the dissemination of data, and the range of things on which there is data, coming from new technologies such as mobile phones and the 'internet of things', and from other sources, such as qualitative data, citizen generated data and perceptions data..." (IEAGS 2014, 6)

2018 report expands on the work of previous years by reporting SDG implementation data for all 193 UN member states (Sachs et al. 2018). On the positive side, the 2018 report finds that almost every nation is pursuing the achievement of the SDGs, implying global uptake of the 2030 Agenda; however, this bright spot is accompanied by substantial challenges. The report describes that no nation's current rate of progress would lead to the fulfilment of all the SDGs, and an in-depth focus on G20 countries revealed that they have a mixed level of commitment to national SDG implementation (Sachs et al. 2018). This is concerning for two key reasons. First, G20 countries are better equipped than most other countries to achieve the SDGs given the MOI at their disposal; thus, it sends a negative message to the global community when they fail to prioritize the SDGs. Second, it raises alarm because G20 countries are the main actors producing what the 2018 SDG Index Report characterizes as "significant environmental, economic, and security spillover effects that undermine other countries' efforts to achieve the SDGs" (Sachs et al. 2018, ix). The report also found that aggregated data sometimes presents a skewed view of progress that conceals inequalities. Disaggregated data is limited in availability, yet it is essential to establish the extent to which there has been true progress towards the goals (Sachs et al. 2018). Overall, the report found that OECD countries have the highest SDG Index scores; whereas, lower income counties generally have lower scores, although these findings would likely change if spillover effects were fully accounted for in the measurement of each nation's SDG progress. Progress towards some SDGs was stronger than progress towards others, and areas affected by conflicts have seen reversals in their progress (Sachs et al. 2018). Progress on SDG 13 (Climate Action), SDG 14 (Marine Ecosystems), and SDG 15 (Terrestrial Ecosystems), the three 'environmental' SDGs, is off-track; a business as usual trajectory will result in the failure to achieve these goals and, in the long term, will ultimately put economic and social advances in jeopardy (Sachs et al. 2018; Randers et al. 2018).

The academic and expert literature has developed substantial guidance for countries with regards to SDG implementation, but an early evaluation of SDG implementation shows that in practice countries gravitate towards certain implementation strategies and steps over others. Allen *et al.* (2018) examined SDG implementation in a combination of 26 developed and developing countries that had conducted national SDG reviews, and they found that while countries incorporated a variety of strategies identified in the academic and expert literature, there was a disconnect between the academic literature's call for science-based approaches (e.g. systems thinking, analysis, and modelling) and the application of these strategies by

governments (**Fig. 3**). Such science-based approaches identify interlinkages and promote synergies, which can help to avoid inefficient 'siloed' SDG implementation in which progress towards one goal may unwittingly produce setbacks in the progress of another (Allen *et al.* 2018). The MDGs have been critiqued for promoting 'siloed' approaches to implementation, and failure to adopt strategies that avoid this pitfall risks severely limiting the success of the *2030 Agenda* (Le Blanc 2015).



Good coverage Partial coverage Poor coverage

Figure 3. Allen et al. (2018) depict the % of countries that describe evidence- and science-based SDG implementation approaches in their national SDG implementation documentation. Their findings were based on 26 countries and only considered data for the first year and a half of SDG implementation. Source: Allen et al. 2018, 19

#### 6.2 The Role of CSOs in SDG Achievement

The term 'civil society organizations' or 'CSOs' refers to "...all non-market and non-state organizations outside of the family in which people organize themselves to pursue shared interests in the public domain..." (3rd High Level Forum on Aid Effectiveness 2008, 7). This is an exceptionally broad category that includes small-scale actors, such as local community organizations and prayer groups, all the way up to large-scale actors, such as international nongovernmental organizations (NGOs). This component of the literature review explores the role that CSOs can play in SDG achievement by first looking at the role of CSOs in global development agenda and then focusing specifically on their role with respect to SDG
implementation. While reading this text, it must be kept in mind that not all CSOs function as development actors; as such, the findings below are most applicable to CSOs that actively work in fields related to sustainable development.

CSO participation in sustainable development is a recurring component of 21st century global development agenda. The UN Millennium Declaration acknowledged the potential for CSOs to contribute to international development agenda, and UNDP promoted partnerships with CSOs as a means to facilitate MDG implementation (UNGA 2000; UNDP 2006). The Johannesburg Plan of Implementation (JPOI) also emphasized the importance of partnerships with civil society stating that civil society should be involved in sustainable development decisionmaking and can also mobilize resources for sustainable development and participate in the creation, implementation, and evaluation of development policies and strategies (UNGA 2002) Today, the 2030 Agenda and the SDGs within place a strong emphasis on the importance of CSOs as development actors by embedding the role of civil society into multiple parts of the Agenda. The CBD (2018) has also specifically advocated further collaboration with both organized and unorganized civil society as a means to improve global progress on the Aichi Targets and, consequently, SDG 15. In spite of the role that CSOs can and do play in promoting sustainable development, there is relatively little research examining this. The present literature review found that most research exploring the role of CSOs in MDG implementation is limited to specific geographical and thematic areas, lacking a holistic perspective. There is more holistic information regarding the role of CSOs in SDG implementation; however, much of the literature available falls under the category of grey literature. A brief review of the literature on the role of CSOs in SDG implementation is provided below.

The nature of possible CSO contributions to the SDGs is varied, and CSO 'means of implementation' are slightly different from the official MOI described in the SDGs. Long (2018) organizes CSO contributions into the categories of 'realization' (direct SDG contributions), 'representation' (representing marginalized groups), 'regulation' (monitoring and reviewing to hold other actors accountable), and 'transmission' (spreading information between decision-makers and society) (Long 2018). These categories are similar to those identified by Hege and Demailly (2018), which focus on holding government and private sector actors accountable, project implementation, and raising awareness about the SDGs. The African Civil Society Circle (ACSC) has identified the same contributions as those identified by Long (2018) and Hege and Demailly (2018), but they emphasize how CSOs are often well-equipped

to 'localize' the SDGs by "utilis[ing] local knowledge to tailor the ambitious globaldevelopment agenda to specific local circumstances" (ACSC 2016, 3). The ACSC identifies that CSOs may outperform government actors when it comes to development work such as service provision, since CSOs are often characterized by greater degrees of flexibility and creativity (ACSC 2016). At the same time, overdependence on CSOs to perform these functions poses the risk of governments neglecting their development obligations and can lead to vacuums forming when donors withdraw and render CSO work unviable (ACSC 2016). Poskitt and Shankland (2014) identify that CSOs can also participate in development cooperation and, more specifically, SSDC. This often takes the form of cross-border CSO-CSO exchanges, which can result in capacity building, peer-to-peer learning and educational exchanges, among others (Poskitt and Shankland 2014). Although Poskitt and Shankland (2014) do not frame these contribution in the context of the SDGs, there is clear overlap between CSO's participation in SSDC and SDG 17's call for technology transfer, capacity building, and MSPs as means of SDG implementation. Overall, the contributions that CSOs can make to SDG implementation amount to a combination of actions that contribute both directly and indirectly to the achievement of the 2030 Agenda. These actions serve to complement those of governments and other actors involved in SDG implementation, but one of the strengths that CSOs can offer is that many are adept at integrating environmental, social, and economic themes, as well as at forming partnerships with diverse groups of actors (ACSC 2016; Long 2018; Hege and Demailly 2018). Capturing these contributions in a systematic and meaningful way poses a challenge, and Pínter et al. (2016) propose the use of relevant indicators that have been custom-fit for CSOs and other actor groups in order to appropriately measure and account for their SDG-relevant work.

While the literature has identified several ways in which CSOs can help contribute to the achievement of the SDGs, it is important to recognize that many CSOs have long been performing work that is relevant to the *2030 Agenda*. Long (2018) describes that CSOs are not an 'untapped resource' when it comes to SDG implementation; rather, most CSOs develop work that is relevant to multiple SDGs, even though many may not be knowledgeable of the SDGs themselves. Whether or not a given CSO is considered to play a role in SDG achievement is thus very much dependent upon how its work is branded. This allows for CSOs to recast their work under the framework of the SDGs for strategic purposes, such as bolstering political legitimacy and acquiring funding. This is neither good nor bad in itself, but it does complicate efforts to determine if CSOs are truly mobilizing behind the SDGs.

# 6.3 Enabling Environment for Civil Society Organizations

CSOs can be important actors in development processes by taking on diverse roles including empowering and engaging with communities and marginalized groups, promoting civic engagement, informing public policy, serving as government and private sector watchdogs, providing services and infrastructure, among others (Open Forum for CSO Development Effectiveness 2011). At the same time, CSOs are groups of people who have chosen to voluntarily self-organize; they are not obliged to serve as development actors or to perform specific roles, they have not been elected to public office, and they are not necessarily accountable to the communities that they work in or represent. The *Istanbul Principles for CSO Development Effectiveness* address these concerns through an established a set of eight guidelines for CSOs to effectively realize their work as development actors (Open Forum for CSO Development Effectiveness 2011). These guidelines call on CSOs to ensure that their work promotes equality and human rights; fosters empowerment and democratic participation; establishes partnerships characterized by equality, respect, and mutual learning; and pursues sustainable actions that positively contribute to their respective environments (Open Forum for CSO Development Effectiveness 2011).

The ability of CSOs to effectively work in their communities and uphold the standards established in the *Istanbul Principles* is contingent upon their governments' provision of an 'enabling environment' (Open Forum for CSO Development Effectiveness 2011). An 'enabling environment' is understood as a space in which human rights are upheld and in which CSOs are legally recognized and can mobilize resources to perform their work, can express themselves and assemble freely, and can operate without 'unwarranted state interference' (Open Forum for CSO Development Effectiveness 2011, 22). Although an enabling environment is fundamental for both organized and unorganized civil society to flourish, the majority of countries do not guarantee basic conditions described above. *The State of Civil Society Report 2018* produced by Civicus describes that there are 109 countries that "have closed, repressed or obstructed civic space", and a mere 4% of the world's citizens live in places characterized by 'open' civic spaces (Civicus 2018, 4).

# 6.4 Civic Space in Bolivia

Both the literature and expert interviews reveal that Bolivia does not currently provide an enabling environment for CSO operation. Civicus has rated Bolivia's civic space as 'obstructed' (Civicus 2019), and the literature describes that the national government has utilized tactics including harassment, intimidation, smear campaigns, criminalizing select forms of non-violent civil disobedience, curtailing access to information, among actions targeted towards organized and unorganized civil society (Civicus 2017; Fundación CONSTRUIR 2014; Rivera Mendez 2018). Many of these actions have been aimed specifically at groups who express opposition to extractive projects, putting organizations and individuals that advocate for human and environmental rights at risk (Civicus 2017). A representative from UNDP has described that there are some NGOs, specifically those focusing on the environment and conservation, who are targeted by the government and whom the government would like to disappear (UNDP representative pers.comm.).

While the conditions above affect all of civil society, the Bolivian government has taken other steps that specifically target CSOs. The national government passed Law 351 on Legal Personalities in 2013, which Marco Antonio Gandarillas, the director of the human rights organization Center of Information and Documentation Bolivia, describes as a law that "replaces the entire previous legal framework of the Civil Code and requires civil society to align its objectives and activities with government policies" (Civicus 2017). Under the law, organizations that perform work outside of that which they have specified in their bylaws are at risk of losing their legal person (Fundación CONSTRUIR 2014). Many CSOs have shut down or adopted a low profile since the Law 351's passage (Civicus 2017). Simultaneously, Gandarillas describes that some NGOs have become 'para-government organisations', this includes NGOs run by government officials that Gandarillas accuses of "hav[ing] been set up in order to run government programmes with international cooperation or public funds" (Civicus 2017).

Law 351 has been accompanied by restrictions that seek to limit CSOs' abilities to fund their activities. The national government has enacted changes to the tax code in which organizations that sell products or services to fund their activities are ineligible for tax exemption (Fundación CONSTRUIR 2014). It has also been increasingly denying tax exemption status applications to CSOs in general (Fundación CONSTRUIR 2014). In addition, Fundación CONSTRUIR (2014)

describes that international financing directed to CSOs must only go to CSOs whose activities are legal and who meet public registration requirements, which may generate difficulty for organizations who experience challenges with respect to obtaining or maintaining their legal person as a result of Law 351.

The effects of the restrictions curtailing civic space in Bolivia are perceived by UN representatives operating in Bolivia. A UNDP representative has described that NGOs previously led much of Bolivia's development process, but the government has since taken over this role and has "radically" reduced the amount of work that it conducts with NGOs (UNDP representative pers.comm.). A representative from the FAO has described that Bolivia does not provide an enabling environment for CSO operation, and the national government's stance towards CSOs is strong enough that the FAO is less likely to incorporate CSOs into its projects when the projects entail work with the national government (FAO representative pers.comm.). These conditions described here and above do not coincide with those of an 'enabling environment' for CSO operation, which, in turn, has negative implications for the ability of CSOs further the *2030 Agenda*.

# 6.5 The SDGs in Bolivia

### 6.5.1 SDG Planning in Bolivia

The Bolivian government was initially reluctant to take ownership of the SDGs (UNDP representative pers.comm.), but it has since linked its SDG implementation directly to the country's *Patriotic Agenda 2025* and *Plan for Economic and Social Development 2016-2020* (PDES) (Bolivia and UN Bolivia 2017), both of which have a different time frame from that of the SDGs. The act of linking the SDGs to Patriotic Agenda and the PDES is considered as one of the biggest achievements with regards to SDG implementation in Bolivia, but the SDGs continue to be secondary to the national agenda (UNDP representative pers.comm.; FAO representative pers.comm.). The *Patriotic Agenda* consists of 13 pillars, and it lays out the general vision of what the national government hopes to achieve by 2025 (Ministerio de Comunicación Estado Plurinacional de Bolivia 2013); whereas, the PDES is Bolivia's national development plan for 2016-2020, which includes a set of goals, desired outcomes, and required actions formulated within the framework of the *Patriotic Agenda* (Plurinational State of Bolivia 2015). Both documents are centered around the concept of 'Living Well', described below:

"Living Well is the civilizational and cultural horizon alternative to capitalism and modernity that is born in the worldviews of nations and indigenous, native and peasant peoples, and intercultural communities and Afro-Bolivians, and is conceived in the context of multiculturalism. It is achieved collectively, in complementary and solidarity, integrating in its practical realization the social, cultural, political, economic, ecological and emotional, among others, dimensions, to allow the harmonious meeting between all beings, components and resources of Mother Earth."

Source: Article 5, Numeral 2 of Law No. 300, Mother Earth and Integrated Development Framework for Living Well as cited in Plurinational State of Bolivia 2015, 9.

Bolivia has actively promoted the 'Living Well' framework in the international arena (Telesur 2014; UN News 2015; Bolivia n.d.), and what 'Living Well' means from a policy perspective is detailed in the *Patriotic Agenda* and the PDES. Both documents have a substantial degree of overlap with the SDGs as they specifically address poverty, hunger, universal access to basic services, universal health care, education, economic development, transportation, infrastructure, sustainable agriculture, among others (Plurinational State of Bolivia 2015; Ministerio de Comunicación Bolivia 2013). Indeed, Bolivia has made significant progress in recent years as it has pursued the 'Living Well' agenda. It has experienced economic growth that has transformed it from a low-income nation to a lower-middle income nation, and it has made significant strides with respect to reducing extreme poverty and improving the social safety net (UN Economic and Social Council 2017). At the same time, certain aspects of the 'Living Well' agenda expressed in the Patriotic Agenda and PDES generate clear trade-offs, similar to those present within the SDGs. Conflicts within the PDES include those between plans to expand mining reserves from 313 in 2015 to 1,060 by 2020 and to increase the percentage of the population with access to potable water in rural communities from 66% in 2015 to 80% by 2020, as well as plans to expand the cultivated area from 3.5 million hectares in 2014 to 4.7 million hectares by 2020 while also planning to completely eliminate illegal deforestation by 2020 and reforest 750,000 hectares by the same year (Plurinational State of Bolivia 2015). The PDES does not acknowledge the trade-offs between these goals, such as how mining activities have generated a significant amount of water contamination undermining the state's ability to provide clean water to its citizens or agricultural expansion is the principal cause of deforestation in the country (Ministerio de Relaciones Exteriores 2014; Plurinational State of Bolivia 2015). In theory, the integrated nature of the SDGs could offer a framework for addressing these trade-offs, but the way in which the SDGs have been aligned to national agenda fail to do so. It is improbable that Bolivia will be able to achieve all of the environmental, social, and economic goals that have been established in national agenda and linked to the SDGs, and this raises questions about which dimension of sustainable development will override the others during implementation. There is a chance, however, that such tradeoffs may soon be addressed, as the government is now conducting a mid-evaluation of the PDES, and this is seen as promising for SDG implementation (UNDP representative pers.comm.; FAO representative pers.comm.).

The Ministry of Development Planning is the governmental entity responsible for coordinating SDG implementation, financing, and monitoring and evaluation; however, national sectoral, subnational, and technical governmental entities are the main actors responsible for SDG implementation, and they are to take advantage of partnerships with external actors – including organized and unorganized civil society, academia, private sector actors, among others – when developing implementation activities (Bolivia and UN Bolivia 2017). The UN has also assumed a substantial role in implementing the SDGs; under the leadership of the UN Resident Coordinator, each of the 17 UN agencies operating within Bolivia works on SDG implementation (UNDP representative pers.comm). The FAO, for example, conducts extensive work in Bolivia that has some interaction with almost all of the 17 SDGs (FAO representative pers.comm.)

Together with UN Bolivia, the government has produced three official SDG implementation documents. These documents draw explicit linkages between the SDGs and the *Patriotic Agenda* and the PDES, and they include the *SDGs for Living Well*, *Agenda for Living Well*, and the *United Nations Complementarity Framework for Living Well in Bolivia 2018-22* (UNDAF). These documents provide specific national goals and relevant information for each SDG, and they provide insight into the MOI and the corresponding responsible parties. While UNDAF, which primarily defines the UN's work in Bolivia, describes that there was civil society participation in its creation, there is no evidence of civil society participation in the creation of *SDGs for Living Well* nor for the *Agenda for Living Well*. In notes for a meeting between the LIDEMA network, other CSO actors, international cooperation actors, government actors, and a representative of the private sector, Rivera Méndez (2018) describes that NGOs were largely excluded from the formation of the *Patriotic Agenda* and that there was "even less of a debate surrounding the 2030 Agenda" (Rivera Méndez 2018, 4). The marginalization of CSOs in general in SDG processes has been confirmed by FAO and UNDP representatives (UNDP representative pers.comm.; FAO representative pers.comm.).

