United Nations Food Systems Summit

Action Track 1: Ensure Access to Safe and Nutritious Food for All

Potential Game Changing and Systemic Solutions:

A Second Compilation

Submitted to the UN Food Systems Summit Secretariat, 10 May 2021

Contents

Acronyms Used

Excludes those used only within the context of a specific game changer, which are described in the text

AT(1) – Action Track (1)

BMGF – Bill and Melinda Gates Foundation

CGIAR – Consultative Group on International Agricultural Research

FAO – Food and Agriculture Organization

(UN)FSS – (United Nations) Food Systems Summit

GAIN – Global Alliance for Improvee foor2.30.6ri.6 (n)2.2

leadership team, work has been divided into three working groups aligning to the Action Areas noted above, each led by AT1 leadership team members:

(1) Reducing hunger, led by Samuel Benin and Natalia Strigin
(2) Increasing access to affordable, nutritious foods, led by Corrina Hawkes
(3) Increasing food safety, led by Delia Grace and Pawan Agrawal

The other members of the working groups are also drawn from the larger leadership team, including the cross-cutting thematic members focused on gender, finance, and innovation as well as member states affiliated to the Action Track. The full leadership team meets approximately once a month. The working groups set their own schedules according to leaders' and members' preferences. Also, the FAO as UN anchor, and the Science Group lead have all been actively involved in the AT1 internal idea-identification and -vetting process.

Process for Identifying and Developing the Ideas in this Paper

Ideas were identified and put forward in two 'waves': a first wave developed between November 2020 and January 2021 and submitted to the Summit Secretariat in February, and the second wave developed between February and April 2021 and presented here. For this second wave, Action Track 1 used the following process to select game-changing ideas:

- We created an online Google Form through which stakeholders and members of the public could submit their ideas, which then fed into an idea database; this form has been promoted through our different Public Forums as well as via social media and email list-serves and the online Summit community.
- Members of the AT1 support team reviewed a number of recent high-profile international reports (e.g., SOFI 2020, Ceres2030, PARI 2020, OECD 2021) to extract relevant ideas with broad and/or high-level support, which were added to the abovementioned database.
- The ideas added to the database were shared with the leads of the three AT1 working groups, approximately every two weeks; they then vetted those ideas with their working group and decided how and whether to pursue and refine them further. Most working groups met weekly to discuss and debate the developing ideas.
- In parallel, each working group identified its own potential solutions through their own internal processes, which relied on the diverse expertise and experience of the working group members, their broader networks, and research and case studies of which they were aware; t (t)-6 (h)-0.7 (e)4.8 (d)-06rsdu-0.7 (r)3 ( )-100.8 (a)-3.32 (i)-3.3aral5 (r)11 1 ( )11-0.84.9 (h4. Tw 17.63 0 Td (

The following sections present Action Track 1's second set of game-changing solutions, for consideration. For each solution we briefly explain what it is, the problems it is addressing, and how it

Alternatively, *carbon markets* could be leveraged, as well-managed soils will tend to sequester carbon. To tap into these markets, nutritional needs and preferences. Farmers' seed systems are key to providing farmers with access to both local varieties developed over millennia of farmer selection and modern varieties developed with modern plant breeding. We call for a bottom-up demand-driven approach to seed security to complement the currently dominant top-down supply-side approach, thereby supporting farmers' agency and recognising farmers' seed systems' contribution to global food security.

Source(s) of the Solution: This solution emerged from a food system forum in Norway consisting of actors from the government, NGOs, and academia. Norwegian farmers later joined the group. These actors have a history in the agrobiodiversity space – including hands-on experience with conservation and use of agrobiodiversity, research on governance and management of crop genetic resources, and active participation in international fora for governance of agrobiodiversity. This brief was authored by the Norwegian Ministry of Foreign Affairs, Norwegian Ministry of Agriculture and Food, Norad, Norwegian Farmers Union, Development Fund Norway, Caritas Norway, and staff at the research institutions Fridtjof Nansen Institute and the Norwegian University of Life Sciences.

