



**SECURE LAND  
RIGHTS TO FIGHT  
THE CLIMATE CRISIS**

INTERNATIONAL  
**LAND**  
COALITION

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## INTRODUCTION

*For smallholder farmers, pastoralists, fisher folks, forest dwelling communities, hunters and gatherers, and others (hereafter rural people), land is a primary source of livelihoods, nutrition, income and employment, providing security, status, social identity and a basis for political relations. For many, land is also historically, culturally and spiritually significant. Strong, secure land rights empower people, are fundamental to rural identity, create incentives to sustainably manage land and help ensure that people can use and manage their land for their own development purposes (people-centred land governance).<sup>1</sup>*

Climate change and its impacts – changes in air temperature, rainfall, sea levels, water availability, wind and extreme weather events – are felt through changes in ecosystems and land capability,<sup>2</sup> including changes in the productivity and habitability of land, its social and economic value<sup>3</sup> and land use systems. Millions of rural people are already suffering from environmental degradation driven by climate change and risk slipping into a downward spiral of increasing poverty and inequality, social unrest and conflict. Marginalised and disenfranchised people, those with little say or influence over critical decisions, including women and indigenous peoples, are often affected the most by climate change.

Strong, secure land rights for rural people are central to addressing the climate crisis<sup>4</sup> and avoiding the adverse impacts of a climate breakdown. Tenure security is, in fact, a central tenet of climate justice and fair climate solutions. Tenure security is central to the

efforts of rural people to reduce vulnerability, enhance resilience and adapt to climate change. Well-managed lands, especially the collectively held lands of indigenous people and other local communities (IPLCs) also provide important ecosystem services such as carbon storage and sequestration, contributing to climate change mitigation.

International climate instruments recognise the role of rural people and tenure security in adapting to and mitigating climate change.<sup>5</sup> The 2019 IPCC report “*Climate Change and Land*” notes: “*Insecure land tenure affects the ability of people, communities and organisations to make changes to land that can advance adaptation and mitigation.*”<sup>6</sup> And the 2022 IPCC report “*Climate Change 2022: Impacts, Adaptation and Vulnerability*” notes: “*Secure tenure arrangements are often critical for delivering successful ecosystem-based adaptation...*”<sup>7</sup> Although more support is needed, this recognition has translated

1 International Land Coalition (ILC). “*Our Goal: People-Centred Land Governance*”. <https://www.landcoalition.org/en/explore/our-collective-goal/>

2 J. Quan and N. Dyer (2008). “*Climate Change and Land Tenure: The Implications of Climate Change for Land Tenure and Land Policy*”. IIED and Natural Resources Institute, University of Greenwich. <https://www.fao.org/3/aj332e/aj332e.pdf>

3 USAID (2010). “*Climate Change, Property Rights, & Resource Governance: Emerging Implications for USG Policies and Programming*”. USAID Issue Brief. [https://www.climatelinks.org/sites/default/files/asset/document/USAID\\_Land\\_Tenure\\_Climate\\_Change\\_and\\_Tenure\\_Issue\\_Brief-061214.pdf](https://www.climatelinks.org/sites/default/files/asset/document/USAID_Land_Tenure_Climate_Change_and_Tenure_Issue_Brief-061214.pdf)

4 J. Quan with N. Dyer (2008). “*Climate Change and Land Tenure: The Implications of Climate Change for Land Tenure and Land Policy*”. IIED and Natural Resources Institute, University of Greenwich. <https://www.fao.org/3/aj332e/aj332e.pdf>

5 Other global environment and development instruments, such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), the New York Declaration on Forests, the Bonn Challenge and the Sustainable Development Goals (SDGs), also recognise the role of rural people and tenure security.

6 Intergovernmental Panel on Climate Change (IPCC) (2019). “*Climate Change and Land*”. <https://www.ipcc.ch/srccl/>. Further, the report states: “*Limited recognition of customary access to land and ownership of land can result in increased vulnerability and decreased adaptive capacity (medium confidence). Land policies (including recognition of customary tenure, community mapping, redistribution, decentralization, co-management, regulation of rental markets) can provide both security and flexibility response to climate change (medium confidence).*”

7 Further: “*...maladaptive outcomes can be avoided by securing tenure and access rights to resources and territories for all people.*” IPCC (2022). “*Climate Change 2022: Impacts, Adaptation and Vulnerability. Summary for Policymakers*”. [https://report.ipcc.ch/ar6wg2/pdf/IPCC\\_AR6\\_WGII\\_FinalDraft\\_FullReport.pdf](https://report.ipcc.ch/ar6wg2/pdf/IPCC_AR6_WGII_FinalDraft_FullReport.pdf)

into some new and supportive financial resources and other commitments.<sup>8</sup>

The language on tenure security in international agreements, however, has not translated into supportive national policies or plans or significant new investments. Most nationally determined contributions (NDCs) from 2015 adopted under the Paris Agreement do not make any specific commitments to securing land rights.<sup>9</sup> And the 2020 “enhanced” NDCs and other related policy documents also fail to acknowledge the crucial role of rural people, their lands and tenure security in meeting national targets and fall short of establishing strong supportive actions, targets and policies.<sup>10</sup>

This brief is part of the International Land Coalition (ILC)’s series on land and global crises. It aims to illustrate and analyse the role of land rights, tenure security and people-centred land governance in addressing the climate crisis. The brief is intended for land rights and climate change experts and non-experts to recognise and better understand the critical links between tenure security and climate change.

8 In November 2021, at the UN Climate Change Conference (COP26) in Glasgow, world leaders recognised the contributions of IPLCs in safeguarding forests and biodiversity. Five governments and 17 private donors announced “an initial, collective pledge of \$1.7 billion of financing, from 2021 to 2025, to support the advancement of indigenous peoples’ and local communities’ forest tenure rights and greater recognition and rewards for their role as guardians of forests and nature. We call on other donors to significantly increase their support to this important agenda.” The signatories also agreed to include IPLCs in “decision-making and in the design and implementation of relevant programmes and finance instruments. See UNFCCC (2021). “Decision -/CP.26. Glasgow Climate Pact”. [https://unfccc.int/sites/default/files/resource/cop26\\_auv\\_2f\\_cover\\_decision.pdf](https://unfccc.int/sites/default/files/resource/cop26_auv_2f_cover_decision.pdf); and UN Climate Change Conference UK 2021 (2021). “COP26 IPLC Forest Tenure Joint Donor Statement”. <https://ukcop26.org/cop26-iplc-forest-tenure-joint-donor-statement/>

9 Rights and Resources Initiative (RRI) (2016). “Indigenous Peoples and Local Community Tenure in the INDCs: Status and Recommendations”. [https://rightsandresources.org/wp-content/uploads/2016/04/Indigenous-Peoples-and-Local-Community-Tenure-in-the-INDCs-Status-and-Recommendations\\_RRI\\_April-2016.pdf](https://rightsandresources.org/wp-content/uploads/2016/04/Indigenous-Peoples-and-Local-Community-Tenure-in-the-INDCs-Status-and-Recommendations_RRI_April-2016.pdf)

10 The national documents include limited references to IPLC lands in the context of fairness, rights and IPLCs’ involvement in the policy planning processes. Forest Declaration Assessment (2022). “Sink or swim: How Indigenous and community lands can make or break nationally determined contributions”. <https://674644-2215740-raikfcuaxqncofqfm.stackpathdns.com/wp-content/uploads/2022/03/Sink-or-swim-IPLC-lands-and-NDCs.pdf>

## CLIMATE CHANGE, LAND USE AND TENURE SECURITY

### RURAL LAND AND TENURE SECURITY

While more than half of the world’s population lives in urban areas and this proportion is rising, more than 40% of people live in rural areas, manage ecosystems and make their living off their land.<sup>11</sup> In many African, Asian and other countries, more than 80% of the national population is rural. In countries around the world, land inequality is high and is growing, and is a main driver of social, economic and other forms of inequality.<sup>12</sup> An estimated 84% of the world’s 570 million farms are smallholdings,<sup>13</sup> family farms of less than two hectares in size which account for just 12% of the world’s agricultural land.<sup>14</sup>

Smallholder farms can be held separately by families while others are part of collectively held IPLC land<sup>15</sup> and held under customary tenure arrangements.<sup>16</sup> IPLCs often allocate some land to individuals or households for homesteads and family farms, with other land held as common property (e.g. forests, rangeland and wetlands) for the benefit of all members.

