

# PROMOTING PEACE THROUGH CLIMATE-RESILIENT FOOD SECURITY INITIATIVES

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## I. Introduction

The humanitarian–development–peace (HDP) nexus emphasizes the need to address crises through integrated approaches, aligning humanitarian, development and peacebuilding efforts. Receiving renewed momentum at the 2016 World Humanitarian Summit, integrated approaches are crucial for addressing complex, interlinked policy challenges such as food insecurity, climate- and environment-related pressures, and violent conflict (see box 1). While donor governments recognize that multisectoral and complementary approaches are more promising than siloed responses, the operationalization of the HDP nexus has been slow as countries grapple with numerous implementation barriers.<sup>1</sup>

Still, donor countries, including Germany, have increasingly piloted, designed and implemented projects that seek to align humanitarian, development and peace dimensions, build partnerships for integrated multisectoral approaches, and foster broader system connections.<sup>2</sup> Focusing on food systems is of particular importance in this context. Due to their potential capacity to sustain livelihoods and social cohesion, food systems impact the effectiveness of food security and other aid efforts in fragile contexts. However, this capacity can be undermined by conflict and climate change.

This SIPRI Research Policy Paper investigates the value of integrated approaches in tackling food insecurity by focusing on its relation to climate- and environment-related pressures, and violent conflict. It seeks to deepen donors' and aid agencies' understanding of: (a) the linkages between food (in)security, climate change and violent conflict or peace respectively; (b) ways to address vicious, and amplify virtuous, mutually reinforcing circles between these three phenomena; and (c) the role of partnerships in

<sup>1</sup> Oelke, S. et al., 'The humanitarian-development-peace (HDP) nexus: Challenges in implementation', KfW Development Research, *Development in Brief*, no. 2, 24 Mar. 2022; European Commission, *HDP Nexus: Challenges and Opportunities for its Implementation*, Final Report, Nov. 2022; and German Federal Ministry of Economic Cooperation and Development, 'The humanitarian-development-peace nexus in practice: A literature review', May 2021.

<sup>2</sup> Organisation for Economic Co-operation and Development (OECD), 'DAC Recommendation on the Humanitarian–Development–Peace Nexus', OECD Legal Instruments, OECD/LEGAL/5019, 22 Feb. 2019; and OECD, *The HDP Nexus Interim Progress Review* (OECD: 10 May 2022).

\* The research for this paper was financed by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, a federal enterprise supporting the German government in achieving its objectives in the field of international cooperation for sustainable development.

## SUMMARY

● This SIPRI Research Policy Paper examines the interconnectedness of food insecurity, climate and environmental pressures, and violent conflict, proposing strategies to enhance peacebuilding within integrated climate-resilient food security interventions. It asserts that collaborative, multisectoral programming among humanitarian, development and peacebuilding stakeholders is essential to disrupt vicious circles of food insecurity, climate challenges and conflict. Such programming should not only incorporate activities from the food security, climate adaptation and peacebuilding fields, but also seize opportunities to bolster the sustainability of food systems.

To support integrated approaches, structures rewarding collaboration and innovative financing mechanisms are necessary, along with institutionalized cooperation and area-based programming. Additionally, potential peace outcomes in integrated interventions must be clearly articulated through evidence-based theories of change, which are monitored and evaluated. To magnify peacebuilding impacts, interventions should transcend traditional community, administrative or political boundaries, embrace a long-term vision and engage government actors wherever feasible.

**Box 1. Definition and implementation of integrated approaches with a peacebuilding dimension**

An integrated approach is a framework for enhanced aid effectiveness in fragile and conflict-affected contexts. It serves to operationalize the humanitarian–development–peace (HDP) nexus and spans multiple sectors and types of activities from the humanitarian, development and peacebuilding fields. Based on the needs of the affected populations, an integrated approach can, for example, connect food security, climate adaptation and peacebuilding interventions.

Implementers incorporate peacebuilding into integrated approaches by: (a) *adding* concrete peacebuilding measures systematically to projects based on an in-depth understanding of context-specific conflict drivers; (b) *aligning* peacebuilding projects with their humanitarian and development work in the same geographical area; or (c) *partnering* with peacebuilding organizations in the same geographical area. These different implementation modes are not mutually exclusive. Key to their success is a systems perspective (or holistic view) that ensures different sectors and types of activities connect strategically to tackle complex, interlinked policy challenges for better and broader impacts.

Source: Authors' own summary.

connecting humanitarian, development and peacebuilding dimensions. The paper aims to inform efforts to enhance the effectiveness of responses to food insecurity in fragile contexts, where food crises tend to be worst.

The analysis relies on a literature review, results from SIPRI's knowledge partnership with the World Food Programme (WFP) involving fieldwork in varied conflict-affected settings, and semi-structured interviews with 15 officials from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (see annex A). Seven interviewees were based at GIZ in Germany and eight abroad. Although interviews were limited to GIZ officials and focused mainly on GIZ-supported projects for an internal GIZ report, numerous findings are relevant for other aid agencies and donors that attach importance to strengthening peacebuilding in climate-resilient food security interventions. This paper shares these findings.

The paper is divided into five sections. Section II summarizes the results of the literature review, focusing in particular on current knowledge about the relation and pathways between food insecurity, climate- and environment-related pressures, and violent conflict. Section III examines the value of integrated approaches and efforts to break vicious circles, based on the literature and complementary interviews. Section IV highlights programming implications for aid agencies. Section V concludes with recommendations for how to generate multisectoral, complementary programming and enhance peace dimensions within integrated climate-resilient food security interventions, to support transitions out of fragility.

## II. Food insecurity, climate- and environment-related pressures, and violent conflict: Current knowledge

This section summarizes the results of the literature review, with a particular focus on current knowledge about the linkages between food insecurity, climate- and environment-related pressures, and violent conflict, the pathways between these variables and integrated approaches to tackle multiple crises.

### Key findings

Three key findings emerge from the literature on the relation between food insecurity, climate- and environment-related pressures, and violent conflict. First, the three phenomena are intrinsically linked. The relation between



them is bidirectional and mutually reinforcing for each of the variables. This means that deterioration in one can trigger deterioration in the other two. While the different pathways between food insecurity, climate- and environment-related pressures, and violent conflict are well established, they are conditioned, mediated and shaped by the specific circumstances in which they take place.<sup>3</sup> Knowledge gaps remain about how these pathways work in different contexts and over time. Such gaps impact the effectiveness of donor responses.

Second, evidence suggests that treating multiple crises and vulnerabilities (such as food insecurity, climate change and violent conflict) separately does not work. Neither does eliminating complexity by breaking it down into its constituent parts. Instead, there is growing recognition that multi-sectoral, integrated interventions are more promising than sector-specific development programming in effectively tackling complex, interlinked policy challenges, such as pressures related to food insecurity, climate and the environment, and conflict. Similarly, there is increased awareness that a sustainable food systems perspective is more promising than a ‘single issue lens’ in enhancing aid effectiveness.<sup>4</sup> Taking a sustainable food systems perspective means combining three interconnected development domains and pursuing: (a) sustainable food security and nutrition; (b) inclusive and equitable economic development; and (c) environmental sustainability.<sup>5</sup>

Third, practitioners grapple with how best to operationalize the HDP nexus. There is no single method of implementing integrated approaches.<sup>6</sup> Even if effective ways of implementing integrated approaches do exist, they are restricted by financing structures.<sup>7</sup> Yet the literature identifies several good practices for implementing integrated approaches and incorporating peacebuilding considerations.<sup>8</sup> This paper substantiates each of the findings in turn.

## Key pathways

The pathways between food insecurity, climate- and environment-related pressures, and violent conflict are a complex interplay of numerous context-specific push-and-pull factors (see figure 1). As stated above, the pathways are bidirectional and both the variables and the pathways can be mutually reinforcing. Food insecurity interventions in any fragile setting benefit from identifying the mix of pathways at work to design programming that can

<sup>3</sup> Mobjörk, M., Krampe, F. and Tarif, K., ‘Pathways of climate insecurity: Guidance for policy makers’, SIPRI Policy Brief, Nov. 2020.

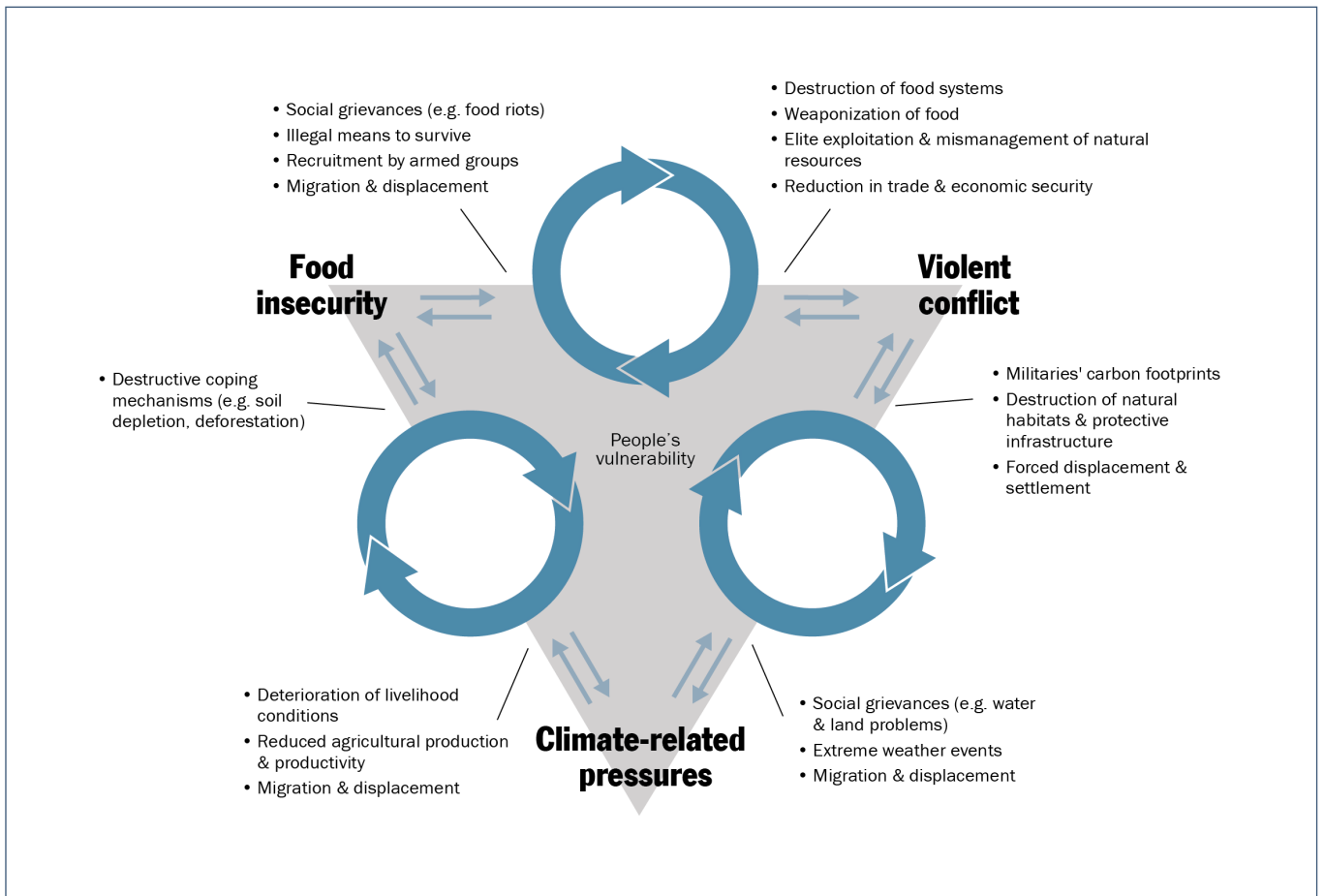
<sup>4</sup> Borman, G. D. et al., ‘Putting food systems thinking into practice: Integrating agricultural sectors into a multi-level analytical framework’, *Global Food Security*, vol. 32 (Mar. 2022).