Problem addressed within food systems: Food security starts with a seed. This is recognised in SDG2, the Zero Hunger goal, where target 2.5 is about maintaining the diversity of plants and animals used in agriculture. Yet the currently dominant approach for seed system development is unable to meet the needs of the majority of the farmers in the Global South. In most LMICs, farmers' seed systems supply the bulk of the seeds used by smallholders. This proposal addresses the problems of meeting the needs of farmers and halting the loss of agrobiodiversity by moving seed security centre stage in all seed policy and action. Seed security exists when men and women within a household have sufficient access to quantities of available, good quality seed and planting materials of preferred crop varieties at all times in both good and bad cropping seasons (FAO, 2016).

Placing farmers' access to crop diversity first in seed system policy and practice will link 'upstream' efforts to conserve agrobiodiversity with 'downstream' efforts to strengthen farmers' livelihoods and food security. Changing the rules of the game of this central part of the food sector by putting the needs of the smallholder farmer at the core will enable local breeding and development of these resources as a vital contribution to seed and food security. This approach will expand on the vast diversity of local crop varieties that are adapted and adaptable to local environmental conditions and climate change. It will also meet nutritional needs and local preferences for food and fodder.

The proposed actions will be gender-responsive, considering the differences in use, preferences, and benefits between men and women. Women and men often have access to different spaces and environments and fulfil different tasks that may give them distinctive information and practical knowledge about local agricultural biodiversity. Clarifying the differences and complementarities is essential to ensuring gender equality in community-based agrobiodiversity management and to meet the particular needs of women in this context.

How this solution will address that problem: The solution is to ensure farmers' access to a diversity of affordable quality seeds of preferred crop varieties in a systemic way, from the local, via the national, to the international level, and vice versa. This will transform the sector to truly adapt a 'demand side' focus with farmers at centre stage, scaling up and out successful models from a local to a national and international level. Actions include establishing and scaling up community seed banks, collaborative plant breeding programmes, and cooperative seed production; improving rural livelihoods through capacity building at the community level and related micro-finance programmes; and providing assistance to countries in reviewing and adjusting their seed policies and legislation to support such a development. These actions will benefit from close collaboration between national, regional, operational models or underlying rules, incentives, and structures that shape food systems, acting on multiple parts of – or across – the food system, to advance global goals which can be sustained over time". The proposal can be scaled up and benefit millions of smallholder farmers, strengthening their potential as food producers and providers of food security. The investment will be paid back in terms of increased food production, food security, and conservation of agrobiodiversity. The actionability of the proposal is guaranteed by its alignment with international agreements and the proposed actions being well-documented practices. The proposal's sustainability lies in strengthening, well beyond 2030, agrobiodiversity and the systems to manage it, and increasing farmers' possibilities to continuously adapt food production to climate change, which will reduce poverty and humanitarian needs.

Existing evidence: Research shows that farmers' seed systems provide most of the seed supply for many crops and countries and play an important role in circulating planting material among farmers globally (Coomes et al. 2015). This empirical evidence is the rationale for saying that supporting these systems must be the goal of seed policy, legislation, and action. Proofs of concepts to be used as references for a global up-scaling of approaches to support farmers' seed systems are readily available, such as the Inventory of Good Practices developed by the Expert Group on Farmers' Rights established by the International Treaty.[3] Also the external evaluation of the third project cycle of the Benefit-sharing Fund of the International Treaty on Plant Genetic Resources for Food and Agriculture documents the impact of activities such as participatory plant breeding and establishing community seed banks in strengthening farmers' seed security.

Current/likely political support: The proposal is closely linked to implementation of key provisions of the International Treaty as well as of the Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture. There are 146 Contracting Parties to the International Treaty. The proposal involves scaling up the implementation of the International Treaty to facilitate this development in collaboration with the FAO and other relevant international institutions such as the CGIAR and Global Crop Diversity Trust. The International Treaty's Benefit-sharing Fund is an efficient financial mechanism to support this development in collaboration with the Global Environmental Facility.

