



Gates Foundation



Policy Brief

Healthy Soils, Resilient Systems

Levers for Sustainable Agricultural and Food Systems

Soil health forms the basis of sustainable agricultural and food systems, directly impacting agricultural productivity, environmental stability, health outcomes, and rural livelihoods. Improving soil health delivers tangible benefits, including enhanced food security and nutrition, strengthened economic stability, increased climate resilience, and the conservation of biodiversity, while promoting equity for vulnerable communities.

This Policy Brief derives from the "Partners for Change – SOILutions for a Food Secure, Resilient, and Sustainable Future" (short SOILutions) conference held in May 2025. The Partners for Change (P4C) Network brings together around 250 key stakeholders from government, civil society, and the private sector from over 30 countries. To advance the transformation of agricultural and food systems, the P4C Network provides an inclusive dialogue platform that fosters the cocreation of sustainable transformation pathways across the three stakeholder groups.

Based on evidence, lessons learned, and good practices shared by representatives from the three key stakeholder groups from countries in Africa, Europe, the USA and India, the SOILutions conference synthesised over a decade of action on the ground supported by the Global Programme "Soil Protection and Rehabilitation for Food Security" (ProSoil), one of the largest programmes in the special initiative "Transformation of Agricultural and Food Systems" funded by the German government (BMZ).

The message from the P4C network is clear: healthy soils must be at the centre of action now, as they serve as the foundation for addressing the interconnected challenges of climate change, food insecurity, biodiversity loss, and socio-economic inequality. This requires coordinated efforts from the three key stakeholder groups: the public sector, the private sector, and civil society.

The **six levers** below outline the P4C network's priority areas for immediate and collective action to address critical issues around soil health.

Figure 1: Levers for increased soil health in food system transformation Prioritize Soil Health <u>.</u> Foster Building Innovation Synergies LEVERS FOR SOIL HEALTH **PROMOTION Empower** Investments Women and Extension Services

Lever 1: Prioritize Soil Health in Policy Frameworks

Transforming our agricultural and food systems requires strong political commitment, beginning with the recognition of soil health as a strategic priority within national and regional policy frameworks.

Rather than creating parallel ones, the public sector should recognise the critical role of soil protection and rehabilitation (SPR) in achieving development cross-sectoral priorities systematically integrate SPR into existing policy frameworks, such as the Comprehensive African Agricultural Development Programme (CAADP), National Adaptation Plans and development strategies. This would involve simplifying administrative processes, developing or adapting regulatory frameworks for organic and auxiliary inputs to ensure product quality, and incorporating SPR into investment plans and budget allocations.

To build the political momentum required for systemic change, civil society must link SPR to urgent national priorities such as food security, health, economic development and climate resilience. This will mobilise public support and encourage long-term institutional commitment.

The private sector must actively contribute to policy frameworks for SPR by communicating the conditions under which it can offer economically viable services and products.



Lever 2: Innovate Boldly, Adapt Locally, and Prove What Works

To accelerate SPR, innovation must be locally grounded, building on existing social structures while aiming for long-term systemic impact.

The **public sector** should foster an environment that enables innovations with the potential to scale up SPR and facilitate leapfrogging in the agricultural and food systems where conditions permit, while securing the rights and livelihoods of local communities. A flexible, impact-driven approach should be adopted: fail fast, learn, and adapt.

All stakeholders, introducing SPR, should prioritise simple, low-cost yet sustainable measures that deliver visible short-term benefits (such as yield, quality and profitability) to build trust and lower the barriers to stakeholder buy-in. Farmer organisations and networks should be actively engaged in proving impact at scale.

Sustained support for innovation is essential. All stakeholders should collaborate to nurture innovations through start-ups, incubators, innovation hubs, platforms, and public and private financial instruments. Governments and donors should use public procurement, co-funding, and long-term incubation strategically to scale up promising approaches, recognising that some innovations may only demonstrate their full potential beyond short project cycles.

In parallel, the public sector must invest sufficient time and resources in tailoring SPR to local contexts through participatory, inclusive, and cocreative processes. This means actively engaging farmers and communities from the outset and drawing on the extensive knowledge and experience of civil society as partners in knowledge sharing and implementation. This should be accompanied by scientific validation through realistic field trials that reflect farmers' values, knowledge, and experience.



Lever 3: Empower Women and Youth as Catalysts for Change

Women and youth are key drivers of innovation and resilience in agricultural and food systems. However, they often remain structurally excluded from many of the resources needed to fully contribute. The public sector should integrate gender and youth inclusion into soil-related policies and programmes. This involves ensuring their rights and access to land and other productive assets, finance, and extension services that are

tailored to their needs, as well as enacting reforms that remove structural barriers.

