Task Force 6
Accelerating SDGs: Exploring New Pathways to the 2030 Agenda

REGENERATIVE AGRICULTURE IN LOCALISED FOOD SYSTEMS: A CLIMATE-SMART WAY TOWARDS NUTRITION SECURITY AND FOOD SOVEREIGNTY

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Abstract

Food security has been at the centre of global agriculture cooperation, but achieving it has resulted in a dichotomy where consumers are exposed to global foods, but traditional diversity of crops on the farm has dwindled and local communities' food sovereignty has eroded. The problem is that food security and sovereignty are pitched against each other. This Policy Brief highlights how local food systems with regenerative farming practices can offer scalable alternatives to this deadlock. Several G20 presidencies have alluded to the importance of local food systems through the need for nature-positive, context-specific, and small-scale friendly solutions. The Indian G20 presidency should strive to present a roadmap to mainstream such food systems. To do this, this Brief recommends repurposing existing agricultural support, catalysing sustainable food consumption choices, and facilitating this transformation through enablers.

The Challenge

1

The global food system produces approximately 3,000 kilocalories of food per person per day.[1] This is more than the 2,500 kilocalories per person per day recommended in the EAT's Planetary Health Diet.[2] However, an estimated 768 million people worldwide do not have enough food to meet their daily energy needs, and around 2 billion people experience some form of food insecurity, while an estimated 2.3 billion people are either overweight or obese.[3] Reducing this inequity in access to healthy, nutritious food remains a pertinent challenge for the food system.

The Green Revolution heralded an era of plenty and rid the world of the food insecurity that followed the World Wars. Unfortunately, it also created economies of scale that promoted mono-cropping practices sustained through increasing use of chemical inputs. Behind this industrialised food production system is an agriculture support system that subsidises these chemical inputs and further entrenches farmers' dependence on them.[4] These mono-cropping agricultural systems negatively impact land use, land cover, and freshwater sources[5] and degrade biodiversity, soil health, and water quality. These intensive systems are also responsible for 21–37 percent of total agriculture emissions globally.[6] Furthermore, the existence of global value chains leads to considerable food loss[7] and an import dependence that exacerbates food insecurity, particularly in times of crises, such as the COVID-19 pandemic, leading to extreme price volatility, disrupted markets, and paralysed transportation.[8]

The industrialised food production system has increased the availability of processed food globally, leading to a dichotomy where consumers are exposed to increasing food options from across the world, but traditional diversity of crops on the farm is dwindling. This curtails the food sovereignty[a,9] of local communities as they succumb to existing market structures that affect

a Food sovereignty recognises that farming is both a way of life and a means of producing food. It ensures that food is produced in a culturally acceptable manner and in harmony with the ecosystem in which it is produced. It puts the aspirations and needs of those who produce, distribute, and consume food, rather than the demands of markets and corporations, at the heart of food systems and policies.

both their production and consumption choices. Moreover, as consumers are exposed to global food options, they become increasingly disconnected from their surrounding agricultural systems and food cultures. This leads to food choices that are bereft of the ecological considerations within which our food systems must ideally thrive.

The fundamental problem of the current food system is that it pitches food security against sovereignty. While food security is essential for the social and economic development of the world at large, food sovereignty is necessary for centring the food systems discourse around food producers and the environment. This Brief throws light on how local food systems,[b,10] combined with sustainable agricultural approaches[c,11] like regenerative farming practices,[d] can offer scalable alternatives to present systems and thereby enable food and nutrition security, food sovereignty, and ecological wellbeing for all.

b Local food systems do not have a standard definition. The definition depends on the context in which they are being considered. 'Local' can be viewed in terms of geographical proximity (distance between the producer and consumer), relational proximity (close relationship between the actors), and proximity in values (traceability, freshness, quality, etc.).

c Several terminologies exist to describe sustainable agriculture, as highlighted in a study by CEEW, which identified 70 definitions of the term 'sustainable agriculture'. Therefore, this Policy Brief's recommendations, while framed for regenerative agriculture, should be viewed as applicable to the myriad approaches of practicing agriculture in a sustainable manner, synchronous with the ecology.

d Regenerative agriculture describes holistic farming systems that, among other benefits, improve water and air quality, enhance ecosystem biodiversity, produce nutrient-dense food, and store carbon to help mitigate the effects of climate change. These farm systems are designed to work in harmony with nature while also maintaining and improving economic viability.