11 UNCTAD (2021). “UNCTAD e-Handbook of Statistics 2021”. <https://hbs.unctad.org/total-and-urban-population/>

12 ILC (2020). “Uneven Ground: Land Inequality at the Heart of Unequal Societies”. [https://d3o3cb4w253x5q.cloudfront.net/media/documents/2020\\_11\\_land\\_inequality\\_synthesis\\_report\\_uneven\\_ground\\_final\\_en\\_spread\\_low\\_res\\_2.pdf](https://d3o3cb4w253x5q.cloudfront.net/media/documents/2020_11_land_inequality_synthesis_report_uneven_ground_final_en_spread_low_res_2.pdf)

13 H. Ritchie (2021). “Smallholders produce one-third of the world’s food, less than half of what many headlines claim”. Our World in Data. <https://ourworldindata.org/smallholder-food-production>

14 S.K. Lowder, J. Scoet and T. Raney (2016). “The Number, Size, and Distribution of Farms, Smallholder Farms, and Family Farms Worldwide”. World Development, Vol. 87, November 2016, pp.16-29. [https://www.sciencedirect.com/science/article/pii/S0305750X15002703#:~:text=Most%20of%20the%20world's%20more,are%20small%20and%20family%20Drun.&text=Small%20farms%20\(less%20than%202,of%20the%20world's%20agricultural%20land](https://www.sciencedirect.com/science/article/pii/S0305750X15002703#:~:text=Most%20of%20the%20world's%20more,are%20small%20and%20family%20Drun.&text=Small%20farms%20(less%20than%202,of%20the%20world's%20agricultural%20land)

15 IPLC land is found on all continents except Antarctica, with Africa having more such land (78.7% of the continent’s area) than any other region. Historically, IPLC land accounted for much or all of the land area of many countries. Today, some countries have lost all IPLC land, while in others efforts are being taken to re-establish IPLC land and reconstitute collective ownership.

16 Customary tenure arrangements are traditional rules that govern the allocation, use, access and transfer of land and natural resources.

About half of the world's land is IPLC land,<sup>17</sup> which supports over two billion people, including 370 to 500 million indigenous people.<sup>18</sup>

Rural land rights are often precarious and contested.<sup>19</sup> Little land held by rural people is legally recognised as belonging to them: only 10% of the world's land is recognised under national laws as belonging to IPLCs, with another 8% designated by governments for IPLCs where they have some recognised rights.<sup>20</sup> Even less rural land is registered in government cadastres and documented with official land titles or certificates. Titling procedures, where they exist, are often costly and out of reach of rural people.

Rural women have crucial roles in agriculture, food production and land-based livelihoods yet, globally, they own less land and have less secure rights over land than men. Women's land rights are also critical to democracy, peace, justice, sustainable development and security for all. Strong women's rights to land and productive assets are linked in enhanced status,

improved living and gender conditions, better nutrition and food sovereignty, improved health and education outcomes, higher earnings and individual savings, better access to credit and better protection from gender-based violence.<sup>21</sup>

## RURAL LAND AND CARBON

Land is a both source of greenhouse gas (GHG) emissions and a contributor to mitigating climate change. From 2007 to 2016, agriculture, forestry and other land use (AFOLU) contributed about 23% of human-caused emissions and sequestered almost a third of all human-caused GHG emissions.<sup>22</sup> AFOLU is the largest contributor to Latin America's carbon footprint,<sup>23</sup> and Brazil is the largest contributor of AFOLU CO<sub>2</sub> net emissions worldwide,<sup>24</sup> representing 17–29% of the global total.<sup>25</sup>

Agriculture both contributes to climate change and is affected by it. Agriculture accounts for 14% of global

GHG emissions and is a leading driver of deforestation.<sup>26</sup> Food provisioning – production, storage, processing, packaging, transportation and preparation – releases GHGs. Farming releases significant amounts of methane (from livestock) and nitrous oxide (from fertilisers), two powerful GHGs.<sup>27</sup> Industrial agricultural practices – involving synthetic fertilisers, pesticides, heavy machinery, monocultures, land change, deforestation, refrigeration, waste and transportation – generate large amounts of GHGs and underpin an unsustainable and inequitable food system.<sup>28</sup> Small-scale farms use fewer fossil fuel-based fertiliser inputs, emit fewer GHGs and often sequester CO<sub>2</sub> from the air into the soil, contributing to climate mitigation.

Forests present a significant global carbon stock. From 2001 to 2019, forests absorbed twice as much carbon as they emitted each year.<sup>29</sup> The largest potential for reducing GHG emissions from the land

sector comes from curbing deforestation and forest degradation, while afforestation and reforestation of degraded land have the greatest potential for carbon removal.<sup>30</sup> Sustainable forest management that maintains or increases forest carbon stocks, while producing sustained yields of timber, fibre or other forest products, generates the largest climate mitigation benefit.

The land held by rural people provides a range of ecosystem services that generate valuable local and global benefits.<sup>31</sup> Although many governments legally hold most of the world's forests, most of these forests are on IPLC land.<sup>32</sup> Almost one-quarter of forest carbon in tropical and subtropical countries is on IPLC land (one-third of which is on customarily held land).<sup>33</sup> IPLC land also sequesters a considerable amount of CO<sub>2</sub>. From 2001 to 2020, 94% of indigenous land area in the Amazon was a carbon sink.<sup>34</sup>

- 17 RRI (2015). "Who Owns the World's Land? A global baseline of formally recognized indigenous and community land rights". <https://www.iccaconsortium.org/wp-content/uploads/2015/08/legal-example-the-tragedy-of-public-lands-2011.pdf>. Some estimates are as high as 65% or more of land globally. ILC/CIRAD (2011). "The tragedy of public lands: The fate of the commons under global commercial pressure". <https://www.iccaconsortium.org/wp-content/uploads/2015/08/legal-example-the-tragedy-of-public-lands-2011.pdf>
- 18 Indigenous people alone make up 5% of the global population and hold 20–25% of the world's land. United Nations Department of Economic and Social Affairs (UNDESA) (n.d.). "Indigenous Peoples". <https://www.un.org/development/desa/indigenouspeoples/mandated-areas1/environment.html>
- 19 Global Land Programme (2022). "Ten Facts About Land Systems for Sustainability: A Report for Policy and Practice". [http://10facts.glp.earth/wp-content/uploads/2022/02/GLP\\_Journal\\_r3\\_hi.pdf](http://10facts.glp.earth/wp-content/uploads/2022/02/GLP_Journal_r3_hi.pdf)
- 20 RRI (2015). "Who Owns the World's Land?", op. cit. Only 26.7% of IPLC land in Africa is legally recognised, the smallest proportion of any region. See L. Alden Wily (2016). "Customary tenure: remaking property for the 21st century". In M. Graziadei and L. Smith (eds). "Comparative Property Law: Global Perspectives". Edward Elgar. In a recent study of 42 countries (covering 49% of global land), IPLCs were found to hold 49.2% of national area. They held some legal rights to 26.3% of this land, while 22.9% of the land was held under custom without legal rights. RRI (2020). "Estimate of the area of land and territories of Indigenous Peoples, local communities, and Afro-descendants where their rights have not been recognized". <https://rightsandresources.org/wp-content/uploads/Area-Study-v2021.pdf>
- 21 Women constitute less than 20% of the world's landholders but make up an estimated 43% of the agricultural labour force. UN Working Group on the issue of discrimination against women in law and in practice (2017). "Insecure land rights for women threaten progress on gender equality and sustainable development". <https://www.ohchr.org/sites/default/files/Documents/Issues/Women/WG/Womenslandright.pdf>
- 22 Intergovernmental Panel on Climate Change (IPCC) (2019). "Climate Change and Land". <https://www.ipcc.ch/srccl/>.
- 23 ClimateWatch. "Historical GHG Emissions". [https://www.climatewatchdata.org/ghg-emissions?breakBy=sector&chartType=area&end\\_year=2016&gases=all-ghg&regions=LAC&sectors=agriculture%2Cland-use-change-and-forestry&source=CAIT&start\\_year=1990](https://www.climatewatchdata.org/ghg-emissions?breakBy=sector&chartType=area&end_year=2016&gases=all-ghg&regions=LAC&sectors=agriculture%2Cland-use-change-and-forestry&source=CAIT&start_year=1990)
- 24 T.M. Rosan et al. (2021). "A multi-data assessment of land use and land cover emissions from Brazil during 2000–2019". Environmental Research Letters, 16(2021) 074004. <https://iopscience.iop.org/article/10.1088/1748-9326/ac08c3/pdf>
- 25 Indonesia is the world's second largest AFOLU emitter, with about 63% of GHG emissions originating from AFOLU. In 2015, however, the number of peatland fires spiked and AFOLU accounted for 79% of Indonesia's total GHG emissions. See L. Tacconi and M.Z. Muttaqin (2019). "Reducing emissions from land use change in Indonesia: An overview". Forest Policy and Economics, Vol. 108, November 2019. <https://iopscience.iop.org/article/10.1088/1748-9326/ac08c3/pdf>; R. Pidcock (2015). "Indonesian fires now on a par with Brazil's total annual emissions". CarbonBrief. <https://www.carbonbrief.org/indonesian-fires-now-on-a-par-with-brazils-total-annual-emissions>; and World Resources Institute (n.d.). "Forests and Landscape in Indonesia". <https://www.wri.org/initiatives/forests-and-landscapes-indonesia>