The **public sector** should adapt financial tools by designing funding schemes that are responsive to the needs of women and youth, and which lower the risk of private investment in inclusive ventures. It can also enhance market access and support entrepreneurship through targeted procurement capacity-building programmes, and policies, public-private partnerships that prioritise and scale up innovative solutions led by women and young people.

The **public sector and civil society** should actively engage with and support farmer self-help groups and farmer producer organisations, as these groups play an important role in collective action.

Civil society can amplify the voices of women and youth, support leadership development and share inspiring success stories to encourage broader engagement. Demonstrating the wider community benefits of their empowerment can help build social acceptance and momentum for normative change.



Lever 4: Make Extension Systems Inclusive and Adaptive

Effective SPR is knowledge-intensive and requires strong, inclusive and decentralised extension systems that can reach diverse farming communities with context-specific knowledge and tools.

The public sector should institutionalise participatory advisory models, such as farmer field schools, innovation platforms and peer-to-peer learning. SPR content could be embedded in formal education curricula to ensure long-term knowledge continuity. Governments should effectively strengthen decentralised structures and involve them in training-of-trainer cascades that include informal stakeholders, such as community advisors and liaison farmers and formalise their roles through certification, financial support, and integration into, or synchronisation with national or decentralised extension systems. Income-

generating opportunities for informal extension agents are essential to sustaining their role beyond programme cycles. The development and use of digital tools for extension purposes has the potential to significantly reduce extension costs and improve access to knowledge, thereby increasing outreach.

The private sector can drive innovation and support scaling up by developing user-friendly, open-source digital advisory tools that provide farmers and extensionists with bundled, tailormade information.

The **public sector** should ensure that digital tools are inclusive and user-centred and are embedded in a holistic extension strategy while also establishing regulatory frameworks and safeguarding data protection standards. Civil society can promote inclusive, context-sensitive and locally led extension approaches, including digital tools. It should support trusted facilitators and collaborate with communities to co-develop solutions, share success stories, and ensure equitable access to knowledge and resources.



Lever 5: Invest in Soil Health

Scaling up SPR requires economic viability and inclusive financing. Public and private investments must be aligned to shift incentives, reduce risk, and enable sustainable practices. Collaborative action across all stakeholders is essential to make SPR a financially attractive, scalable solution for resilient agricultural and food systems. The private sector should recognise its opportunity to influence developments and should engage early to develop affordable, scalable business models for SPR inputs and services.

The public sector, including development finance institutions, should enhance the return on investment of SPR by investing in critical infrastructure, strengthening agricultural markets and realigning subsidies to incentivise SPR adoption. The ecosystem services provided by healthy soils, such as carbon sequestration, erosion control, and biodiversity conservation, are positive externalities that are not adequately valued by markets. To ensure their provision, targeted public agricultural support measures must reward these contributions.

To reduce investment risks and enable the transition, blended finance should be combined with technical assistance and expanded risk-sharing tools such as insurance, revolving funds and tailored credit. These instruments are crucial not only for farmers, but also for de-risking private-sector investments in SPR solutions and to overcoming initial investment hurdles and risks.

Civil society should support smallholders in accessing finance and markets, including climate finance, carbon markets, and emerging biodiversity credits, while advocating for inclusive policies and sustainable financing pathways. The economic cost of soil degradation and the benefits of SPR must be clearly communicated to decisionmakers to justify budget prioritisation and guide strategic investment decisions and encourage responsible investment and engagement in SPR among private sector actors in processing and retailing.



Accelerating soil health and the transformation of agricultural and food systems requires coordinated action across sectors, stakeholder groups, and governance levels. Progress is limited by

fragmented efforts therefore coherence, collaboration, and alignment are essential.

The **public sector** must connect policy, research, finance and practice by establishing multistakeholder platforms and fostering cross-sectoral collaboration. Initiatives should be aligned with national development priorities, as well as regional and international frameworks, including the Rio Conventions on climate, biodiversity, and desertification to maximise synergies and reduce transaction costs. Governments should promote donor coordination to avoid duplication and increase impact.

The **private sector** should engage in public-private partnerships that align business models with the goals of soil health and food systems. It should contribute to co-investment, scaling up innovation, and sharing knowledge, as well as working with other stakeholders to unlock new financing models and markets.

Civil society plays a vital role in linking grassroots experience with policymaking. Civil society should foster inclusive dialogue, connect local solutions to national and global agendas, and advocate for transparency and accountability to ensure lasting and equitable transformation.



Read the full paper here:

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