



Exploring integrated solutions from the land for addressing food and energy production, economic development, biological diversity and climate change challenges.



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## **SfL Offers Vision for an ‘Agricultural Renaissance’ in the 21<sup>st</sup> Century**

(February 11, 2021) – Solutions from the Land (SfL) farmers, ranchers and forestry leaders and their partners today issued a [white paper](#) that lays out a vision for an agricultural renaissance in this century and offers a model for constructing sustainable and resilient systems across working landscapes to counter growing interlinked global food security, nutrition, health and climate challenges.

The paper details the vision's implementation, which is characterized by broad initiatives that reject the siloed management approaches of the past to foster multi-stakeholder collaborations that utilize integrated approaches to agriculture, forestry, and food system challenges.

The report was released today by SfL Co-Chair A.G. Kawamura, a California specialty crop grower and shipper and former Secretary of the California Department of Food & Agriculture, during a side event that SfL, the Global Farmers Network, the Global Dairy Platform, along with Argentina, Australia, the Netherlands and the United States, hosted today in conjunction with the 75<sup>th</sup> anniversary meeting of FAO’s Committee on Food Security held virtually from Rome.

It notes that the 21<sup>st</sup> century is now fully under way, amid weather-related crop failures; locust plagues; wildfires and deforestation; regional conflicts; loss of biodiversity; erosion of ecosystem health and functionality; a changing climate; and the spillover of 2020’s global pandemic into 2021.

"Our 20<sup>th</sup> century agricultural production and conservation systems are increasingly under stress and are proving to be inadequate to manage the risks and uncertainties of 21<sup>st</sup> century production" said Kawamura. "Our report promotes solution pathways that better boost not only food security, but energy, healthy ecosystems and livelihoods as well."

The SfL paper sets out a vision and pathways for defining agriculture through the lens of a broader reality of living as opposed to simply surviving. It promotes the resilience needed to maintain abundance in the years to come.

"Today's agriculture must address hunger, livelihoods, water scarcity, clean water, healthy soil, ecosystem resilience, climate change, greenhouse gases and a whole range of local and global realities. " said the report’s Co-Chair Howard-Yana Shapiro, a Senior Fellow at the College of Agriculture and Environmental Sciences, University of California in Davis.

The white paper offers a lengthy list of technologies and innovations that address the proliferating and varied challenges that farmers, ranchers and foresters are facing. Smartphones, computing technologies, geographic information systems (GIS), global positioning systems (GPS), remote sensing, models, robotics, drones, and on-demand local climate projections are being applied to support precision agriculture, agricultural ecosystem and biodiversity management, and easier, more effective ways for farmers and others in farming landscapes to communicate and collaborate.

Advanced science is uncovering processes in microbiology, plant biology, agroecology and landscape ecology – at field, farm and landscape scales – that can be harnessed to develop nature-positive production systems. Inventions such as robotics, machine learning, artificial intelligence, CRISPR, nanotechnologies, genetic and biological engineering, sound wave pulverization and data-rich modeling are rapidly moving beyond conceptualization to experimental trials and mainstream uses.

"Yet despite these advances," the report warns, "without the full engagement of farmers, foresters and their partners, our capacity to transform the systems of agriculture for the future will be compromised. The development of a more dynamic and robust toolbox is essential, but will be insufficient without the voice, experience, and understanding that the stewards of the land provide as they move beyond timely projections to address changes and threats in real time.

"Those on the front line must have support and resources to strike new ground in managing their lands and shaping their working landscapes," agreed report Co-Chair Tom Lovejoy, who serves as Biodiversity Chair and Professor at George Mason University and previously as President of the Heinz Center.

A vision for working landscapes of the future offered by the paper brings production, environmental, food, and nutrition policies into harmony and streamlines regulations that are too often overlapping and contradictory. It is a model that engages with farmers to sharpen a shared focus on outcomes, not prescriptive mandates that tell farmers how to farm.

The vision calls for strategies anchored by the three overlapping climate smart agriculture (CSA) pillars: 1) sustainable intensification of production, 2) adaptive management and 3) greenhouse gas reduction. The paper notes that a CSA approach does not prioritize any one of the pillars and represents the simultaneous co-benefits that accrue from their pursuit. Subsequently, a "many pathways" approach to managing working lands recognizes the tremendous diversity of agricultural landscapes and ecosystems, and enables producers to utilize the systems and practices that best support their own unique situations and circumstances.

The overarching objective of the vision for 21<sup>st</sup> century agricultural and forestry production systems offered by SfL's white paper is the attainment of the [Sustainable Development Goals](#) (SDGs), 17 objectives set in 2015 for 2030 by UN members to call for (among other outcomes) the elimination of hunger, the restoration of clean water resources, the development of clean energy and the mitigation of a changing climate.

Included in the paper are "stories from the land" that document the work being undertaken on many farming, ranching and forestry operations that showcase "win-win" scenarios: systems and practices that offer that present solutions for global challenges, while improving environmental resilience, building strong rural communities, engaging consumers, and enhancing public health through access to nutritious food.

Thanks to hard work, indigenous knowledge, innovation and technology, and uncommon collaboration among those who make their living off the land, agriculture is poised to bloom, grow, and emerge as a primary solution pathway towards the achievement of worldwide sustainable development goals. SfL invites partners across the planet to join in this epic quest and movement to position farmers, ranchers and foresters at the forefront of addressing global challenges.

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***Solutions from the Land (SfL)** builds and facilitates state, national and global initiatives and alliances through which farmers, ranchers, foresters and collaborating partners showcase examples of innovation and proactively advocate for policies, partnerships, investments and research that will enable agricultural landscapes to deliver near-term, cost-effective, integrated solutions to global mega-challenges: food and energy security; sustainable economic development; climate change and environmental improvement. For more on SfL, click [HERE](#).*