- 26 L. Runsten and M.-L. Tapio-Bistrom (2011). "Land Tenure, Climate Change Mitigation and Agriculture". FAO Mitigation of Climate Change in Agriculture (MICCA) Programme. <https://www.fao.org/climatechange/30353-0c11859e8b0cac7aabe39520498b2df22.pdf>
- 27 European Environment Agency (2015). "Agriculture and Climate Change". <https://www.eea.europa.eu/signals/signals-2015/articles/agriculture-and-climate-change#:~:text=Agriculture%20contributes%20to%20climate%20change&text=At%20every%20stage%2C%20food%20provisioning,oxide%2C%20two%20powerful%20greenhouse%20gases>.
- 28 R. Zinn (2015). "Food, farming and climate change: it's bigger than everything else". GRAIN. [https://grain.org/bulletin\\_board/entries/5196-food-farming-and-climate-change-it-s-bigger-than-everything-else](https://grain.org/bulletin_board/entries/5196-food-farming-and-climate-change-it-s-bigger-than-everything-else)
- 29 It is estimated that global forests were a net carbon sink of  $-7.6 \pm 49 \text{ GtCO}_2\text{e yr}^{-1}$ , reflecting a balance between gross carbon removals ( $-15.6 \pm 49 \text{ GtCO}_2\text{e yr}^{-1}$ ) and gross emissions from deforestation and other disturbances ( $8.1 \pm 2.5 \text{ GtCO}_2\text{e yr}^{-1}$ ). N.L. Harris et al. (2021). "Global maps of twenty-first century carbon fluxes". Nature Climate Change, 11, 234–240 (2021). <https://www.nature.com/articles/s41558-020-00976-6>
- 30 Intergovernmental Panel on Climate Change (IPCC) (2019). "Climate Change and Land". <https://www.ipcc.ch/srccl/>.
- 31 Millennium Ecosystem Assessment (2005). "Ecosystems and Human Well-Being: Synthesis". World Resources Institute. <https://www.millenniumassessment.org/documents/document.356.aspx.pdf>
- 32 In 2017, governments administered 72.7% of the forestland in 41 countries. Only 15.3% of forest was legally owned by IPLCs or was public forest designated by governments for IPLC use. This was still an increase from 2002, when just 10.9% of the world's forest was owned by or designated for IPLCs. Indigenous land alone accounts for at least 36% of the world's large, unbroken swathes of natural forests. IPLC land also accounts for large shares of the world's grasslands and wetlands. In 2020, the value of just four ecosystem services – carbon sequestration, biocontrol, air quality and maintaining water cycles – from the world's IPLC land was estimated at \$1.16 trillion per year. In developing this estimate, the authors assumed that just 25% of the world's land is IPLC land and that only half this land delivers the four ecosystem services. RRI (2019). "At a Crossroads: Consequential Trends in Recognition of Community-Based Forest Tenure from 2002–2017". [https://rightsandresources.org/wp-content/uploads/2019/03/At-A-Crossroads\\_RRI\\_Nov-2018.pdf](https://rightsandresources.org/wp-content/uploads/2019/03/At-A-Crossroads_RRI_Nov-2018.pdf); J.E. Fa et al. (2020). "Importance of Indigenous Peoples' land for the conservation of Intact Forest Landscapes". Frontiers in Ecology and the Environment. <https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/fee.2148>; K.K. Sangha (2020). "Global Importance of Indigenous and Local Communities' Managed Lands: Building a Case for Stewardship Schemes". Sustainability, 2020 12(19) 7839. <https://www.mdpi.com/2071-1050/12/19/7839>
- 33 IPLCs manage at least 17% of the forests, which store a collective 293,061 MtC. About 22% (217,991 MtC) of the forest carbon found in 52 tropical and subtropical countries is stewarded by IPLCs. Soil organic carbon accounts for 65% and nearly 90% of the total forest carbon managed by IPLCs in tropical and non-tropical forest countries, respectively. RRI (2018). "A Global Baseline of Carbon Storage in Collective Lands: Indigenous and Local Community Contributions to Climate Change Mitigation". [https://rightsandresources.org/wp-content/uploads/2018/09/A-Global-Baseline\\_RRI\\_Sept-2018.pdf](https://rightsandresources.org/wp-content/uploads/2018/09/A-Global-Baseline_RRI_Sept-2018.pdf)
- 34 These lands sequestered 5.6 billion Mg CO<sub>2</sub>e from 2001 to 202, an average of  $-1.4 \text{ CO}_2\text{e/ha/year}$ . The rest of the Amazon outside indigenous lands was a net emitter of GHGs at 0.6 Mg CO<sub>2</sub>e/ha/yr. More indigenous land was a carbon sink than a source in all nine Amazonian countries, with more than 99% of indigenous land area in Colombia, Ecuador, French Guiana and Venezuela a carbon sink. Of note, indigenous lands that are sinks are, on average, seven times larger than indigenous lands that are sources (98,647 ha vs. 13,451 ha). As the threats to IPLC lands increase, the carbon storage and CO<sub>2</sub> sequestration services are jeopardised. P.G. Veit (2021). "9 Facts About Community Land and Climate Mitigation". World Resources Institute. [https://files.wri.org/d8/s3fs-public/2021-10/9-facts-about-community-land-and-climate-mitigation.pdf?VersionId=ZsPx.VV6cg\\_FcQASdE62WiXpMwK3W\\_DH](https://files.wri.org/d8/s3fs-public/2021-10/9-facts-about-community-land-and-climate-mitigation.pdf?VersionId=ZsPx.VV6cg_FcQASdE62WiXpMwK3W_DH)

## TENURE SECURITY, LAND MANAGEMENT AND CLIMATE CHANGE

Tenure security provides people with assurances that they can use their land for their own preferences. It provides an expectation that a person can use land for a period of time and be free from unreasonable threats or interference from other people or entities.<sup>35</sup> Rural people with tenure security may elect to govern their land under customary tenure arrangements, use their land principally for subsistence and domestic purposes or manage land for the long-term provisioning of locally valued goods and services.

Land tenure also affects people's ability and incentive to use and manage their land.<sup>36</sup> Secure tenure can encourage or induce people to make a range of investments of labour, resources and other assets in their land by providing them with high expectations of rights over the returns.<sup>37</sup> People often have more incentives to produce goods and services when their lands and resources are secure than when they are at risk.<sup>38</sup>

The linkages between climate change and land tenure are complex and indirect. While climate change affects areas differently, in many places it is leading to changes in land productivity, adjustments in the value of land and natural resources, deeper struggles over the use, control and management of land and natural resources, and more human migration and displacement. These forces can destabilise land governance and tenure

regimes, lead to new statutory and customary tenure arrangements and create opportunities for powerful actors to claim land and natural resources.<sup>39</sup>

Climate change and associated land tenure adjustments often disrupt rural livelihoods. Rural people are not a homogenous group; they use and manage their land differently and face different pressures and incentives in the way that they use it. As such, they can have very different concerns and experiences around tenure security. The impacts of climate change are felt most keenly by vulnerable people and nations – those with the fewest means to adapt to changing environmental conditions, with few alternative livelihood options, and with little power and influence to press for supportive national policies and investments (inequality in impact).<sup>40</sup> Those who contribute the least to climate change are commonly among the most affected by its impacts and may suffer disproportionately as policy and programmatic responses to climate change may exacerbate their tenure insecurity and land inequality.

## RURAL LAND AND CLIMATE CHANGE ADAPTATION

Climate change adaptation<sup>41</sup> solutions take many shapes and forms, and often involve trade-offs. For rural people, adapting to climate change or mitigating its impacts commonly requires fundamental shifts in lifestyle and livelihood and can lead to uncertainty and conflict (**Box 1**). Such changes can lead people

to make new investments of labour and other resources in their land – to build bench terraces to capture and retain scarce rainfall, plant trees to restore landscapes and protect against soil erosion, cultivate crops better suited to the new conditions and learn skills in new land management approaches.