<sup>5</sup> Food and Agriculture Organization of the United Nations (FAO), ‘Sustainable food systems: Concept and framework’, 2018; and Borman et al. (note 4).

<sup>6</sup> Brown, S. and Mena, R., *A Review of the Triple Nexus Approach in Discourse and Practice with a Focus on Islamic Relief’s Triple Nexus Programme* (Islamic Relief Worldwide: Birmingham, UK, Aug. 2021).

<sup>7</sup> Tschunkert, K. et al., ‘Financing food security: Promises and pitfalls of the humanitarian–development–peace nexus in South Sudan’, SIPRI Research Policy Paper, Jan. 2023.

<sup>8</sup> OECD, OECD/LEGAL/5019 (note 2); OECD, ‘Operationalising the “Nexus”: Principles and approaches for strengthening and accelerating humanitarian, development and peace coherence’, 19 Sep. 2018; and Delgado, C. et al., *The World Food Programme’s Contribution to Improving the Prospects for Peace* (SIPRI: Stockholm, June 2019).



**Figure 1.** Vicious circles: Pathways between food insecurity, climate- and environment-related pressures, and violent conflict

interrupt vicious circles. The examples below provide a brief overview of some of the main pathways identified by the literature: (a) from food insecurity to violent conflict and vice versa; (b) from food insecurity to climate- and environment-related pressures, and vice versa; and (c) from violent conflict to climate- and environment-related pressures, and vice versa.

*From food insecurity to violent conflict*

Food insecurity on its own is rarely the cause of violent conflict, but it can contribute to social grievances, crime, susceptibility to recruitment by armed groups, and migration and forced displacement.

- *Social grievances.* Food insecurity combined with other social grievances triggered violent riots across Africa (2007–2008) and in West Bengal (2007), Venezuela (2016) and Sri Lanka (2022).<sup>9</sup> In South Sudan, by contrast, violence related to food insecurity

<sup>9</sup> Berazneva, J., and Lee, D. R, ‘Explaining the African food riots of 2007–2008: An empirical analysis’, *Food Policy*, vol. 39 (Apr. 2013); Schneider, M., ‘*We Are Hungry! A Summary Report of Food Riots, Government Responses, and States of Democracy in 2008*’ (Department of Development Sociology, Cornell University: Ithaca, NY, 2008); Brodzinsky, S., ‘We are like a bomb: Food riots show Venezuela crisis has gone beyond politics’, *The Guardian*, 20 May 2016; and ReliefWeb, ‘Sri Lanka: Food security crisis, 2022–2023’, [n.d.].



and other social grievances typically takes the form of cattle raiding and continuous retaliatory attacks.<sup>10</sup>

- *Illegal means to survive.* Declining food security in communities with low social cohesion is associated with higher crime rates as people resort to illegal coping mechanisms. Urban and rural communities in Bangladesh, Indonesia, Jamaica, Kenya and Zambia, for example, adapted their livelihood strategies in the face of food and economic crises, pushing them over the edge of legality and generating concerns over youth criminality.<sup>11</sup>
- *Recruitment by armed groups.* Food insecurity and economic grievances can also push people to join armed groups.<sup>12</sup> The ongoing recruitment of children into armed groups in the Central African Republic and the Democratic Republic of the Congo, or into gangs in El Salvador, are examples of this.<sup>13</sup> Similarly, in Colombia, food insecurity has contributed to children dropping out of school, putting them at risk of forced recruitment into illegal armed groups.<sup>14</sup>
- *Migration and displacement.* Large waves of migrants and forcibly displaced people can—if not integrated economically and socially—lead to tensions in congested settlements or host communities, given the additional pressure on critical services and resources. Migration and changing mobility patterns are particularly linked to violent conflict between communities that lack shared institutions for conflict resolution.<sup>15</sup> Somalia’s drought-driven food crisis, for example, has led to mass displacement to Somali cities, putting water, sanitation and health services under pressure and making internally displaced person (IDP) sites the locus of conflict.<sup>16</sup> In Ethiopia, changing mobility patterns have contributed to increased tensions between pastoralist and herder communities, and between pastoralist communities themselves.<sup>17</sup> In Bangladesh, the arrival of refugees from Myanmar has led to conflict over land.<sup>18</sup>

<sup>10</sup> Wild, H. et al., ‘The militarization of cattle raiding in South Sudan: How a traditional practice became a tool for political violence’, *Journal of International Humanitarian Action*, vol. 3, no. 2 (Mar. 2018).

<sup>11</sup> Hossain, N., ‘Crime and social cohesion in the time of crisis: Early evidence of wider impacts of food, fuel and financial shocks’, *IDS Bulletin*, vol. 40, no. 5 (2009).

<sup>12</sup> Hendrix, C. and Brinkman, H.-J., ‘Food insecurity and violent conflict: Causes, consequences and addressing the challenges’, WFP Occasional Paper no. 24, July 2011.

<sup>13</sup> Blackwell, A. H. et al., ‘Drivers of “voluntary” recruitment and challenges for families with adolescents engaged with armed groups: Qualitative insights from Central African Republic and Democratic Republic of the Congo’, *PLOS Glob Public Health*, vol. 3, no. 5 (May 2023); and Delgado et al. (note 8).

<sup>14</sup> Delgado, C., *The World Food Programme’s Contribution to Improving the Prospects for Peace in Colombia* (SIPRI: Stockholm, Dec. 2020).

<sup>15</sup> van Baalen, S. and Mobjörk, M., *A Coming Anarchy? Causal Pathways from Climate Change to Violent Conflict in East Africa*, Research Report (Stockholm University/SIPRI: Stockholm, 2016).

<sup>16</sup> Broek, E. et al., ‘Somalia’, Climate, Peace and Security Fact Sheet, NUPI and SIPRI, Nov. 2022.

<sup>17</sup> Hegazi, F. et al., *The World Food Programme’s Contribution to Improving the Prospects for Peace in Ethiopia* (SIPRI: Stockholm, Apr. 2022).

<sup>18</sup> Joireman, S. F. and Haddad, F., ‘The humanitarian–development–peace nexus in practice: Building climate and conflict sensitivity into humanitarian projects’, *Current Opinion in Environmental*

*From violent conflict to food insecurity*

Violent conflict is one of the main drivers of food insecurity. Pathways from violent conflict to food insecurity include the destruction of food systems, the weaponization of food, elite exploitation/mismanagement of natural resources, and the reduction of trade and economic security.

- *Destruction of food systems.* Violent conflict can destroy the means of food production and distribution, lead to the confiscation of land, and displace or harm farm and food industry workers. The Syrian civil war since 2011, the Yemeni civil war since 2014 and the Russian invasion of Ukraine since 2022 are cases in point.<sup>19</sup> Similarly, in South Sudan, agricultural yields steadily declined during the 2013–18 civil war. Currently, only 1–2 per cent of the land is cultivated in any one year in South Sudan.<sup>20</sup>
- *Weaponization of food.* In Ukraine, the weaponization of food has been at the heart of Russian war tactics.<sup>21</sup> Despite the United Nations Security Council’s condemnation of starving civilians or denying humanitarian access as warfare methods, the weaponization of food has been documented in many other countries, including Ethiopia, Mali, Myanmar, Nigeria, South Sudan and Syria.<sup>22</sup>
- *Elite exploitation/mismanagement of natural resources.* Elite exploitation and national resource-related conflicts are often rooted in issues of scarcity, competition, inequality, economic interests, environmental degradation, regulatory gaps, cultural tensions and political instability.<sup>23</sup> The mismanagement of natural resources, in turn, can reduce food production. In Yemen, for example, weak water and natural resource governance systems have led to the degradation of groundwater resources, exacerbating the risk of drought and associated food insecurity.<sup>24</sup> In South Sudan, legacies of natural resource mismanagement have marginalized rural communities and

*Sustainability*, vol. 62 (June 2023).

<sup>19</sup> UN News, ‘Vital food crops destroyed in Syria amid upsurge in fighting across Idlib, Hama’, 4 June 2019; Murugani, V. et al., *Food Systems in Conflict and Peacebuilding Settings: Case Studies of Venezuela and Yemen* (SIPRI: Stockholm, Dec. 2021); and Glauber, J. W. and Laborde Debucquet, D. (eds), *The Russia–Ukraine Conflict and Global Food Security* (IFPRI: Washington, DC, 2023).

<sup>20</sup> FAO, ‘South Sudan Emergency Livelihood Response Programme 2021–2023’, 2021.

<sup>21</sup> UN Security Council Resolution 2417, S/RES/2417, 2018; and Dannenbaum, T., ‘Legal frameworks for assessing the use of starvation in Ukraine’, *Just Security*, 22 Apr. 2022.