The G20's Role

2

The G20 countries contain 60 percent of the world's agricultural land and are party to 80 percent of the global food and agriculture-related trade,[12,13] making them a crucial stakeholder in advancing solutions for sustainable food systems.

Between 2008 and 2021, the G20 made 149 commitments[14] on food and agriculture. Despite the G20's considerable focus on food security and combating the threat posed to agriculture by climate change,[15] the pandemic brought a wave of malnutrition, which was a consequence of broken global food supply chains. This triggered a substantial response from the G20 leadership as the member nations signed the Matera Declaration,[16] which promotes small-scale and family-based farming systems and biodiversity preservation and encourages complementarity between innovations in business with traditional knowledge and local food cultures.

The Matera Declaration places a dual focus on sustainable agricultural practices and localised food systems by encouraging the G20 members to do the following:[17]

- Improve inter-regional logistics and distribution systems, linkages between rural and urban areas, and value-chain infrastructure;
- Increase catalytic investments for the benefit of small-scale and family farmers, fisherfolk, pastoralists, agro-enterprises, and cooperatives that can build risk tolerance to market failures, provide capital to improve their productivity, and promote digital transformation and innovation;
- Accelerate the context-specific adaptation of agriculture and food systems to climate change, especially through policies promoting integrated farming systems as well as climate-sensitive and agro-ecological approaches, with participation from the private sector.

The Indonesian G20 presidency further emphasised the importance of food systems that can generate nature-positive[e,18] outcomes, halt and reverse

e The 2021 UN Food Systems Summit formally recognised nature-positive production as one of five critical pathways to sustainable food systems. A nature-positive approach enriches biodiversity, stores carbon, purifies water, and reduces pandemic risk.

biodiversity loss, and adopt measures that strengthen local and indigenous food systems and supply chains. This was in line with the need to find context-specific solutions owing to the lack of a one-size-fits-all approach to agriculture and food systems transformation.[19]

In continuation of the references made by previous G20 presidencies, the Indian G20 presidency should strive to present a roadmap to enable a localised regenerative and small-holder friendly food system that is climate-resilient and ensures nutritional security for all.

Recommendations to the G20

3

In order to operationalise this food systems transformation, the G20 should focus on two priority areas: repurposing agricultural support and promoting sustainable food choices. This Brief has analysed select cases from India and Germany to showcase how context-specific, local, and sustainable food system models can work across the Global North and South (Annexure).

Recommendation 1: Repurpose existing agricultural support systems and parameters of accounting

An incorrect economic valuation system fails to account for the negative externalities of chemically intensive or high-emission food production systems as well as the positive externalities of sustainable and regenerative practices. To overcome this challenge, a call to mainstream True Value Accounting (TVA) was made during the Indonesian G20, but the action remains limited.[20]

TVA goes beyond conventional financial valuation methods as it monetises and internalises ecological and social implications of agriculture production.[21] Under TVA, food from regenerative farming methods would be cheaper than conventionally grown food, since the latter's price would factor in the cost to the environment. Similarly, locally grown food would travel less and be priced lower than imported food. There are several successful cases in Zambia, Malawi, India, the USA,[22] and Germany where farmers have maintained and, in some cases, increased farm productivity while reducing food miles and conserving soil health and biodiversity. Under TVA, conventionally grown food would cost more than food from regenerative practices, and this price correction would automatically lead to better consumption choices.

Globally, support for agricultural producers constitutes 15 percent of total agricultural production value.[23] This support creates artificial incentives to pursue agricultural practices while overlooking the surrounding ecology. With TVA, this agricultural support could be repurposed as direct transfers to vulnerable consumers to ensure affordability.