Secure tenure can improve the ability of rural people to adapt to climate change by increasing the incentive to invest in resilient infrastructure and sustainable land management practices (**Box 2**). As such, tenure security can encourage sound land use planning and sustainable farming and forestry practices and can reduce the chances of people engaging in high-risk activities with maladaptive outcomes. Tenure security for IPLCs can ensure recognition of their cultural stewardship over the land, provide incentives for ecosystem restoration and sound management, and promote the application of their unique knowledge of sustainable development.<sup>42</sup>

## BOX 1. AFRICA'S TRANSHUMANT PASTORALISTS AND CLIMATE CHANGE

Many pastoral groups in Africa are transhumant, migrating seasonally with grazing herds. In typical years, neighbouring agricultural and transhumant pastoralists co-exist. During the wet season, agriculturalists farm on productive lands while transhumant pastoralists exploit more marginal lands that nevertheless produce sufficient fodder for their livestock. After the final harvest, the pastoralists migrate along established corridors to the farmlands for the dry season, where they capitalise on the year-round availability of fodder while providing organic fertiliser in exchange. *Climate change has led to more years with scarce rainfall, resulting in insufficient fodder being produced on the marginal grazing lands to sustain the livestock during the wet season.* As a result, the pastoralists migrate to the farmlands before the onset of the dry season. If they arrive before the harvest, the livestock may eat or trample crops, or generate competition for water or other scarce resources. Such competition can lead to disputes that eventually escalate into violent clashes.

The IPCC report "*Climate Change 2022*" notes: "*Secure tenure arrangements are often critical for delivering successful ecosystem-based adaptation.*"<sup>43</sup> Land tenure arrangements strongly shape climate vulnerability and adaptive capacities, especially for women and other marginalised people who lack a voice in how land is used and managed. While tenure insecurity contributes to vulnerability, tenure security is linked to stronger farmers' adaptation uptake.<sup>44</sup>

35 Tenure security is the certainty that a person's rights to land will be recognised by others and protected in cases of challenges (social legitimacy). See FAO (2002). "*Land Tenure and Rural Development*". Rome: FAO. <https://www.fao.org/3/y4307e/y4307e00.htm#Contents>

36 H. Ding et al. (2016). "*Climate Benefits, Tenure Costs: The Economic Case for Securing Indigenous Land Rights in the Amazon*". World Resources Institute. [https://files.wri.org/d8/s3fs-public/Climate\\_Benefits\\_Tenure\\_Costs.pdf](https://files.wri.org/d8/s3fs-public/Climate_Benefits_Tenure_Costs.pdf)

37 K. Deininger (2003). "*Land Policies for Growth and Poverty Reduction*". World Bank/Oxford University Press. [https://documents1.worldbank.org/curated/en/485171468309336484/310436360\\_20050007001644/additional/multi0page.pdf](https://documents1.worldbank.org/curated/en/485171468309336484/310436360_20050007001644/additional/multi0page.pdf)

38 In contrast, insecure tenure can lead to encroachment on and expropriation of land. As such, weak tenure discourages rural people from making long-term investments in their lands and often encourages the over-exploitation of land and natural resources (overconsumption) to maximise short-term benefits. Significant, long-term investments are risky when people have little assurance that they will capture the resulting benefits. See F. Place (2009). "*Land Tenure and Agricultural Productivity in Africa: A Comparative Analysis of the Economics Literature and Recent Policy strategies and Reform*". World Development, Vol. 37, Issue 8, 1326-1336. [https://econpapers.repec.org/article/eeewdevel/v\\_3a37\\_3ay\\_3a2009\\_3ai\\_3a8\\_3ap\\_3a1326-1336.htm](https://econpapers.repec.org/article/eeewdevel/v_3a37_3ay_3a2009_3ai_3a8_3ap_3a1326-1336.htm)

39 USAID (2010). "*Climate Change, Property Rights, & Resource Governance*", op. cit.

40 J. Quan (2008). "*Climate Change and Land Tenure: The Implications of Climate Change for Land Tenure and Land Policy*", op. cit.

41 Climate change adaptation is the process of adjusting to current effects or expected impacts of climate change. United Nations Climate Change (n.d). "*What do adaptation to climate change and climate resilience mean?*". <https://unfccc.int/topics/adaptation-and-resilience/the-big-picture/what-do-adaptation-to-climate-change-and-climate-resilience-mean>

42 M.F. Jaksa (2006). "*Putting the 'sustainable' back in sustainable development: Recognizing and enforcing indigenous property rights as a pathway to global environmental sustainability*". [https://www.researchgate.net/publication/294452737\\_Putting\\_the\\_sustainable\\_back\\_in\\_sustainable\\_development\\_Recognizing\\_and\\_enforcing\\_indigenous\\_property\\_rights\\_as\\_a\\_pathway\\_to\\_global\\_environmental\\_sustainability](https://www.researchgate.net/publication/294452737_Putting_the_sustainable_back_in_sustainable_development_Recognizing_and_enforcing_indigenous_property_rights_as_a_pathway_to_global_environmental_sustainability)

43 IPCC (2022). "*Climate Change 2022: Impacts, Adaptation and Vulnerability*", op. cit.

44 L. Muren and C. Gornott (2022). "*The importance of different land tenure systems for farmers' response to climate change: A systematic review*". Climate Risk Management, Vol. 35. <https://www.sciencedirect.com/science/article/pii/S2212096322000262>. Other research shows that secure tenure contributes to improved well-being and environments. In another recent review of 117 studies, approximately two-thirds of the studies reported positive links between improved tenure security and human well-being or environmental outcomes. Close to half the studies that examined social and environmental outcomes reported positive impacts on both. T.-W.J. Tseng et al. (2020). "*Influence of land tenure interventions on human well-being and environmental outcomes*". Nature Sustainability, 4, 242-251 (2021). <https://www.nature.com/articles/s41893-020-00648-5.pdf>

## BOX 2. CLIMATE CHANGE ADAPTION IN INDIA

In the south-central Indian state of Telangana, droughts and severe heat waves in 2015 and 2016 that were partly attributed to climate change resulted in water shortages that threatened rainfed farms and crops. When the rains did come, they were often heavy and damaged plants, causing disease or infestations. *Beginning in 2017, several farmers with long-held family plots began using greenhouses to conserve water and protect crops from harsh downpours.* Rather than trapping heat, these greenhouses are made of breathable, aluminium-coated cloth netting that reflects sunlight, reducing the temperature inside. The greenhouses are also fitted with drip-irrigation systems that allow farmers to use an average of 90% less water than their neighbours who continued farming on their rain-fed plots. Such greenhouses have now sprung up in other parts of Telangana as well as in neighbouring Indian states.

## RURAL LAND AND CLIMATE CHANGE MITIGATION

Rural people and their land, especially IPLC forestland, can also contribute to mitigating climate change.<sup>45</sup> A large body of literature assessing the effectiveness and impacts of IPLC land management approaches shows that tenure-secure indigenous lands exhibit low forest loss and deforestation rates, and high carbon content.<sup>46</sup> Recent studies have helped to establish whether and to what extent IPLC management actually leads to changes in forest outcomes (cause and effect relations).<sup>47</sup> In the Amazon in Bolivia, Brazil and Colombia, the average annual deforestation rates from 2000 to 2012 in indigenous lands were two to three times lower than in similar lands not managed by indigenous people.<sup>48</sup> In Panama, the presence of indigenous people on legally established indigenous land, together with protected areas, explained a higher rate of success in avoided deforestation from 1992 to 2008 compared with other land tenure categories.<sup>49</sup>

Various factors and incentives can enable and encourage rural people to restore and sustainably manage their land.<sup>50</sup> With land and labour being the most common endowments used by rural people to produce food and other necessities, attention has focused on the role of tenure security in land management, including forest conservation and ecosystem restoration.<sup>51</sup>

Recent studies that draw causal inferences have substantiated the role of tenure security in forest management. In the Peruvian Amazon, the titling of indigenous lands from 2002 to 2005 reduced forest clearing by more than three-quarters and forest disturbance by two-thirds in the first two years.<sup>52</sup> In the Brazilian Amazon, titled indigenous lands produced a 66% reduction in deforestation from 1982 to 2016 (the effect did not exist in untitled indigenous lands).<sup>53</sup> Sustainably managed land can enhance productivity, boost local income and discourage unsustainable practices.<sup>54</sup>

The mitigation potential of agriculture is also large.<sup>55</sup> Perhaps 70% of this potential can be realised with smallholder farmers in developing countries. About 90% of the agricultural mitigation potential lies in increasing carbon sinks, primarily through sequestering carbon in the soil.<sup>56</sup> Agro-ecology, permaculture, agroforestry, improved grazing land management, crop rotations and fallows, residue management, reduced tillage and the restoration of degraded lands can contribute to climate mitigation. Tenure security is a prerequisite for successful implementation of climate mitigation efforts in agriculture.<sup>57</sup>

45 Climate change mitigation refers to avoiding and reducing heat-trapping GHG emissions into the atmosphere to prevent the planet from warming to extreme temperatures. Mitigation actions to reduce GHG emissions will take decades to affect rising temperatures, requiring people to adapt to climate changes and their impacts.