<sup>22</sup> Roth, K., ‘Confronting Ethiopia’s abusive siege’, Human Rights Watch, 31 Aug. 2022; UN, Letter dated 7 Aug. 2020 from the Panel of Experts established pursuant to Resolution 2374 (2017) on Mali addressed to the President of the Security Council; Human Rights Watch, ‘Myanmar: Junta blocks lifesaving aid’, 13 Dec. 2021; Campbell, J., ‘Northern Nigeria faces the threat of famine’, Council of Foreign Relations, 20 May 2021; Human Appeal, ‘Hunger as a weapon of war: How food insecurity has been exacerbated in Syria and Yemen’, 26 Mar. 2018; and Human Rights Council, ‘“There is nothing left for us”: Starvation as a method of warfare’, Conference room paper of the Commission on Human Rights in South Sudan, A/HRC/45/CRP.3, 5 Oct. 2020.

<sup>23</sup> Mobjörk, M. et al., *Climate-related Security Risks: Towards an Integrated Approach* (SIPRI: Stockholm, Oct. 2016).

<sup>24</sup> Kim, K. et al., ‘Yemen’, *Climate, Peace and Security Fact Sheet*, NUPI and SIPRI, June 2023.



accelerated land degradation. In addition, political leaders have mobilized armed herders for their political goals, exacerbating conflict and worsening food insecurity.<sup>25</sup>

- *Reduction in trade and economic security.* Economic shocks were a key driver of acute food crises in 27 countries in 2022, including Afghanistan, Lebanon, South Sudan, Syria and Sri Lanka.<sup>26</sup> Sri Lanka's 2022 economic crisis contributed to food and fertilizer price inflation, poverty returning to close to 2009 levels and 32 per cent of households being food insecure in December 2022.<sup>27</sup> Similarly, Lebanon's economic and financial crisis (since 2019) partly explains its high levels of food insecurity, with poverty doubling to 55 per cent between 2019 and 2021.<sup>28</sup>

#### *From food insecurity to climate- and environment-related pressures*

Food insecurity can contribute to severe environmental damage, for example soil erosion, increasing communities' vulnerability to climate change. This happens when people coping with food insecurity resort to destructive mechanisms that become long term.

- *Destructive coping mechanisms.* Deforestation, overcultivation, excessive harvesting of vegetation and a lack of conservation practices are destructive coping mechanisms to address food insecurity that lead to soil erosion. Deforestation and excessive harvesting of vegetation are a consequence of ensuring food production and preparation (through the heavy reliance on firewood). Both are important aspects of food security affecting availability and utilization. Soil depletion linked to such destructive coping mechanisms is occurring in many regions, including in sub-Saharan Africa, parts of India, Indonesia, Cambodia, Mozambique and Haiti.<sup>29</sup>

#### *From climate- and environment-related pressures to food insecurity*

Key risks related to climate change that directly impact food security include loss of livelihoods and income—for example rural livelihoods,

<sup>25</sup> De Waal, A., 'A political marketplace analysis of South Sudan's "Peace"', JSRP Policy Brief no. 2, World Peace Foundation, Mar. 2016.

<sup>26</sup> Food Security Information Network (FSIN) and Global Network Against Food Crises (GNAFC), *Global Report on Food Crises 2023* (FSIN: Rome, 2023).

<sup>27</sup> Bunse, S., and Murugani, V., *The World Food Programme's Contribution to Improving the Prospects for Peace in Sri Lanka* (SIPRI: Stockholm, May 2023); and WFP, 'Sri Lanka—Food security monitoring', Remote Household Food Security Survey Brief, Jan. 2023.

<sup>28</sup> Tschunkert, K., *The World Food Programme's Contribution to Improving the Prospects for Peace in Lebanon* (SIPRI: Stockholm, Sep. 2021).

<sup>29</sup> Tully, K. et al., 'The state of soil degradation in sub-Saharan Africa: Baselines, trajectories and solutions', *Sustainability*, vol. 7, no. 6 (May 2015); Kumar, P. et al., 'Soil salinity and food security in India', *Frontiers in Sustainable Food Systems*, vol. 4 (Oct. 2020); Gershon Kodwo Ansah, I., Gardebroek, C. and Ihle, R., 'Shock interactions, coping strategy choices and household food security', *Climate and Development*, vol. 13, no. 5 (2021); Manohar, S. et al., 'Riverine food environments and food security: A case study of the Mekong River, Cambodia', *Bull World Health Organ*, vol. 101, no. 2 (Feb. 2023); Militao, E. et al., 'Coping strategies for household food insecurity, and perceived health in an urban community in southern Mozambique: A qualitative study', *Sustainability*, no. 14 (July 2022); and WFP, 'Farmers in Haiti: Growing crops in spite of drought and floods', 22 Mar. 2022.



marine and coastal ecosystems and livelihoods, and terrestrial and inland water ecosystems and livelihoods—and reduced agricultural production and productivity.<sup>30</sup> In addition, migration and displacement form a recurring pathway that links climate- and environment-related pressures to food insecurity.

- *Deterioration of livelihood conditions.* In Somalia, for example, more frequent and intense droughts and floods undermine food security and worsen livelihood conditions, adversely affecting marginalized groups, fuelling grievances, increasing competition over scarce resources and exacerbating existing community tensions and vulnerabilities.<sup>31</sup> Similarly, in Yemen, weather extremes have worsened livelihood conditions, increasing food insecurity.<sup>32</sup>
- *Reduction of agricultural production and productivity.* Increasingly unpredictable and erratic weather systems disrupt food access and slow efforts to expand food productivity. African countries have been particularly vulnerable. In Nigeria, for example, floods destroyed vast areas of farmland and infrastructure in 2022. In Ethiopia, prolonged drought (since late 2020) has affected some 6.8 million people by killing livestock, worsening food insecurity and malnutrition, and forcing pastoralists to travel long distances in search of water and grazing.<sup>33</sup> In South Sudan, about 70 per cent of the variation in agricultural production is attributable to fluctuations in rainfall.<sup>34</sup> More frequent heavy rainfalls have either destroyed or submerged crops across the states of Lakes, Unity and Upper Nile, lowering production.<sup>35</sup>
- *Migration and displacement.* Migration and forced displacement can be triggered by interconnected shocks related to climate- and environment-related pressures, armed conflict, criminal violence and economic crises. Although both are important adaptation strategies, migrants and forcibly displaced people are particularly vulnerable to food insecurity. About four fifths of those currently displaced globally have experienced acute hunger and malnutrition.<sup>36</sup>

<sup>30</sup> FAO, *Climate Change and Food Security: Risks and Responses* (FAO: Rome, 2015); and Mbow, C. et al., 'Food security', P. R. Shukla et al. (eds), *Climate Change and Land: An IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse Gas Fluxes in Terrestrial Ecosystems* (Cambridge University Press: Cambridge, 2019).

<sup>31</sup> Integrated Food Security Phase Classification (IPC), 'Somalia: IPC food security & nutrition snapshot, January–June 2023', 28 Feb. 2023.

<sup>32</sup> UN Yemen, 'Climate crisis exacerbates humanitarian situation in Yemen', 19 Aug. 2021.

<sup>33</sup> UN High Commissioner for Refugees (UNHCR), 'Millions face harm from flooding across West and Central Africa, UNHCR warns', Briefing notes, 28 Oct. 2022; and UN Office for the Coordination of Humanitarian Affairs (OCHA), 'Ethiopia: Drought update no. 1', 7 Feb. 2022.

<sup>34</sup> Omandi, P. and Vhurumuku, E., 'Climate risk and food security in South Sudan: Analysis of climate impacts on food security and livelihoods', WFP/VAM Nairobi Regional Bureau, Mar. 2014.

<sup>35</sup> Internal Displacement Monitoring Centre (IDMC), 'Country profile: South Sudan', accessed 10 Oct. 2023.

<sup>36</sup> FSIN and GNAFC (note 26).





### *From violent conflict to climate- and environment-related pressures*

Pathways from violent conflict to climate- and environment-related pressures include militaries' carbon footprints, the destruction of natural habitat and infrastructure protecting the environment, and forced displacement.

- *Militaries' carbon footprints.* Modern wars have manifold direct environmental impacts and militaries' carbon footprints are very large even in peacetime. In 2022, the total military carbon footprint was around 5.5 per cent of global emissions.<sup>37</sup> This estimate is likely to grow considering Russia's war in Ukraine and the escalation of the Israel–Palestine conflict.
- *Destruction of natural habitats and environmental infrastructure.* The effects of war on the environment are both unintended and intended. Armed conflict destroys natural habitats and critical infrastructure, including waste water, gas and oil pipelines, and storage sites for fuel and industrial waste. Soil, air and water pollution from conflicts can take decades to address. Ukraine, for example, witnessed high-intensity fighting around the Chernobyl and Zaporizhzhia nuclear plants in 2022 and 2023. The unfolding environmental impacts of the war fought in Ukraine have been carefully documented.<sup>38</sup> However, it is just one of more than 50 armed conflicts in 2022.
- *Forced displacement and settlement.* When conflict leads to the establishment of rural and peri-urban settlements for forcibly displaced people enduring protracted displacement, sometimes within environmentally protected areas, these settlements can pose a significant environmental threat. This threat arises given the heightened demand for land, water and wood. In Bangladesh, for example, many refugee settlements are located within environmentally protected areas.<sup>39</sup>

### *From climate- and environment-related pressures to violent conflict*

Social grievances, extreme weather events, and migration and displacement also explain how climate- and environment-related pressures may contribute to violent conflict. In fact, the pathways from climate change to conflict often pass through the deterioration of livelihoods and food insecurity. Hence, social grievances and displacement are repeated pathways.

- *Social grievances.* Climate- and environment-related pressures in fragile and conflict-affected states exacerbate existing vulnerabilities and grievances, such as water shortages. In 2015, the Yemeni government estimated that about 4000 people were killed on an annual basis due to conflicts concerning water or land.<sup>40</sup> In Iraq's southern provinces, protest movements have

<sup>37</sup> Parkinson, S., 'How big are global military carbon emissions?', *Responsible Science*, no. 5 (2023).

<sup>38</sup> Zoï Environment Network, 'War on Ukraine', [n.d.].

<sup>39</sup> Joireman and Haddad (note 18).