The document *SDGs for Living Well* is the only official SDG implementation document aligning the SDGs with the *Patriotic Agenda* and the PDES at the target level<sup>7</sup>. The document contains a table in which all SDG targets are listed, and then to the side there are cells indicating the alignment between each target and the *Patriotic Agenda* and PDES. Almost every target is aligned with a specific pillar of the *Patriotic Agenda*; however, far fewer targets are aligned with the PDES. This is likely because the *Patriotic Agenda* provides a broad vision for Bolivia's future, while the PDES is a strategic plan that includes the goals, desired results, and actions needed to achieve the vision contained within the *Patriotic Agenda* (Bolivia *et al.* 2018). The percentage of targets that have been aligned with the PDES provides an indication of which SDGs are considered national priorities; however, the picture is complicated by the PDES and SDG implementation data reported in a nondescript database posted on the National Statistics Institution's (INE) website (see **Table 1**).

Table 1. The number and percentage of targets from each SDG that have been aligned with the PDES in SDGs for Living Well, as well as those that have been included in INE's database. The table is the creation of this author, but the data was collected from SDGs for Living Well (UN Bolivia 2018) and INE's database for reporting PDES (and SDG) progress (INE 2018).

		# of Targets	% of Targets	# of	% of
	Total # of	aligned	aligned with	Targets	Targets
SDG	Targets	with PDES	PDES	included	included
SDG 1: No Poverty	7	6	86%	4	57%
SDG 2: Zero Hunger	8	7	88%	7	88%
SDG 3: Good Health & Well-being	13	9	69%	9	69%
SDG 4: Quality Education	10	9	90%	6	60%
SDG 5: Gender Equality	9	2	22%	5	56%
SDG 6: Clean Water & Sanitation	8	6	75%	2	25%
SDG 7: Affordable & Clean Energy	5	4	80%	2	40%
SDG 8: Decent Work & Economic Growth	12	7	58%	3	25%
SDG 9: Industry, Innovation & Infrastructure	8	6	75%	6	75%
SDG 10: Reduced Inequalities	10	6	60%	4	40%
SDG 11: Sustainable Cities & Communities	10	3	30%	5	50%
SDG 12: Responsible Consumption & Production	11	7	64%	3	27%
SDG 13: Climate Action	5	4	80%	1	20%
SDG 14: Life Below Water	10	0	0%	0	0%
SDG 15: Life on Land	12	3	25%	4	33%
SDG 16: Peace, Justice & Strong Institutions	12	7	58%	4	33%
SDG 17: Partnerships for the Goals	19	9	47%	3	16%

**Table 1** depicts a mismatch between the SDGs aligned with the PDES in *SDGs for Living Well* and the alignment suggested in INE's database. This mismatch complicates efforts to identify national SDG priorities based on SDG alignment with the national development plan. *SDGs for* 

<sup>&</sup>lt;sup>7</sup> Note: This does not account for sector-spectific documentation that may have alignment with SDG targets.

*Living Well* describes alignment between the PDES and SDG Targets 15.2, 15.4, and 15.5; whereas, INE's database shows alignment between the PDES and Targets 15.1, 15.2, 15.3, and 15.9. This implies that although 15.4 and 15.5 were aligned with the PDES in *SDGs for Living Well*, it does not appear that they are currently being measured at the national level. At the same time, *SDGs for Living Well* did not indicate any alignment between 15.1, 15.3, and 15.9, yet the database suggests that these targets will be reported on<sup>8</sup>. Taken together, *SDGs for Living Well* and INE's database present a complicated picture regarding Bolivia's priorities with regards to SDG implementation. Nonetheless, as there is great ambiguity surrounding the policy framework being used for SDG planning, it can be assumed that the SDGs with higher degrees of alignment (e.g. SDGs 2, 9, and 3) with the PDES in both *SDGs for Living Well* and INE's database are indeed national priorities; whereas, those with lower degrees of alignment are not (e.g. SDGs 14, 15, and 17).

As described above, there is great uncertainty surrounding SDG implementation in Bolivia; national priorities are unclear, and the country is still making important decisions with regards to SDG implementation (UNDP representative pers.comm.). Currently, UNDP is working directly with the national government to identify the SDG indicators that the country will use, and INE is planning to issue its first report on SDG progress in July 2019 (UNDP representative pers.comm.). Until the release of the report, information on SDG progress will not be publicly reported and the SDG targets and indicators that will be reported on will remain unconfirmed (UNDP representative pers.comm.). It is likely that the SDG Targets reported on will be those that have been aligned with the PDES; those that have not are more likely to be left behind (UNDP representative pers.comm.). All of this, however, is subject to change; 2019 is an election year and the future direction of the country hinges upon whether President Evo Morales is elected to serve a fourth term (UNDP representative pers.comm.).

# 6.5.2 SDG Means of Implementation in Bolivia

Information regarding the MOI for the SDGs in Bolivia is included in UNDAF and *SDGs for Living Well*, as well as in sector-specific documentation. The MOI addressed in national documentation are briefly described below.

<sup>&</sup>lt;sup>8</sup> The future tense is used here because INE's publicly available database currently does not include data that corresponds to the majority of these indicators; nonetheless, the inclusion of these indicators in the database could suggest an intention to report on them.

### 6.5.2.1 Financing

Financing the SDGs is expected to be a key challenge in Bolivia owing to the country's recently attained status as a middle-income country, as well as a changing context surrounding official development assistance (ODA) provision (Bolivia and UN Bolivia 2017). To help with these financial challenges, UN Bolivia has committed to the mobilization of just over US \$187 million for SDG implementation, with more than US \$75 million destined to UNDAF Pillar 2 related to food security, economic and technological development, and the environment (Bolivia and UN Bolivia 2017). As part of its efforts to mobilize SDG funding in the country, the UN is also seeking to further engagement with the private sector, particularly through the SDG Global Compact (UNDP representative pers.comm.). These efforts are currently in the initial stages, and a challenge is that the UN must be selective in terms of the private sector actors that they align themselves with (UNDP representative pers.comm.).

Bolivia also plans to acquire financing from 'alternative' sources of bilateral and multilateral aid and by channeling foreign direct investment to diversify production in Bolivia and increased value-added production (UN Bolivia 2018).

Financing is not listed as an MOI for any SDG 15 targets in *SDGs for Living Well*; although, Target 15.2 has been aligned with PDES Pillar 6 Goal 5, Result 1, which calls for "Greater participation of the forest sector in the GDP" (Plurinational State of Bolivia 2015, 122; UN Bolivia 2018). This does not, however, constitute financing as an MOI for SDG 15 because it is not indicated that the funds generated from the sales of forest products and services would be reinvested to facilitate SDG 15 implementation. It should also be noted that the increased participation of the forest sector in the national GDP may indeed clash with the intended objective of SDG Target 15.2 (Sustainable Forests).

Additional information regarding SDG financing is incorporated into sector-specific documentation. For example, programs such as the United Nations Office on Drugs and Crime (UNOCD) *Country Program in Bolivia for 2016-2020* and Bolivia's *Land Degradation Neutrality (LDN) Strategy* both reference plans to secure external funding support for their implementation, and both of these documents demonstrate some degree of SDG mainstreaming by drawing linkages to specific SDGs. The role domestic financing specifically for SDG implementation is unclear in national SDG documentation; however, this is likely because

much domestic financing that contributes to SDG implementation would already be incorporated into the budget of the relevant government agency without any separate SDG marker applied. Looking at the budget of sectors related to specific SDGs can provide insight into whether the SDGs have had an impact on domestic spending. For example, the National Protected Area Service experienced a consistent increase in the agency's budget from 2012-2015 going from 59,257,224 to 72,865,412 bolivianos, but since 2015 the budget has oscillated between 69,662,385 and 73,250,464 bolivianos (SERNAP 2017, 2018). This suggests that the SDGs have not resulted in increased spending on protected areas, even though protected areas play an essential role in the achievement of SDG 15.

# 6.5.2.2 Technology

Technology as an MOI is incorporated into *SDGs for Living Well* though references to southsouth development cooperation (SSDC) facilitated by entities such as UNASUR, MERCOSUR, ALBA-TCP, and CELAC, but further specifics are not provided (UN Bolivia 2018). Technology is also referenced as an MOI for specific SDG Targets in *SDGs for Living Well*, including for SDG 15 in which PDES Pillar 9 Goal 6, Result 3 "Forestry production centers have been implemented for transfer of technology for massive production and forestry plantations" has been linked to SDG Target 15.2 (Plurinational State of Bolivia 2015, 148; UN Bolivia 2018). Further mention of technology for SDG implementation can be found in sectoral documentation.

UNDP recognizes that technology can help to address some of the trade-offs existing between different aspects of the national agenda, but access to technology represents a challenge. SSDC and triangular cooperation are means of facilitating technology transfer, but at this point the utilization of these processes for technology transfer is still in development (UNDP representative pers.comm.).

# 6.5.2.3 Capacity building

Capacity building as an MOI is the focus of SDG Target 17.9; however, *SDGs for Living Well* does not align this target with Bolivia's PDES (UN Bolivia 2018). Nonetheless, capacity building is included in *SDGs for Living Well* in relation to certain individual targets that have been aligned with the PDES. Capacity is referenced in relation to SDG 15 in *SDGs for Living Well*; however, this reference is made to the capacity of natural systems regarding climate

change and risk management, rather than capacity building as an MOI oriented towards the expansion of human skill sets (UN Bolivia 2018).

Further information regarding capacity building as an MOI is included in UNDAF and in specific sectoral documents, although any steps taken to systematically identify national capacity gaps are unclear. UN Bolivia plans to work with INE and the Unit of Analysis for Social and Economic Policies (UDAPE) to improve their statistical capacity with relation to the UN's work in Bolivia and the implementation of the SDGs (Bolivia and UN Bolivia 2017). The UN also plans to build capacity for PDES and SDG implementation related to water and sanitation, development planning, promoting employment, climate change resilience and risk management, conflict resolution, access to justice, gender-based issues, transparency and preventing corruption, natural resource management, and indigenous knowledge (Bolivia and UN Bolivia 2017).

### 6.5.2.4 Trade

Trade as an MOI is represented in SDG 17 by three targets (17.10-17.12), two of which have been explicitly aligned with the PDES (UN Bolivia 2018). Bolivia demonstrates an unequivocal commitment to Target 17.11, which calls for increasing exports from developing nations (UN Bolivia 2018). It has also aligned Target 17.10 regarding trade norms with the PDES' through promotion of the 'Regional and Subregional Solidarity Network' (UN Bolivia 2018).

# 6.5.2.5 Policy and institutional coherence

Policy and institutional coherence as MOI are incorporated into SDG Targets 17.13-17.15. Targets 17.14 and 17.15 have been aligned with the PDES; however, Bolivia has adopted an international interpretation of these targets (UN Bolivia 2018). It has linked Target 17.14 (Policy Coherence for Sustainable Development) to the UNFCCC's incorporation of Bolivian proposals regarding climate change, as well as to its proposal for the UN to adopt a Declaration of Rights of Mother Earth (UN Bolivia 2018). Similarly, Bolivia has linked Target 17.15 (National Policy Space for Poverty Eradication and Sustainable Development) to SSDC and other mechanisms to bring together different nations, rather than applying a domestic interpretation of this target (UN Bolivia 2018). At the same time, sectoral documentation demonstrates that there is a greater emphasis on policy and institutional coherence than official SDG documentation, especially *SDGs for Living Well*, would suggest. Evidence of SDG mainstreaming in the country can be found in sectoral documentation such as the Plurinational

Policy and Strategy for the Integrated and Sustainable Management of Biodiversity (NBSAP), LDN Strategy, and the *UNOCD Country Program in Bolivia for 2016-2020*.

There are also mechanisms in place that predate the SDGs that are intended to promote policy and institutional coherence in the country. Law 1333, the Law of the Environment, legislates the incorporation of the environment into development planning and making national environmental policies compatible with international environmental policies, albeit while prioritizing national interests (Bolivia et al. 2018). Law 300, the Framework Law for Mother Earth and Holistic Development for Living Well, is another pre-SDG mechanism designed to promote policy and institutional coherence with respect to the environment. Furthermore, the PDES requires that Bolivia's autonomous territorial entities create five-year territorial development plans that unite human and economic development with "a focus on the management of life systems, risk management and climate change" (Bolivia et al. 2018, 23). Nonetheless, these measures that promote policy and institutional coherence are not necessarily effective. A S.W.O.T analysis conducted to evaluate the context for the application of Bolivia's LDN Strategy identified weaknesses including "...a strong institutional instability in the structure of the state, which is modified frequently, resulting in confusion and vacancies" and that "... institutional and legal frameworks are weak as there are hierarchical actions, decisions and policies that, are sometimes taken without consideration of rules and regulations" (Bolivia et al. 2018, 27). Thus, while the Bolivian government has not placed emphasis upon policy and institutional coherence as a key SDG MOI, these concepts are well-incorporated into Bolivian political institutions; however, the measures to promote policy and institutional coherence are not necessarily effective.

It should also be mentioned that UN Bolivia does incorporate policy and institutional coherence as an MOI guiding its work within Bolivia. This includes the coherence between UN agencies, funds, and programs (AFPs), as well as coherence between the UN's work in Bolivia and the PDES and SDGs (Bolivia and UN Bolivia 2017).

### 6.5.2.6 Multi-stakeholder partnerships

Partnerships and multi-stakeholder partnerships (MSPs) between governmental, UN, and external actors are presented as an important MOI for SDG implementation in Bolivia. UNDAF describes that the governmental actors responsible for SDG implementation will be "supported through the construction of effective alliances with civil society, social organizations, the

private sector, academia and other cooperating actors through strategic actions designed for each group according to its characteristics, demands, and necessities" (Bolivia and UN Bolivia 2017, 57). UN Bolivia has also described plans to work on SDG implementation in partnership with both governmental and non-governmental actors via joint and specific work programs (Bolivia and UN Bolivia 2017). There are several examples of such programs currently in operation, including many that are related to SDG 15 (UNDP representative pers.comm.).

Partnerships as an MOI for SDG implementation are further elaborated on in *SDGs for Living Well*. Targets 17.16 and 17.17, which focus on MSPs, public-private partnerships, and civil society partnerships have been explicitly linked with Pillar 10 Goal 5 of the PDES, which calls for an International Gathering of Peoples on Mother Earth and Climate Change to "promote solutions to the climate crisis from the perspective of social organizations and the 'Living Well' paradigm" (UN Bolivia 2018, 46). This description of partnerships for SDG implementation is quite limited as it only references partnerships related to the planet and climate change, and it is unclear as to whether the partnerships formed in relation to the International Gathering of Pueblos will extend beyond the event itself. Nonetheless, both UNDAF and specific sectoral documents suggest that the government's partnerships for SDG implementation go beyond what is indicated in *SDGs for Living Well*.

While partnerships are represented in SDG implementation documentation, interviews with UNDP and FAO representatives revealed that partnerships between CSOs and the national government for SDG implementation are lacking. The relationship between the national government and CSOs is strained to such a point that when the FAO is working with the national government, they are less likely to collaborate with CSOs (FAO representative pers.comm.). In contrast to what national SDG documentation suggests, the national government has actually "radically" reduced the amount of work that it conducts with NGOs (UNDP representative pers.comm.).

### 6.5.2.7 Data, monitoring and accountability

INE and UDAPE are the two national agencies responsible for producing data for SDG monitoring, and UN Bolivia plans to help build the two institutions' capacity to develop and analyze disaggregated data for these purposes (Bolivia and UN Bolivia 2017). Currently, the use of 'data, monitoring and accountability' as an MOI in Bolivia appears to be underdeveloped. Bolivia has not submitted a Voluntary National Review on its SDG implementation, and the

database posted INE's database containing PDES goals and aligned SDG targets and indicators has neither been publicized nor does it provide data for the majority of the indicators listed.

UN Bolivia also presents information on 'data, monitoring and accountability' as MOI. AFPs in Bolivia are to produce reports and information to facilitate SDG monitoring and foster accountability, including an annual report evaluating the progress towards UNDAF implementation (Bolivia and UN Bolivia 2017).

### 6.5.3 SDG 15 Implementation Overview in Bolivia



# ▲ AVERAGE PERFORMANCE BY SDG

*Figure 4. Bolivia's 2018 Average Performance by SDG. Overall Score: 68.1; Global Rank: 66. Source: Sachs et al. 2018, 118* 

#### SDG15 – Life on Land

Mean area that is protected in terrestrial sites important to biodiversity (%)	57.0	٠	→
Mean area that is protected in freshwater sites important to biodiversity (%)	73.8	•	→
Red List Index of species survival (0-1)	0.9	•	→
Annual change in forest area (%)	6.3	•	• •
Imported biodiversity threats (threats per million population)	1.1	٠	• •

Figure 5. Bolivia's 2018 performance on select indicators for SDG 15. Source: Sachs et al. 2018, 119

While there is no *publicized* national database reporting on the status of SDG implementation in Bolivia, an overview of Bolivia's SDG implementation status has been provided annually since 2016 in the SDG Dashboard and Index Report compiled by Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN). An overview of Bolivia's SDG performance for 2018 is depicted in Figure 4.

The 2018 SDG Dashboard and Index Report indicates that Bolivia has made decent progress in SDG implementation. The country received an index score of 68.1, and its global SDG rank is 66 (out of 156) (Sachs *et al.* 2018). This information from the Dashboard provides a useful overview of Bolivia's SDG implementation, but

it must be noted that the Dashboard is not based on comprehensive data including all 169 SDG targets, but rather a sampling of targets for each goal. In the case of SDG 15, the Dashboard's

assessment was based on the five indicators shown in **Figure 5**. Note, the final indicator, "Imported biodiversity threats (threats per million population)" is not included on the list of official indicators provided by the UNGA (2018). Given the limited amount of data used to inform the SDG Dashboard, further exploration is required to obtain a comprehensive understanding of a country's SDG implementation progress.