Contexts where this is well/not well suited: Appropriate and diverse seeds are needed wherever food is produced, in all countries in all regions. In the Global North, the approach is particularly important in support of sustainable use of seed diversity and to adopt food production to climate change, while in the Global South strengthening farmers' seed systems is fundamental to achieving food and nutrition security.

3. Boost sustainable food production through solar powered irrigation in multi-stakeholder partnerships

The Solution: A multi-stakeholder and integrated approach to promote wide-scale adoption of small-scale solar-powered irrigation systems (SPIS) by individual farmers or farmer organisations, such as women's agricultural groups. SPIS consist of a pump powered by photovoltaic panels that pumps (ground)water into a storage tank or directly to the field, where it feeds an irrigation system. The solution aims to improve farmers' access to water in order to secure more stable and increased crop production while adapting to the effects of climate change. SPIS is truly a 'nexus' solution that includes food and energy security as well as optimised use of natural resources and thus contributes to the goals of Action Track 3 as well as those of Action Track 1.

Food (WE4F). In crafting this solution, WE4F capitalised on the lessons learned from its predecessor programme Powering Agriculture: An Energy Grand Challenge for Development and the Securing Water for Food Grand Challenge. Both programmes concluded that SPIS is a mature solution that could play an essential role in boosting food production in arid and semi-arid areas.3.3 (2-0.8 (u)-0.8h (2-0.8n f(r)8.14

the social, economic, and environmental fronts.
Actionability: SPIS has been an overarching subject ever since the beginning of WE4F precursor programmes Powering Agriculture and Securing Water for Food. Therefore, WE4F has a profound background and a very capable staff on this topic. Leading international institutions like FAO and IWMI were involved in the development of the SPIS knowledge and tools. With the institutional experience of the global initiative's partners, WE4F is well able to act and foster change with its solutions.
Sustainability: Irrigation empowers farmers to grow more and a wider variety of crops and grow crops with a higher market value (especially nutrient-dense fruits and vegetables), thereby increasing their income and risk-bearing capacity while making farming more attractive for future generations. Irrigation permits longer growing periods in area that currently rely on rain-fed production. With the right financing mechanisms in place, SPIS can be accessible for farmers. Payment plans can be fulfilled by approaches like "pay as you grow" while increased yield and income allow farmers to pay for repair and maintenance.

Existing evidence: Recent studies show that an integrated approach in the context of multistakeholder efforts is needed to sustainably modernise the food system in LMICs. Priority should be given to investing in water- and energy-efficient and climate-resilient food system solutions and supporting local, private sector-led development.[5] Irrigation in LMICs has the potential to increase crop yields by 100-400%[6]. The increasing number of suppliers of SPIS technology shows the demand for SPIS and thus the relevance of the solution.

Current/likely political support: This solution is promoted by WE4F, a joint international initiative of the German Federal Ministry for Economic Cooperation and Development (BMZ), the European Union (EU), the Ministry of Foreign Affairs of the Government of the Netherlands, Sweden through the Swedish International Development Cooperation Agency (Sida), and the U.S. Agency for International Development (USAID). FAO and IWMI expressed their interest to proactively support this idea and engage in associated events. Finally, the ECOWAS Centre for Renewable Energy and Energy Efficiency and WE4F are setting up a partnership to scale-up high-potential innovations in agribusiness.

Contexts where this is well/not well suited: The solution is particularly relevant for Africa, where the great dependence on rain-fed agriculture makes food systems extremely vulnerable to climate change and climate variability, increasing the risk of food insecurity and hunger.