<sup>40</sup> Whitehead, F., 'Water scarcity in Yemen: The country's forgotten conflict', *The Guardian*, 2 Apr. 2015.



grown as the result of prolonged heatwaves and decreased rainfall, putting pressure on basic resources and undermining livelihood security.<sup>41</sup>

- *Extreme weather events.* Unpredictable annual variations in extreme weather events, like floods and droughts, affect agriculture-dependent communities and influence pastoralist mobility patterns and routes. Such changes elevate the risk of tensions between herders and farmers, often in connection with land, grazing, water and communal affairs. In Mali (and across the Sahel), climate-related pressures, land degradation and demographic challenges have increased competition for land and water, leading to growing intercommunal conflict between farmers and pastoralists.<sup>42</sup> The link between environmental pressure and violent conflict is also visible in Kenya.<sup>43</sup>
- *Migration and displacement.* Climate-related pressures on agriculture, prolonged conflict and its economic consequences, can all spur greater rural–urban migration. Migrants look for employment, livelihood options, health services and education. If accompanied by urban overcrowding, the risk that grievances among urban migrants escalate into violence increases. In Iraq, for example, climate- and environment-related pressures, including water scarcity, have strongly affected migration and displacement.<sup>44</sup> Large-scale migration to Baghdad has added to existing urban challenges, increasing tensions between residents and migrants.

### III. Turning vicious circles into virtuous ones: The value of integrated approaches with stronger peace dimensions

This section examines the value of integrated approaches and assesses efforts to break vicious circles. The pathways and examples described above (see figure 1) show the mutually reinforcing dynamic between food insecurity, climate- and environment-related pressures, and violent conflict, and how these can trap people, communities and countries in a downward spiral. At the same time, the intrinsic linkages between food, climate change and conflict offer the opportunity to turn vicious circles into virtuous ones, where food security is enhanced, climate- and environment-related stress reduced, conflict managed and peace promoted. This is the goal of multisectoral, integrated approaches that take a food systems perspective. If designed to prevent crises from deepening by addressing the pathways explored above and strengthening food systems, integrated approaches increase the chance that improvement in one crisis triggers transformations in others.

<sup>41</sup> Davison, J., 'Iraqis protest over power and water cuts amid heat wave', *Reuters*, 2 July 2021.

<sup>42</sup> Madurga-Lopez, I. et al., 'How does climate exacerbate root causes of conflict in Mali? An impact pathway analysis', CGIAR, Fact Sheet 2021/2.

<sup>43</sup> International Crisis Group, 'Absorbing climate shocks and easing conflict in Kenya's Rift Valley', Africa Briefing no. 189, 20 Apr. 2023.

<sup>44</sup> Seyuba, K. et al., 'Iraq', Climate, Peace and Security Fact Sheet, NUPI and SIPRI, Apr. 2023.



Their strengths include the recognition that ‘communities do not have single, isolated needs’ and that ‘development, peace and stability progress in non-linear and context-specific ways’.<sup>45</sup> They build on the principle of prevention always, development wherever possible and humanitarian assistance only when necessary.<sup>46</sup> Hence, integrated approaches view crises and their resolutions as part of the broader political, economic and social context in which they originate.

This broader context is also emphasized in food systems thinking. A food systems perspective recognizes that the entirety of a food system is more significant than the sum of its individual parts.<sup>47</sup> Hence, it avoids the reductionist approach of dissecting complex problems into isolated components. At the same time, priority setting is crucial. The key lies in determining the appropriate level of ‘zoom’ without imposing change on the system itself.<sup>48</sup> It is to discern, support or ignite nascent positive change within the system. This requires adaptive programming, including monitoring the system for its response and adjusting actions accordingly.

If integrated food security interventions use a food systems perspective, they are more likely to have ‘trickle up’ effects beyond the individual or household level. This is because such a perspective ensures connections are made between the production, processing, distribution, preparation and consumption of food and the environment, people, inputs, infrastructure and institutions. Consequently, it helps development actors’ ability to grasp complexity and identify ways to deal with interrelated challenges when designing and implementing integrated approaches.

There are numerous development interventions from multiple sectors that could potentially respond to linkages between food insecurity, climate- and environment-related pressures, and violent conflict (see figure 2). Many of them directly relate to strengthening different aspects of food systems. If strategically aligned and conflict sensitive, they can build resilience to turn vicious circles into virtuous ones. They range from generating economic opportunities and investing in human development, to strengthening sustainable food systems, improving natural resource management and climate adaptation, to building social cohesion.

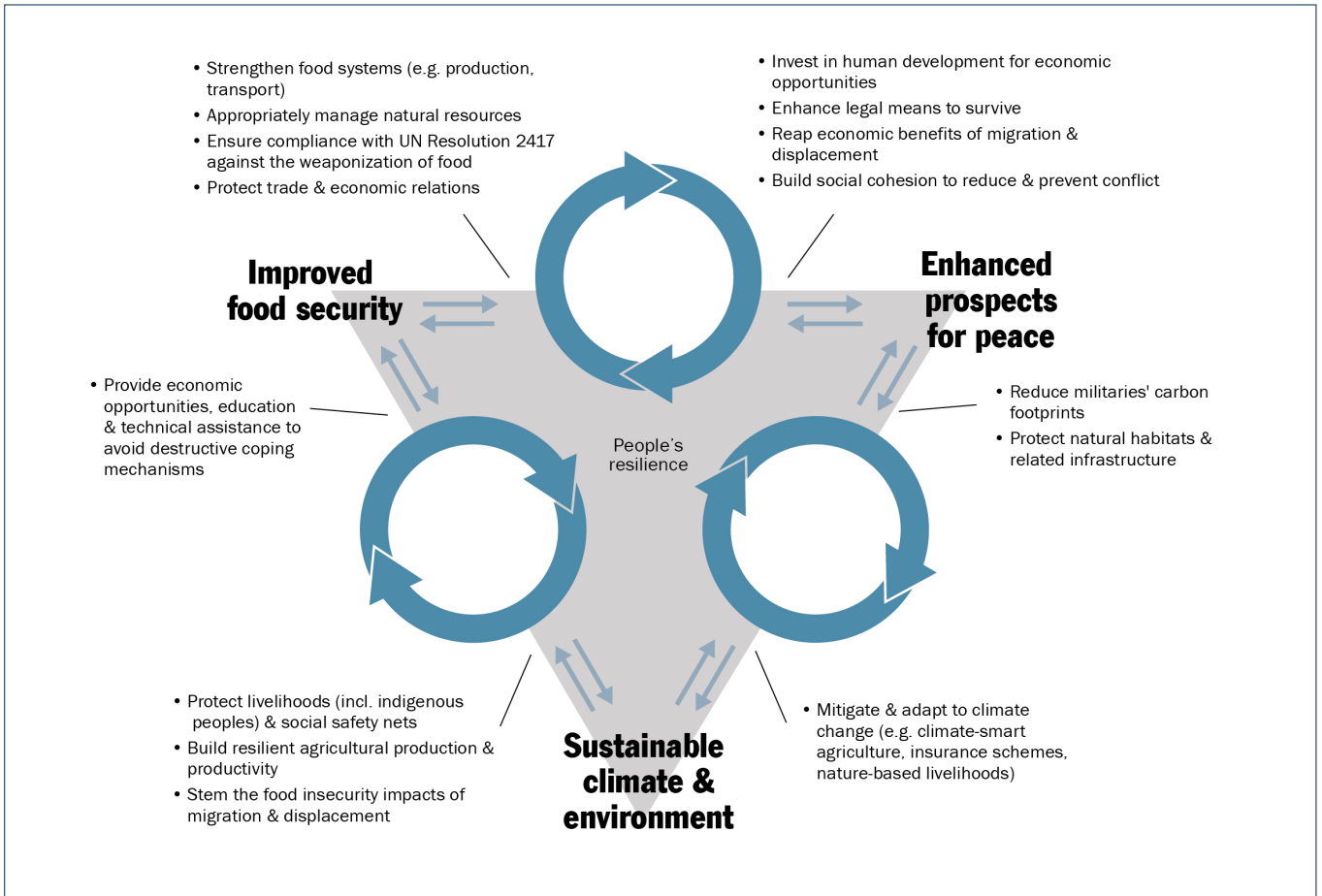
Practical examples of integrated food security interventions with peacebuilding potential include programmes that support sustainable livelihood strategies by increasing climate-resilient agricultural productivity, improve equitable access to relevant natural resources, and improve state–citizen links by including sustainably produced food in basic and inclusive social service delivery. Programmes that generate sustainable incomes may produce peace dividends by addressing grievances related to limited economic opportunities and water scarcity, and by avoiding illegal survival means and destructive coping mechanisms. For example, school meal programmes with sustainable livelihood opportunities in Sri Lanka

<sup>45</sup> Mena, R. et al., ‘Connecting disasters and climate change to the humanitarian–development–peace nexus’, *Journal of Peacebuilding & Development*, vol. 17, no. 3 (2022).

<sup>46</sup> OECD, ‘More effective development co-operation and fragility: DAC perspectives on effective development co-operation’, DCD/DAC(2023)40, 20 Sep. 2023.

<sup>47</sup> Borman et al. (note 4).

<sup>48</sup> Borman et al. (note 4).



**Figure 2.** Virtuous circles: Pathways between improved food security, a sustainable climate and environment, and enhanced prospects for peace

attempt to achieve these goals (see annex B, box B.1).<sup>49</sup> Programmes that improve equitable access to natural resources can also bring peace dividends by reducing recruitment to armed groups, preventing conflict around land and water, and decreasing the risk of elite capture of assets. For example, in El Salvador there is a programme that seeks to improve equitable access to natural resources through brokered land usage rights (see annex B, box B.2).<sup>50</sup> However, examples of climate-resilient food security interventions with explicit peacebuilding dimensions and a food systems perspective are hard to find.

### Implementation challenges

While recognition of the value of integrated approaches has increased, there is no single way to implement them. An integrated intervention may consist of a single project that includes food security, climate adaptation and peacebuilding dimensions. Alternatively, it may encompass multiple complementary projects by the same organization or by different, specialized humanitarian, development and peacebuilding actors that strategically align

<sup>49</sup> Bunse and Murugani (note 27).

<sup>50</sup> Delgado, C., *The World Food Programme's Contribution to Improving the Prospects for Peace in El Salvador* (SIPRI: Stockholm, Nov. 2019).



food security, climate change and peacebuilding interventions. Examples of each can be found in Yemen, Mali and Niger.<sup>51</sup> Independently of the model pursued, integrated food, climate and peace interventions need to be implemented in the same geographical area, depart from a common understanding of the conflict and how it is evolving, understand their place within the broader system and beyond the implementation location, and work towards a shared vision which is jointly monitored and evaluated.

Practitioners highlight two key challenges related to integrated interventions: (a) how to integrate peacebuilding dimensions more purposefully into humanitarian and development efforts; and (b) how to generate structures that reward integrated or complementary approaches over sector-specific programming. The literature offers important insights on both, which are examined below.

