

Protecting Pastoral Mobility in Wartime Sudan: Evidence and Policy Priorities from Eastern Sudan

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Why pastoral mobility matters

Pastoral mobility is the foundation of livestock-based livelihoods in eastern Sudan. In a semi-arid environment with uneven pasture distribution and seasonal water scarcity, movement allows herders to access scattered grazing and water, maintain herd health, and produce sufficient milk which is the most important daily food source for pastoral households. When mobility is restricted, animals weaken quickly, milk production drops, and families become dependent on costly purchased food.

Mobility also protects rangelands by spreading grazing pressure across different zones, preventing localised degradation of forests and fragile soils. Historically, predictable seasonal movements reduced conflict by limiting prolonged overlap between herds and crops. When mobility breaks down, livestock remain in farming areas for long periods, greatly increasing disputes.

Economically, mobility enables pastoralists to reach markets with healthier animals and a reliable supply. When mobility is disrupted, market participation falls, transport becomes riskier, and households are forced into distress selling. It also undermines long-standing social institutions and knowledge systems that regulate routes, manage grazing access, and help resolve conflicts. Its erosion risks weakening institutions that historically have managed grazing rights, negotiations, and conflict resolution, undermining long-term resilience.

Key messages

- Eastern Sudan has become a critical refuge during the ongoing war. The region has absorbed large numbers of internally displaced populations and displaced pastoralists from conflict-affected areas, increasing pressure on land, water, grazing resources, and services, and intensifying competition between host communities, farmers, and pastoralists.
- The collapse of mobility is producing interlinked ecological, economic, and social crises, including continuous farmer–herder conflict, environmental degradation, water scarcity, declining livestock health and productivity, and rising food insecurity.
- Without urgent action to protect and restore pastoral mobility, current coping strategies risk becoming permanent, undermining livelihoods, eroding social systems, and deepening conflict. Coordinated measures to secure corridors, improve land governance, and deliver mobility-compatible services are needed to support stabilisation and recovery.

Consequences of the war

The war has fundamentally reconfigured pastoral mobility in eastern Sudan, dismantling long-standing seasonal systems and replacing them with fragmented, risk-driven movement patterns. Mobility is no longer organised around ecological cycles, but around avoiding insecurity, armed robbery, and livestock looting. These changes have reshaped where pastoralists move, how long they stay, and with far-reaching consequences for livelihoods, landscapes, and social relations.

Route abandonment and spatial concentration of herds

Pastoralists have largely abandoned key seasonal and transboundary routes. Travel to the Butana rangelands, historically the most important wet-season grazing area, has declined sharply due to insecurity along northern corridors, including armed robbery and livestock looting. Long-standing movements along the Ethiopia–Sudan border have also collapsed amid escalating cross-border attacks, theft, and intimidation. As access to these routes has narrowed, pastoralists have been forced into a much smaller set of perceived safer areas.

Instead of following traditional north–south seasonal cycles, herds now circulate within a narrow band of central and southern Gadarif. Pastoralists remain close to farming villages, forest patches, and mountain foothills, relying on these areas throughout the year rather than seasonally. Areas that historically served as short rest points or transitional grazing zones have become long-term settlement and grazing spaces. Mobility decisions increasingly reflect a logic of survival and risk minimisation rather than ecological optimisation.

From seasonal tension to continuous farmer–herder conflict

The collapse of seasonal movement has intensified overlap between livestock and cultivated land. Herds now remain year-round in farming and settlement zones, increasing daily crop damage incidents, expanding the use of fines and punitive compensation systems, and heightening tensions between farmers and herders. At the same time, customary arrangements that historically regulated seasonal interaction and negotiated access have weakened. As a result, farmer–herder conflict is no longer seasonal but continuous.

Environmental degradation and water scarcity

Prolonged concentration of livestock in a limited number of accessible areas, particularly forests, mountain foothills, and agricultural margins, has exceeded local carrying capacity and accelerated environmental degradation. Forest cover has declined rapidly, palatable species have been lost, pasture regeneration has failed, and soil erosion has intensified. Restricted mobility has also placed severe strain on water resources, as cultivation along riverbanks and khors has reduced access, natural water points have dried from overuse, and reliance on costly water trucking has increased. Water scarcity now drives conflict and herd loss alongside pasture scarcity.

Deteriorating livestock health, livelihoods and food security

These ecological pressures, combined with prolonged immobility, have undermined livestock health, productivity, and household income. Herds are exposed for extended periods to disease-prone environments, poor-quality feed, and overcrowding, leading to more frequent disease outbreaks, higher mortality, lower birth rates, weaker calves, and sharp declines in milk production. Animals are often too weak or diseased for profitable sale, distress sales have become common, insecurity restricts access to markets, and rising veterinary and water costs further erode net income.

As milk availability declines and incomes fall, food security has deteriorated. Pastoral households increasingly depend on purchased staples, reduce meal frequency, and consume less diverse diets, increasing nutritional risks, particularly for women and children. Food insecurity is becoming chronic rather than seasonal.