4. Increase Farmer Incomes, Agricultural Productivity, and Equity by Scaling up Access to Mechanisation Services

The Solution: Mechanisation is the deployment of technologies, processes, and procedures to improve the effectiveness and efficiency of food moving along value chains; it ranges from small solar dryers and rice threshers to tractors and high-tech drone-enabled soil testing. Mechanisation can benefit diverse stakeholders across agriculture and food systems and be key to future development and growth of smallholder agriculture. Mechanisation, as a market-demand driven service, increases financial viability and allows for full life-cycle service delivery, while generating new employment opportunities and increasing smallholders' market shares. Mechanisation can improve equality and productivity competitiveness between farmers in the industrialised world and farmers in LMICs. To raise agricultural productivity, make rural employment more attractive, and achieve future growth and poverty reduction, food systems stakeholders should embrace the technological, policy, and institutional innovation opportunities afforded by mechanisation by fostering innovative partnerships to pilot and scale up mechanisation and full life-cycle support for it (e.g. reliable services, cooperation arrangements) (MaMo Panel, 2018).

Source(s) of the Solution: Field experience, practical observations, key publications by researchers on agricultural mechanisation. Specifically, representatives from African Green Revolution Forum, Makerere University, IFPRI, and the International Rescue Committee contributed to this solution development.

Problem addressed within food systems: Mechanisation is emerging as critical for staple crops such as rice, maize, and wheat in Asia and especially in Africa, where food prices continue to rise despite import growth. Appropriate mechanisation can contribute to Zero Hunger by reducing the production costs of staple food, shortening value chains, and increasing local production, in turn lowering reliance on imports. It can further value addition by contributing to product differentiation (e.g., enabling milling grain of different coarseness yields different products, targeting more markets). By creating opportunities for technical, skilled jobs and increasing motivation to work in the agricultural sector, especially for the growing youth population, mechanisation contributes to diversified livelihoods and

Sustainability: By connecting innovation capacity with market demand, we ensure that current and future technologies and services can be sustainably and viably developed al. 2021), it is difficult to see how FSPs can demonstrate the profitability of using inorganic fertilisers at market prices to smallholder farmers.

Fertiliser subsidies remain popular with governments and politicians, and they are also costly.

Downey 1983) according to detailed fertiliser plans. Moreover, there are input suppliers that deliver customisable products (e.g., Fertrell). This works for large-scale farmers, but the minimum customisable amount is usually more than the total amount that a smallholder farmer may need. So, pooling smallholder farmers is critical. As indicated from the evidence from micro-dosing (Aune et al. 2017), the main change is reducing the amount, and therefore cost, of the needed nutrients to optimise their use (Optimizing Fertilizer Recommendations in Africa).

Actionability: Governments are already spending hefty amounts on FSPs, but they are not realising the anticipated increase in yields, food security, and poverty reduction. So, there is nothing or little for them to lose by using a portion of the FSP funds to purchase and distribute fertilisers that are more suitable for their target farmers. This is particularly actionable once linked to other AT1 solutions on precision agriculture (Wave 1) and soil health (Wave 2).

Sustainability: Once farmers realise the benefits of the customised inputs, technologies, and related services, they will demand more, which will create the incentive for more private-sector actors to get into the business. Poor farmers may still need subsidies.

Existing evidence: See evidence under impact potential.

Current/likely political support: Support is likely to be strong in countries with significant FSPs (e.g., Ghana, Ethiopia, Kenya, Malawi, and Zambia).

Contexts where this is well/not well suited: This will be suitable for smallholder farmers with growth potential but poor access to commercial fertilisers. Poor farmers without the means to purchase fertilisers may continue to need subsidies as a form of social protection. It is not well suited to farmers who can purchase the fertilisers on their own, in areas of high demand for commercial fertiliser, or for fertile soils.

6. Provide more affordable high-yielding varieties of staple crops for food-insecure farmers in fragile environments

The Solution: Providing more affordable high-yielding varieties of staple crops (millet, sorghum, teff) that food-insecure farmers in fragile environments rely on.

Source(s) of the Solution: The idea draws on public submissions to AT1 through a Google Form, experience of the leadership of AT1, and members of the action track's 'Zero Hunger Working Group.'