46 A recent FAO literature review concluded that, "(o)n average, the forests in the indigenous and tribal territories have been much better conserved than other forests in Latin America and the Caribbean, and their low carbon emissions reflect that. In just about every country in the region indigenous and tribal territories have lower deforestation rates than other forest areas." FAO (2021). "Forest governance by indigenous and tribal people: An opportunity for climate action in Latin America and the Caribbean". <https://www.fao.org/documents/card/en/c/cb2953en>

47 The studies applied experimental and quasi-experimental approaches to draw causal inferences by controlling for pre-existing characteristics.

48 In Bolivia, there was a 43% to 67% reduction in deforestation rates; in Brazil, a 49% to 88% reduction; and in Colombia, a 3% to 67% reduction. A. Blackman and P. Veit (2018). "Titled Amazon Indigenous Communities Cut Forest Carbon Emissions". *Ecological Economics*, Vol. 153, November 2018, pp.56-67. <https://reader.elsevier.com/reader/sd/pii/S0921800917309746?token=80A693D44019F74B824056B60158F80A9E2FD777910CB971643E38C00643EAF3001253183DDFC9FF6DCD5350DD5289E&originRegion=us-east-1&originCreation=20220307202035>

49 G. Vergara-Asenjo and C. Potvin (2014). "Forest protection and tenure status: The key role of indigenous peoples and protected areas in Panama". *Global Environmental Change*, September 2014, pp.205-215. <https://reader.elsevier.com/reader/sd/pii/S0959378014001289?token=F7ECD021E93AC5E3A48AF404696BBA66D3A24B81A84E1FBEEAFB8A30AA2CC7DFFE02E82677498EAE4C2F867DDB27C8CE&originRegion=us-east-1&originCreation=20220307202127>

50 Including customary practices, supportive national policy, strong democratic local institutions and positive economic incentives.

51 A recent literature review "confirmed the existence of a large and growing literature in support of the proposition that strong indigenous/local tenure is associated with forest management outcomes that are at least as good or better than outcomes for areas owned and managed by the State (such as protected areas)." F. Seymour, T. La Vina and K. Hite (2014). "Evidence linking community-level tenure and forest condition: An annotated bibliography". *Climate and Land Use Alliance*. [https://www.climateandlandusealliance.org/wp-content/uploads/2015/08/Community\\_level\\_tenure\\_and\\_forest\\_condition\\_bibliography.pdf](https://www.climateandlandusealliance.org/wp-content/uploads/2015/08/Community_level_tenure_and_forest_condition_bibliography.pdf)

52 A. Blackman, L. Corral, E. Santos Lima and G.P. Asner (2017). "Titling indigenous forests protects forests in the Peruvian Amazon". *PNAS*, Vol. 114, No. 16. <https://www.pnas.org/doi/pdf/10.1073/pnas.1603290114>

53 K. Baragwanath and E. Bayi (2019). "Collective property rights reduce deforestation in the Brazilian Amazon". *PNAS*, Vol. 117, No. 34. <https://www.pnas.org/doi/pdf/10.1073/pnas.1917874117>. In Benin, the titling of community land resulted in a reduction in tree cover loss of around 20% and a reduction in fires of 5% from 2009 to 2017. L. Wren-Lewis, L. Becerra-Valbuena and K. Hounghbedji (2020). "Formalizing land rights can reduce forest loss: Experimental evidence from Benin". *Science Advances*, Vol. 6, No. 26. <https://www.science.org/doi/10.1126/sciadv.abb6914>

54 D. Gilmour (2016). "Forty years of community-based forestry: A review of its extent and effectiveness". *FAO Forestry Paper 176*. <https://www.fao.org/3/i5415e/i5415e.pdf>

55 The equivalent of about 6 billion tonnes of CO<sub>2</sub>/year. L. Runsten and M.-L. Tapio-Bistrom (2011). "Land Tenure, Climate Change Mitigation and Agriculture", op. cit.

56 Intergovernmental Panel on Climate Change (IPCC) (2019). "Climate Change and Land". <https://www.ipcc.ch/srcl/>.

57 L. Runsten and M.-L. Tapio-Bistrom (2011). "Land Tenure, Climate Change Mitigation and Agriculture", op. cit.

## THREE CRITICAL CHALLENGES

Multiple, often location-specific challenges confound efforts to secure tenure for rural people to effectively adapt to climate change and contribute to climate mitigation. Three hurdles are common across many rural landscapes and particularly challenging to overcome or mitigate. Unless addressed, these hurdles can contribute to deepening the climate crisis.

### RURAL LAND AND SUSTAINABLE LAND USE ARE UNDER THREAT

Rural land and the sustainable land management practices of rural people are under growing threat. Competition for land is intensifying as global demand for foods, fuels, minerals and other products grows. Companies and investors are scrambling to acquire land,<sup>58</sup> including a considerable amount of land held by rural people, and securing it for long periods of time (Box 3), affecting land rights and exacerbating inequalities. Governments and local elites are taking control of rural land for private gain and as a patronage resource.<sup>59</sup> National laws in many countries include provisions designed to empower rural people and safeguard their lands,<sup>60</sup> but they do not establish the strong legal protections needed for them to secure their land.

Rural people are also undermined when governments allocate the rights to natural resources—oil, minerals, wildlife and trees—on their land to outsiders.<sup>61</sup> In the Amazon (excluding French Guiana and Suriname), more than 20% of indigenous land overlaps with mining concessions or illegal mining, much of it in Venezuela, Brazil and Colombia.<sup>62</sup>

### BOX 3. SOY PRODUCTION IN PARAGUAY

Paraguay is the world's sixth-largest soy producer. In eastern Paraguay, smallholder farmers and indigenous peoples are caught between a state-sponsored agribusiness industry that takes their land for export-oriented soybeans and poisons the air, soil and water and a climate emergency that puts even more pressure on their already fragile ability to feed themselves. Much of this land **had been held by smallholder farmers and indigenous peoples before it was taken from them by the government.** While the government has granted a few indigenous people some land, evictions continue. In November 2021 in the soy-producing department of Caaguazú, **riot police forcibly evicted 70 indigenous families**, destroying their houses and temple and burning their lands. This followed the enactment of a new land law in September 2021 that applies stiff prison sentences to parties found guilty of occupying private land, which critics argue targets indigenous peoples and smallholder farmers. But increasingly, **rural people, with women at the forefront, are organising to reclaim control of their lives.** They are working to protect their food sovereignty, indigenous seeds, natural medicinal resources and traditional, ancestral knowledge.

Indigenous lands that experienced mining from 2000 to 2015 had higher rates of forest loss than indigenous lands without mining.<sup>63</sup>

As well as exacerbating inequalities (including of power, wealth and land), when rural people are involuntarily or forcibly displaced from their land and resettled,<sup>64</sup> or the land they hold becomes unproductive due to climate change or other factors, economic and social hardships often follow;<sup>65</sup> many people fall deep into poverty, are forced to migrate and experience social exclusion. When rural people lose their land or are otherwise harmed by degradation, national laws do not always provide them with fair or adequate compensation for their losses.<sup>66</sup>

### GOVERNMENTS ARE FAILING TO PROTECT RURAL LAND RIGHTS

Effective implementation and enforcement of laws designed to strengthen tenure security and protect rural land are needed for rural people to adapt to climate change and contribute to climate mitigation. While customary tenure systems historically have provided IPLCs and other rural people with tenure security, today customary laws and institutions are challenged, weakened and, in many places, no longer able to safeguard land for communities.

Governments have the responsibility to protect land rights. The laws designed to safeguard rural lands, however, are often unevenly applied or poorly enforced by governments. In the absence of effective law enforcement, rural people suffer. Land corruption<sup>67</sup> and extralegal acquisitions of rural land are widespread,<sup>68</sup> encroachment and illegal activities (e.g. illegal mining and logging) are common, citizen rights of participation and consultation are often violated, and companies do not always implement social and environmental safeguards when operating on rural land.<sup>69</sup>

The effective delivery of public services in rural regions can require more resources and involve more public servants than in urban settings.<sup>70</sup> Few governments, however, provide the needed investments. Often, local police and other government agencies are not fully resourced, properly trained and resourced or sufficiently motivated to ensure that they can fulfil their roles. In some countries, the budgets of crucial local agencies have been slashed and senior staff furloughed or let go (Box 4).

58 J. Lay et al. (2021). "Taking Stock of the Global Land Rush: Few development benefits, many human and environmental risks. Analytical Report III". Land Matrix. [https://landmatrix.org/documents/129/Land\\_Matrix\\_2021\\_Analytical\\_Report\\_revised\\_22112021-FINAL.pdf](https://landmatrix.org/documents/129/Land_Matrix_2021_Analytical_Report_revised_22112021-FINAL.pdf)

59 J.M. Klopp (2012). "Deforestation and democratization: patronage, politics and forests in Kenya". Journal of Eastern African Studies, Vol. 6, Issue 2. <https://www.tandfonline.com/doi/abs/10.1080/17531055.2012.669577>

60 L. Alden Wily (2018). "Collective Land Ownership in the 21st Century: Overview of Global Trends". Land, 2018 7(2), 68. <https://www.mdpi.com/2073-445X/7/2/68/htm>

61 In many countries, high-value resources—oil, natural gas, minerals, wildlife and trees—are the property of the state or held in trust by the government for the people. Governments often allocate the rights to these resources to external entities and grant them broad authority to enter and use land held by rural people, with few requirements to consult with the landholders or obtain their consent.