### *Strengthening peacebuilding in integrated interventions*

From the literature, four recommendations on how to strengthen peacebuilding dimensions in food security interventions stand out.<sup>52</sup> First, provide clarity on what positive change is sought, and where, while ensuring conflict sensitivity throughout. Positive change can be pursued at the individual level (attitudes, behaviour and capacity) or at the institutional level (policies and practices). It can also be brought about through transforming relationships or cultural norms. Programmes can change relationships by enhancing interaction, communication and collaboration between people. Programmes that reduce discrimination can spark cultural transformation. Making theories of change explicit ensures such clarity and goes hand in hand with devising indicators to test whether they deliver the desired results.

Second, specify the time frame within which a peace contribution is pursued. In the short term, interventions can seek to reduce violence, in the medium term, they may support stability, and in the long term, they may contribute to positive peace.

Third, do not treat peacebuilding as a technical solution to a technical problem, where the outcomes are known in advance.<sup>53</sup> Peacebuilding comes with a high level of risk, which needs to be owned by the commissioning parties. Peace is sensitive, culturally shaped, contested and dependent on how different stakeholders understand and frame problems.<sup>54</sup> It also depends on stakeholders' capacity to address problems and their vision. While individual projects may achieve their specific objectives, they may not add up to progress towards peace. As various actors and projects work on different social, economic, political, environmental and legal aspects, there is a need for a systems perspective to understand their place within a process larger than individual activities.

Fourth, within international assistance, ensure that individual peacebuilding efforts do not counter other efforts in a given location.

<sup>51</sup> GIZ, 'Strengthening resilience and promoting rural households in Yemen', Project description, Aug. 2023; GIZ, 'Promoting integrated agriculture and livestock farming, strengthening social cohesion', Project description, updated Apr. 2023; and WFP Executive Board, 'Resilience in Niger: The cooperation with GIZ ProRes and WFP', [n.d.].

<sup>52</sup> Delgado et al. (note 8); and Brusset, E. et al., *Measuring Peace Impact: Challenges and Solutions* (SIPRI: Stockholm, Nov. 2022).

<sup>53</sup> Delgado et al. (note 8).

<sup>54</sup> Delgado et al. (note 8).

Collective outcomes require cooperation, collaboration and coordination between humanitarian, development and peacebuilding stakeholders.<sup>55</sup>

The GIZ project entitled ‘Food and nutrition security and natural resource management’ in South Sudan provides an example of a complementary triparty project, together with WFP and the UN Children’s Fund (UNICEF), which seeks to enhance food and nutritional security and natural resource management.<sup>56</sup> However, a preliminary theory of change can only be imputed on how it could also contribute to improving the prospects of peace if it sought to do so and were to explicitly address drivers of conflict (see annex B, box B.3).

#### *Generating structures that reward integrated approaches*

A second challenge for integrated approaches is generating the right structures for rewarding such approaches. Collaboration between HDP stakeholders, whether within or across organizations, is unlikely to come about without changing internal structures, processes and procedures.<sup>57</sup> Ideally, top-down, political demand and bottom-up, results-driven demand coincide to bring such changes about. They include mobilizing human and financial resources to sustain engagement across HDP stakeholders and creating incentives to cooperate, partner, conduct joined analyses for aligned programming and make funding streams responsive to shifting conflict dynamics.<sup>58</sup> Financial incentives include trust funds or rewarding joint proposals by HDP stakeholders.<sup>59</sup> For example, the UN Multi-Partner Trust Fund (MPTF) for Reconciliation, Stabilization and Resilience in South Sudan finances integrated programmes that target specific conflict hotspots and consist of cooperative efforts across multiple actors working in the same space at the same time (see annex B, box B.4).

## IV. Programming implications for aid agencies

From the above analysis of the literature, selected projects and complementary interviews with practitioners, three broad categories of programming implications emerge to strengthen the integration of food security, climate adaptation and peacebuilding interventions to address fragility. The first relates to internal operational incentives, the second to entry points for sustainability and the broader impacts of peacebuilding and climate adaptation initiatives in fragile contexts, and the third to partnerships. These implications are relevant for GIZ and other aid agencies, as well as HDP nexus stakeholders with similar aims and priorities, and are discussed in more detail below.

<sup>55</sup> UN Development Programme (UNDP), Crisis Offer, ‘Humanitarian, development and peace nexus’, accessed 23 Jan. 2024.

<sup>56</sup> GIZ, ‘Improving food security in South Sudan’, Project description, June 2022.

<sup>57</sup> Oelke et al. (note 1).

<sup>58</sup> Tschunkert et al. (note 7).

<sup>59</sup> Interview no. 7.



## Incentivizing the integration of food, climate and peacebuilding dimensions

Although multisectoral projects that address multiple vulnerabilities are becoming more common, many food security interventions do not yet have an integrated peacebuilding dimension or a dedicated climate component.<sup>60</sup> Instead, sectoral silos remain the norm.<sup>61</sup> Whether a project connects food with climate and peacebuilding can sometimes depend on individual initiative and expertise present in specific teams.<sup>62</sup> To bridge silos between food security, climate change and peace practitioners, organizations could institutionalize collaboration between their different thematic clusters and coordinate projects through area-based approaches, such as the UN's MPTF in South Sudan (see annex B, box B.4).<sup>63</sup>

If integration is implemented by incorporating peacebuilding dimensions systematically into all food security and climate adaptation projects in fragile contexts, there is a need to invest in human resources and monitoring capacity to achieve this. Integrating peacebuilding dimensions demands peace indicator development and systematic monitoring of connectors and dividers.<sup>64</sup> Ideally, and dependent on project timelines, resources are available to run perception surveys with project participants and a control group before, during and after implementation. Investing in capacity for the systematic and explicit integration of peacebuilding dimensions, conflict analysis and advice throughout project design, implementation and evaluation could stem fears of addressing too many issues at once.<sup>65</sup> For aid organizations that provide mainly technical assistance, integrating peacebuilding systematically may well require a shift in thinking and cultural change.<sup>66</sup>

Connected to bridging silos is a second barrier to integrated food security approaches that needs to be addressed: competition between issues, levels and ministries, and both between and within donor and implementing agencies.<sup>67</sup> Issues, levels, ministries and implementing agencies compete for attention, funding, ownership and political boundaries. A systems perspective, however, can help overcome this barrier by showing how aid effectiveness is reduced through policy silos and competition.<sup>68</sup> The most promising entry points for addressing interconnected challenges can be more easily discerned by zooming in on the appropriate issues, levels and linkages, and identifying and supporting nascent change, rather than breaking complex challenges down into disconnected constituent elements.

One practical way of adopting a systems perspective and the related adaptive action could be through area-based, joint monitoring and evaluation of interventions, regardless of where interventions are in their respective project cycles, which ministry is funding them or which thematic cluster is implementing them. This may also help implementers move away from

<sup>60</sup> Interviews no. 1, 3, 4 and 5.

<sup>61</sup> Interviews no. 3, 5, 7, 9, 13 and 14.

<sup>62</sup> Interview no. 11.

<sup>63</sup> Interviews no. 13 and 7.

<sup>64</sup> Interviews no. 1, 2 and 5.

<sup>65</sup> Interviews no. 3, 5 and 13.

<sup>66</sup> Interviews no. 3, 6, 9 and 13.

<sup>67</sup> Interviews no. 5, 6, 12 and 13.

<sup>68</sup> Interview no. 5.

**Box 2. The relationship between social cohesion and peace**

While peace should not be equated with social cohesion, social cohesion is an integral part of peace. It is crucial to achieving social and economic goals, particularly in multi-ethnic and multi-religious societies. Societies with high levels of social cohesion are more peaceful than societies with low levels of social cohesion given that ‘trust in others and acceptance of diversity’ is higher; the degree to which people ‘identify with the community’ and ‘trust in society’s institutions’ is higher; people’s belief ‘that social conditions are just’ is higher; and ‘people’s willingness to take responsibility for others and the community’ is higher. Thus, their ‘recognition of social rules, and participation in society and political life’ is higher.

Source: Walkenhorst, P., ‘What holds Asian Societies together?’, Asia Policy Brief, Bertelsmann Stiftung, Mar. 2018.

treating identification of other interventions in an area (required by project proposals) as a tick-box exercise without facilitating a truly integrated approach.<sup>69</sup>

Finally, financing structures and resource allocation are an important means of incentivizing integrated approaches.<sup>70</sup> Transitional development assistance, for example, seeks ‘to bridge policy fields, their ways of working and their objectives’.<sup>71</sup> The goal is to achieve better impacts in crisis contexts through multisectoral initiatives that reduce needs, prevent risks and strengthen resilience. Alternatively, funding could shift from innovative projects in areas nobody else operates in (or with limited investment) to area-based, resilience-focused, coordinated and complementary approaches.<sup>72</sup> This would help overcome barriers to integrated approaches posed by a strict project-by-project focus. It incentivizes the search for synergies and the strategic connection between concurrent, recurrent and succeeding projects.<sup>73</sup> Trust funds and the so-called Nexus Chapeau Approach by the German Federal Foreign Office and the Federal Ministry for Economic Cooperation and Development (BMZ), piloted in 2019, are concrete examples of the parallel financing of humanitarian and development project components, encouraging synergies, coordinated project planning and implementation for collective outcomes.<sup>74</sup>

**Entry points and good practice for sustainable peacebuilding and climate adaptation in fragile contexts**

In fragile and conflict-affected states, the community level is a recommended entry point for peacebuilding interventions and climate adaptation.<sup>75</sup> This is partly because engagement with national governments in fragile countries can be politically impossible, particularly when the government is part of the conflict.<sup>76</sup> In South Sudan and Mali, for example, social cohesion initiatives are integrated into food security projects at the community level. The initiatives are not designed to bridge diplomacy, defence and development,

<sup>69</sup> Interview no. 12.

<sup>70</sup> Interview no. 14.

<sup>71</sup> German Federal Ministry for Economic Cooperation and Development (BMZ), ‘Strategy on Transitional Development Assistance (TDA): Overcoming crises—Strengthening resilience—Creating new prospects’, BMZ Document 02/2020, 1 July 2020.

<sup>72</sup> Interview no. 7.

<sup>73</sup> Interview no. 7.

<sup>74</sup> BMZ, ‘Information for NGOs on the Nexus Chapeau Approach for humanitarian aid and transitional development aid projects’, Annex 7, Division Transitional Development Assistance (TDA), Aug. 2023.

<sup>75</sup> Interviews no. 1, 2, 3, 5, and 14.

<sup>76</sup> Interview no. 4.





build political structures that support peace, or invest in national-level infrastructure to support climate adaptation or indeed food systems.