The G20 should facilitate collaboration and coordination across stakeholders like governments, research institutions, non-government organisations, and

the private sector to ensure coherence across the member nations' repurposing efforts driven by mutually agreed-upon TVA frameworks. These efforts should be pursued with the aim of garnering commitments from all the G20 countries to repurpose agricultural support in the short term. In the medium to long term, the G20 should facilitate the development of evaluation and reporting systems that can be contextualised across spatial boundaries (countries, regions, cities) to make their agriculture support structures coherent with global sustainability goals.

Recommendation 2: Promote sustainable food choices

A lack of access to and unavailability of nutritious foods and an abundance of choices and nudges towards unhealthy, processed foods has created an unsustainable food consumer. The G20 must take initiatives to create sustainable food consumption trends.

In order to encourage sustainable food choices, the G20 should catalyse investments that: (i) are geared towards awareness creation, (ii) repurpose the support towards the procurement and provision of food in public institutions to include locally sourced, regeneratively grown produce, and (iii) facilitate platforms that can amplify success stories and best practices.

Investments are needed towards large-scale education programmes and awareness campaigns and initiatives that can encourage sustainable food choices. For example, the EAT-Lancet recommendations on Planetary Health Diet need to be customised not just at national levels but also at the sub-national levels that facilitate local production-consumption loops. These context-specific recommendations can enable sub-national governments to repurpose their agriculture support. Additionally, public-private partnerships can drive nudges in urban retail through labelling initiatives that distinguish local produce and inform the consumer of the provenance or of separate marketplaces for locally sourced produce. Lastly, investments are required to run large-scale projects in agricultural economies such as Indonesia, India, and Brazil to promote 'nutrition-smart' cultivation practices that fulfil the nutritional needs of farming communities.

Several G20 members have social assistance programmes[f] in place to improve food security. These programmes should be repurposed to promote locally sourced food products. Similarly, institutional procurement for schools and hospitals should be done locally. Several G20 members are part of the School Meals Coalition, which should be mandated to include local procurement as one of the objectives.

The Milan Urban Food Policy Pact[g] has outlined a set of goals and commitments for cities to promote healthy and sustainable diets, support local food systems, and strengthen urban-rural linkages, among others. The G20 should facilitate and promote such coalitions[h] that can bring community-based groups on the same table as policymakers. Such platforms can amplify successful sub-national initiatives and enable cross-learnings.

Lastly, the G20 should bring in guidelines for the sourcing and recipes of food served at G20 events. The presidencies should champion locally sourced food and be cognizant of EAT's Planetary Health Diet recommendations. The Indian G20 presidency, for example, has featured several millet-based dishes in the meetings held in 2023.

Recommendation 3: Create enablers that facilitate localised, sustainable, and small-scale farming-friendly food system transformations

Local food systems transformation, on account of being highly context-specific, cannot be scaled up with a one-size-fits-all approach. However, while entire systems cannot be replicated across different contexts, solutions and best practices can be shared, and a bottom-up, collaborative scale up can be possible if the right enablers

f India's nationwide Public Distributions System (PDS) covers around 800 million people who can access rice, wheat, and coarse grains through a network of Fair Price Shops (FPS). Similarly, Brazil, Indonesia, China, and Mexico have social support systems to alleviate poverty and food insecurity.

g The Milan Urban Food Policy Pact (MUFPP) is a commitment signed by cities around the world to develop sustainable and equitable food systems. The pact was launched in October 2015 and was signed by more than 200 cities from around the world.

h Other coalitions like the MUFPP are the C40, the EUROCITIES, and the 100 Resilient Cities.

are put in place. The G20 can enable such a transformation by leading the facilitation of an effective mechanism and catalysing the finance through the following steps.

First, it should establish a task force of experts and stakeholders to develop strategies for transformation. This task force will be responsible for identifying viable funding vehicles[i] with which to align the transformation and create guidelines[j] for national and sub-national governments to follow. It will also facilitate inclusive multi-stakeholder engagements on repurposing agricultural support and shaping sustainable food choices with the aim of assessing the financing requirements for transformation in the short term and aligning everyone's actions to the shared vision in the medium to long term.