# 7 Results

# 7.1 SDG 15 Implementation Status

The current section consists of an overview of Bolivia's progress on each SDG 15 target. Each sub-section begins with a table containing the SDG 15 target, the corresponding national PDES goal/target<sup>9</sup>, and the official UN indicator(s) for the target<sup>10</sup>. Where information is available, trends are discussed and data and implementation gaps are highlighted. When information is not available, a qualitative assessment of the progress towards the target is provided. The findings are then analyzed to assess overall SDG 15 progress and later used to contextualize the results pertaining to LIDEMA's contributions to SDG 15 achievement.

# 7.1.1 Target 15.1 Status

Table 2. SDG Target 15.	, corresponding national	<i>target(s), and official</i>	UN indicator(s)
-------------------------	--------------------------	--------------------------------	-----------------

Target 15.1	"By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements." (UNGA 2015, 29)
National Target(s)	PDES Pillar 6 Goal 5*: "Forests as integrated environments of production and transformation of food and biodiversity resources" (INE 2018) *Aligned with PDES in INE's database, not in SDGs for Living Well
UN Indicator(s)	15.1.1 "Forest area as a proportion of total land area" (UNGA 2018, 16) 15.1.2 "Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type" (UNGA 2018, 16)

<sup>&</sup>lt;sup>9</sup> The corresponding national PDES targets are identified from either SDGs for Living Well or INE's PDES database.

<sup>&</sup>lt;sup>10</sup> With the exception of Target 15.1, national indicators (as listed in INE's database) are not presented because no time series data is given for these indicators. It also remains to be seen as to whether the indicators in INE's database will actually be used for official SDG reporting.

Target 15.1 focuses on terrestrial and freshwater ecosystems, and there are two official indicators approved for this target (**Table 2**) (UNGA 2018). Although Target 15.1 was not aligned with the PDES in official SDG documentation, the INE database has linked this target to Pillar 6 Goal 5 of the PDES; however, while SDG Target 15.1 and PDES Pillar 6 Goal 5 fall within the same category of forestry, they work towards different ends. SDG Target 15.1 has an ecosystem focus that includes sustainable use; whereas, PDES Pillar 6 Goal 5 lists desired results that emphasize almost exclusively economic ends (**Table 3**).

*Table 3. PDES Pillar 6 Goal 5 and associated desired results. Source: Plurinational State of Bolivia 2015,122* 

GOAL	RESULTS
Goal 5: Forest integral scenarios for production and transformation of food and biodiversity resources.	<ol> <li>Greater participation of the forest sector in the GDP has been progressively achieved.</li> <li>Institutional, financial, technical, and technological capabilities have been strengthened to increase timber and non-timber forest industry with high added value.</li> <li>13MM Ha have been achieved with integral and sustainable management of forests, which guarantee the conservation and forest protection, food production, contributions to the household economy, and reduction of its vulnerability to adverse climate change phenomena.</li> <li>Agroforestry management systems have been achieved (coffee, cocoa, tropical fruits, etc.) in at least 200 thousand ha. of forest area.</li> </ol>



*Figure 6. Changes in forest area as a percentage of total land area using two different data sources. Sources:* (World Bank 2019; INE 2018)

INE's database uses the official indicator 15.1.1 to track progress towards Target 15.1 (INE 2018). The database establishes the baseline for this indicator as 48% terrestrial forest coverage in 2013 and it shows a downward trend with coverage reaching 46.97% in 2017. The FAO also

presents data for Indicator 15.1.1 that displays a downward trend; however, it displays slightly different values and covers a longer period of time. Time series data for 15.1.1 has been plotted representing both data sets in **Figure 6**. Although the rate of this downward trend has decreased from its peak during 2006-2010, it remains higher than it was from 1990-2005, before the current administration came into power. This constitutes an implementation gap as Bolivia is aiming for annual increases in forest cover and has asserted the goal of reaching 54 million hectares of net forest cover by 2030, which represents an increase of 2.9 % compared to the 2010 value (MMAyA 2016, 2018). It also makes evident that, with the current trajectory, Bolivia will not be able to meet the 2020 deadline written into Target 15.1.

Bolivia also plans to eliminate illegal deforestation by 2020, and it has taken steps to achieve this goal (MMAyA 2016; Plurinational State of Bolivia 2015; WWF 2018b). Perhaps the most significant step is the Forests and Lands Authority's (ABT) development of a national certification system that uses electronic tracking of wood extracted from forests that includes incentives for forest owners and concessionaires who perform well under this new system (WWF 2018b). There is not enough data available to assess whether this program has yet resulted in a decrease in illegal deforestation; however, successful implementation could be expected to reduce the negative trend depicted (**Fig. 6**) for Indicator 15.1.1.



*Figure 7. Percentage of terrestrial and freshwater KBAs that are covered by protected areas from 1980-2018. Data source: BIP 2018* 

Data regarding the implementation of Target 15.1 is also available for official indicator 15.1.2, which is plotted in Figure 7. Bolivia counts with 59 key biodiversity areas (KBAs) (BirdLife International 2019), and Figure 7 demonstrates that currently an average of 56.23% of each of these sites is covered by protected areas (BIP 2018). The data indicates that thus far the SDGs have not had an effect on KBA coverage in Bolivia, as coverage has not expanded since 2013. While there is no evidence of a national target established for this indicator, Aichi Target 11 calls protection of 17% of terrestrial and inland water area with a focus on areas that are important for biodiversity and the provision of ecosystem services (CBD 2010). In Bolivia, Aichi Target 11 has been exceeded with 26.5% of the country area covered by protected areas (MMAyA 2018). This suggests that there is neither an implementation gap nor a data gap with respect to Indicator 15.1.2. Nonetheless, not all of Bolivia's biodiversity-rich ecoregions have reached the 17% Target (Weller et al. 2017); thus, further work would still be required to satisfy Indicator 15.1.2 if the goal is for each KBA ecosystem type to reach 17% coverage. It is also important to consider that not all protected areas in Bolivia count with environmental management plans and the forest ranger system is not well established in many areas, both of which limit the effectiveness of Bolivia's protected areas (Ministerio de Relaciones Exteriores 2014; FAO representative pers.comm.). The implications of these weaknesses include the presence of illegal deforestation and wildlife trafficking; thus, protected status does not ensure that an area is managed so as to generate positive outcomes for terrestrial and freshwater ecosystems (FAO representative pers.comm.).

#### 7.1.2 Target 15.2 Status

Table 4. SDG Target 15.2, corresponding national target(s), and official UN indicator(s)

Target 15.2	"By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally." (UNGA 2015, 29)
National Target(s)	PDES Pillar 6 Goal 5: "Forests as integrated environments of production and transformation of food and biodiversity resources" (UN Bolivia 2018, 37) PDES Pillar 9 Goal 6: "Increase forest cover" (UN Bolivia 2018, 37)
	<ul> <li>15.2.1 "Progress towards sustainable forest management"</li> <li><u>Subindicators:</u></li> <li>"Forest area annual net change rate"</li> <li>"Above-ground biomass stock in forest"</li> <li>"Proportion of forest area located within legally established protected areas"</li> <li>"Proportion of forest area under a long term forest management plan"</li> <li>"Forest area under an independently verified forest management certification scheme"</li> </ul>
UN Indicator(s)	(U NSD 2018b, 1)

Target 15.2 focuses on sustainable forest management, including reducing deforestation and increased afforestation and reforestation efforts, and Bolivia has linked Target 15.2 with two PDES goals in *SDGs for Living Well* (UNSD 2018b). The only official indicator for this target is 15.2.1, which is calculated using the five equally-weighted sub-indicators depicted in **Table 4**. The time series data for each sub-indicator is presented in **Figures 8-12**.



The data for the sub-indicators used to measure progress towards Target 15.2 paints a complex picture. The forest net change rate (**Fig. 8**) remains negative; however, the rate of deforestation has decreased from its peak during 2006-2010. The proportion of forest area with a long-term management plan (**Fig. 11**) increased from 11% to 19% between 2000-2010. There is a data

gap with respect to this sub-indicator since no new data has been published for the last nine years, yet national documents suggest that it is likely that further progress towards this subindicator has been made. Forest area in verified certification schemes (Fig. 12) has also started to creep back upwards after a steep decline from its peak in 2007. This sub-indicator should experience further growth in the coming years as the ABT has developed a national certification system for wood extracted from forests, described above, and also aims to increase Forest Stewardship Council (FSC) certification in the country as a means of expanding the reach of Bolivian timber products in international markets (WWF 2018b). The percentage of forest area within protected areas (Fig. 10) has remained stable at 19.5% from 2005-2015. In the absence of a national goal with respect to the percentage of forest area within protected areas, an implementation gap cannot be assumed. The only sub-indicator demonstrating a clear negative trend is above ground biomass in forest stock (Fig. 9), but, as the latest data point is for 2015, it cannot be determined if the implementation of the SDGs has had any effect on this negative trend. This sub-indicator is a measure of status rather than of action; therefore, the negative direction of its trendline is particularly concerning. If future data demonstrates the continuation of this trend, this would signify the presence of an implementation gap. Overall, the trends surrounding Target 15.2 appear to be positive, but it is difficult to evaluate progress as there is a data gap that prevents us from being able to accurately assess this for the post-2015 period. The only sub-indicator with data for after 2015 is forest area in a verified certification scheme, thus our understanding of progress towards Target 15.2 is severely limited.

# 7.1.3 Target 15.3 Status

Target 15.3	"By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world." (UNGA 2015, 29)
National Target(s)	PDES Pillar 6 Goal 6: "Efficient productive systems" (INE 2018) *Aligned with PDES in INE's database, not in SDGs for Living Well
	15.3.1 "Proportion of land that is degraded over total land area"
	Subindicators: - "Land Cover"
	- "Land Productivity" - "Carbon Stocks"
UN Indicator(s)	(U NSD 2018c, 1)

Table 5. SDG Target 15.3, corresponding national target(s), and official UN indicator(s)

Target 15.3 has one official indicator, 15.3.1, which is composed of the sub-indicators land cover, land productivity, and carbon stocks (Table 5) (UNSD 2018c). Although Target 15.3 was not aligned with the PDES in SDGs for Living Well, it was aligned with PDES Pillar 6 Goal 6 in INE's database. The content of Target 15.3 also has linkages to multiple laws, programs, and policies that incorporate land degradation and recuperation. The PDES calls for recovering 500,000 ha of degraded lands, as well as for integrated land management and sustainable agricultural systems intended to be compatible with LDN (Bolivia et al. 2018). Target 15.3 is also clearly addressed in Bolivia's LDN Strategy to 2030, designed under the framework of the United Nations Convention to Combat Desertification (UNCCD), and a proposal for a National Land Use and Territorial Organization Plan is being drafted that should further facilitate progress towards LDN (Bolivia et al. 2018). The LDN strategy to aims to achieve LDN by 2030 and includes specific national goals relevant to Target 15.3 which were formed in coordination with the academic community and civil society actors (Bolivia et al. 2018). These goals are divided into the categories of prevention (e.g. programs for the sustainable management and production, climate-smart agriculture, conservation, and reducing illegal deforestation) and reversal (e.g. land restoration programs; reforestation programs, including those that incorporate agroforestry and agro-silvo-pastoral production; and climate change mitigation programs) (Bolivia et al. 2018). The goals are quantifiable, as they seek to implement programs in a set number of hectares in specified areas throughout the country (Bolivia et al. 2018).

Currently, there is limited data available to measure progress towards Target 15.3. Bolivia has established a baseline for measuring progress towards LDN that consists of five indicators, including the three sub-indicators used to calculate progress towards Target 15.3 (Bolivia *et al.* 2018). Data from 2000 to 2010 is presented for these three indicators in **Figure 13** and **Tables 6-9**. This data is considered the baseline from which progress will be measured; however, since it includes data from more than one point in time, it allows us to assess the direction of change.

# 7.1.3.1 Land Cover

The indicator for land cover type demonstrates a decrease in forest cover  $(-16,992 \text{ km}^2)$  and a slight decrease in bare soils  $(1,391 \text{ km}^2)$  and wetlands  $(97 \text{ km}^2)$ ; while, there has been an increase in all other categories except for that of 'no data' (Bolivia *et al.* 2018). Overall, these changes can be considered as negative as forest and wetlands loss both indicate a loss in habitat as well as sizeable releases of soil organic carbon (**Table 6**).

Land Cover Type	2000		2010	
	km²	%	km²	%
Forest	560,798	51.0	543,806	49.7
Shrubs, pasture and				
scarcely vegetated				
areas	320,144	29.0	333,963	30.2
Cultivated lands	55,004	5.0	55,443	5.1
Wetlands	33,087	3.0	32,990	3.0
Artificial surfaces	815	0.1	1,037	0.11
Bare soils and other				
areas	90,791	8.3	89,400	8.2
No data (salt flats				
and others)	37,942	3.5	37,942	3.6
Total	1,098,581	100.0	1,098,581	100.0





Figure 13. Changes in land productivity in Bolivia that were measured in 2010. This is the original graphic used in the Spanish text. Translations are provided below: <u>Left-hand</u> <u>column (top down)</u> Bodies of water: lake, salt flat; Rivers: main, secondary, tertiary. <u>Righthand Column (top down</u>): Land Productivity: decreasing productivity (red), early signs of deterioration (orange), stable but stressed (yellow), stable not stressed (light green), increasing productivity (green). Source: Bolivia et al. 2018, 33

# 7.1.3.2 Land Productivity

Changes in land productivity (defined as net primary production (NPP)) in Bolivia between 2000-2010 were calculated separately for land that has not undergone land use change (Table 7) and land that has undergone land use change (**Table 8**). Changes in productivity for all land types are visualized in Figure **13**. The majority of land that has not been affected by land use change has productivity levels that are stable and not stressed (51%); whereas, the majority of land that has been affected by land use change has productivity levels that are stable but stressed (57%) (Bolivia et al. 2018). This shows that land use change is normally followed by a decrease in land productivity. While the majority of land in the country is not affected by land use change, the tendencies of land 'stress' following land use change are concerning. Negative trends in land productivity in areas not affected by land use change are also

worrisome, especially if these numbers increase in the future. Further time series data is needed to accurately assess changes in land productivity over time, and data should be presented in simple dashboard form, with disaggregated information available as a supplement to facilitate interpretation.

*Table 7. Changes in land productivity by land cover type in areas that were not affected by land use change from 2000-2010. This table was modified and taken from Bolivia's LDN Strategy. The values were converted from km<sup>2</sup> to percentages in order to facilitate interpretation<sup>11</sup> Bolivia et al. 2018, 34* 

	Land Productivity by land cover type in areas not affected by land use change (2000-2010)						
	Decreasing	Early Signs of	Stable but	Stable but not	Increasing		
Land Cover	Productivity	Deterioration	Stressed	Stressed	Productivity	No Data	Total
Forests	1%	2%	12%	58%	26%	0%	100%
Shrubs,							
pasture, and							
scarce							
vegetation	3%	3%	9%	57%	25%	3%	100%
Cultivated fields	11%	9%	22%	32%	26%	1%	100%
Wetlands	4%	3%	10%	38%	40%	5%	100%
Artificial							
surfaces	24%	7%	11%	46%	11%	2%	100%
Bare soil	3%	47%	38%	1%	0%	11%	100%
Total %	3%	7%	14%	51%	24%	2%	100%

Table 8. Changes in land productivity by land cover type in areas that were affected by land use change from 2000-2010. This table was modified and taken from Bolivia's LDN Strategy. The values were converted from km2 to percentages in order to facilitate interpretation Bolivia et al. 2018, 34<sup>12</sup>

Land Productivity by land cover type in areas affected by land use change (2000-2010)							
		Decreasing	Early Signs of	Stable but	Stable but not	Increasing	
From	То	Productivity	Deterioration	Stressed	Stressed	Productivity	Total
Forests	Cultivated fields	1%	2%	58%	12%	26%	100%
	Shrubs,						
	pasture, and						
	scare						
Forests	vegetation	1%	2%	58%	12%	26%	100%
	Artificial						
Forests	surfaces	1%	3%	58%	12%	26%	100%
Wetlands	Cultivated fields	5%	3%	43%	44%	6%	100%
	Shrubs and						
Bare Soil	pasture	3%	53%	42%	1%	0%	100%
Bare Soil	Cultivated fields	3%	53%	42%	1%	0%	100%
Tot	al %	2%	6%	57%	11%	24%	100%

<sup>&</sup>lt;sup>11</sup> The original table from the LDN Strategy incorrectly calculated the total value for the column "Stable but not stressed", based on the numbers provided in the table. The total value was off by 8 km<sup>2</sup>. Because this error was small, it did not affect the percentages presented in this table.

<sup>&</sup>lt;sup>12</sup> As in the case of the previous table, the LDN Strategy incorrectly calculated one of the total values; in this case it did so for the row "Forests to shrubs, pasture, and scare vegetation". The total value of the numbers in the original table had been summed incorrectly to produce a row total that was 2,000 km<sup>2</sup> less than the actual value. This did affect the data when the original values were converted into percentages; as such, the total value for this column was corrected so that the percentages would add up to 100%.

# 7.1.3.3 Carbon Stocks - Soil Organic Carbon Content

The data for 2000-2010 demonstrate a -0.256% decrease in soil organic carbon content, with the majority of this decrease owing to changes from forests to other land use types (**Table 9**) (Bolivia *et al.* 2018). This trend is negative, but additional time series data is needed to see its evolution over time.