Thematically, the main entry points for actors such as GIZ to contribute to social cohesion in fragile contexts at the community level are: (a) improving livelihoods and social protection through climate-responsive interventions, including climate-resilient agricultural practices; (b) generating income activities for farmers (based on the assumption that economic stability contributes to peace); and (c) natural resource management and environmental peacebuilding.<sup>77</sup> In addition, social cohesion is one of GIZ's main peacebuilding approaches, which is applied horizontally between citizens at the local level and vertically to strengthen state–citizen relations and trust (see box 2).

Nevertheless, within food security and climate adaptation projects, social cohesion often comes as an 'afterthought' and initiatives are not necessarily sustainable or integrated from the start.<sup>78</sup> They might consist of 'bringing communities together' through cultural or sports events and the formation of community groups, but their peace impact is neither measured nor sustained after project completion.<sup>79</sup> Resources to support such initiatives beyond project lifespans or to research potential broader social cohesion effects tend to be limited.<sup>80</sup> In any case, social cohesion effects are likely to be small if initiatives are add-ons that do not rest on evidence-based theories of change.

Climate adaptation at the community level may take the form of capacity building in climate-smart practices or conflict-sensitive infrastructure investment. However, in remote conflict-affected areas, the capacity to monitor whether agricultural practices are indeed adapted in response to climate change is limited. One interviewee doubted that their capacity building led to agroecological improvements (in part due to the lack of local demand for it) or 'trickle up effects'.<sup>81</sup>

To ensure conflict-sensitive social cohesion projects have broader peace impacts, climate adaptation initiatives are sustained and both connect to bigger structural issues, some implementers, including WFP, rely on intervention 'sites' rather than community approaches.<sup>82</sup> An intervention site groups many villages together to create an entry point for building trust between different groups. Sometimes intervention sites are based on scientific delineations, such as hydrological units (a drainage basin or subdivision of one, such as an aquifer, soil zone or reservoir) that cut across traditional community or administrative lines.<sup>83</sup> In such cases, bringing communities from different ethnic groups or municipalities together is a precondition for improving food security and successful climate adaptation.

In addition, implementers often engage with subnational government actors for wider structural changes and state–citizen links, for example, concerning land use, rights, ownership and distribution.<sup>84</sup> Ultimately, however, openings for working with national governments through long-term bilateral cooperation between donor countries and aid recipients

<sup>77</sup> Interviews no. 11, 7, 5 and 4.

<sup>78</sup> Interview no. 11.

<sup>79</sup> Interviews no. 3, 4 and 7.

<sup>80</sup> Interview no. 7.

<sup>81</sup> Interview no. 14.

<sup>82</sup> Interview no. 10.

<sup>83</sup> Interview no. 1.

<sup>84</sup> Interviews no. 14 and 10.



need to be identified for macro-level structural change.<sup>85</sup> Two interviewees proposed designing programmes for longer terms (10 years or more) in this context.<sup>86</sup> This would ensure that a project can continue and progress without interruptions.

Other good practices to enhance both peacebuilding and climate adaptation impacts include: (a) freeing up more resources for local expertise; (b) understanding local dynamics, needs and demands to generate more bottom-up projects; (c) paying greater attention to nature-based livelihoods (including the use and commercialization of indigenous plants over water-intensive rice); (d) facilitating deeper connections between headquarters and field staff; and (e) ensuring that programming across sectors is not only conflict sensitive and ‘does no harm’, but is more ambitious by intentionally promoting peace.<sup>87</sup>

### Partnerships

To develop, implement or evaluate integrated climate-resilient food security interventions that have peacebuilding dimensions, aid organizations partner with government authorities, non-governmental organizations and international actors (see annex B, boxes B.3 and B.4). The rationale for such partnerships includes sharing out roles based on synergies and strengths, pooling resources (skills, expertise and finances) for greater impact and effectiveness, and reaching more communities and programme beneficiaries.<sup>88</sup>

In many fragile countries, working group meetings between aid actors, informing each other of their activities, have routinely taken place for many years or are being developed. However, joint project proposals that are designed together with fully integrated food, climate and peacebuilding dimensions and a food systems perspective, and implemented along common timelines and with complementary funding for the parties involved, are only starting to emerge. Resistance to integrated multi-actor projects can be political, operational, cultural or technical. As to political barriers, joint projects provide less visibility to individual donors and their ministers. Operational, cultural or technical barriers include competition for the same funding, separate financing instruments, different mandates, working cultures and project cycles. Finally, resistance to joint projects can be based on fears related to expertise being stolen and being seen as non-equal partners. Some of these barriers, particularly financing instruments, mandates and project cycles, can only be changed by donors. Interviewees also highlighted the complexity of such partnerships and the investments required to build them.<sup>89</sup>

To overcome barriers to partnerships through which integrated projects can be implemented, scaled and sustained, organizations need to spend time building trust, engaging in open exchanges on their strengths and weaknesses,

<sup>85</sup> Interview no. 14.

<sup>86</sup> Interviews no. 14 and 5.

<sup>87</sup> Interviews no. 2, 9, 11, 14, 6, 5 and 13.

<sup>88</sup> Interviews no. 10, 12, 7 and 8.

<sup>89</sup> Interview no. 12.



and setting up strong coordination and communication mechanisms.<sup>90</sup> Conditions for partnerships to work well include careful planning and management of their complementarity from the outset, effective information sharing, alignment of timelines, flexible project structures, and joint conflict analyses or a common understanding of conflict dynamics in the field and how these are evolving and relevant for project implementation.<sup>91</sup>

For partnerships to come to fruition, organizations need to see that their benefits outweigh the initial investment required to establish them and the potential managerial complexity involved in sustaining them. The potential to learn from each other and have a greater impact might, for example, stem concerns over competition for the same funding.

## V. Recommendations and ways forward

Multisectoral interventions and complementary programming by HDP stakeholders that take an integrated approach with a food systems perspective are needed to break vicious circles between food insecurity, climate- and environment-related pressures, and violent conflict. Moreover, within integrated climate-resilient food security interventions, peacebuilding initiatives need to be strengthened. Nine concrete policy recommendations emerge, as well as an agenda for further research.

### Policy recommendations

1. Project designs would benefit from stating which pathways between food insecurity, climate- and environment-related pressures, and violent conflict they seek to address, at what level and over what time frame. The pathways at work could be identified through in-depth context analysis. Affected communities could then participate in the decision-making process for which ones to include in a project.
2. Integrated food security approaches should not only include multiple sectors and types of activities from the food security, climate adaptation and peacebuilding fields, but also exploit opportunities to strengthen the sustainability of broader food systems. This could be done through strategic connections with other initiatives in the same area that are supported by the same donor or aid agency, or by potential partners.
3. To incentivize approaches that integrate food, climate adaptation and peacebuilding dimensions, donors and aid agencies could explore ways to institutionalize collaboration between their different thematic centres and link siloed projects through area-based approaches.
4. Donors would benefit from generating innovative financing mechanisms that reward integration over competition.

<sup>90</sup> Interviews no. 8, 10, 1 and 3.

<sup>91</sup> Interviews no. 13, 10, 1, 3, 9 and 5.



5. Efforts in multisectoral complementary programming should make potential peace dividends explicit through evidence-based theories of change, which can be monitored and evaluated. Ideally, monitoring and evaluation would take place on a continuous basis, and aid agencies would be equipped to apply lessons learned, so that programmes can adapt accordingly.
6. To amplify peacebuilding effects, integrated food security, climate adaptation and social cohesion interventions need to work across traditional community, administrative or political boundaries, pursue a long-term vision and identify openings for cooperation that involve government actors wherever possible.
7. To enhance peacebuilding impacts, resources should be dedicated to understanding local dynamics and demands for more bottom-up projects and to facilitating deeper connections between staff at headquarters and abroad.
8. To overcome barriers to partnerships, organizations need to build trust through open exchanges about their strengths and weaknesses, and strong coordination and communication mechanisms.
9. Integrated approaches would be more effective if they departed from a common understanding of a conflict and how it is evolving, and worked towards a shared vision that is jointly monitored and evaluated.

### **Research agenda**

In light of the fact that integrated food security, climate change and peace initiatives with a food systems perspective are novel and ongoing, more research is needed to assess: (a) the conditions under which integrated approaches successfully trigger virtuous circles between food, climate change and peace—and if and how such initiatives can be replicated and scaled up; (b) the extent to which a potential lack of effectiveness creates aid dependencies that contribute to grievances; and (c) how donors may enhance the operationalization of the HDP nexus and ensure that their financing mechanisms are sensitive to evolving temporal and spatial conflict dynamics. Given that HDP nexus partnerships are incipient, more research is also needed to assess the extent to which they do indeed manage to design and implement jointly ambitious integrated approaches to stem food insecurity, climate- and environment-related pressures, and violent conflict.



## **Annex A.** List of interviews with officials from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Number	Date
1	1 Sep. 2023
2	6 Sep. 2023 (with two officials)
3	6 Sep. 2023
4	8 Sep. 2023
5	12 Sep. 2023
6	12 Sep. 2023
7	15 Sep. 2023
8	21 Sep. 2023
9	21 Sep. 2023
10	22 Sep. 2023
11	22 Sep. 2023
12	25 Sep. 2023
13	28 Sep. 2023
14	5 Oct. 2023

## Annex B. Food security interventions with the potential to promote peace

### I. Examples of integrated, climate-resilient food security interventions with potential peace dividends

#### Box B.1. School meal programmes with sustainable livelihood opportunities

Based on findings from SIPRI's knowledge partnership with the World Food Programme (WFP) in Sri Lanka, school meal programmes that integrate climate and peacebuilding dimensions into food security projects could, for example, strategically connect the following components:

- turning subsistence farmers into caterers through increased, improved and sustainable climate-resilient agricultural practice and education/certification;
- providing a reliable income source for caterers (parents of school children) by turning them into suppliers of school food;
- contributing to government-run, free school meals through nutritious, home-grown food; and
- facilitating dialogues to enable farmers to generate joint solutions to water scarcity.

#### Potential peace dividends

The peace dividends of such a programme would be expected at the household, community and local government levels through:

- reduced violence in households given a reliable income source;
- less engagement in destructive coping mechanisms;
- less conflict around water scarcity within the community; and
- greater trust in local government (reducing grievances).