62 P. Quijano Vallejos, P.G. Veit, P. Tipula and K. Reytar (2018). "Undermining Rights: Indigenous Lands and Mining in the Amazon". World Resources Institute. [https://files.wri.org/d8/s3fs-public/Report\\_Indigenous\\_Lands\\_and\\_Mining\\_in\\_the\\_Amazon\\_web\\_1.pdf](https://files.wri.org/d8/s3fs-public/Report_Indigenous_Lands_and_Mining_in_the_Amazon_web_1.pdf)

63 Ibid. In Bolivia, Ecuador and Peru, the rate was at least three times higher on indigenous land with mining than land where no mining was taking place; in Colombia and Venezuela, the rate was one to two times higher.

64 M.M. Cernea and J.K. Maldonado (eds) (2018). "Challenging the Prevailing Paradigm of Displacement and Resettlement: Risks, Impoverishment, Legacies, Solutions". Routledge. <https://www.routledge.com/Challenging-the-Prevailing-Paradigm-of-Displacement-and-Resettlement-Risks/Cernea-Maldonado/p/book/9781138060517>

65 E.B. Barbier (2000). "The Economic Linkages Between Rural Poverty and Land Degradation: Some Evidence from Africa". Agriculture Ecosystems & Environment, 82(1):355-370. [https://www.researchgate.net/publication/222076655\\_The\\_Economic\\_Linkages\\_Between\\_Rural\\_Poverty\\_and\\_Land\\_Degradation\\_Some\\_Evidence\\_from\\_Africa](https://www.researchgate.net/publication/222076655_The_Economic_Linkages_Between_Rural_Poverty_and_Land_Degradation_Some_Evidence_from_Africa)

66 P.G. Veit, R. Nshala, M. Ochieng' Odhiambo and J. Manyindo (2008). "Protected Areas and Property Rights: Democratizing Eminent Domain in East Africa". World Resources Institute. [http://pdf.wri.org/protected\\_areas\\_and\\_property\\_rights.pdf](http://pdf.wri.org/protected_areas_and_property_rights.pdf)

67 Transparency International (2018). "Topic Guide on Land Corruption". <https://knowledgehub.transparency.org/product/topic-guide-on-land-corruption>

68 Land Matrix. <https://landmatrix.org/>

69 L. Notess et al. (2017). "The Scramble for Land Rights: Reducing Inequity Between Communities and Companies". World Resources Institute. <https://files.wri.org/d8/s3fs-public/scramble-land-rights.pdf>

70 OECD (2010). "Strategies to Improve Rural Service Delivery". [https://www.oecd-ilibrary.org/urban-rural-and-regional-development/strategies-to-improve-rural-service-delivery\\_9789264083967-en](https://www.oecd-ilibrary.org/urban-rural-and-regional-development/strategies-to-improve-rural-service-delivery_9789264083967-en)

#### BOX 4. UNDERMINING LAW ENFORCEMENT IN BRAZIL

Since 2019, *changes have been made to key indigenous people and environmental agencies in Brazil*. The government has cut the budget and staff of the Fundação Nacional do Índio (FUNAI), the government agency responsible for establishing and implementing policies related to indigenous peoples. It has also cut the budgets and staff of Brazil's principal environmental agencies, including the Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (IBAMA), responsible for environmental protection, and the Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio), responsible for managing federal conservation areas. Enforcement measures such as fines, warnings and the seizure or destruction of illegal equipment have been scaled back. These changes have emboldened land grabbers and triggered *a sharp rise in incursions into indigenous land, which has catalysed and intensified rural confrontations*. Indigenous people defending their land have been targeted, threatened, intimidated and murdered. These changes have also corresponded to a significant uptick in land grabbing, illegal activities, fires and deforestation in the Brazilian Amazon. Illegal mining, principally artisanal and small-scale mining of gold, has grown exponentially in recent years.

#### LAND AND ENVIRONMENTAL DEFENDERS ARE UNDER THREAT

Where governments have failed to protect land rights, many rural people have acted to defend their land from threats. They are monitoring their land, evicting intruders, confiscating equipment and taking disputes to court. Land disputes between rural people and their neighbours, government or companies, including climate change-driven disputes, are on the rise and growing more dangerous. When rural landholders stand up for their land rights, intimidation and violence can ensue.<sup>71</sup>

Around the world, land and environmental defenders (LEDs) face growing threats in retaliation for their actions.<sup>72</sup> These may involve surveillance, stigmatisation,<sup>73</sup> harassment, criminalisation of their efforts, arrests and detention, false criminal charges and civil actions, death threats and acts of physical violence including torture and murder. Threats to LED organisations include burdensome registration and government reporting requirements, strategic lawsuits against public participation suits, restrictions on funding and other regressive laws and regulations.

Women LEDs are especially vulnerable, facing gender-specific threats and gendered differential impacts.

Women defenders are prone to multiple forms of discrimination such as rape, sexual violence and abuse, as well as criticism and hostility from their own families and society as women challenging traditional notions of gender roles.<sup>74</sup>

71 Front Line Defenders (2020). "Front Line Defenders Global Analysis 2020". [https://www.frontlinedefenders.org/sites/default/files/fl\\_d\\_global\\_analysis\\_2020.pdf](https://www.frontlinedefenders.org/sites/default/files/fl_d_global_analysis_2020.pdf)

72 A. Scheidel et al. (2020). "Environmental conflicts and defenders: A global overview". *Global Environmental Change*, Vol. 63, July 2020. <https://reader.elsevier.com/reader/sd/pii/S0959378020301424?token=802B4ECFE7CE1E86B1D99940B1B4F366185DB55466B2514F1E22EE871159F7C34862F803813B3EED002017E668B399E8&originRegion=us-east-1&originCreation=20220310165852>

73 They are often labelled by governments as "anti-development", "anti-state", "traitors", "terrorists" or "criminals".

74 Land Rights Now (2019). "Criminalised for defending our planet". [https://www.landrightsnow.org/wp-content/uploads/2018/09/2019-11-en-land-rights-now-defending-our-planet-brochure\\_print-no-cropmarks.pdf](https://www.landrightsnow.org/wp-content/uploads/2018/09/2019-11-en-land-rights-now-defending-our-planet-brochure_print-no-cropmarks.pdf)

Reports of dehumanising psychological violence, sexual assault, rape, mutilation and murder have increased in many countries.

LEDs are among the most threatened of all human rights defenders.<sup>75</sup> In 2018, at least 164 LEDs were killed around the world,<sup>76</sup> with many more threatened, harassed, stigmatised, attacked or jailed. In 2019, 212 LEDs were killed, a 30% increase from 2018.<sup>77</sup> In 2020, 227 LEDs were killed – an average of more than four people a week, making it the most dangerous year on record.<sup>78</sup> Indigenous people are particularly at risk given their unique vulnerabilities, including living in remote areas far from external support. From 2015 to 2020, over a third of all LEDs murdered were indigenous people.

75 In 2020, at least 331 human rights defenders were killed, including 227 LEDs, 86 of whom worked specifically on indigenous rights. ILC (2020). "A Crucial Gap: The Limits to Official Data on Attacks Against Defenders and Why It's Concerning". [https://d3o3cb4w253x5q.cloudfront.net/media/documents/a\\_crucial\\_gap.pdf](https://d3o3cb4w253x5q.cloudfront.net/media/documents/a_crucial_gap.pdf)

76 Global Witness (2019). "Enemies of the State?". <https://www.globalwitness.org/en/campaigns/environmental-activists/enemies-state/>

77 Global Witness (2020). "Defending Tomorrow". <https://www.globalwitness.org/en/campaigns/environmental-activists/defending-tomorrow/>

78 In 2020, over half of the attacks took place in Colombia, Mexico and the Philippines, with 65, 30 and 29 LEDs killed respectively. About 70% of those killed were defending forests. In Brazil and Peru, nearly three-quarters of recorded attacks took place in the Amazon. Since at least 2012, Latin America has ranked as the worst-affected region. These figures are likely to be lower than the reality as attacks on LEDs and other human rights defenders are under-reported by many governments. Front Line Defenders (2020). "Front Line Defenders Global Analysis 2020", op. cit.

## NEXT STEPS

A number of next steps designed to secure land tenure for rural people to better adapt to climate change and contribute to climate mitigation are set out below.