Second, the G20 should create mechanisms for improving research, innovation, and knowledge dissemination systems on regenerative agriculture and local food systems under the leadership of the Meeting of Agricultural Scientists (MACS). A stocktake is required to track the collective progress towards regenerative agriculture and to create strategic opportunities for collaboration and cooperation. Initiatives like the Global Hub on Indigenous Foods of FAO should be supported to generate evidence and facilitate knowledge-sharing between indigenous communities and scientific researchers to bring convergence between the two types of agricultural systems.

Lastly, the task force should facilitate convergence on these actions with other global forums such as COPs and the UN Food Systems Summit. This is important because progress in other global forums on the need for a holistic systems approach remains slow. For example, the final document produced at the COP27's Koronivia Dialogue, the main forum to address agriculture-related negotiations, had the words 'agroecology' and 'food systems'

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i Vehicles like the National Action Plans for Climate Change or Nationally Determined Contributions are structured approaches that countries can align with to take action. Since these are internationally accepted vehicles, they can be used to attract the large financing needed for the mentioned transformations.

j The Opportunity-Innovation-Equity Food Systems Planning Framework of the FAO should be further developed to assist local food systems planning in line with the necessary action on climate change.

removed from the text, showing a lack of global consensus on what sustainable agriculture means and what sustainable food systems should look like in the future.[24] Such outcomes could potentially derail fundraising efforts for holistic food systems solutions and instead catalyse investments towards solutions that might be climate-smart but not nature-positive.

Attribution: Saahil Parekh et al., “Regenerative Agriculture in Localised Food Systems: A Climate-Smart Way Towards Nutrition Security and Food Sovereignty,” *T20 Policy Brief*, June 2023.

Annexure

4

Select case studies from India and Germany

Regionalwert AG: A German company using TVA[k]

Regionalwert AG is a German citizen shareholder company that invests capital in building up local and organic food structures along the chain of added value. They have developed a new extended sustainability accounting for businesses in the agricultural and food sector in order to document and value the social, ecological, and regional economic services. These performance indicators are measured and monetised and added in an extended company balance sheet reflecting social-ecological assets. As a last step, public funding can use this to valorise services for the common good.

The Locavore: An Indian food platform nudging urban communities towards local consumption[l]

The Locavore is an Indian food platform that is focused on creating lasting impact and championing a local, Indian food movement through storytelling, events, projects, and collaborations. They work with different stakeholders like food producers and communities to bridge the gap between producers and consumers. They nudge behavioural shifts by partnering with the producers of indigenous and traditional foods and organising innovative events that enable conversations and knowledge flow between consumers and producers. They also aim to revive local food cultures by documenting traditional practices and recipes and sharing them with wider audiences.

Nutrition-smart villages: An example of scaling local, regenerative food systems[m]

Welthungerhilfe's initiatives like nutrition-smart villages and Bhoomi-ka have showcased how these practices not only have a sustainable impact but can also be scaled up. By combining interventions like nutrition gardens, biodiversity conservation, fallow land restoration, water conservation, and

k Authors' analysis based on a discussion with Christian Hiss, Director, Regionalwert AG, on 24 April 2023.

l Authors' analysis based on a discussion with Thomas Zacharias, Founder, The Locavore, on 13 March 2023.

m Authors' analysis based on a discussion with Swati Banerjee, Nutrition Specialist, Welthungerhilfe, on 15 March 2023.

utilising livestock biomass in localised food systems with behavioural interventions (like strengthening community institutions and establishing nutrition camps for sensitisation), 260 nutrition-smart villages established by Welthungerhilfe are improving the nutritional intake, knowledge, environmental, and communal well-being of over 282,000 people in India, Bangladesh, and Nepal.

Luzernenhof: A community-supported agriculture project in Germany[n]

Luzernenhof is a community-supported agriculture project in Germany, which means that it is a direct partnership between a group of consumers and producer(s), whereby the risks, responsibilities, and rewards of farming activities are shared through long-term agreements. Generally operating on a small and local scale, CSAs aim to provide high-quality food produced in an agro-ecological way. Without this transformation of the economic concept, this farm could not be as diverse as it is, producing 190 different products, whereas most traditional farms in the village have either specialised farming or have stopped operating completely. With the community link and support, the farm is not only feeding 500 people with organic, diverse, and fresh local produce, but has also managed to gather funds to buy land.

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Endnotes

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