*Table 9. Changes in soil organic carbon content (top 30 cm of soil) in areas of land use change from 2000-2010. Source: Bolivia et al. 2018, 35* 

Changes in soil carbon content in the top 30 cm in areas of land use change				
From	То	Change in tons		
Forests	Cultivated fields	-15,695,060		
Forests	Pastures	-21,622,963		
Forests	Artificial surfaces	-1,540		
Wetlands	Cultivated fields	-355,990		
Bare soil	Bushes and pasture	1,663		
Bare soil	Artificial surfaces	-5,940		
Percentage of total es	timated soil organic carbon loss in Bolivia	-0.256%		

There is a data gap with respect to Target 15.3 both in the sense that data for recent years is missing and in that there are concerns regarding the quality of data. Two of the tables presenting changes in land productivity had rows/columns that did not add up to the total value presented in *LDN Strategy*. Even more concerning, when converted to percentages, the data in **Table 8** presents a suspicious pattern. Although the *LDN strategy* reported quite different numbers to describe the effect on productivity when converting forests to cultivated fields; shrubs, pasture, and scarce vegetation; and artificial surfaces, the *percentage* changes in productivity between these three types of land use change are virtually identical according to the data presented. As such, it is extremely unlikely that the data presented in this table is accurate; the change in productivity (NPP) when converting a forest to a cultivated field or to shrubs should be significantly different between that observed when a forest is converted to an artificial surface. Similarly, changes from forest to artificial surface should not result in a productivity increase 26% of the time.<sup>13</sup> While the *LDN strategy* includes provisions for monitoring and analysis that could, in theory, satisfactorily address the Target 15.3 data gap, this would require information generated is both reliable and made publicly available. The errors found in the *National LDN* 

<sup>&</sup>lt;sup>13</sup> This perspective was confirmed by the FAO official interviewed who looked at the productivity data expressed in percentages and expressed suspicion that the numbers did not make sense.

*Strategy* raise questions about the reliability of the government's data related to Target 15.3, and they demonstrate that independent verification of the official figures related to this target is needed.

It is impossible to assess whether or not an implementation gap exists with respect to Target 15.3 without data covering the post-2015 period. Nonetheless, an implementation gap can be expected if land use change (especially from forests and wetlands to other land use types) in the country persists, as this is associated with decreased productivity and decreased carbon stock. Given the plans for ongoing agricultural expansion expressed in the PDES and the large extent of legal and illegal deforestation in the country (Bolivia 2015; MMAyA 2018), an implementation gap is likely.

### 7.1.4 Target 15.4 Status

Target 15.4	"By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development." (UNGA 2015, 29)
	PDES Pillar 9 Goal 4: "Plurinational system of protected areas" (UN Bolivia 2018, 37)
National Target(s)	
	15.4.1 "Coverage by protected areas of important sites for mountain biodiversity" (UNGA 2018, 16)
UN Indicator(s)	15.4.2 "Mountain Green Cover Index" (UNGA 2018, 16)

Table 10. SDG Target 15.4, corresponding national target(s), and official UN indicator(s)

Target 15.4 on mountain ecosystems has two official indicators, and there is some data for both of them (UNGA 2018, 16). Target 15.4 has been aligned with PDES Pillar 9 Goal 4 in *SDGs for Living Well* (**Table 10**) (UN Bolivia 2018); however, this goal of the PDES does not focus specifically on mountain ecosystems. Target 15.4 is not included in INE's database, and mountain ecosystems are never specifically mentioned in the country's NBSAP. This could be interpreted to suggest that mountain ecosystems are not a focus, or it could be understood that the conservation of mountain ecosystems is taken as a given in Bolivia's conservation efforts given that the country is heavily mountainous, with 365,282 km<sup>2</sup> of mountainous surface (approximately 1/5 of the of the national territory) (Ministerio de Relaciones Exteriores 2014).



Figure 14. Percentage of mountain KBAs in Bolivia that are covered by protected areas from 2000-2018. Data source: UNSD 2019

The data for indicator 15.4.1 on protected area coverage of mountain KBAs shows that coverage has been stable at 57% since 2010 (Fig. 14). Since there are no national targets established for this indicator, it is difficult to assess progress towards Target 15.4; however, this percentage is well above the global average of 49% (UN Environment 2019), suggesting that the country is performing well. Nonetheless, there are still important areas for mountain biodiversity that are not established as protected areas, such as in the Cordillera Real Norte and the Cordillera Ouimsa Cruz (Ministerio de Relaciones Exteriores 2014). As previously mentioned, protected area management and effectiveness should also be used to complement the data on protected area coverage, as the action of establishing protected areas does not necessarily result in improved ecosystem status. This is particularly important for protected areas in mountainous regions, as these regions are characterized by substantial mining activity, which can undermine conservation outcomes (Ministerio de Relaciones Exteriores 2014). Thus, while there does not appear to be an implementation gap with regards to Indicator 15.4.1, it should be noted that Bolivia has made no progress on this indicator since 2010, years before the formation of the SDGs. The designation of additional protected areas in mountain KBAs would further progress towards achieving Target 15.4. In addition, further qualitative information is needed regarding protected area effectiveness to ensure that the protected areas in mountainous regions function as intended. While this qualitative component was not included in the design of Indicator 15.4.1, it is equally, if not more important, than the indicator itself in its role of ensuring progress towards Target 15.4.

Indicator 15.4.2, The Mountain Green Cover Index, is designed to "…measure the changes of the green vegetation in mountain areas…" so as to provide "an indication of the status of the conservation of mountain environments", and, unlike indicator 15.4.1, it is a status-based indicator (UNSD 2017a, 1). There is currently only one data point available for Indicator 15.4.2; Bolivia's Mountain Green Cover Index score was 73.41 in 2017, although this data is still listed as 'pending validation' (UNSD 2019). Time series data for this indicator is needed to assess if progress is moving in the right direction; thus, until further data is available, this constitutes a data gap. Both official indicators should be used for Target 15.4 so as to ensure that actions are being taken to facilitate the achievement of the target and that the status of the Mountain Green Cover Index demonstrates that those actions are indeed effective. When time series data is available for both indicators, it will be possible to more accurately assess the presence or absence of a Target 15.4 implementation gap.

# 7.1.5 Target 15.5 Status

Target 15.5	"Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species" (UNGA 2015, 29)					
	PDES Pillar 9 Goal 5: "Development of Sustainable Productive systems in the					
National Target(s)	territorial management process framework." (UN Bolivia 2018, 38)					
UN Indicator(s)	15.5.1 "Red List Index" (UNGA 2018, 16)					

Table 11. SDG Target 15.5, corresponding national target(s), and official UN indicator(s)

Target 15.5 was linked to the PDES in *SDGs for Living Well* (**Table 11**) (*UN Bolivia 2018*), and the importance of biodiversity is stressed in official national documents such as the PDES, the Fifth National Report to the CBD, the NBSAP, among others. In spite of this, the document review found no quantitative status-based targets against which the data for Indicator 15.5.1 can be evaluated.



Figure 15. Upper bound, midpoint, and lower bound RLI value for Bolivia from 2000-2018. Data source: UNSD 2019

The Red List Index (RLI) comprises the sole official indicator for Target 15.5. The RLI provides a score between zero to one to characterize extinction risk with zero indicating that there is minimal risk of extinction for all species and one indicating that all species are extinct (UNSD 2017b). RLI data for Bolivia are available for 2000-2018 (**Fig. 15**), and three data points are provided for each year, representing the lower bound, midpoint, and upper bound.

Biodiversity data in Bolivia is not systematically organized and is generally out-of-date, which the NBSAP identifies as barriers to harnessing biodiversity data for strategic purposes, such to inform conservation activities (MMAyA 2018). The NBSAP lays out plans to remedy this, which include facilitating biodiversity research in coordination with a range of actors, creating a Plurinational Biodiversity Information and Monitoring System', creating regulations for the 'Integral management of biodiversity at the level of genes and species', developing new tools for incorporating and evaluating the inclusion of biodiversity in territorial and sectoral planning, developing a 'multi-sectoral platform for the integral and sustainable management of biodiversity in the medium and long terms', among others (MMAyA 2018). These plans have significant potential with respect to Target 15.5, but, until they are operational and the downward trend of the RLI has been reversed, there will be an implementation gap. The lack of organized biodiversity data and the fact that the NBSAP concentrates on plans to improve the status of biodiversity rather than improving existing programs makes reaching Target 15.5. by 2020 unrealistic; whereas, plans to achieve the target by 2030 could be relatively successful if properly implemented<sup>14</sup>. Although there is no data gap with regards to Indicator 15.5.1, it should be noted that there are gaps with respect to biodiversity data in general. The NBSAP addresses the need for biodiversity data with its plans to conduct biodiversity research; systematize the collection traditional knowledge and utilize this to inform biodiversity management, conservation strategies, and the development of new technologies; develop a 'Plurinational Biodiversity Information and Monitoring System', in addition to other actions that take concrete steps to generate and organize biodiversity data (MMAyA 2018). The biodiversity data generated from the plans detailed in the NBSAP should be used to assess the effectiveness of the NBSAP in promoting Target 15.5 achievement through the use status-based criteria including Indicator 15.5.1.

# 7.1.6 Target 15.6 Status

Target 15.6	"Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed." (UNGA 2015, 29)				
National Target(s)	N/A				
	15.6.1 "Number of countries that have adopted legislative, administrative and				
	policy frameworks to ensure fair and equitable sharing of benefits" " (UNGA				
UN Indicator(s)	2018, 16)				

Table 12. SDG Target 15.6, corresponding national target(s), and official UN indicator(s)

Target 15.6 has not been aligned with PDES targets in either SDGs for Living Well or the INE database (**Table 12**). Target 15.6 has one official indicator, which is reported in the UNSD database as either a value of 1 or 0 indicating each country's contribution to the Nagoya Protocol's ABS Clearing House and the Online Reporting System on Compliance of the International Treaty on Plant Genetic Resources for Food and Agriculture (IT PGRFA) (UNSD 2018d). UNSD (2019) reports a value of 0 for Bolivia with respect to this indicator for the three years for which data is available- 2012, 2016, and 2017. This represents an implementation gap, as Bolivia has not been making contributions to either of the abovementioned entities in order to facilitate access to genetic resources on fair terms and promote the sharing of benefits.

<sup>&</sup>lt;sup>14</sup> It should be noted here that in spite of how well biodiversity plans are implemented, the effects of climate change could result in a continued downward RLI trend.

Bolivia ratified both the Nagoya Protocol and the IT PGRFA in 2016 (Bolivia 2018); however, it did so with significant reservations. The government has expressed fundamental disagreement with anything that can be interpreted as placing a commercial value on nature; it asserts that 'environmental colonialism' underlies the CBD and critiques that under the convention "the role of nature conservation is transferred to the poor people of developing countries; and the private sector is strengthened in order to access to the environmental functions of nature through its privatization and commercialization" (Bolivia n.d., 1). Thus, while Bolivia did ratify both the Nagoya Protocol and IT PGRFA, it has not wholeheartedly adopted all of the elements contained within. In its 2018 report on the application of the IT PGRFA, Bolivia describes that it was not accepting requests for access to genetic resources for the period of 2003-2018 (Bolivia 2018). During this period, the country's genetic resources have still been accessed through illegal means with an increase of biopiracy (Bolivia 2018). The government acknowledges that the communities from which genetic resources originate fail to benefit under the status quo, yet they do not put forth concrete plans to rectify this situation (Bolivia 2018). Indeed, the government indicates that it has neither received nor dedicated any financial resources in order to apply the IT PGRFA (Bolivia 2018). In the recent NBSAP, Bolivia addresses its responsibilities under the Nagoya Protocol and the IT PGRFA, and it describes the need to develop "alternative mechanisms for the sustainable use of genetic resources...in a framework that does not convert biodiversity into a commodity" and ensure that such mechanisms indeed bring benefits to the communities from which genetic resources and related knowledge are sourced (MMAyA 2018, 44). Bolivia thus recognizes that the current situation is unsustainable, yet they remain to put forth the details of how they will develop an alternative mechanism that both aligns with their principles and will also facilitate access to the country's genetic resources while ensuring that benefits will be fairly shared with local communities. Until the plans to develop such a mechanism are in the implementation phase, there will continue to be an implementation gap with regard to Target 15.6; however, it must be acknowledged that Bolivia does currently develop other beneficial domestic actions related to its genetic resources. This includes conducting studies and collecting inventories of genetic resources in seed banks, developing programs to promote the production of genetic resources that have been declining in popularity and conserve knowledge associated with these resources, among others (Bolivia 2018; MMAyA 2018).

### 7.1.7 Target 15.7 Status

Target 15.7	"Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products." (UNGA 2015, 29)				
National Target(s)	N/A				
UN Indicator(s)	15.7.1 ""Proportion of traded wildlife that was poached or illicitly trafficked" (UNGA 2018, 16)				

Table 13. SDG Target 15.7, corresponding national target(s), and official UN indicator(s)

There is one indicator for Target 15.7 (UNGA 2018, 16), but data is not currently available for this indicator in Bolivia, as there is little known about scale of poaching and trafficking and their effects in the country (MMAyA 2018). Target 15.7 was not linked to the PDES in SDGs for Living Well or in the INE database (**Table 13**), but the NBSAP includes a goal that calls for "Eradicating illegal wildlife trafficking through the work of national and subnational entities and their subcomponents, and through processes of prevention and awareness-raising" (MMAyA 2018, 92), which corresponds well with Target 15.7.

The lack of data regarding poaching and trafficking in Bolivia is concerning because Bolivia is a megadiverse country affected by both poaching and trafficking activities. In Bolivia, poaching and trafficking affect over 120 species with varying levels of protection including jaguars, monkeys, vicuña, lizards, turtles, the Andean bear, caimans, parrots, orchids, cacti, cedar, mahogany, among others (Verheij 2019; MMAyA 2013; MMAyA 2018). While trafficking across borders receives more attention in national documentation, domestic poaching for food, medicine, pet ownership, sports practices, or cultural practices is also a significant problem that is difficult to address in part because the use of plants and animals for traditional purposes by indigenous communities is recognized as a right; however, when the same plants and animals are sold commercially, this is often illegal (Verheij 2019; MMAyA 2013; UNODC 2017; MMAyA 2018). It is thought that problems with poaching and trafficking are being exacerbated with the increase of infrastructure and extraction-based activities in remote areas, where workers from other areas contribute to the demand for bushmeat and sometimes actively participate lucrative poaching and trafficking activities (Verheij 2019). In particular, the increase of legitimate Chinese businesses in Bolivia has been linked to a surge in trafficking of jaguars and jaguar parts (Verheij 2019). The lack of data available regarding poaching and trafficking constitutes a data gap, and it also suggests that an implementation gap is probable, especially given that Bolivia seeks to completely eradicate illegal wildlife trafficking (MMAyA 2018). Nonetheless, the NBSAP describes plans to design a National Program for Wildlife Protection by 2020, which should be adopted by 2025 and in full implementation by 2030 (MMAyA 2018). This program could in theory address both data and implementation gaps related to Target 15.7; however, the projected timeline allows for a very small window to effectively eliminate such complex problems as poaching and trafficking by the 2030 deadline, making achievement of Target 15.7 unlikely.

Although the National Program for Wildlife Protection has not yet been designed, the UNOCD Country Program in Bolivia for 2016-2020 addresses wildlife crime, and it makes clear linkages to the Patriotic Agenda and PDES, as well as to the SDGs, including Targets 15.2, 15.4, 15.7, and 15.c (UNODC 2017). The plan calls for establishment of a baseline regarding wildlife crime, the use of UNODC's toolkit to prevent wildlife crime and report results, and training Bolivian officials to build capacity to tackle wildlife crime through improved legislation and policies, as well as through improved enforcement capacities (UNODC 2017). This program should help to address both data and implementation gaps surrounding Target 15.7; however, the program does not include clear quantitative status-based targets and indicators regarding wildlife crime. The targets and indicators are instead action-based, meaning that implementation progress does not necessitate progress regarding outcomes related to wildlife poaching and trafficking.

# 7.1.8 Target 15.8 Status

Table 14.	SDG Target	15.8, corr	responding	national	target(s),	and	official	UN	indicator(s	5)
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"By 2020, introduce measures to prevent the introduction and signeduce the impact of invasive alien species on land and water economic control or eradicate the priority species" (UNGA 2015, 29)					
National Target(s)	N/A				
UN Indicator(s)	15.8.1 "Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species" (UNGA 2018, 16-17)				

Target 15.8 has not been aligned has not been aligned with the PDES in SDGs for Living Well (**Table 14**), and neither the document review nor the interview with a FAO representative revealed the presence of national systems that would facilitate progress towards this target. Target 15.8 has just one indicator (UNGA 2018, 16-17), and neither international nor national sources have reported relevant data that would allow for tracking of Target 15.8 progress <sup>15</sup>.

In spite of the lack of information reported for 15.8, it can be inferred that there is currently an implementation gap with regards to national legislation addressing the problem of invasive alien species. The Framework Law for Mother Earth and Holistic Development for Living Well (Law 300) calls for capacity building related to invasive alien species, but does not establish any further action (MMAyA 2018). The guide Illegal Wildlife Trafficking: Technical foundations for its prevention, information, detection, and control in the Plurinational State of Bolivia describes that bringing invasive alien species into the country is illegal, and, when detected, Bolivian authorities should repatriate them or prevent the entry of these species (MMAyA 2013); however, border control is weak and poses a key challenge to progress on Target 15.8 (FAO representative pers.comm.). Further information regarding a national strategy or protocol for dealing with invasive exotic species with the country is not addressed in the Illegal Wildlife Trafficking guide, even though there are several known examples of such species in the country, including grasses that were introduced to feed livestock, the European hare, arapaima, and the wild boar (MMAyA 2013). The new NBSAP does call for the creation of "instruments and tools to control, monitor, prevent, and manage populations of invasive exotic species, emerging and reemerging diseases, among others", with plans to complete the design of the necessary instruments and protocols by 2020 (MMAyA 2018, 91). Until such instruments are operational, there will remain both an implementation and data gap with respect to Target 15.8.