Problem addressed within food systems: Many smallholder farmers in fragile environments, such as the Sahel and Horn of Africa, are unable to obtain adequate yields to meet the caloric requirement of

Actionability: It seems that the limited research on these crops has been focused on quality

How this solution will address that problem: Drought is a co-variate risk that affects most livestock keepers within a region, making community-based systems of sharing risk ineffective. The administration costs and moral hazards of conventional livestock insurance to cover individual cases of loss limit their effectiveness. Index-

Note: Multiple stakeholders have been working

and private financing and technical support from the respective country governments and development partners to set up activities and raise its profile. In the long term, the Coalition will be sustained through annual membership fees from member organisations, programme implementation, and fundraising efforts.

Existing evidence: The CERES2030 Report provides evidence that investing in youth in agriculture is critical to transforming food systems in Africa. Also, the African Green Revolution Forum in September 2020 brought together youth groups at its Summit to deliberate on youth solutions; however, follow up was difficult due to the considerable fragmentation in the landscape – again, alluding to the need for coordination. In March 2021, Nourishing Africa partnered with the African Green Revolution Forum to e-3 (re)-3.1 (d86.7 (lu)2.3 (A)1.9 1.1 (e)-m3.1 (e)-m3l-5.5 (o)-6.7 (c)-4.9 (1 (e)-7.38 -1.217)-4.5 7 (u)-0

demonstrate recognition of women as predominant users of natural resources in most rural communities and the important role they play in their day-to-day management (New Course 2010).

promotes impact among a large population: around 2.5 billion people, of which more than half are women.

Actionability: The widespread acceptance of collective tenure arrangements, rooted as they are in customary institutions, enhances the opportunity for implementing these reforms. Moreover, current fit-for-purpose land administration approaches also increasingly depart from the existence of collective tenure.

Sustainability: Social sustainability can be derived from the rooted nature of customary arrangements as well as the inherent spread of benefits. Collective tenure arrangements, given proper conditions, aim at preserving natural resources on which the community depends.

Existing evidence: See the report *On Equal Ground: Promising Practices for Realizing Women's Rights in Collectively Held Lands*, which is based on case studies of five diverse indigenous and customary communities in five countries that have all secured women's rights to communal lands and resources. In all five communities, laws and policies granted women rights, and livelihoods and social interventions enabled women to realise them.

Current/likely political support: There is broad support for securing women's land rights. The SDGs recognise women's land rights as essential components for achieving the goal of gender equality (Goal 5, Target 5A) and a crucial element of the goals of ending poverty and hunger, attaining food security, and promoting sustainable agriculture (Goal 1, Target 1.4; Goal 2, Target 2.3). Other key international instruments include the Voluntary Guidelines on the Responsible Tenure of Land, Fisheries, and Forests, which designate gender equality as one of 10 essential implementation principles for the

Problem addressed within food systems: Secure and equal access, ownership, and control for women and men is key for food security in the Global South. Secure rights have a substantial impact on the ability and willingness of farmers to make investments and adopt productivity-enhancing inputs. Secure land rights also provide households with enhanced food security and the ability to produce for local, regional, and global markets. From this perspective, secure women's land rights have clear development benefits to women, their households, and their communities. Over the past decades, positive changes in international spheres and national constitutions and legislation have been made. However, progressive legal frameworks and international initiatives and programmes that aim to empower women in securing their land rights are often top-down and do not result in intended outcomes as long as they are not combined with translating, implementing, and monitoring processes on women's land rights at and from the grassroots.

How this solution will address that problem: Concrete vernacularisation activities that translate women's land rights into grassroots languages are an effective strategy to increase decision-making power for women when it comes to land and natural resources. It can strengthen knowledge, improve the realisation of women's land rights on the ground, and keep track of women's land rights. Local actors play a role in shaping, fine-tuning, ministry representatives realised that the Community Land Act was underdeveloped and that further amendments were needed to protect women in these kinds of situations.