#### Conditions for peace dividends to materialize

Conflict sensitivity and a sustainable income source need to be ensured for peace dividends to materialize. This requires careful targeting, considering gender, ethnicity and land ownership to avoid inclusion or exclusion errors. Avoiding potential push-back based on cultural norms (including engaging women in income-generating activities) is also key. Whether or not such programmes generate a sustainable income and trust in government authorities depends, among others, on the reliability of the government as a client, the profitability of the catering business (promptness and amount of payments), and the up-front investment needed to become a caterer. If successful, there can be broader multiplier effects, for example regarding employment for non-landowners, particularly women. For broader peace dividends in the specific context of Sri Lanka, non-discriminatory access to government procurement contracts to caterers of different ethnic origin is key, as is ensuring that certification programmes for caterers reflect the ethnic mix of the country.

Source: Based on Bunse, S. and Murugani, V., *The World Food Programme's Contribution to Improving the Prospects for Peace in Sri Lanka* (SIPRI: Stockholm, May 2023).

#### Box B.2. Programmes to improve equitable access to natural resources through brokered land usage rights

Based on findings from SIPRI's knowledge partnership with the World Food Programme (WFP) in El Salvador, food security resilience could, for example, be combined with climate and peacebuilding dimensions by:

- enabling rural smallholders in communities vulnerable to climate change and violence to identify and build key assets to diversify and improve their livelihoods and increase their resilience to shocks;
- improving soil and water management; and
- lending land to non-landowners through formalized rental agreements which ensure that the benefits of asset creation activities are shared for at least 3–5 years beyond programme closure (enabling participation of non-landowners in the programme).

#### Potential peace dividends

The peace dividends of such programmes would be expected at the household, community and local government levels through:

- the reduced likelihood of people joining armed gangs, given increased livelihood options;
- less conflict around land and water; and
- the decreased risk of elite capture of assets.

#### Conditions for peace dividends to materialize

The conditions necessary for peace dividends to materialize include conflict sensitivity and increased livelihood options. Targeting participants would need to avoid inclusion or exclusion errors by carefully considering gender, ethnicity, land ownership and gang membership. Whether or not such programmes increase livelihood options will depend, among others, on the careful management of risks, such as elite capture of assets, rent increases or the termination of contracts. In addition, the effectiveness and accessibility of enforcement mechanisms related to rental contracts is crucial, as is a sense of fairness in terms of asset-creation activities. Finally, questions related to up-front investment and education requirements are important to consider. If successful, there may be broader employment effects, particularly for non-landowners, who are typically women.

Source: Based on Delgado, C., *The World Food Programme's Contribution to Improving the Prospects for Peace in El Salvador* (SIPRI: Stockholm, Nov. 2019).



## II. Multi-stakeholder examples

### Box B.3. Food/nutritional security and natural resource management in South Sudan

The overall objective of this project run by GIZ, the World Food Programme (WFP) and the United Nations Children's Fund (UNICEF) is to improve the food security of selected populations in South Sudan over the period 2021–25 and better equip them to deal with crises.<sup>a</sup> The project connects food and nutrition dimensions with improved livelihoods and natural resource management. Three main outputs address the linkages between food insecurity, climate- and environment-related pressures, and violent conflict:

1. Expanding agricultural production by training smallholder farmers in improved cultivation methods, providing seeds and production inputs, and advising agricultural cooperatives.
2. Improving natural resource and disaster risk management. To build a foundation for agricultural production in the long term, the project supports municipalities in preparing risk analyses and management plans. Local committees implement joint measures, such as erosion control and constructing dams and reservoirs.
3. Promoting healthy nutrition through educating smallholder households on varied, healthy nutrition, hygiene and care practices for babies and infants, and budget plans to maximize nutrition.

#### Making potential peace dividends explicit

Currently, the climate adaptation elements and potential peace dividends of the project are only implicit.<sup>b</sup> Through careful conflict analysis and a project design that addresses the context-specific pathways between food insecurity, climate pressures and violent conflict (see figure 1), the contribution that the above three measures could make to peace can be spelled out explicitly. For example, *if* agricultural production improves in communities vulnerable to climate change and violence and programme participants obtain access to: (a) avenues for participation in, or cooperation with, cooperatives, local committees and municipalities; (b) higher incomes; (c) increased knowledge; and (d) improved natural resource and disaster risk management, *then* social cohesion and resilience to contextual conflict dynamics can be expected to increase.<sup>c</sup>

#### Conditions for peace dividends to materialize

The importance of conflict-sensitive implementation and targeting in the specific context of South Sudan is a key condition for success.<sup>d</sup> In addition, project success depends, among others, on participants' acceptance of climate-sensitive cultivation methods and improved nutritional habits; the capacity to maintain climate-adaptive erosion control measures, dams and reservoirs; the avoidance of dependency on the provision of seeds and production inputs; and the strength of community structures and institutions to sustain such initiatives.

At least one interviewee highlighted that capacity building in climate-sensitive agricultural practices can be difficult given the behavioural changes required.<sup>e</sup> Two interviewees stressed the importance of working with women in this context, given their responsiveness to capacity building.<sup>f</sup> Furthermore, effective structures to manage the partnership between GIZ, WFP and UNICEF are crucial.

<sup>a</sup> GIZ, 'Improving food security in South Sudan', Project description, June 2022.

<sup>b</sup> Interview no. 4.

<sup>c</sup> Delgado, C. et al., *The World Food Programme's Contribution to Improving the Prospects for Peace* (SIPRI: Stockholm, June 2019).

<sup>d</sup> Interview no. 7.

<sup>e</sup> Interview no. 14.

<sup>f</sup> Interviews no. 10 and 14.

**Box B.4. United Nations Multi-Partner Trust Fund (MPTF) for Reconciliation, Stabilization and Resilience in South Sudan<sup>a</sup>**

This trust fund promotes sustainable peace and development by strategically financing integrated programmes and adopting a comprehensive, area-based approach that targets specific conflict hotspots. Rather than distinct projects responding to the symptoms of violence and conflict, it consists of cooperative efforts across multiple actors working in the same space at the same time to address the root causes and structural drivers of conflict. This enables a more holistic response with a focus on locally owned peace agreements and a political strategy.

The overarching goal is to create stable political and security environments in South Sudan, reducing the drivers of escalating humanitarian needs in the region. While the fund seeks to address a broad range of peace and development-related concerns, seven main outputs have the potential to address the vicious circle between food insecurity and violent conflict:

1. Strengthening local conflict resolution mechanisms, facilitating community dialogue, reintegrating ex-combatants and addressing harmful cultural norms.
2. Investing in peace education, sports and social activities engaging at-risk youth.
3. Recovering stolen cattle peacefully.
4. Supporting survivors of sexual violence and addressing trauma.
5. Reinforcing security and rule of law, and focusing on accountability, participation in governance, trust, legal aid and skills.
6. Preventing and de-escalating violence related to cattle migration by rapid deployment of the justice chain.
7. Investing in community capacities and resources to promote equality, agency and self-reliance.

**Potential peace dividends**

The expected peace dividends are outlined by the MPTF's following theory of change:

*'If communal conflict prevention, management and reconciliation increasingly restore trust, promote peaceful coexistence and strengthen social cohesion, and if conducive governance and security conditions, accountability and the rule of law are reinforced and access to justice widened, in turn deterring violence and creating conditions for productive social, economic and political life, and if increased community interdependency, capacities, resources and equality enhance communities' agency and self-reliance to meet basic needs without dependency on aid or resorting to violence or criminal activities, then the destructive drivers of conflict are increasingly resolved, the cost of returning to violence becomes prohibitive and communities become more peaceful and, ultimately, self-reliant.'*<sup>b</sup>

**Conditions for peace dividends to materialize**

Addressing the underlying causes of deep-seated conflicts necessitates sustained, long-term commitment to specific regions. The fund's current two-year time horizons for its annual budgetary proposals may therefore prove inadequate. Moreover, its dependence on earmarked contributions from member states and other international institutions presents challenges. Earmarking hampers the flexibility to allocate resources where they are most needed. Finally, donors must refrain from utilizing the fund as a means to expend leftover funds, as this undermines the predictability of the fund's financial resources and impedes constructive planning for the execution of multi-year projects. To ensure its effectiveness and sustainability, donors must embrace a strategic approach, recognizing the nuanced conflict resolution dynamics and committing to long-term strategies that foster enduring peace.<sup>c</sup>

<sup>a</sup> MPTF Office, Partners Gateway, 'South Sudan RSRTF: Collectively building peaceful and resilient communities in South Sudan', [n.d].

<sup>b</sup> MPTF, 'South Sudan Multi-Partner Trust Fund for Reconciliation, Stabilization, Resilience (South Sudan RSRTF): Revised terms of reference (1 Dec. 2021)', 1 Dec. 2021.

<sup>c</sup> Tschunkert, K. et al., 'Financing food security: Promises and pitfalls of the humanitarian–development–peace nexus in South Sudan', SIPRI Research Policy Paper, Jan. 2023.





## Annex C. Glossary

Conflict sensitivity	Conflict sensitivity refers to an organization's ability to understand the interactions between its interventions and the context, and to act on this understanding to avoid negative impacts and maximize positive impacts. <sup>a</sup>
Food insecurity	Food insecurity occurs when people's access to the food that they produce or to food in markets is disrupted, reducing the volume and quality of food available to them. The resulting diets provide them with insufficient nutrients for an active and healthy life. Food insecurity can be experienced as a normal condition of life (chronic food insecurity) or as a result of cyclical shortages or a sudden shock (acute food insecurity). <sup>b</sup>
Food security	Food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food, which meets their dietary needs and food preferences and enables them to live an active and healthy life. <sup>c</sup> It is commonly broken down into four components: (a) the availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports (including food aid); (b) access by individuals to adequate resources to acquire appropriate foods for a nutritious diet; (c) utilization of food through adequate diet, clean water, sanitation and healthcare to reach a state of nutritional well-being where all physiological needs are met; and (d) stability, whereby a population, household or individual has access to adequate food at all times. People should not risk losing access to food as a consequence of sudden shocks or cyclical events. Therefore, stability can refer to both the availability of food and access to food. <sup>d</sup>
Food system	A food system includes all the processes, actors and activities associated with food production and food utilization, from growing and harvesting to transporting and consuming. It also encompasses the wider food environment, from markets and trade to policies and innovation. <sup>e</sup> A food system operates in and is influenced by social, political, cultural, technological, economic and natural environments. <sup>f</sup>
<i>Sustainable food system</i>	A food system is considered sustainable when it delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised. <sup>g</sup> This means that it: (a) is profitable throughout (economic sustainability); (b) has broad-based benefits for society (social sustainability); and (c) has a positive or neutral impact on the natural environment (environmental sustainability).
Humanitarian–development–peace (HDP) nexus	The humanitarian–development–peace (HDP) nexus emphasizes the need for aligning humanitarian assistance, development efforts and peacebuilding initiatives. It continues long-running efforts to foster a more coherent strategy across humanitarian and development work to promote more sustainable solutions. <sup>h</sup> Previous efforts include disaster risk reduction (DRR), linking relief, rehabilitation and development (LRRD), the resilience agenda, and embedding conflict sensitivity across responses. <sup>i</sup> The nexus approach received renewed momentum at the 2016 World Humanitarian Summit, where United Nations agencies and the World Bank agreed on a new agenda to push for more robust collaboration and coordination among HDP actors.
Peace	Peace is a complex phenomenon that takes many different forms and has many different qualities. <sup>j</sup> It is multifaceted, culturally shaped and contested. <sup>k</sup> This means that peace is perceived in different ways by different people at different times, in different cultures and political systems. Notably, peace is a process that is rarely, if ever, fully achieved and sustained. Some peace scholars draw a distinction between 'negative peace' and 'positive peace', referring to peace as a process operating on a spectrum.
<i>Negative peace</i>	At one end of the spectrum is negative peace, which entails the absence of direct violence. <sup>l</sup> This can be a necessary precondition for peacebuilding, providing the breathing space that makes the transition to new social and political systems possible in a country hit hard by violent conflict. However, a lasting negative peace can also be undesirable and block the pursuit of positive peace. Even in the absence of direct physical violence and repression, the social and political order can be sustained in some countries by inequitable systems and institutions that keep people in states of vulnerability and marginalization. This is a form of structural violence. <sup>m</sup>