# 7.1.9 Target 15.9 Status

<sup>&</sup>lt;sup>15</sup> The 2018 SDG Index and Dashboards Report does provide data for the unofficial indicator "Imported biodiversity threats (threats per million population)" for Bolivia in 2018, but the report does not provide the metadata for this indicator. From the reference list, it appears that information from this indicator was obtained from the methodology described Lenzen *et al.* (2012). Lenzen *et al.* (2012) identified biodiversity threats from trade that excluded invasive species.
Table 15. SDG Target 15.9, corresponding national target(s), and official UN indicator(s)

	"By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts."
Target 15.9	(UNGA 2015, 29)
	PDES Pillar 9 Goal 3*: "Development of the whole set of economic and productive activities in the context of the respect and complementarity with the rights of Mother Earth." (INE 2018) PDES Pillar 9 Goal 4*: "Goal 4:Plurinational system of protected areas" (INE 2018) PDES Pillar 9 Goal 5*: "Forests as integrated environments of production and transformation of food and biodiversity resources" (INE 2018) PDES Pillar 9 Goal 7*: "Water and Climatic change risk prevention: integrated water management" (INE 2018)
National Target(s)	*Aligned with PDES in INE's database, not in SDGs for Living Well
UN Indicator(s)	15.9.1 "Progress towards national targets established in accordance with Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011-2020" (UNGA 2018, 17)

Target 15.9 has been aligned with several PDES goals in INE's database, although there was no alignment between the target and the PDES in SDGs for Living Well (**Table 15**). The official indicator for Target 15.9 is based upon tracking progress towards Aichi Biodiversity Target 2 (UNGA 2018, 17). Aichi Target 2 is nearly identical to SDG Target 15.9 as it focuses on incorporating biodiversity into planning, poverty reduction, and accounting and/or reporting mechanisms (CBD 2010). There is currently no metadata available to enable the standardized application of this indicator (UNSD 2018a), and there is no data publicly available that assesses Bolivia's progress towards Aichi Target 2. These factors impede meaningful assessment of progress towards Target 15.9; thus, only a rough qualitative assessment is provided below.

Planning documents suggest that there is indeed progress towards Target 15.9. The CBD, Aichi Targets, SDGs, and other goals have informed Bolivia's recent NBSAP, and, in turn, the NBSAP is to inform sectoral development plans, territorial development plans, and communitarian territorial management plans (MMAyA 2018). The NBSAP also calls for the creation of a "multi-sectoral platform for the integral and sustainable management of biodiversity in the short-, medium-, and long-term" (MMAyA 2018, 94). Law 300 also mandates environmental considerations in planning processes and promotes the sustainable use of natural resources to further national development (MMAyA 2018). Indeed, the management of 'systems of life', defined as "the interaction between natural systems with political, cultural,

social, and economic systems" (MMAyA 2018, 10), is a central aspect of Bolivian planning that is presented as the Living Well framework's non-capitalist alternative for sustainable development (Plurinational State of Bolivia 2015). Thus, ecosystems and biodiversity are included in national planning processes, and they are linked to poverty reduction through sustainable natural resource use; however, further analysis is required in order to quantitatively and qualitatively assess the inclusion of ecosystems and biodiversity in plans at the subnational and autonomous indigenous scales.

Incorporating ecosystems and biodiversity into planning does not necessitate that this incorporation is meaningful, nor does it guarantee positive outcomes. This is particularly important with regards to Bolivian cities that are located within biodiversity hotspots and in which there is a substantial degree of conflict between urban expansion and biodiversity conservation, such as in La Paz, Cochabamba, Sucre, and Santa Cruz (Weller *et al.* 2017) Thus, while there no evidence of an implementation gap regarding Target 15.9, further analysis is needed especially with regard to the effectiveness of incorporating ecosystems and biodiversity into planning on conservation outcomes, and this should include a focus on urban areas. There is a data gap with respect to this indicator, but this can be attributed to the absence of metadata for the sole official indicator for Target 15.9.

### 7.1.10 Targets 15.a – 15.b Status

Target 15.a	15.a: "Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems" (UNGA 2015, 29)
Target 15.b	15.b: "Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation" (UNGA 2015, 29)
National Target(s)	N/A
UN Indicator(s)	15.a.1 & 15.b.1 "Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystems" (UNGA 2018, 17)

The official indicator for Targets 15.a and 15.b is "Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystems" (**Table 16**) (UNGA 2018, 17). **Figure 16** displays the data for this indicator obtained from UNSD, which captures the aid administered by official and executive agencies (UNSD 2018). ODA for biodiversity in Bolivia has displayed significant volatility over the years; however, after reaching a peak of 95.51 million USD in 2013, total ODA for biodiversity in Bolivia has been on the decline. At least some of this decline can be attributed to Bolivia's transition from a low-to lower-middle income country in 2015 (United Nations Economic and Social Council 2017).



Figure 16. ODA flows to Bolivia from 2002-2016. Data source: UNSD 2019

### 7.1.11 Target 15.c Status

Table 17. SDG Target 15.c, corresponding national target(s), and official UN indicator(s)

Target 15.c	"Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities" (UNGA 2015, 29)	
National Target(s)	N/A	
	15.c.1 "Proportion of traded wildlife that was poached or illicitly trafficked"	
UN Indicator(s)	(UNGA 2018, 17)	

Target 15.c has the same indicator as Target 15.7 (**Table 17**) (UNGA 2018, 17), and there is no data for this indicator in Bolivia. Nonetheless, Bolivia's current efforts to help fight poaching

and trafficking at the global level include its coordination with UNODC to on the *Country* Program in Bolivia for 2016-2020; the inclusion of a goal to eradicate wildlife trafficking in its NBSAP and plans to develop a National Program for Wildlife Protection; its commitment to relevant international treaties predating the SDGs, including the Convention on International Trade in Endangered Species (CITES), CBD, the Convention on the Conservation of Migratory Species of Wild Animals, the Amazon Cooperation Treaty, among others; and national legislation pertaining to poaching and trafficking (UNODC 2017; MMAyA 2018, 2013). While these efforts are laudable and imply a commitment to Target 15.c, the data gap surrounding poaching and trafficking makes it impossible to evaluate their effectiveness. In addition, the national government's guidance document Illegal Wildlife Trafficking: Basic techniques for its prevention, information, detection and control in the Plurinational State of Bolivia does not address the second half of Target 15.c regarding the promotion of alternative livelihoods as a means of preventing wildlife poaching and trafficking. This is also not addressed in the recent NBSAP, and there are no indications as to whether or not it will be addressed in the National Program for Wildlife Protection. The UNODC Country Program does incorporate the promotion of alternative livelihoods with linkages to SDG 1 (No Poverty); however, this is focused primarily on promoting alternative livelihoods to drug trafficking in coca-producing zones (UNODC 2017). The absence of strategies to promote sustainable alternative livelihoods that are targeted specifically to address poaching and trafficking may be indicative of an implementation gap with respect to Target 15.c.

#### 7.1.12 Analysis of SDG 15 Implementation Status

SDG 15 implementation in Bolivia is still in a nascent stage, and the data collected in this work suggests that the country is currently lagging behind. In addition, much of the progress that has been made is the result of actions that predate the *2030 Agenda*. Mirroring trends at the international level, Bolivia's SDG 15 progress is greatest with regards to *action*-based, rather than *status*-based indicators. The country performs well when it comes to placing KBAs in protected lands (Indicators 15.1.2 and 15.4.1) and increasing forest lands under management plans and verified certification schemes (15.2.1 sub-indicators); whereas, negative trends are observed with respect to the overall forest area (15.1.1), biomass in forest stock (15.3.1 sub-indicator), and the RLI (15.5.1). There are also a lot of unknowns surrounding Bolivia's SDG 15 implementation. Incomplete data is available for several official SDG 15 indicators (e.g. 15.2.1, 15.3.1, 15.4.2); whereas, no data is available for others. (e.g. 15.7.1, 15.8.1, and 15.9.1).

Bolivia's alignment of SDG 15 targets with its national agenda in official SDG documentation is relatively weak, yet other national documentation, such as the NBSAP and LDN Strategy, reveals a more nuanced picture. Bolivia has ambitious plans that, contingent upon successful implementation, have the potential to make significant advances towards SDG 15 achievement, although reaching any of the targets which have been set for 2020 is highly improbable. At the same time, there are significant threats that could stand in the way to SDG 15 achievement by 2030, including Bolivia's recent entrance into the biofuels market and the expansion of hydroelectricity operations (UNDP representative pers.comm.). There is some skepticism as to whether Bolivia's plans will translate into SDG 15 achievement; a FAO representative described that while the legal framework incorporates concepts such as Earth's rights, Bolivia does not focus on concrete actions and its on-the-ground application is quite weak (FAO representative pers.comm.). The country also has an unreliable national monitoring system (FAO representative pers.comm.), which complicates SDG implementation, follow-up, and review. Overall, SDG 15 achievement in Bolivia is dependent upon successful implementation of existing plans and strategies and the use of status-based indicators to continually evaluate progress and inform plan/strategy adjustments. The achievement of SDG 15 under existing plans cannot be taken as a given, but rather requires intensive data collection and monitoring, which must then be used to adjust existing plans and strategies as necessary. The compilation of SDG 15 implementation data and revelation of existing data and implementation gaps in this section demonstrates that further support is needed for SDG 15 implementation, and this underscores the importance of welcoming all actors to contribute to SDG 15 achievement.

#### 7.2 Survey Results

Surveys were submitted by seventeen of LIDEMA's nineteen member organizations, resulting in an 89% response rate. The results demonstrated that LIDEMA's member organizations work in diverse fields (**Fig. 17**), with the most popular focus areas including formal and informal environmental education (88%), climate change (82%), biodiversity conservation (65%), food security (6%), and sustainable natural resource use (59%).<sup>16</sup>

<sup>&</sup>lt;sup>16</sup> Organizations were asked to select all fields that apply to their organization





Leadership in LIDEMA member organizations possess a relatively high level of knowledge of the SDGs (3.88 out of 5; s = 0.76), and they reported that the SDGs have a moderate influence on their work (3.53 out of 5; s = 0.78). When asked to qualitatively describe the influence of the SDGs on their organizations, several organizations indicated that the SDGs align well with their work, but they were not necessarily used to directly shape their agenda. Many organizations listed the specific SDGs that they work on, which included SDG 1, 2, 3, 4, 5, 6, 8, 10, 12, 13, and 15.<sup>17</sup> The organizations indicated that their work on terrestrial and freshwater ecosystems integrates multiple aspects, generating synergies between environmental, social, and economic considerations. This suggests that LIDEMA member organizations have a far greater impact on SDG implementation than is captured in this study, which focuses on SDG 15. One caveat is that while the results in this section describe SDG contributions, they do not assess the motivations for these contributions, i.e. it is unknown as to whether organizational contributions to the SDGs were designed with the specific purpose of furthering the SDGs.

<sup>&</sup>lt;sup>17</sup> Organizations were only asked specific SDG questions pertaining to Goal 15. Data was not systematically captured to identify the number of organizations that contribute to the other 16 SDGs; however, some organizations volunteered information regarding other specific goals that they contribute to.

LIDEMA's member organizations conduct their work in collaboration with a diverse group of partner categories. Throughout the text, the words "partner" and "partnership" are used to represent both formal and informal relationships through which the member organizations work in collaboration with a specified type of actor. The partner categories with whom the organizations have conducted their work from 2015-present are displayed in Fig. 18. As a whole, the network has connections with all partner categories considered in the study, with the exception of international businesses. The majority of organizations have worked with the actors from the subnational government (82%), international organizations (71%), universities (71%), non-LIDEMA CSOs (71%), primary and secondary educational institutions (59%), and other members of LIDEMA (59%). The weakest linkages are with the private sector; only 18% of respondents work with Bolivian businesses, and none of the respondents indicated partnerships with international businesses. Following the private sector, the second least common partner categories that organizations work with are autonomous indigenous governments (29%) and national government (24%). Only one organization indicated that it has not worked in collaboration with any other actor since 2015, and six organizations (35%) indicated that they work with actors that do not fall under any of the categories provided<sup>18</sup>.

<sup>&</sup>lt;sup>18</sup> The figures presented in this paragraph are based upon the answers to the questions on partner categories that the organizations have worked with which are found throughout the survey. Although there was a question that asked organizations to select *all* groups of actors with whom they had worked since 2015, six organizations indicated that they had not worked with certain groups of actors since 2015, but then later described that they had worked with these partner categories on specific SDG 15 targets during the same timeframe. By necessity, if the organizations worked with a given actor group on a specific topic since 2015, this means that they did indeed work with this actor group during the specified timeframe. As such, information regarding *general* partnerships was corrected to reflect that these six organizations had worked with the partner categories that they had indicated when asked a more specific question covering the same time period.



Figure 18. The number of LIDEMA organizations who have worked with each partner category listed since 2015. This includes any sort of work conducted by the organizations, not just that which is relevant to SDG 15.

LIDEMA member organizations make important contributions to the achievement of SDG 15. Fifteen of the seventeen respondents indicated that they have worked on at least one of SDG 15's main targets (Targets 15.1-15.9) since 2015, and the two organizations that have not worked on SDG 15 targets have indicated that they have specific plans to do so. LIDEMA members have contributed to eight of the nine main SDG 15 targets since 2015, and they have done so in a variety of ways. **Table 18** details the number of organizations that have contributed to each target, the type of contributions, the partner categories with whom they have worked, and qualitative descriptions of some of their contributions. The second column from the left presents the number of organizations contributing to each specific target, while the third and fourth columns from the left describe how many of the organizations that contribute to the specific target do so through each contribution type/with each partner categories as were applicable.

The majority of organizations contribute to Target 15.1 (82%), and several organizations reported contributions to Targets 15.2 (35%) and 15.3 (41%); contributions to Targets 15.4-15.9 were less common (**Table 18**). No organization has done work that addresses Target 15.8 (Invasive Alien Species) from 2015-present, and no organization has expressed that they have specific plans to conduct work relevant to this target. Member organizations indicated they always work in coordination with another entity when contributing to SDG 15 targets, indicating that partnerships are essential to the work of LIDEMA's member organizations. The number of different partner categories that an organization has worked with since 2015 had an insubstantial relationship to the number of SDG 15 targets that it contributes to ( $r^2=0.084$ ).

Table 18. SDG 15 target contributions, including: the number of organizations that have worked on the target since 2015, the type of contributions, the partner categories with whom the organizations have conducted this work, and brief qualitative descriptions of some of these contributions.

Target	# of Organiz- ations	Type of Contributions	Partnerships (formal or informal)	Contribution Examples
15.1 (Terrestrial and Freshwater Ecosystems)	14	<ul> <li>Technical Projects (8)</li> <li>Educational Projects, including awareness raising (10)</li> <li>Monitoring &amp; Data Collection (9)</li> <li>Analysis (6)</li> <li>Reporting (6)</li> <li>Mobilizing Resources (4)</li> <li>Other (2)</li> </ul>	<ul> <li>National Gov. (2)</li> <li>Subnational Gov. (11)</li> <li>Autonomous Indigenous Gov. (2)</li> <li>International Orgs. (9)</li> <li>Primary &amp; Secondary Schools (6)</li> <li>Universities (6)</li> <li>LIDEMA Members (7)</li> <li>Non-LIDEMA CSOs (4)</li> <li>National Businesses (1)</li> <li>International Businesses (0)</li> <li>Other (2)</li> </ul>	<ul> <li>Educational programs (ex. the "Children's Forest")</li> <li>Agroforestry projects</li> <li>Land restoration</li> <li>Rainwater catchment</li> <li>Other agricultural production (ex. apiculture)</li> <li>Monitoring mining contamination &amp; sharing results with affected communities</li> <li>Capacity building</li> <li>Water quality monitoring &amp; treatment</li> <li>Management of water resources</li> <li>Soil management</li> </ul>
15.2 (Sustainable Forests)	6	<ul> <li>Technical Projects (2)</li> <li>Educational Projects, including awareness raising (4)</li> <li>Monitoring &amp; Data Collection (1)</li> <li>Analysis (1)</li> <li>Reporting (2)</li> <li>Mobilizing Resources (2)</li> <li>Other (2)</li> </ul>	<ul> <li>National Gov. (0)</li> <li>Subnational Gov. (5)</li> <li>Autonomous Indigenous Gov. (1)</li> <li>International Orgs. (4)</li> <li>Primary &amp; Secondary Schools (3)</li> <li>Universities (1)</li> <li>LIDEMA Members (1)</li> <li>Non-LIDEMA CSOs (2)</li> <li>National Businesses (1)</li> <li>International Businesses (0)</li> <li>Other (1)</li> </ul>	<ul> <li>Agroforestry projects</li> <li>Forest research</li> <li>Reporting on deforestation</li> <li>Educational programs (ex. the "Children's Forest")</li> <li>Advising government on low-carbon development strategies</li> <li>Afforestation</li> <li>Recovering degraded forests</li> <li>Reforestation</li> </ul>
15.3 (Land Degradation)	7	<ul> <li>Technical Projects (6)</li> <li>Educational Projects, including awareness raising (2)</li> <li>Monitoring &amp; Data Collection (3)</li> <li>Analysis (3)</li> <li>Reporting (4)</li> <li>Mobilizing Resources (2)</li> <li>Other (4)</li> </ul>	<ul> <li>National Gov. (0)</li> <li>Subnational Gov. (4)</li> <li>Autonomous Indigenous Gov. (2)</li> <li>International Orgs. (5)</li> <li>Primary &amp; Secondary Schools (2)</li> <li>Universities (1)</li> <li>LIDEMA Members (1)</li> <li>Non-LIDEMA CSOs (3)</li> <li>National Businesses (0)</li> <li>International Businesses (0)</li> <li>Other (4)</li> </ul>	<ul> <li>Agroforestry projects</li> <li>Other sustainable agriculture</li> <li>Construction of water resources infrastructure (ex. infiltration ditches, irrigation systems, reservoirs)</li> <li>Reforesting water micro-basins</li> <li>Land restoration</li> <li>Establishing and/or restoring pasture</li> <li>Capacity building for sustainable soil management</li> </ul>
15.4 (Mountain Ecosystems)	2	<ul> <li>Technical Projects (2)</li> <li>Educational Projects, including awareness raising (2)</li> <li>Monitoring &amp; Data Collection (2)</li> <li>Analysis (2)</li> <li>Reporting (1)</li> <li>Mobilizing Resources (1)</li> <li>Other (2)</li> </ul>	<ul> <li>National Gov. (0)</li> <li>Subnational Gov. (2)</li> <li>Autonomous Indigenous Gov. (0)</li> <li>International Orgs. (1)</li> <li>Primary &amp; Secondary Schools (0)</li> <li>Universities (2)</li> <li>LIDEMA Members (0)</li> <li>Non-LIDEMA CSOS (0)</li> <li>National Businesses (0)</li> <li>International Businesses (0)</li> <li>Other (1)</li> </ul>	<ul> <li>Soil conservation on sloped land</li> <li>Pasture restoration</li> <li>Rainwater catchment</li> <li>Erosion control in rills and gullies</li> <li>Remediating a water system contaminated by mining activity</li> </ul>
15.5 (Habitat and Biodiversity Loss)	3	<ul> <li>Technical Projects (2)</li> <li>Educational Projects, including awareness raising (1)</li> <li>Monitoring &amp; Data Collection (1)</li> <li>Analysis (1)</li> <li>Reporting (0)</li> <li>Mobilizing Resources (1)</li> <li>Other (1)</li> </ul>	<ul> <li>National Gov. (1)</li> <li>Subnational Gov. (1)</li> <li>Autonomous Indigenous Gov. (1)</li> <li>International Orgs. (1)</li> <li>Primary &amp; Secondary Schools (1)</li> <li>Universities (1)</li> <li>LIDEMA Members (0)</li> <li>Non-LIDEMA CSOs (1)</li> <li>National Businesses (0)</li> <li>International Businesses (0)</li> <li>Other (0)</li> </ul>	<ul> <li>Replanting native plant species</li> <li>Managing human-wildlife conflict in the Playa river basin</li> <li>Educational projects</li> <li>Meetings with local communities</li> </ul>