### ▶ ENGAGE RURAL PEOPLE IN DECISION-MAKING PROCESSES

Climate change and other global challenges cannot be solved by governments alone; public participation is crucial to democratic governance, better decision-making and people-centred land governance. Multiple international instruments (the Rio Declaration on Environment and Development<sup>79</sup> and various climate agreements) provide that people who are affected by a decision have the rights to engage in and provide meaningful input into the decision-making process.

For indigenous peoples, their claims of sovereignty over their lands and self-determination include the right of Free Prior and Informed Consent (FPIC) over impactful activities.<sup>80</sup> Some global agreements provide for the right of FPIC, such as the International Labour Organization's Indigenous and Tribal Peoples Convention (ILO Convention 169) of 1989<sup>81</sup> when relocation is considered necessary and the 2007 United Nations Declaration on the

Rights of Indigenous Peoples (UNDRIP Article 19).<sup>82</sup> Many countries have laws that require governments to consult citizens on legislative measures or other actions that might affect them. Few governments, however, have enacted laws that recognise the right of FPIC for indigenous peoples or other rural people. Moreover, consultations undertaken by governments (and companies) are inconsistent and not always rigorous.<sup>83</sup> National laws must provide citizens with strong participation rights, ideally with consent required for all decisions that affect them,<sup>84</sup> and responsible government officials should be trained in facilitating effective consultations. Consultation procedures should require specific efforts to obtain input from women and disenfranchised people.

Governments must also ensure that existing climate policy and plans provide opportunities for open and transparent processes and the meaningful participation of rural people at each stage of the decision-making process. The participation of rural people is particularly crucial in negotiating new rules of access to land as a result of climate change. This engagement should include governments integrating local practice and technologies into their NDCs, especially given the rich knowledge of rural people.

### ▶ SECURE TENURE AND PROTECT RURAL LAND RIGHTS

Indigenous peoples and other rural people have inherent rights to the lands and natural resources that they have traditionally occupied and used.<sup>85</sup> While tenure security can be established through various interventions, two sets of actions are urgently needed:

**Enact supportive legislation:** Like all citizens, rural people need strong, secure land rights to effectively protect, use and manage their lands for their own development purposes. Not all countries, however, have laws that recognise the land of rural people or customary tenure arrangements. Some do not acknowledge that rural people have the legal capacity to hold land rights. And where laws exist that recognise customary tenure arrangements for rural land, they are often weak and insufficient. Governments should review and, if necessary, reform their laws to ensure that rural people have the rights and authorities they need to effectively govern their land. Laws and practices that undermine rural land rights should be identified, reviewed, repealed and replaced.

**Register and document rural land:** Most land held by rural people is not mapped, registered or documented. While titling is not a guarantee of tenure security (and can bring challenges<sup>86</sup>), formalisation of rural land should be a policy priority for governments. In some countries, there has been a slowdown in the legal recognition

79 UN General Assembly (1992). "Rio Declaration on Environment and Development". A/CONF.151/26 (Vol. 1). [https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A\\_CONF.151\\_26\\_Vol.I\\_Declaration.pdf](https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf)

80 FPIC is a collective right embedded in the right to self-determination. It helps to ensure that indigenous peoples are consulted and that they participate in decision-making on all development matters that affect them. FPIC is central to indigenous peoples protecting their lands and natural resources. D. Hunter, J. Salzmann and D. Zaelke (2021). "International Environmental Law and Policy". Foundation Press.

81 International Labour Organization (1989). "Indigenous and Tribal People's Convention, 1989 (No. 169)". [https://www.un.org/en/genocideprevention/documents/atrocities-crimes/Doc.16\\_Indigenous](https://www.un.org/en/genocideprevention/documents/atrocities-crimes/Doc.16_Indigenous) and Tribal Peoples Convention.pdf

82 United Nations (2007). "United Nations Declaration on the Rights of Indigenous Peoples". [https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP\\_E\\_web.pdf](https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf). The IPCC report, "Climate Change 2022: Impacts, Adaptation and Vulnerability", notes: "There is high confidence that implementing social safeguards such as a Free Prior and Informed Consent (FPIC) is vital to adequately involving Indigenous Peoples and local communities...". IPCC (2022). "Climate Change 2022: Impacts, Adaptation and Vulnerability", op. cit.

83 The extent of consultation often depends on government or investor goodwill. While some spend significant time and resources on consultation, others avoid full consultation. In some cases, consultations are manipulated, abridged or inadequate, and do not meet mandated conditions; they may consist of cursory meetings with community leaders, excluding women or minority groups. In other cases, consultations are coopted, with local leaders bribed into supporting the proposed intervention.

84 In many countries, economic development, conservation and other purposes are recognised as national or public interests, allowing governments to acquire land in a compulsory manner. Governments should only have the authority to override refusal of consent by rural people to developments that are in the narrowly defined national or public interest. P.G. Veit et al. (2008). "Protected Areas and Property Rights", op. cit.

85 Inter-Agency Support Group on Indigenous Peoples' Issues (2014). "Lands, Territories and Resources". [https://www.un.org/en/ga/69/meetings/indigenous/pdf/IASG\\_Paper\\_Lands\\_territories\\_and\\_resources-rev1.pdf](https://www.un.org/en/ga/69/meetings/indigenous/pdf/IASG_Paper_Lands_territories_and_resources-rev1.pdf)

86 P. Lavigne Delaville (2014). "Competing conceptions of customary land rights registration (rural land maps PFRs in Benin): methodological, policy and polity issues". HAL Open Science. <https://hal.ird.fr/ird-01113264/document>

and formalisation of rural land due to regulatory reforms and other actions that have resulted in administrative and other barriers. The laws, enabling regulations and guidelines for land formalisation should provide for simple, streamlined land registration and documentation procedures that are neither costly nor time-consuming and are available to rural people. Governments should provide responsible agencies with the human and financial resources needed to administer and document all rural lands.

### ► ENSURE EFFECTIVE IMPLEMENTATION AND LAW ENFORCEMENT

For rural people to realise their land rights and address climate challenges, laws must be effectively implemented and enforced. Governments must use their authority to monitor rural land, stop illegal operations, remove illegal occupants, confiscate their equipment and hold them accountable for their actions. Government efforts should not be limited to prosecuting illegal operators but should also include the individuals who hire, finance or otherwise facilitate illegal operations.

Governments should refrain from granting industrial, agricultural and natural resource concessions on rural land without the full participation and consent of the rural landholders (see above). Where concessions have been granted, the operators must conform with the law and meet the provisions of their licensing and concession agreements. Governments must strengthen their oversight of these industries to ensure compliance and must take punitive measures when operators are circumventing the law.

Effective law enforcement may require building government capacity, investing in new technologies to better administer land (e.g. computerised land

information systems and open data systems) and to monitor it (e.g. drones and satellite imagery) and providing training in sustainable land management. Governments may also need to strengthen national social and environmental safeguards to meet international standards and ensure that industries operate safely and sustainably. At the same time, companies can no longer operate without social legitimacy and must become better corporate citizens and take more responsibility in meeting safeguards.

Consumer country governments can help by making due diligence compulsory in global value chains. In February 2022, the European Commission adopted a proposal for a Directive on Sustainable Corporate Due Diligence, which aims to prevent and remedy human rights and environmental abuses in global value chains.<sup>87</sup> Under the proposal, companies will be required to identify and, where necessary, prevent or mitigate any adverse impacts from their activities on human rights and on the environment.

### ► PROVIDE INCENTIVES FOR SOUND LAND USE MANAGEMENT

While secure land tenure creates incentives for people to invest in their land, the types of investment and their effects on land can depend on a range of other factors. In some places, customs regarding land management are consistent with sustainability, ensuring that those lands continue to provide vital social, economic and environmental benefits. Elsewhere, economic incentives, such as payment for ecosystem services (PES) schemes that reward people who conserve forests and protect biodiversity can further encourage sustainable land management.<sup>88</sup> Costa Rica's PES programme, established in 1996, provides payments to landowners for the

ecosystem services their lands produce. Indigenous peoples receive significant resources from the programme, which is one of the main sources of cash in their economies.<sup>89</sup>

Governments often package incentives with restrictions on how land is used or managed, such as prohibiting the commercial exploitation of forest products. In the Brazilian Amazon, the 1998 Law of Forest Crimes obliges landholders to preserve legal forest reserves in an area equal to 80% of the total landholding.<sup>90</sup> Bundling supportive incentives with restrictions can protect against changing customs and external political and economic pressure, increase tenure security and reduce conflicts.<sup>91</sup>

At the same time, incentives that have outcomes contrary to sustainable land management should be removed. These include policies or other measures that encourage the clearing of forests for other land uses,<sup>92</sup> such as cash crops or pasture for livestock. Government subsidies for agriculture can exacerbate deforestation, undermining rural climate mitigation opportunities.<sup>93</sup>