Social and generational impacts of prolonged immobility

Immobility has also reshaped pastoral social systems and livelihood identities. Women's workloads have intensified, young men have taken on riskier herding and labour roles, and some youths have become involved in local defence or armed groups. Children's schooling, especially for boys, is increasingly disrupted, and pastoral identity and intergenerational knowledge transfer are at risk of erosion. Coping strategies such as sedentarisation, land acquisition, farming, and wage labour may provide short-term stability but risk locking households into environmentally fragile and high-conflict areas, labour-intensive livelihoods with lower returns, and reduced capacity to resume mobility even if security improves. Without policy interventions, these wartime adaptations risk becoming entrenched, transforming pastoralism from a resilient livelihood into a residual activity.

Policy recommendations

Protecting and restoring pastoral mobility in eastern Sudan must be a central pillar of wartime response and post-war recovery. The following policy recommendations consolidate priority actions for government authorities, humanitarian and development actors, and peacebuilding partners.

1. Prioritise the protection and reopening of key mobility corridors

Mobility is a foundation of pastoral resilience, not a secondary concern. Restoring security along major seasonal routes, particularly corridors leading to the Butana and dry-season grazing areas, is essential. This includes deploying mobile or temporary security arrangements to reduce armed robbery and livestock looting, preventing opportunistic cultivation or enclosure of active corridors, and reactivating local corridor and mediation committees to coordinate safe passage and manage disputes. Without secure corridors, other livelihood and service interventions will have limited impact.

2. Address insecurity as the primary driver of livelihood collapse

Insecurity, rather than drought or resource scarcity, is now the defining constraint shaping mobility and grazing access. Widespread civilian weapons, livestock looting, and weak formal security institutions continue to undermine confidence in movement. Policy responses must therefore integrate security restoration along grazing routes, watering points, and market access roads as a core livelihood protection measure, not solely as a law-and-order issue.

3. Strengthen conflict-sensitive land and resource governance

Prolonged pastoral presence in farming zones has collapsed the seasonal buffers that once reduced farmer-herder conflict. Governments and local authorities should reinforce conflict-sensitive land administration, prevent further expansion of farming into corridors and grazing reserves, and support negotiated agreements around crop residues, water access, and seasonal passage. Temporary, clearly defined wartime access arrangements can help reduce ad hoc fines, informal taxation, and escalating disputes.

4. Reduce environmental pressure through mobility restoration and targeted rehabilitation

Overcrowding of livestock in forests, mountain foothills, and agricultural margins is accelerating rangeland and forest degradation and placing severe strain on water resources. Environmental recovery efforts such as protecting remaining forest reserves, rehabilitating key grazing areas and water points, and promoting rotational grazing where feasible must be explicitly linked to reopening safe mobility routes. Environmental programmes that ignore mobility dynamics risk reinforcing degradation rather than reversing it.

5. Expand mobility-compatible service delivery and market access

Fixed-location services are poorly matched to current pastoral movement patterns and risk incentivising forced settlement. Humanitarian and recovery programming should prioritise mobile veterinary and animal health services, flexible water provision along active routes, and secure access to livestock markets through protected market corridors and group travel mechanisms. Early warning systems for disease outbreaks, resource stress, and security incidents should be strengthened to support adaptive decision-making.

6. Address gendered and generational vulnerabilities

Disrupted mobility has intensified women's labour burdens, increased youth exposure to risky work and militarisation, and undermined children's schooling, particularly for boys. Policies and programmes should provide labour-saving water and energy solutions for women, create safer income opportunities for youth, and expand flexible education models such as mobile schooling and community learning centres. Women and youth should be systematically included in local negotiation, planning, and governance processes.

7. Stabilise livelihoods without entrenching sedentarisation

Coping strategies such as sedentarisation, land acquisition, farming, and wage labour may offer short-term survival but risk locking households into environmentally fragile and conflict-prone areas while eroding future mobility capacity. Livelihood support, including veterinary subsidies, fodder support, and market assistance, should be carefully designed to stabilise herds and incomes without promoting permanent settlement. Humanitarian and development actors must ensure that assistance does not disproportionately favour settled populations at the expense of mobile and semimobile pastoralists.

Conclusion

The evidence from eastern Sudan shows that the ongoing war has not merely disrupted pastoral mobility, but it has fundamentally reshaped it. Traditional movement patterns that once balanced ecological needs, reduced conflict, and sustained pastoral livelihoods have been replaced by short, risk-averse movements restricted to overcrowded farming and forest zones. While there are emerging signs of improved security in some areas, the mobility system remains fragile. Widespread weapons, persistent looting, and limited state security presence continue to deter pastoralists from resuming full seasonal migration.

Protecting and restoring mobility is therefore central to any strategy for humanitarian assistance, recovery, and long-term stability in eastern Sudan. Policymakers and humanitarian actors must prioritise secure access to grazing corridors, conflict-sensitive land governance, mobility-compatible services, and coordinated action across sectors. Interventions must avoid reinforcing forced settlement and instead support a system where pastoral mobility can function safely and sustainably.

In a context where mobility is both a livelihood strategy and a peacebuilding mechanism, enabling its recovery is essential. Supporting pastoralists to move safely again is not only critical for their survival and dignity, but it is also a foundation for ecological sustainability, market recovery, and social cohesion in post-war eastern Sudan.

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