15.6 (Genetic Resources)	2	<ul> <li>Technical Projects (2)</li> <li>Educational Projects, including awareness raising (0)</li> <li>Monitoring &amp; Data Collection (0)</li> <li>Analysis (0)</li> <li>Reporting (0)</li> <li>Mobilizing Resources (0)</li> <li>Other (0)</li> </ul>	<ul> <li>National Gov. (0)</li> <li>Subnational Gov. (0)</li> <li>Autonomous Indigenous Gov. (2)</li> <li>International Orgs. (0)</li> <li>Primary &amp; Secondary Schools (0)</li> <li>Universities (0)</li> <li>LIDEMA Members (0)</li> <li>Non-LIDEMA CSOs (1)</li> <li>National Businesses (0)</li> <li>International Businesses (0)</li> <li>Other (0)</li> </ul>	<ul> <li>Producing native seeds for pastures</li> <li>Working with indigenous communities to preserve maize varieties</li> </ul>
15.7 (Poaching and Trafficking)	1	<ul> <li>Technical Projects (1)</li> <li>Educational Projects, including awareness raising (1)</li> <li>Monitoring &amp; Data Collection (1)</li> <li>Analysis (0)</li> <li>Reporting (0)</li> <li>Mobilizing Resources (0)</li> <li>Other (0)</li> </ul>	<ul> <li>National Gov. (1)</li> <li>Subnational Gov. (1)</li> <li>Autonomous Indigenous Gov. (0)</li> <li>International Orgs. (0)</li> <li>Primary &amp; Secondary Schools (0)</li> <li>Universities (0)</li> <li>LIDEMA Members (0)</li> <li>Non-LIDEMA CSOs (0)</li> <li>National Businesses (0)</li> <li>International Businesses (0)</li> <li>Other (0)</li> </ul>	<ul> <li>Working with local communities to control poaching of vicuñas</li> </ul>
15.8 (Invasive Exotic Species)	0	<ul> <li>Technical Projects (0)</li> <li>Educational Projects, including awareness raising (0)</li> <li>Monitoring &amp; Data Collection (0)</li> <li>Analysis (0)</li> <li>Reporting (0)</li> <li>Mobilizing Resources (0)</li> <li>Other (0)</li> </ul>	<ul> <li>National Gov. (0)</li> <li>Subnational Gov. (0)</li> <li>Autonomous Indigenous Gov. (0)</li> <li>International Orgs. (0)</li> <li>Primary &amp; Secondary Schools (0)</li> <li>Universities (0)</li> <li>LIDEMA Members (0)</li> <li>Non-LIDEMA CSOs (0)</li> <li>National Businesses (0)</li> <li>International Businesses (0)</li> <li>Other (0)</li> </ul>	
15.9 (Biodiversity in Planning)	4	<ul> <li>Technical Projects (4)</li> <li>Educational Projects, including awareness raising (2)</li> <li>Monitoring &amp; Data Collection (1)</li> <li>Analysis (2)</li> <li>Reporting (2)</li> <li>Mobilizing Resources (2)</li> <li>Other (1)</li> </ul>	<ul> <li>National Gov. (1)</li> <li>Subnational Gov. (3)</li> <li>Autonomous Indigenous Gov. (1)</li> <li>International Orgs. (1)</li> <li>Primary &amp; Secondary Schools (0)</li> <li>Universities (1)</li> <li>LIDEMA Members (0)</li> <li>Non-LIDEMA CSOs (3)</li> <li>National Businesses (0)</li> <li>International Businesses (0)</li> <li>Other (0)</li> </ul>	<ul> <li>Production projects</li> <li>Political advocacy with municipal governments</li> <li>Elaborating Community Action Plans that incorporate biodiversity and resource use, which are then presented to municipalities when the elaborate their development plans</li> <li>Technical assistance to increase production while reducing poverty and improving living conditions</li> <li>Sustainable use of vicuña fiber</li> </ul>

LIDEMA member organizations contribute to SDG 15 via technical projects, educational projects (including awareness raising), monitoring and data collection, analysis, reporting, and resource mobilization. Each category of contributions was well-represented; however, the most common contributions fell under the categories of technical projects and educational projects. It should be noted that the data collected includes 'integrated projects' in which the same project includes multiple contribution categories; for example, CEEDI has contributed to Target 15.4 (Mountain Ecosystems) by remediating contaminated mountain water resources, and the organization indicated that this work could be classified under the following categories: implementing technical projects, educational projects, monitoring and data collection, analysis, and other.

The survey also measured planned contributions to SDG 15's nine main targets, as well the capacities that the organizations need to realize these plans. This includes both plans that are in addition to the work that an organization is currently developing in relation to a given target, as well as plans to start working in a new area for the first time since 2015.<sup>19</sup> Information about these planned contributions and capacities needed are depicted in Table 19. Table 19 shows that the organizations do indeed have further plans to contribute to SDG 15, but most of these plans focus on the same key targets (15.1-15.3). The capacities needed to bring these plans into fruition are varied. Organizations were not asked to provide the specific details about the nature of their planned contributions, but some elected to provide this information. CEPA does not currently contribute to Target 15.2, but it plans to work on reforestation programs and also hopes to conduct water quality monitoring in the Lake Poopó and Uru Uru RAMSAR site regions; however, CEPA has indicated that it needs to build technical capacities in order to conduct this work. The MHNNKM does not currently develop work relevant to Target 15.7 (Poaching and Trafficking), but it is in talks with an international NGO to develop a "research and environmental education program to develop technical tools to identify specimens and parts that are subject to trafficking". This requires building the capacity of control and inspection authorities in the use of technical equipment.

The qualitative information obtained from both the surveys and interviews suggests that there are organizations within the network who may have the capacities that their peers are lacking, indicating that intra-network collaboration is underutilized. **Fig. 19** shows that organizations have underutilized capacities relevant to SDG 15 targets, and this information can be used to facilitate better use of existing capacities and identify areas in which further capacity development is required.

Table 19. Planned SDG 15 contributions. The number of organizations with specific plans to contribute to each target in the future, as well as a list of the capacities that the organizations need to develop this future work. Capacities needed were grouped together to avoid repetition, and some entries were excluded because they were

<sup>&</sup>lt;sup>19</sup> Note, the information collected here does not allow us to discern whether these plans were inspired by the SDGs or if they reflect ex post facto linkages to the SDGs.

#### not clearly relevant to the question asked.

Target	# of Organizations Planning Future Contributions	Required Capacities
15.1 (Terrestrial & Freshwater Ecosystems)	14	<ul> <li>Geographic Information Systems (GIS)</li> <li>Foreign Language</li> <li>Technical Capacities (specifically related to 15.1, 15.2, 15.3, 15.4, &amp; 15.5)</li> </ul>
15.2 (Sustainable Forests)	8	<ul> <li>Plant Breeding</li> <li>Pest Management</li> </ul>
15.3 (Land Degradation)	5	<ul> <li>Native Field Restoration &amp; Management</li> <li>Apiculture</li> <li>Aquaculture</li> </ul>
15.4 (Mountain Ecosystems)	2	<ul> <li>Horticulture</li> <li>Agroforestry</li> <li>Soil Management</li> </ul>
15.5 (Habitats & Biodiversity)	6	<ul> <li>Solid Waste Management</li> <li>Conducting base line studies related to habitats &amp; biodiversity</li> </ul>
15.6 (Genetic Resources)	2	<ul> <li>Resource Mobilization</li> <li>Financial Management</li> <li>Project Management</li> </ul>
15.7 (Poaching & Trafficking)	4	<ul> <li>Networking</li> <li>Research</li> <li>Water Resources Management</li> </ul>
15.8 (Invasive Species)	0	
15.9 (Biodiversity in Planning)	3	



Figure 19. Depiction of whether or not the organizations have underutilized capacities relevant to each of SDG 15's main targets.

## 7.3 Social Network Analysis

The UCINET software (Borgatti *et al.* 2002) was used to perform network analysis on member organization's partnerships and contributions to SDG 15. UCINET generated visual representations of these networks, and it also produced information on network density and the degree centrality of each actor.

#### 7.3.1 Partnerships

LIDEMA member organizations work with ten of the eleven partner categories included in this research, and the network in which they have conducted their work since 2015 is depicted in Fig. 20.<sup>20</sup> When looking at the presence or absence of partnerships between member organizations and the different partner categories listed, the network density reaches 47%, meaning that there were 88 partnerships present out of a theoretically possible 187. The average degree (i.e. number of ties) was 5.18 (s = 2.41). The degree centrality (i.e. number of ties with different partner categories) of the member organizations and partner categories is presented in **Annex 3.** The organizations with the highest level of degree centrality based on the survey responses are MKNNKM (9 ties), FIDES (8 ties), PROMETA (8 ties), CEPA (7 ties), and CERDET (7 ties). The partner categories with the highest degree centrality are the subnational government (14 ties), international organizations (12 ties), non-LIDEMA CSOs (12 ties), universities (12 ties), LIDEMA CSOs (10 ties), and primary and secondary educational institutions (10). These partner categories are the most relevant for the member organizations' operations. It should be noted that the only ties evaluated here are those between member organizations and the partner categories listed, ties within the same grouping (i.e. LIDEMA-LIDEMA or Partner Category-Partner Category) are not evaluated here.

 $<sup>^{20}</sup>$  As described in the previous section, the information and corresponding graphics presenting the groups of actors that LIDEMA member organizations have worked with *in general* since 2015 are based upon the answers to questions on partnerships throughout the survey, not just based on the answer of the one question that asked organizations to select *all* groups of actors with whom they had worked since 2015. This is because six organizations indicated that they had not worked with certain partner categories *in general* since 2015, but later specified that they had, in fact, worked with these partner categories in projects related to specific SDG 15 targets during the same time period.



Figure 20. Network chart of the different partner categories with whom LIDEMA member organizations have worked since 2015. The blue circles represent LIDEMA organizations, and the purple squares represent the partner categories.

While Fig. 20 displays partnerships for all the work conducted by LIDEMA member organizations since 2015, Fig. 21 only displays those partnerships through which LIDEMA member organizations have conducted work that specifically contributes to SDG 15. Here, line thickness was adjusted to reflect tie strength, which was determined by the number of targets that each member organization has contributed to in coordination with each partner category. The density of this network is 35% (not considering tie strength), and the average degree was 3.82 (s = 2.28). The degree centrality for this network was calculated based on the binary data (indicating the presence or absence of a tie) and the weighted data, (considering the total number of ties present) (Annex 3). There were only slight changes in degree centrality between the general partnerships since 2015, SDG 15 partnerships since 2015, and weighted SDG 15 partnerships since 2015. These changes can be seen in Annex **3** by comparing the rank of each entity in the three different networks analyzed. Overall, the network is less dense when only SDG 15 contributions are considered. In addition, while the member organizations described that they are more likely to work with non-LIDEMA CSOs (12 ties) than LIDEMA CSOs (10 ties) in general, they are more likely to work on themes specifically related to SDG 15 with LIDEMA CSOs (8 ties) than with non-LIDEMA CSOs (6 ties); however, when tie strength is factored in, non-LIDEMA CSOs still have a higher number of ties (14 ties) than LIDEMA CSOs (9 ties) with regards to work related to SDG 15 implementation. As in the case of general partnerships, this may imply that external CSOs are more relevant to LIDEMA's SDG 15 implementation than the CSOs within the network.



Figure 21. Network chart of the partnerships through which LIDEMA's member organizations have worked on SDG 15 targets. The blue circles represent LIDEMA organizations, and the purple squares represent the partner categories. Line thickness is dependent upon the number of targets that an organization works on with a given partner category. VIVE and FKNM are located in the upper-left corner without any connection to the network because they have not conducted work relevant to SDG 15 since 2015. Similarly, the partner category "International Businesses" is listed there because no member organizations have collaborated with international businesses to develop work relevant to SDG 15.

#### 7.3.2 Targets

**Figure 22** displays the network consisting of LIDEMA member organizations and the nine principal SDG 15 targets. LIDEMA member organizations currently contribute to eight of the nine main SDG 15 targets. Out of a possible 153 ties (i.e. if every organization were to contribute to every target), there were a total 39 ties. This results in a network density of 25.5%, indicating that there is substantial room to expand contributions to SDG 15. The degree centrality and ranking for each member organization and SDG 15 target is presented in **Annex 4**. The LIDEMA member organizations with the greatest degree centrality (i.e. those that contribute to the greatest number of SDG 15 Targets) are PROMETA (5 ties), SEMTA (5 ties), HERENCIA (4 ties), CERDET (4 ties), PRODENA (3 ties), FIDES (3 ties), and CEEDI (3

ties). The average organization has 2.3 ties (s = 1.52). The average SDG 15 target is contributed to by 4.33 organizations (s = 4.03).



Figure 22. Network chart of the SDG 15 targets that LIDEMA's member organizations contribute to. The blue circles represent LIDEMA organizations, and the green triangles represent the SDG 15 targets (15.1-15.9). VIVE and FKNM are located in the upper-left-hand corner without any connection to the network because they have not conducted work relevant to SDG 15 since 2015. Similarly, 15.8 is listed there because no organization has developed work relevant to Target 15.8 since 2015.

### 7.4 Interviews

Interviews were conducted with individuals representing eight member organizations, as well as with two individuals representing LIDEMA's leadership. The interviews confirmed that the organizations make a diverse set of contributions to the SDGs. Each organization described that their work is multi-dimensional and focuses on the interlinkages between the environment, economy, and society. Most interviewees identified gender (SDG 5) and climate change (SDG 13) as cross-cutting issues that are universally incorporated into their work. Thus, the organizations not only contribute to the SDGs, but they do so in ways that reflects the 'integrated and indivisible' design of the 2030 Agenda.

While the interviews confirmed that LIDEMA and its respective member organizations contribute to SDG 15 in meaningful ways, they also revealed that the survey did not capture the majority of the work that the organizations have conducted related to terrestrial and freshwater ecosystems, nor to the thematic content of the other SDGs. Many of the organizations have an institutional history that spans decades, and they have been working on environmental, economic, and social themes throughout the entirety of their operation. FIDES has a forty-year institutional history working in themes related to rural development, the environment, and education, and it has achieved the passage of eight ordinances in the municipality of San Julián and four in the municipality of La Guardia (FIDES representative pers.comm. 2019). These ordinances cover topics such as reforestation, solid wastes, and wastewater management (FIDES representative pers.comm. 2019). PRODENA also has a forty-year history, and it has been involved in events related the formulation of national legislation, such as Law 333 (the Environment Law in force) passed in 2013 and has promoted and supported the creation of protected areas, including the national protected area Apolobamba National Integrated Management (est. 1970s) (PRODENA representative pers.comm. 2019). SEMTA was founded in 1980, and has throughout the Bolivian highlands and it has years of experience promoting agro-ecological methods in communities, especially with regards to sustainable livestock management, as well as harvesting water and improving ground water recharge (SEMTA representative pers.comm.). CIMAR has 27 years of experience conducting multidisciplinary research related to natural resources and sustainable development, and it describes that its actions have helped thwart rural-to-urban migration in the region (CIMAR representative pers.comm. 2019). It has provided technical assistance to both public and private entities, and it has facilitated the transfer of natural resource management technologies to rural communities (CIMAR representative pers.comm. 2019). HERENCIA was founded in 1997 and has worked on protected area management, agroforestry, environmental education, formulation of community action plans, among other themes (HERENCIA representative pers.comm. 2019). These are just a few examples of the work that LIDEMA's member organizations have conducted, much of which has direct relevance to terrestrial and freshwater ecosystems but predates the 2030 agenda.