The climate community<sup>94</sup> must also re-examine their investments to ensure that their actions benefit rural people and do not expose them to additional risks (the principle of "do no harm"<sup>95</sup>). Some well-intended mitigation initiatives such as Reduced Emissions from Deforestation and Forest Degradation (REDD+) have not provided significant support to rural people and, in some cases, have led to the expropriation of land and natural resources from poor and vulnerable peoples.<sup>96</sup>

### ► PROTECT LAND AND ENVIRONMENTAL DEFENDERS

There is an urgent need to achieve more rigorous protections for LEDs, especially women and indigenous people given their unique vulnerabilities. Governments have obligations and the authority to protect all citizens. While many governments acknowledge the threats to LEDs, few have prioritised actions to significantly improve their protection or reduce those threats.<sup>97</sup> Attacks on LEDs continue to be under-reported and,

89 I. Porras, D.N. Barton, A. Chacón-Cascante and M. Miranda (2013). "Learning from 20 Years of Payments for Ecosystem Services in Costa Rica". IIED. <https://pubs.iied.org/sites/default/files/pdfs/migrate/16514IIED.pdf>

90 P. Pacheco and J.H. Benatti (2015). "Tenure Security and Land Appropriation under Changing Environmental Governance in Lowland Bolivia and Pará". *Forests*, 2015 6(2), 464-491. <https://www.mdpi.com/1999-4907/6/2/464/htm>

91 K.W. Jones et al. (2020). "The impact of paying for forest conservation on perceived security of tenure in Ecuador". *Conservation Letters*, Vol. 13, Issue 4. <https://onlinelibrary.wiley.com/doi/full/10.1111/conl.12710>

92 W. McFarland, S. Whitley and G. Kissinger (2015). "Subsidies to key commodities driving forest loss: Implications for private climate finance". ODI Working Paper. <https://cdn.odi.org/media/documents/9577.pdf>

93 UN Environment Programme (n.d.). "Fiscal incentives for agricultural commodity production: options to forge compatibility with REDD+: UN-REDD Policy Brief 7". <https://www.unep.org/resources/report/fiscal-incentives-agricultural-commodity-production-options-forge-compatibility>

94 The climate change community includes international climate instrument negotiators, national and international climate fund managers, national leaders responsible for establishing national climate goals, the practitioners responsible for implementing climate initiatives and civil society organizations (CSOs) which address climate change issues.

95 CDA (n.d.). "Do No Harm: A Brief Introduction from CDA". <https://www.cdacollaborative.org/wp-content/uploads/2018/01/Do-No-Harm-A-Brief-Introduction-from-CDA.pdf>

96 Only about 2% of REDD+ funding has been directed to indigenous lands and few of these funds reach IPLCs. Some indigenous peoples have expressed concerns that REDD+ could result in their land claims being negated by governments and corporations. They feel that REDD+ safeguards against such land grabs are weak, and that they will be left out of REDD+ project planning. Already some governments have acquired land from rural people and set it aside for climate purposes. In other places, local elites and corporations have acquired rural land, especially forestland, to capture climate finance. See USAID (2010). "Climate Change, Property Rights, & Resource Governance", op. cit.; M. Wolosin, J. Breittfeller and B. Schaap (2016). "The Geography of REDD+ Finance: Deforestation, Emissions, and the Targeting of Forest Conservation Finance". *Forest Trends*. <https://www.forest-trends.org/wp-content/uploads/imported/reddx-report-2016-final.pdf>, and M. Paquette (2016). "Some Indigenous groups wary of REDD+ following Paris Climate Agreement". <https://news.mongabay.com/2016/02/some-indigenous-groups-wary-of-redd-following-paris-climate-agreement/>

97 Some governments have taken actions that make it more difficult for LEDs. Some have pursued measures to close the space for peaceful protest and have deployed tactics to silence LEDs. Recently, some governments have used the COVID-19 pandemic to strengthen draconian measures that weaken or remove protections for LED rights. Research shows that attacks are most frequent in restricted societies. *Front Line Defenders* (2020). "Front Line Defenders Global Analysis 2020", op. cit.

87 European Commission (2022). "Just and sustainable economy: Commission lays down rules for companies to respect human rights and environment in global value chains". Press release, 23 February 2022. [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_22\\_1145](https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1145)

88 F. de Koning et al. (2011). "Bridging the gap between forest conservation and poverty alleviation: the Ecuadorian Socio Bosque program". *Environmental Science & Policy*, Vol. 14, Issue 5. <https://reader.elsevier.com/reader/sd/pii/S1462901111000657?token=8AD2E1B4ACA7A3333899D0224735A91F86D845898F13CFFC83F2619FBB0E228D527FDBDBBF0F4D74F095222281329A6&originRegion=us-east-1&originCreation=20220310180205>

whether for lack of human capacity, financial resources or political will, there are high levels of impunity for those responsible, encouraging the actors who perpetrate these crimes.

As the risks to LEDs increase, governments must establish an enabling environment that strengthens safeguards and reduces risks to them, adopt mechanisms to better monitor conflicts and attacks in near-real time, empower the government entities responsible for protecting LEDs, increase access to justice and ensure that the people responsible for threats and attacks are held accountable for their actions.

Women are increasingly at the forefront of efforts to protect rural land, are a growing vocal social force and need specific protective measures. Governments should pass laws that make femicide – the intentional killing of women or girls because they are female – a crime separate from homicide. They must also improve reporting avenues for gendered violence, produce data on femicide, create women-only police stations and special courts, and fund more women's shelters and support groups.<sup>98</sup>

LEDs are taking more precautions to carry out their activism safely and effectively, and to defend themselves from harassment and physical attacks.<sup>99</sup> Many LEDs, however, would benefit from gaining a better understanding of their legal rights, training on risk assessment information systems, learning how to better recognise threats and minimise risks, building capacity in new approaches to de-escalating confrontational situations and building skills in self-defence techniques.<sup>100</sup> LEDs should also have access to emergency funds and contact information

for legal counsel and NGOs that can provide urgent assistance and other support resources and protection mechanisms. These measure are especially important for women as they become ever more active in protecting their lands.<sup>101</sup>

► **MAKE LAND TENURE SECURITY  
A CENTRAL COMPONENT OF NATIONAL  
CLIMATE CHANGE STRATEGIES**

Given the local, national and global benefits of land tenure security, governments should make securing land for rural people a central component of their climate change strategies. Although international climate change instruments now recognise the role of tenure security in adaptation and mitigation, few governments have made securing land tenure a central component of their climate policies or plans.

Securing land tenure creates assurances that rural people can manage their land for their own purposes, establishes incentives for them to invest in land management and is a precondition for climate change adaptation and mitigation. Securing tenure is a relatively low-cost investment for governments and donors when compared with the many valuable social, economic and environmental benefits from tenure-secure rural land.<sup>102</sup> Secure land rights increase the chances of rural people effectively addressing climate change and of countries meeting national emissions reduction objectives. Rural people with secure land rights are better able to adapt to climate change impacts, and CO2 emissions in many countries would be reduced through avoided deforestation and sustainable land management. Securing rural land tenure, especially for IPLC forestland, is also a cost-effective

carbon mitigation strategy when compared with other carbon capture and storage approaches.<sup>103</sup> Tenure considerations are also crucial to the equitable distribution of benefits and the management of transaction costs in adaptation and mitigation efforts.

Governments around the world are encouraged to strengthen their NDC targets to be compatible with the climate change target of 1.5°C. In doing so, they should work with rural people to define the contribution that their lands can make to enhancing national ambition and develop initiatives to realise that contribution.

98 L.M. Stephen (2020). "A Pandemic Within a Pandemic Across Latin America". U.S. News.  
<https://www.usnews.com/news/best-countries/articles/2020-08-24/violence-against-latin-american-women-increases-during-pandemic>

99 ProDESC (2019). "Community-based Security Measures and Territory: Methodological Notes from an Integral Defense Perspective".  
[https://prodesc.org.mx/wp-content/uploads/2019/11/book-prodesc-2019-v\\_english-web-comprimido.pdf](https://prodesc.org.mx/wp-content/uploads/2019/11/book-prodesc-2019-v_english-web-comprimido.pdf)

100 P. Quijano Vallejos et al. (2018). "Undermining Rights: Indigenous Lands and Mining in the Amazon", op. cit.

101 K. Brown (2018). "Indigenous Amazonian women demand end to extraction". Mongabay.  
<https://news.mongabay.com/2018/03/indigenous-amazonian-women-demand-end-to-extraction/>

102 H. Ding et al. (2016). "Climate Benefits, Tenure Costs: The Economic Case for Securing Indigenous Land Rights in the Amazon", op. cit.

103 Ibid.