Positive peace	At the other end of the spectrum is positive peace, which emphasizes the absence of structural and cultural violence in an environment where disputes and conflicts can be pursued and resolved without physical violence that harms people and communities, by finding collaborative solutions to the issues at stake. <sup>n</sup> Positive peace means a shift of actors away from structural violence and towards collaborative solutions and development, and thus towards self-sustaining peace.
Peacebuilding	Peacebuilding takes place at all levels, from the macro level to the micro level. Traditionally, peacebuilding interventions have focused on technocratic state-building and good governance. <sup>o</sup> However, the importance of local, everyday aspects of peacebuilding is increasingly recognized. <sup>p</sup> Everyday peace is context-specific and involves the observations and decisions made by individuals and communities as they navigate their day-to-day environment. <sup>q</sup> These everyday practices include responding to structural attempts to organize life, negotiating structural and overt violence, and reappropriating spaces that have been lost to conflict. <sup>r</sup> Peacebuilding in this sense is achieved through engagement with the community and its daily experiences, and through relationship-building within these spaces. Therefore, the everyday is a political space where those who are marginalized and excluded from formal political discourses can find collective meaning and organize in response to conflict, violence and exclusion.
Peace dividend	Peace dividends used to be attributed to increased social spending (and reduced military spending), based on the assumption that this promotes peace. International actors and analysts now use the concept to describe deliverables that aim to facilitate social cohesion and stability, build trust in peace processes and support the state in gaining legitimacy under challenging conditions. According to the World Food Programme, ‘a peace dividend should be timely and tangible: can people see it, or feel it, or use it, or spend it? And can they connect receipt of the dividend to political milestones . . .?’ <sup>s</sup> Starting or expanding services that may have been disrupted during conflict can demonstrate the capacity and willingness of the state to serve its people and motivate communities to opt for peace. It is important, in that case, that the public attributes peace dividends to the national authorities. Different societal groups will have different understandings of what constitutes a peace dividend, what the priorities are and what the sequencing should be. Peace dividends can be identified in the areas of security, governance/rule of law, economic recovery and social services, and they should ideally respond to challenges identified through an in-depth conflict analysis. <sup>t</sup>
Social cohesion	Social cohesion is ‘the quality of social cooperation and togetherness in a territorially delimited community’. It can be broken down ‘into three domains—social relations, connectedness and the focus on the common good. Each of these domains comprises three measurable dimensions: social networks, trust in people, acceptance of diversity; identification, trust in institutions, perceptions of fairness; solidarity and helpfulness, respect for social rules, and civil participation’. <sup>q</sup>
Violent conflict	Violent conflict can be defined as a process that transforms societies and can play a part in the emergence of alternative systems of profit, power and protection. <sup>r</sup> Analysts highlight three components of conflict: (a) goal incompatibility between different parties; (b) conflict attitudes and conflict behaviour; and (c) action taken with the objective to make the other party abandon or modify its goals. <sup>s</sup> These three components are parts of a dynamic process and they constantly change and influence each other. <sup>t</sup> For a conflict response to become violent, groups need to perceive that their goals are incompatible, and that violence is a legitimate way to act. <sup>u</sup> Violent conflict can span situations from wars between states to revolutions; insurgencies; genocides; civil wars; ethnic or religious conflicts; criminal, political or communal violence; and riots or pogroms. It is further characterized by engagement and interaction between actors with distinct identities, needs, interests and levels of operation (e.g. global, regional, state or local). <sup>v</sup>

<sup>a</sup> Delgado, C. et al., *The World Food Programme’s Contribution to Improving the Prospects for Peace* (SIPRI: Stockholm, June 2019).

<sup>b</sup> Adapted from the Food and Agriculture Organization of the United Nations (FAO), ‘An introduction to the basic concepts of food security’, 2008.

<sup>c</sup> FAO, ‘Rome Declaration on World Food Security’ and ‘World Food Summit: Plan of Action’, 1996.

<sup>d</sup> FAO (note b).

<sup>e</sup> van Berkum, S., Dengerink, J. and Ruben, R., *The Food Systems Approach: Sustainable Solutions for a Sufficient Supply of Healthy Food*, Memorandum 2018-064 (Wageningen Economic Research: Wageningen, 2018); and de Steenhuisen P. et al., ‘Food system resilience: Towards a joint understanding and implications for policy’, Wageningen Economic Research, Policy Paper, June 2021.

<sup>f</sup> High Level Panel of Experts on Food Security and Nutrition (HLPE), *Report on Food Losses and Waste in the Context of Sustainable Food Systems* (HLPE: Rome, June 2014); Global Panel on Agriculture and Food Systems for Nutrition, *Food Systems and Diets: Facing*



*the Challenges of the 21st Century* (Global Panel on Agriculture and Food Systems for Nutrition: London, Sep. 2016); and HLPE, *Nutrition and Food Systems* (HLPE: Rome, Sep. 2017).

<sup>g</sup> FAO, 'Sustainable food systems: Concept and framework', 2018.

<sup>h</sup> Tschunkert, K. and Delgado, C., *Food Systems in Conflict and Peacebuilding Settings: Ways Forward* (SIPRI: Stockholm, 2022).

<sup>i</sup> Hövelmann, S., 'Triple nexus to go', Center for Humanitarian Action, Mar. 2020; and Fanning, E. and Fullwood Thomas, J., 'The humanitarian–development–peace nexus: What does it mean for multi-mandated organizations?', Oxfam Discussion Paper, 2019, cited in Tschunkert and Delgado (note h).

<sup>j</sup> Campbell, S. P., *Global Governance and Local Peace: Accountability and Performance in International Peacebuilding* (Cambridge University Press: Cambridge, 2018).

<sup>k</sup> Firchow, P. and MacGinty, R., 'Measuring peace: Comparability, commensurability, and complementarity using bottom-up indicators', *International Studies Review*, vol. 19, no. 1 (2017).

<sup>l</sup> Galtung, J. and Fischer, D., *Johan Galtung: Pioneer of Peace Research* (Springer: Berlin, 2013).

<sup>m</sup> Galtung, J., 'Violence, peace, and peace research', *Journal of Peace Research*, vol. 6, no. 3 (1969).

<sup>n</sup> Galtung and Fischer (note l); and Milante, G., 'Sustaining peace and sustainable development in dangerous places', *SIPRI Yearbook 2017: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2017).

<sup>o</sup> Campbell (note j).

<sup>p</sup> MacGinty, R. and Richmond, O. P., 'The local turn in peace building: A critical agenda for peace', *Third World Quarterly*, vol. 34, no. 5 (2013); MacGinty, R. and Firchow, P., 'Top-down and bottom-up narratives of peace and conflict', *Politics*, vol. 36, no. 3 (2016); and Björkdahl, A. and Höglund, K., 'Precarious peacebuilding: Friction in global–local encounters', *Peacebuilding*, vol. 1, no. 3 (2013).

<sup>q</sup> MacGinty and Firchow (note p).

<sup>r</sup> Berents, H. and McEvoy-Levy, S., 'Theorising youth and everyday peace(building)', *Peacebuilding*, vol. 3, no. 2 (2015); and Richmond, O. P., 'Becoming liberal, unbecoming liberalism: Liberal–local hybridity via the everyday as a response to the paradoxes of liberal peacebuilding', *Journal of Intervention and Statebuilding*, vol. 3, no. 3 (2009).

<sup>s</sup> Laughton, S. and Crawford, N., World Food Programme, cited in United Nations Peacebuilding Support Office, *Peace Dividends and Beyond: Contributions of Administrative and Social Services to Peacebuilding* (UN Peacebuilding Support Office: New York, 2012).

<sup>t</sup> UN Peacebuilding Support Office (note s).

<sup>u</sup> Bertelsmann Stiftung, 'Social Cohesion Radar', [n.d.].

<sup>v</sup> Keen, D., 'Greed and grievance in civil war', *International Affairs*, vol. 88, no. 4 (2012); and Distler, W., Stavrevska, E. B. and Vogel, B., 'Economies of peace: Economy formation processes and outcomes in conflict-affected societies', *Civil Wars*, vol. 20, no. 2 (2018).

<sup>w</sup> Mitchell, C. R., *The Structure of International Conflict* (Macmillan: Basingstoke, 1981).

<sup>x</sup> Keen (note v); and Distler, Stavrevska and Vogel (note v).

<sup>y</sup> Schröder, I. W. and Schmidt, B. E., 'Introduction: Violent imaginaries and violent practices', B. E. Schmidt and I. W. Schröder (eds), *Anthropology of Violence and Conflict* (Routledge: London, 2001).

<sup>z</sup> Demmers, J., *Theories of Violent Conflict: An Introduction*, 2nd edn (Routledge: London, 2017).

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SIPRI RESEARCH POLICY PAPER

# PROMOTING PEACE THROUGH CLIMATE-RESILIENT FOOD SECURITY INITIATIVES

SIMONE BUNSE AND CAROLINE DELGADO

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