All of the interviews indicated that the organizations' work related to terrestrial and freshwater ecosystems has actually decreased in the pre-2015 period. This has unanimously been attributed to two factors: the national government's creation of an unfavorable environment for CSO operation and changes in international financing. All interviewees described difficulties in working with the national government that has been in power since 2006, and most detailed measures that the government has taken measures that impede their ability to operate effectively. These measures include changing the legal framework under which CSOs operate, setting conditions that are difficult, and for many organizations near impossible, to comply with. One interviewee described that this has resulted in an almost 50% reduction in the number of CSOs operating in the country, and, of the remaining organizations, only about half have their documentation in order<sup>21</sup>. The same interviewee told of CSOs that have spent seven years unsuccessfully trying to obtain legal status. The hurdles of the legal framework leave CSOs in legal limbo as they try to get their documentation legalized, and this is currently the situation for some of LIDEMA's members. The challenges imposed by the legal framework are further complicated by changes made to CSO financing. Under previous administrations, it was easier for CSOs to receive financing from international actors, but since 2015-2016 international funding is channeled through the Ministry of Foreign Affairs, which then disperses funds at its discretion. Some interviewees described that the Ministry favors CSOs that have a personal link to the government, including those formed by government officials, when dispersing funds. Organizations described that the government limits CSO participation in consultations, and does not facilitate access to information that would allow them to conduct follow-up or draft shadow reports. The government has also verbally attacked CSOs and accused them of attempts to "destabilize the government". One organization even described that there was damage made

<sup>&</sup>lt;sup>21</sup> An attempt to fact-check this claim did not result find exact numbers on CSO closures. While sources did confirm that there has been an increase in CSO closures and that CSOs have struggled to maintain their legal person, the extent of this issue could not be verified.

to the personal property of one of its members, and they believe this constituted an attempt to intimidate the organization in response to its environmental advocacy work. Taken together, these actions have been characterized as a highly effective "systematic suffocation" of CSOs. Several organizations have attributed the government's persecution of CSOs, and especially environmental CSOs, to a conflict surrounding the government's plans to construct a highway through the Isiboro Sécure Indigenous Territory and National Park (TIPNIS), which conforms part of the Amazon Basin and is considered a biodiversity hotspot. Environmental CSOs, including LIDEMA as a network and several member organizations, rallied public opposition to the construction of the highway and helped organize indigenous communities' resistance movement. The advocacy of LIDEMA and the other resistance actors was effective in halting the project, but it was also accompanied by negative consequences.

At the same time that the national context has posed challenges for CSO operation, international donors decreased financing for Bolivian CSOs and restructured the remaining financing. Financing decreased with the country's accession to lower-middle income status, and this has been worsened by the government's stance towards international aid. Donors have also shortened the duration of their funding commitments. Previously, five-year commitments were common, but today commitments last for 1-3 years at best, contributing to the financial insecurity of CSOs. The shift in funding duration represents a mismatch with the nature of the work that organizations develop; many organizations describe their work as long-term, but short-term funding limits the scope of their interventions. In addition, the funding that is received often does not cover administrative costs, complicating the organizations' work and affecting the long-term sustainability of their operations. One organization also described that donors want CSOs to use established methods to ensure that a project is viable, but this has the effect of limiting an organization that wants to foster innovation and develop local, homegrown solutions.

The government's hostility towards CSOs and the shift in international financing detailed in the interviews are consistent with the literature, and the effects on LIDEMA and its member organizations have been severe. At the network level, this has resulted in shrinking network size. LIDEMA once consisted of 30 organizations and approximately 200-230 people working either directly for the network or for the individual organizations. The office in La Paz once had a staff of approximately 20 people and counted with additional staff working in multidisciplinary teams within the network's regions. Today, the network consists 19 member

organizations with approximately 60 individuals in total. The office in La Paz currently operates with less than a quarter of the staff it once had and the network's regional teams have been dissolved. While not all of these changes can be attributed to the political and financial context, these are generally agreed to be the primary factors behind the network's diminishing size. The severely reduced staff in the La Paz office limits the support that the network can provide for its members, which is felt by members.

Interviewees described that being in a network offers a set of advantages that can make their institutions stronger and can help them to weather crises. The network facilitates contact between different organizations and provides spaces that enable sharing, peer-to-peer learning, and capacity building. The network also helps organizations to obtain funding, and it allows for economies of scale in which together organizations can obtain larger amounts of financing that permit projects with a larger scope. The network also provides some administrative support to its member organizations and creates joint publications that help to increase the member organizations' visibility. The degree to which the network can support its member organizations, however, is currently limited owing to both internal and external factors. The barebones staff in LIDEMA's office limits the network's ability to facilitate coordination between the member organizations, and coordination is further complicated by changes in the dynamic that exists between members. While some members place an emphasis on cooperation with CSO partners inside and outside of the network, others describe that the competition between CSOs is stronger than the will to collaborate as everyone is competing for the same scarce resources. Some organizations indeed cooperate with one another, but the collaboration that exists appears between member organizations appears to be limited in scope. It was identified that organizations with access to greater resources, contacts, and technical abilities generally do not facilitate access to these to the organizations that need them, although this is something that many would like to see. Several interviewees believe that the network could facilitate this sort of exchange, but they do not see it happening at the present moment. Organizations described that the cooperation that exists between member organizations is the result of initiatives led by the organizations themselves, but the network itself was not involved.

Changes in the political and financial context in which CSOs operate have had concrete impacts on LIDEMA member organizations which negatively affect their ability to perform their work and contribute to the SDGs. Some organizations have limited the geographical and thematic scope of their work in order to maintain a low profile. One organization stopped work in the Amazon and the Yungas, and reduced their work on biodiversity research and strict and/or private conservation in favor of projects in less problematic areas including sustainable production projects for the communities residing near protected areas, climate change adaptation, among others. Organizations have reported that projects were halted because continuity was no longer viable. ASE had spearheaded the creation of the Picomayo River Defense platform to intervene in agricultural communities affected by contamination from mining activities, but most of the platform's work, including ASE's work monitoring mining contamination, virtually shut down around 2014. ASE cited a lack of resources and political changes as the reason. All interviewees stated that they have experienced a slowdown and have struggled with respect to obtaining resources and executing projects. As their work is heavily centered around the promotion of environmental, social, and economic activity, this has tangible impacts on SDG implementation in the country, and, particularly, on SDG 15.

While all have struggled as a result of the political and financial instability described above, the interviews revealed sources of resilience that have allowed member organizations to remain in existence and continue furthering Bolivia's sustainable development. PRODENA and CIMAR have been able to maintain more stable funding. PRODENA has been able to maintain steady financing from its principal donor with whom it has a mutually-beneficial relationship in which the donor organization sends interns to work at the organization; whereas, CIMAR has resilience built into its structure since staff salaries are paid by the Gabriel Rene Moreno Autonomous University, and the organization also provides for-pay services that help fund its work. FIDES purchased 90 ha. of land prior to the crisis, and it sells portions of this asset to fund its work when it cannot get financing for its projects. HERENCIA's resilience owes in part to the transboundary work that it develops with partners in Brazil and Perú, which helps the organization to stay active during difficult times.

In addition to their resilience, the organizations also have adaptive capacity and coping mechanisms that keep them afloat. Like the network itself, many organizations mentioned that they have adapted to the current political reality by keeping a low profile and creating for strategic partnerships. PROMETA has successfully leveraged strategic partnerships to advance its mission; however, in order to be effective in the political climate, they have had to shift their focus away from areas that can be considered controversial. HERENCIA is based in Pando, but since coordinating with local government is difficult, they have adapted by expanding to other regions such as Beni. In Beni, the local government is led by the ruling political party MAS just

like in Pando, but here local officials are willing to collaborate with HERENCIA. All of the above actions illustrate the adaptive capacity found within the network, but some organizations have struggled to successfully adapt. Coping mechanisms appear to be common within the network, and these include reducing staff during lean times and relying heavily on volunteer labor. There are organizations that do not have a director because it is not financially viable, and there are cases in which leadership has been working without pay for years and the only individuals being paid are the technicians. These and other coping mechanisms have played an important role in many organizations' survival, but their long-term sustainability is questionable. LIDEMA has already lost members due to organizational closures, and there are other organizations that are at risk today.

Overall, the interviewees did not foresee that Bolivia would be able to achieve SDG 15, but many expressed optimism regarding their organizations' future and their ability to make meaningful contributions that are relevant to SDG 15. The organizations are thinking strategically, and they have interest in forming productive working relationships with the private sector. At the same time, they are also extremely careful about whom they would be willing to partner with and insist that such collaboration would require clearly established terms so that affiliation with LIDEMA and/or its members would not be manipulated for the purpose of greenwashing. Interviewees also conveyed that they want to work more productively with government actors, and they will be persistent in trying to do so. They stress that their work is apolitical, and they provided examples that demonstrate that government actors depend on CSOs, even when they do not officially partner with them. A handful of interviewees described that the government copies CSO projects; thus, demonstrating an implicit dependence on CSOs for ideas. LIDEMA's members are aware of this indirect contribution that they make to Bolivia's sustainable development, and it is one that they exploit in order to lead through their actions. In addition to this indirect dependence on CSOs, ASE described a direct dependence in which the national comptroller's office asked them for the data the organization had obtained from their monitoring of mining contamination in the Picomayo River basin. The organizations have acquired extensive experience and lessons learned related to socioecological themes. They work extensively with vulnerable communities and a common strength among institutions is that they link environmental advocacy with economic and social development. Their contributions in themes related to terrestrial and freshwater ecosystems have reduced in the post-2015 period due to the confluence of negative political and financial conditions, but many organizations see internal and external collaboration are a way of reversing this trend.

# 8 Discussion

The present work makes clear that LIDEMA and its member organizations indeed make meaningful contributions to SDG 15, as well as other SDGs, and they do so through diverse means that align with the role of CSOs in SDG implementation that have been identified in the academic and expert literature. LIDEMA and its members 'localize' the SDGs through multifaceted work that integrates environmental, social, and economic components. Their contributions can generally be described using Long's (2018) four categories of CSO contributions to the SDGs: 'realization', 'representation', 'regulation', and 'transmission'. They 'realize' SDG 15 and other SDGs through technical projects, service provision, and education and capacity building. They 'represent' communities and vulnerable groups by advocating for their interests and by strengthening their capacity to defend their environmental rights. They also ensure that this 'representation' occurs *within* their projects, as the network and many of its member organizations integrate gender and intergenerational equity into project design and corresponding indicators. They 'regulate' and serve as 'watchdogs' through monitoring and data collection, analysis, and reporting; however, these specific activities are particularly limited by the 'obstructed' civil space in which they operate. Although they may not make direct references to the SDGs when doing environmental education and outreach work, this work itself indeed transmits information about the thematic content of SDG 15 and other SDGs, raising overall awareness about the issues that comprise the 2030 Agenda. There are even cases, such as that of HERENCIA in which the organizations engage in SSDC with neighboring countries in conducting SDG-relevant work. The network and its member organizations also mobilize the resources that make most of their SDG contributions possible, although some of this work is conducted solely through volunteer labor. Within a single project, an organization may contribute to multiple goals and targets, and it may do so through multiple means. The work conducted by LIDEMA and its member organizations encapsulates the spirit of the SDGs by localizing the goals in an integrated manner that places a strong emphasis on yielding positive environmental, social, and economic outcomes for communities. This work capitalizes on synergies and interlinkages, which the academic literature has identified as an important way of avoiding the trade-offs between the different dimensions of sustainable development.

The present research lends support to Long's (2018) assertion that CSOs are not an 'untapped resource' with respect to SDG implementation, but it also highlights that there is substantial

room for them to enhance their contributions. The network analysis of LIDEMA member's contributions to SDG 15 targets found a network density of 25.5%, indicating that there is substantial room for LIDEMA member to expand their contributions to cover more targets. The network analysis also showed that LIDEMA's role in filling SDG 15 data and implementation gaps is somewhat limited. Their work focuses on Targets 15.1-15.3, which are the same targets for which Bolivia has more information available and for which related implementation efforts appear to be in a more advanced phase. In Bolivia, there is less data available regarding Targets 15.6, 15.7, 15.8, and 15.9, and substantial implementation gaps appear to exist for Targets 15.5, 15.6, 15.7, and 15.8, yet relatively few member organizations perform work that is relevant to these targets. Thus, while LIDEMA members further SDG 15 implementation, the gaps in their SDG 15 contributions largely reflect those seen at the national level.

While the work of LIDEMA member organizations contributes to SDG 15 achievement and, in some cases, helps to fill data and implementation gaps, their work related to terrestrial and freshwater ecosystems has decreased during the post-2015 period. This decrease owes to changes surrounding international financing, as well as the unfavorable conditions that the interviewees described that the national government has created for CSO operation in Bolivia. LIDEMA member organizations are dependent upon external funding for their work, but less funding is coming to Bolivia and making its way to LIDEMA members. This limits their ability to conduct work relevant to the SDGs, and the shortening of funding duration has established barriers to long-term projects. This represents a mismatch because LIDEMA member organizations have identified that the work they do is long-term, and, indeed, the achievement of SDG 15 requires long-term transformative actions. The reduction in project duration caused by short-term funding can also undermine the formation of social capital, a key factor in organizational resiliency, and decrease the likelihood of community ownership (Renoir and Guttentag 2018). The national government has further reduced the amount that CSOs contribute to SDG 15 through the 'obstruction' of civic space. LIDEMA members have responded by adopting a lower profile and reshaping the nature of their work. Such strategies have allowed for continued operation during difficult times, but they also constitute self-censorship that has negative repercussions for SDG 15 and beyond.

An 'open' civil space is a prerequisite to achieving the 2030 Agenda, which emphasizes the importance of focusing on all goals and targets, not just cherry-picking the ones that are the most palatable or convenient. In an 'open' civil space, CSOs are able to fill the gaps left by

government; they can work in areas that are politically unpopular or controversial. The ability of CSOs to develop such work is essential to achieving the *2030 Agenda*'s pledge that "no one will be left behind" (UNGA 2015, 5). LIDEMA organizations have an established history working with communities throughout the country to improve environmental, social, and economic conditions. This includes projects that improve agricultural production by restoring degraded lands and reducing local expansion of the agricultural frontier; provide hydrological infrastructure and improve water resources management; conduct forest research and promote sustainable forest management, including through agroforestry projects; monitor and remediate areas affected by mining wastes; among others. By curtailing LIDEMA member organizations' ability to conduct this work and by intimidating organizations into maintaining a low profile, the national government impedes SDG implementation.

The lack of collaboration between the national government and CSOs and the self-censorship that CSOs engage in as a response to a shrinking civic space both have particularly negative consequences for 'data, monitoring and accountability' MOI. The literature review describes that there are several challenges with respect to this MOI, including the high costs of data collection, the number and complexity of indicators, indicators are poorly defined or only partially measure their respective target, in addition to capacity-related challenges with respect to measurement (Georgeson and Maslin 2018; MacFeely 2019; Elder and Hoiberg Olsen 2019). CSOs can assist in addressing these challenges by collecting data for SDG indicators, helping to overcome barriers pertaining to cost and capacity (IEAGS 2014; Pínter et al. 2016; MacFeely 2019), yet, by avoiding collaboration with CSOs, the national government largely rejects this help and complicates its own work. In some cases, this could even mean that data, or, at the very least disaggregated data, would not be collected. CSOs can also provide quantitative and qualitative data that can complement official SDG data by addressing the parts of the targets that official indicators do not measure and by shaping a narrative around SDG data that is understandable to the communities they work in. As CSOs self-censor and avoid controversy, they reduce their 'regulation' or 'watchdog' functions, which prevents them from producing shadow reports and validating official data. This can have negative repercussions when the lack of oversight results in governments that submit inaccurate data to SDG reporting mechanisms. The case of questionable data related to SDG Target 15.3 included in Bolivia's LDN Strategy makes clear that external data validation in Bolivia is important to ensuring data quality. The above indicates that there is great potential for CSOs, such as LIDEMA members, to enhance 'data, monitoring and accountability' MOI, but capitalizing on this opportunity requires the national government to open up to greater collaboration and to reverse recent trends affecting Bolivian civic space.

In spite of the national government's suppression of CSO operation, a surprising finding from this work is that actors from the subnational government comprise the most frequently reported partnership for LIDEMA member organizations. Organizations are more likely to report working with the subnational government in general, and also specifically with relationship to SDG 15, than they are with any other partner. This means that even as the national government marginalizes CSOs, at the subnational level Bolivia is actually implementing Target 17.17, which calls to "Encourage and promote effective public, public-private and civil society partnerships..." (UNGA 2015, 32). Although the relationship between subnational government actors and CSOs varies throughout the country, subnational government actors drive progress on SDG 15 and other SDGs in part by collaborating with CSOs. This suggests that, although Bolivia does not have enabling environment for CSO operation at the national level, at lower levels of government there is a mosaic of different conditions for CSO operation, with many subnational government actors collaborating with, supporting, and even depending upon CSOs. The implications of this underscore the importance of multi-level governance frameworks in SDG implementation. Although this work does not quantify the extent to which LIDEMA organizations collaborate with subnational governmental actors (e.g. via number of projects developed or other metrics), it does show that a significant amount of SDG implementation is happening on the ground at local levels through coordination between lower levels of government and CSOs. Graute (2016) warns that under the SDG framework "...national governments have more responsibility and there could be the risk that SDG implementation in certain countries is curbed by weak capacities at the national level" (Graute 2016, 1938). This risk is certainly present in Bolivia, where the national government has both limited capacities for and limited commitment to SDG implementation. Subnational governments can mitigate the possibility that national inaction or ineffectiveness with relation to terrestrial and freshwater ecosystems stymies SDG 15 progress, in part through their collaboration with CSOs who have relevant capacities, experience, and connections.

The surveys, interviews, and network analysis demonstrate that while LIDEMA member organizations contribute to various SDG 15 targets and do so through a variety of partners, they also have both the potential and willingness to expand upon this work. The network densities for partnerships and SDG 15 target contributions make clear that there is ample room to expand

the role of LIDEMA organizations in SDG 15 achievement through the creation of new partnerships and the development of projects that branch into new thematic areas relevant to SDG 15. Successfully achieving such expansion under uncertain future conditions requires an examination of the context in which LIDEMA and its member organizations operate in order to formulate a clear plan for the path ahead. Such an examination is presented in the SWOT analysis chart depicted in **Table 20**.

Table 20. SWOT Analysis

Study at ha	Westmasses
<ul> <li>Experience &amp; capacities relevant to SDG 15</li> <li>Network counts with a diverse set of partnerships</li> <li>Direct &amp; indirect influence on government</li> </ul>	<ul> <li>Tense relationship &amp; limited cooperation with the national government</li> <li>Insufficient funding</li> <li>Funding structures that favor short- term projects and discourage innovation</li> <li>Competition between CSOs</li> <li>Lacking capacities relevant for planned work &amp; select SDG 15 targets</li> </ul>
Opportunities	Threats
<ul> <li>Under-utilized capacities relevant to SDG 15</li> <li>Potential &amp; interest in expanding partnerships (especially with private sector)</li> <li>Interest in strengthening inter- institutional collaboration (in- &amp; out-of-network), including through improved use of information communications technology</li> <li>Availability of free/low-cost tools for capacity building</li> <li>Potential to focus work to address national SDG 15 data &amp; implementation gaps to increase institutional leverage</li> </ul>	<ul> <li>Increasing 'obstruction' of civil society operating space</li> <li>Loss of member organizations, either through CSO closures or leaving the network</li> </ul>

The SWOT analysis in **Table 20** transforms the research accumulated in the present work into actionable information. Collectively, the members of LIDEMA already have a diverse set of skills and experience that are directly relevant to almost all of the nine principal SDG 15 targets, but there is a need to increase peer-to-peer learning and capacity building to enable organizations to branch into new thematic areas. This involves addressing the competition between members and increasing in-network communication and collaboration. Although overcoming the competitive urges between organizations is difficult in an 'obstructed' civil space with scarce resources available, such collaboration ultimately benefits both the network as a whole and its individual member organizations. Collaboration incentivizes organizations to remain in the network and can help to keep struggling institutions alive, while it also results in more positive outcomes for SDG 15 implementation. The failure to increase interorganizational collaboration may result in a further reduction of network size as members shutdown or leave, which would harm all members as a shrinking and less diversified network can provide fewer benefits to its members and would have decreased political influence. The network should thus explore different mechanisms to increase the exchange of ideas, information, and even contacts between members because this is key to increasing the resiliency of the network and its individual components.

In addition to increasing collaboration between institutions, the network and its member organizations would benefit from putting their under-utilized capacities to use and building new capacities, placing on emphasis on those capacities that correspond to national SDG data and implementation gaps (e.g. those relevant to Targets 15.6, 15.7, 15.8). Focusing on addressing SDG 15 data and implementation gaps may help the network to gain leverage with branches of government and/or donors who have an interest in seeing that these gaps are filled. These new capacities can be built as described above through peer-to-peer learning (either in person or virtually) or even through the temporary exchange of staff between organizations for training purposes, but, if such inter-organizational exchanges are not feasible there are several free to low-cost tools can also be used for these purposes. For example, organizations described that they needed capacities related to project management, GIS, language abilities, water resources management, etc. in order to develop planned work related to SDG 15, and there are several free massive open online courses (MOOCs)<sup>22</sup> that offer training in these fields from reputable institutions.

<sup>&</sup>lt;sup>22</sup> Online platforms offering MOOCs related to these fields include edX, Coursera, and Esri Academy.

The possibility of further 'obstruction' of civil society space in Bolivia poses a significant challenge to LIDEMA. Within this context, steps to increase network and organizational resiliency are essential. One step includes thoroughly examining the strategies of the organizations inside and outside of the network who have demonstrated resiliency and adaptive capacity during this difficult period for CSO operation, and then diffusing information on such successful strategies throughout the network. Another would be to diversify partnerships and ensure that the network has partners that can help it weather through worsening relationships with governmental actors. The network analysis revealed that there is scant collaboration with private sector actors; there is minimal collaboration with national businesses and no collaboration with international businesses. This gap within the network represents a substantial opportunity for partnerships and funding that may provide greater stability. Businesses operating within Bolivia are demonstrating increased interest in corporate social responsibility (CSR) (El Deber 2019), as evidenced by the creation of the Bolivian Global Compact Chapter in 2016 and the presence of active Bolivian CSR web portals such 'Observatorio RSE' ('CSR Observatory' in English) and 'infoRSE' ('InfoCSR' in English) (Pacto Global Red Bolivia 2017). Increased partnerships with the private sector is an avenue worth exploring that can help to minimize existing threats facing LIDEMA members while also enhancing the private sector's SDG contributions. Such collaboration may also yield benefits that are distinct to those associated with other partners, as the private sector is more likely to take risks to fund innovative ideas and also counts with its own capacities and connections from which the member organizations could benefit.

# 9 Conclusion

CSOs participation is embedded into the 2030 Agenda, and the academic and expert literature identifies that that CSOs are strong potential partners that can perform multiple roles to advance the SDGs. The present work examined planned and future CSO contributions to SDG 15 in Bolivia by focusing on LIDEMA, a national network of environmental CSOs. Although CSOs were not heavily involved in the formation of Bolivia's SDG implementation strategies and have been marginalized in recent years, LIDEMA and its member organizations supplement existing SDG 15 implementation efforts, as complement the work of others to help fill data and implementation gaps. LIDEMA and its member organizations are adept at integrating environmental, social, and economic dimensions in their various projects, making them a model for how to avoid the traps of 'siloed' work in which advances in one dimension may undermine progress in another.

In spite of the meaningful direct and indirect contributions that LIDEMA and its member organizations can and do make to the achievement of SDG 15, Bolivia's 'obstructed' civil space restricts the degree to which CSOs in the country can contribute to national SDG implementation, follow-up, and review. The national government has taken actions that negatively affect CSOs and may even put national achievement of the SDGs at risk, which in turn has ripple effects for the achievement of the SDGs at the global level. Nonetheless, even in Bolivia's 'obstructed' civic space, CSOs can pursue strategies to continue contributing to SDG achievement. In the case of LIDEMA, they can pursue new partnerships, increase interinstitutional cooperation and peer-to-peer learning, and focus their work on filling existing SDG data and implementation gaps in an attempt to increase their leverage. These actions can put LIDEMA in a better position to further progress towards SDG 15 and other SDGs, but larger changes in the external environment are also needed. Just as all sectors have a role in implementing the 2030 Agenda, all sectors should also assume responsibility for creating the conditions that stimulate universal uptake of the SDGs. CSOs can be potent development actors that 'localize' the SDGs and push the 2030 Agenda forward, but without an enabling environment and support from other sectors their ability to have a meaningful impact is greatly reduced.

The present work answers the questions of how LIDEMA member organizations can and do contribute to the achievement of SDG 15 in Bolivia, but there are several questions left for future research to address. While this work focused on SDG 15, there is much unknown with respect to Bolivia's SDG implementation in general. Future research could look at the role of CSOs in the achievement of all seventeen SDGs, and it could delve deeper into the different roles that CSOs play with regards to implementation, follow-up, and review. It would also be useful to examine the contributions of different types of CSOs and to assess if the effects of Bolivia's 'obstructed' civil space on SDG contributions vary by CSO type. Much is unknown with respect to SDG implementation in Bolivia, and the country has not wholeheartedly embraced the *2030 Agenda*. Within contexts characterized by such uncertainty and unclear degrees of national commitment to SDG implementation, actors outside of the national government have the potential to decisively impact the degree to which the SDGs are achieved. Research that illustrates this impact and visibilizes the contributions of such actors can inform strategies for engagement in these contexts.

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- Fundación Integral de Desarrollo (FIDES) representatives, Fundación Integral de Desarrollo. Formal interview. Santa Cruz, 15 April 2019.
- Fundación Noel Kempff Mecado (FNKM) representative, Fundación Noel Kempff Mecado. Formal interview. Santa Cruz, 16 April 2019.
- Food and Agriculture Organization (FAO) representative, Food and Agriculture Organization. Formal Interview. La Paz, 12 April 2019.
- HERENCIA representative, Herencia- Interdisciplinaria para el desarrollo sostenible. Formal interview. La Paz, 25 April 2019
- Liga de Defensa del Medio Ambiente (LIDEMA) representative 1. Liga de Defensa del Medio Ambiente. Formal Interview. Skype, 17 April 2019.
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- Pro-Defensa de la naturaleza (PRODENA) representative. Pro-Defensa de la naturaleza. Formal Interview. Sucre, 18 April 2019.
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- Servicios Múltiples de Tecnologías Apropiadas (SEMTA) representative. Servicios Múltiples de Tecnologías Apropiadas. Formal Interview. La Paz, 1 April 2019.

	LIDEMA Member Organizations				
Acronym / Abbreviation	Full Name (Spanish)	Full Name (English Translation)			
ASE	Asociación Sucrense de Ecología	Sucre Ecological Association			
CARITAS	Caritas Oruro	Caritas Oruro			
CECASEM	Centro de capacitación y servicios para la integración de la mujer	Training and Services Center for Women's Integration			
CEEDI	Centro de estudios ecológicos y desarrollo integral	Center for Ecological Studies and Integral Development			
CEPA	Centro de ecología y pueblos andinos	Center for Ecology and Andean Communities			
CERDET	Centro de estudios regionales y desarrollo de Tarija	Tarija Center for Regional Studies and Development			
CETHA EMBOROZU	Centro de Educación Técnica Humanística Agropecuaria	Humanistic Technical Agricultural Education Center			
CIMAR	Centro de investigación y manejo de recursos naturales renovables	Center for the Investigation and Management of Natural Renewable Resources			
FIDES	Fundación Integral de Desarrollo	Foundation for Integral Development			
FKNM	Fundación Noel Kempff Mecado	Noel Kempff Mecado Foundation			
HERENCIA	Herencia- Interdisciplinaria para el desarrollo sostenible	Heritage- Interdisciplinary Center for Sustainable Development			
IYA	IYA- Conservación y desarrollo	IYA- Conservation and Development			
MHNNKM	Museo de Historia Natural "Noel Kempff Mecado"	Museum of Natural History "Noel Kempff Mecado"			
SOPE	Sociedad Potosina de Ecología	Potosí Ecological Society			
PAAC	Programa de asistencia agrobioenergética al campesino	Farmer's Agrobioenergetic Assistance Program			
PRODENA	Pro-Defensa de la naturaleza	Pro-defense of Nature			
PROMETA	Protección del Medio Ambiente Tarija	Environmental Protection Tarija			
SEMTA	Servicios múltiples de tecnologías apropiadas	Multiple Services for Appropriate Technology			
VIVE	Organización Vida Verde	Green Life Organization			

#### LIDEMA Survey

This survey is conducted as part of the research for Anna Marie Servay's M.Sc. thesis in Environmental Sciences, Policy and Management through Central European University. The thesis is entitled *The Role of Civil Society Organizations in the Achievement of SDG 15 in Bolivia*, and the purpose of this survey is to identify the alignment between the work of your organization and the global SDG 15 goal and targets, focusing on terrestrial and freshwater ecosystems.

This survey is designed to collect information pertaining to the following categories: basic organizational data, organizational contributions to SDG 15 targets, and organizational capacities.

Your participation in this survey is completely voluntary, and, should you consent to participate, you may withdraw this consent any time before May 15, 2019. Your individual responses are to be kept confidential and are only to be utilized for academic purposes. If you have any questions regarding this research or if you would like to withdraw your consent to participate, please contact Anna Marie Servay using the email: <u>anna.servay@mespom.eu</u>.

Do you consent to participate in this survey? Y/N

- 1. What is the name of your organization?
- 2. What is your role in that organization?
- 3. In which themes does your organization work? (Select all that apply)
  - a. Biodiversity conservation
  - b. Protected areas.
  - c. Environmental education (formal or informal) including outreach/awareness raising campaigns
  - d. Human rights
  - e. Social equality
  - f. Sustainable agriculture
  - g. Food security
  - h. Sustainable natural resource use
  - i. Climate change
  - j. Risk management
  - k. Renewable energy
  - l. Energy access
  - m. Water conservation
  - n. Water provision/Water access
  - o. Waste management
  - p. Economic development (not related to agriculture or sustainable natural resource use)
  - q. Investigation
  - r. Environmental contamination
  - s. Other

- 4. Since 2015, has your organization worked with any of the following actors? Select all that apply.
  - a. National government
  - b. Sub-national government (ex. municipal, regional, department)
  - c. Autonomous indigenous government
  - d. International organizations
  - e. Educational institutions (primary-secondary)
  - f. Universities
  - g. Other Bolivian civil society organizations
  - h. Businesses (Bolivian)
  - i. Businesses (Foreign)
  - j. Other
- 5. If you selected national government, please specify which branch. (SPACE PROVIDED)

#### I. Sustainable Development Goals (General)

- 6. Please rate your level of familiarity with the Sustainable Development Goals (SDGs). SCALE FROM 1-5 PROVIDED ((1) I am not at all familiar with the SDGs (5) I am very familiar with the SDGs).
- How would you rate the level of influence that the SDGs have on the work of your organization. SCALE FROM 1-5 PROVIDED ((1) The SDGs have no influence on the work that my organization does (5) The SDGs have a significant influence on the work that my organization does)
- 8. If you responded that the SDGs have some degree of influence over the work of your institution, please provide a brief summary describing that influence. (OPEN ENDED)

#### II. SDG 15 Targets

NOTE: The same questions were asked for each target. Each organization only saw the questions that were relevant to them given their previous answers. The targets were incorporated into the wording of the questions, as depicted in the table below.

Target	Wording in questions
15.1	"the conservation, restoration and sustainable use of terrestrial and/or
	freshwater ecosystems and their services"
15.2	"sustainable forest management, deforestation, the restoration of degraded
	forests and/or reforestation"
15.3	"desertification and/or the restoration of degraded land and soil"
15.4	"mountain ecosystems in order to enhance their capacity to provide benefits
	that are essential for sustainable development"
15.5	"the degradation of natural habitats and biodiversity loss"
15.6	"the fair and equitable sharing of the benefits arising from the utilization of
	genetic resources and promote appropriate access to such resources"
15.7	" the poaching and trafficking of protected species, including actions to
	increase the capacity of local communities to pursue sustainable livelihood
	opportunities"
15.8	"invasive exotic species"

15.9	"the integration of ecosystem and biodiversity values into planning,
	development processes and poverty reduction strategies"

- 9. During the period of 2015 present, has your organization worked on or is it currently working on topics related to <u>(INSERT TARGET)</u>.
  - a. Yes
  - b. No
  - c. I'm not sure

10. How would you classify the work that your organization does in relation to

- (INSERT TARGET) ? Please answer for the period of 2015-present.
  - a. Implementation of technical projects
  - b. Implementation of educational/outreach/awareness projects
  - c. Political advocacy (lobbying) and representation of communities in relation to this topic
  - d. Monitoring and data collection
  - e. Analysis
  - f. Reporting
  - g. Resource mobilization
  - h. Other
- 11. Does your organization develop the work related to this topic with any of the following actors? Select all that apply for the period of 2015-present.
  - a. National government
  - b. Sub-national government (ex. municipal, regional, department)
  - c. Autonomous indigenous government
  - d. International organizations
  - e. Educational institutions (primary-secondary)
  - f. Universities
  - g. Other LIDEMA member organizations
  - h. Other Bolivian civil society organizations
  - i. Businesses (Bolivian)
  - j. Businesses (Foreign)
  - k. Other
- 12. Please describe the work that your organization does on topics related to (INSERT TARGET). Please answer for the period of 2015-present. (OPEN-ENDED)
- 13. Are there other specific actions related to these topics that your organizations plans to develop?
  - a. Yes
  - b. No
  - c. Maybe
- 14. If you answered yes to the previous question, please indicate which specific actions your organization plans to develop in relation to <u>(INSERT TARGET)</u>. (OPEN ENDED)
- 15. If your organization plans to develop specific actions related to these topics, what capacities do you require to do so? Please include the general category of the capacity as well as a brief description (Ex. Technical- geographic information systems; Linguistic- English/German to solicit funds from international organizations). (OPEN ENDED)

#### III. Final Section

For each thematic area, please indicate if your organization possesses relevant capacities (including experience, technical abilities, resource mobilization, and management/execution of projects) that could be used more effectively.

Does your organization possess capacities relevant to this thematic area which could be used more effectively?
Yes/No/I'm not sure

#### ADDITIONAL COMMENTS: (SPACE PROVIDED)

Thank you for your participation!

Organization	General Partnerships	RANK	SDG 15 Partnerships (Binary)	RANK	SDG 15 Partnerships Weighted	RANK
PRODENA	5	10	4	8	7	8
HERENCIA	6	6	5	5	14	2
FIDES	8	2	7	2	13	3
SEMTA	2	15	2	12	10	5
PROMETA	8	2	8	1	16	1
SOPE	4	12	2	12	3	13
ASE	6	6	2	12	2	14
CIMAR	5	10	4	8	8	7
PAAC	4	12	4	8	6	9
СЕРА	7	4	6	3	6	9
CARITAS	6	6	5	5	6	9
CEEDI	6	6	4	8	12	4
VIVE	0	17	0	16	0	16
CERDET	7	4	5	5	9	6
FNKM	4	12	0	16	0	16
IYA	1	16	1	15	1	15
MHNNKM	9	1	6	3	6	9

 Table 1 Degree centrality and rank of LIDEMA organizations with respect to partnerships

Table 2 Degree centrality and rank of partner categories with respect to partnerships with LIDEMA member organizations

Partner Category	General Partnerships	RANK	SDG 15 Partnerships (Binary)	RANK	SDG 15 Partnerships Weighted	RANK
National Gov.	4	9	2	9	5	9
Subnational Gov.	14	1	12	1	27	1
Autonomous Indigenous Gov.	5	8	3	8	9	6
International Orgs.	12	2	11	2	21	2
Educational Instituions	10	5	8	3	12	4
Universities	12	2	8	3	12	4
LIDEMA CSOs	10	5	8	3	9	6

Non-LIDEMA CSOs	12	2	6	6	14	3
National Businesses	3	10	2	9	2	10
International						
Businesses	0	11	0	11	0	11
Other	6	7	5	7	8	8

	Degree	
Organization	Centrality	Rank
PRODENA	3	5
HERENCIA	4	3
FIDES	3	5
SEMTA	5	1
PROMETA	5	1
SOPE	2	8
ASE	1	12
CIMAR	2	8
PAAC	2	8
СЕРА	1	12
CARITAS	2	8
CEEDI	3	5
VIVE	0	16
CERDET	4	3
FNKM	0	16
IYA	1	12
MHNNKM	1	12

Table 3 Degree centrality and rank of LIDEMA organizations with respect to SDG 15 target

 Table 4 SDG 15 target degree centrality and rank
 Image: Control of the second seco

Target	<b>Degree Centrality</b>	Rank
15.1	14	1
15.2	6	3
15.3	7	2
15.4	2	6
15.5	3	5
15.6	2	6
15.7	1	8
15.8	0	9
15.9	4	4