Current/likely political support: Secure women's land rights are high on the global agenda on sustainable development, and gender equality and local organisations are already supported in achieving these goals. This support is, however, very project-based and focused on short-term outcomes. This idea calls for a more coordinated effort to acknowledge local organisations' mediating role in the action arena of women's land rights. More structural and long-term support and evaluation of their work will further encourage the change that is already envisioned in the reviewed legal frameworks on land and other natural resources.

Contexts where this is well/not well suited: We suggest focusing on rural communities in sub-Saharan Africa. These solutions have been piloted in rural communities in Sub-Saharan Africa and fit well that context, especially if the overall aim is to contribute to food security, and in these contexts the issue of implementation of progressive women's land laws is often at the fore.

12. Set poverty lines and safety nets to support affordability of healthy diets

The Solution: To make healthy diets affordable in each country, national governments and development agencies can use data on the cost of healthy diets and meal preparation to adjust poverty lines and eligibility for safety-

Problem addressed within food systems: The international poverty line of $1.90/day is insufficient to reach even the lowest-cost items needed for a healthy diet. Using new data on consumer prices in 168 countries, around 3 billion people currently cannot buy or grow sufficient foods for lifelong health and physical activity (SOFI 2020). Food system investments to improve production and access to more diverse markets can expand access to some degree, but even at the lowest prices, many households are unable to reach minimally adequate standards of diet quality. Making basic meals affordable can be the foundation for social inclusion and safety nets. Clear, evidence-based poverty lines can be used to target and deliver aid in locally appropriate ways, from the World Food Programme's (WFP's) work in the world's poorest places to Supplemental Nutrition Assistance Program (SNAP) electronic benefit transfer cards in the United States.

How this solution will addre ln

Contexts where this is well/not well suited: In the lowest-income countries, food-based safety nets (like other public services) will require some expansion and refocusing of current external assistance but are logistically feasible as long as targeting and delivery are adapted to local conditions. The approach is most valuable in middle-income countries, where the fraction of people who cannot afford a healthy diet is small enough for government budgets to support targeted aid. Some high-income countries provide sufficiently high levels of social support that all households are already able to afford a healthy diet, but in many wealthier countries like the United States, food-based assistance remains one of the principal instruments used for resilience against economic downturns, helping households at times and places where incomes fall below the levels needed to afford a healthy diet.

13. ‘Reset’ wasting prevention and treatment to catalyse action and accountability

The solution: This solution aims to coalesce and clearly communicate the dialogue around what is required to reduce global wasting

N4G Summit, in order to reach SDG 2 (Zero Hunger) by 2030. To realise this vision, a set of actions will need to be put in motion simultaneously as the basis for a new global commitment to ending wasting. Numerous blockages are preventing wasting prevention and treatment from scaling up to the required levels, despite the various groups, initiatives, and agencies trying to generate momentum. More of the same is not going to be enough; course corrections need to be identified through re-examination of what has been successful (identifying exemplars) and what obstacles remain.

The six domains through which actions will be articulated are:

1. **Prevention:** How food systems can be better oriented to the prevention of wasting through diverse, equitable, sustainable diets that increase resilience to wasting; how prevention of wasting in women and children can be best advocated for and how approaches to tackling wasting can build on and be harmonised with the substantial global efforts on stunting prevention. Best practices from country exemplars (e.g. Pakistan, Malawi) will be summarised and disseminated, and lessons incorporated from important initiatives such as 'No Time to Waste' and the Emergency Nutrition Network (ENN).
2. **Financing**: How scaled-up wasting prevention and treatment can be sustainably financed through the identification of realistic costs, financial targets, and commitments. This will build on initiatives led by Results for Development (R4D), the Global Nutrition Cluster (GNC), and the Scaling Up Nutrition (SUN) movement.
3. **Advocacy:** Improving cross-sectoral coordination and advocacy efforts for wasting and tools to support this. This will draw on work spearheaded by the International Rescue Committee (IRC) and the SUN movement.
4. **Technical programming:** Considerations about what is required to scale up wasting treatment, harnessing the momentum from the UN Global Action Plan on Child Wasting (GAP), outputs of a recent international conference on wasting scale-up, ENN's report on scale-up of severe wasting management within the health system, the SUN Movement Community of Practice 2 (social mobilisation, advocacy, and communication for scaling up nutrition), and GNC recommendations.
5. **Policies and guidelines**: Ensuring evidence is acquired and translated into guidelines in a timely, transparent, and accessible manner, including clear implementation guidance. This requires active contribution to the WHO guideline development group on wasting prevention and treatment and a focus on how the UN GAP will be taken up and effectively implemented.
6. **Products** (16 g (h)]1.8c (73)2-)8.16 g (mJ 0. 0 79)-3.ir-6 (i(ec9)-609 9 -ar 5.02)-0609 9 -a l at8.

child wasting will also improve stunting. Low birthweight infants are more likely to be born wasted and/or stunted (Mwangome M, et al, 2019). There is a wealth of literature on the grave economic costs associated with childhood stunting and the resulting rationale for investing in improved nutrition (e.g., McGovern et al. 2017; Hoddinott et al. 2013).

Current/likely political support: There is considerable international interest and investment in reducing wasting as well as strong support from national governments, especially from countries with high burdens of wasting. This is exemplified by the UN agencies launching a Framework for Action for the UN Global Action Plan on Child Wasting ('GAP Framework') in 2020. The launch aimed to galvanise a coalition of partners to work closely with national governments with the ultimate goal of reducing the global burden of child wasting. Currently 23 GAP frontrunner countries across the regions of Africa, the Middle East, and Asia and Pacific have committed to implement the 'GAP Operational Road (t)-3 ąhps which are more detailed action plans to achieving the overall GAP Framework.

Contexts for which this is well suited: Countries experiencing a high burden of undernutrition; highly relevant also for many fragile and conflict-affected states.

Potential Solutions for Increasing Access to Nutritious Foods

14. Improve young children's diets through a systematic analysis and a systems approach

The Solution: Countries need to design programmes to improve the diets of young children based on a systematic analysis of the determinants and drivers of young children's diets, to deliver an essential package of interventions through the food, health, and social protection systems. This solution aims to propose an effective approach to achieve that goal.

Source(s) of the Solution: Proposed by UNICEF (with the support of Micronutrient Forum and GIZ).

Problem addressed within food systems: The poor quality of young children's diets is a critical determinant of malnutrition in all its forms. Globally, barely one in four children is eating the nutritious and diverse diets requi1 0 Td (q) Tcvqt.7 (i6 (c)-1.9 (h)2.2 ((t.7 (i6 (9 (-6 (n)10.2 (t)-(n)-0.8)2.2 ()]TJ -o)-6.6 (i6

How this solution will address that problem: If a country nutrition community needs to be able to come together to provide decisive, coordinated, and impactful responses to mitigate the impact of the pandemic on the progress made to reach the SDGs.

Contexts where this is well/not well suited: This approach is suited for all contexts, as it allows for analysis and prioritising actions based on the country context.

15. Increase fruit and vegetable consumption through consumer-level subsidies

The Solution: The solution is a subsidy for fruits and vegetab4390283ab4211.1 (.e)-6.1 p7 (is)-1.4 (p 0.678 0.2439 p consumption of fruits and vegetables while at the same time supporting the F&V market. A major assumption is that high prices are one of the primary obstacles to accessing F&V (rather than a lack of availability, for instance); it is also assumed that providing people with a payment card or application will lead them to purchase more F&V than they had previously.

This strategy would be implemented by the government, specifically the part of government in charge of nutrition-sensitive social protection programmes (in the case of Chile, this would correspond to the Ministry of Social Development and Family at a national level, but in other countries the main actor might be the Ministry of Food and Agriculture, or Ministry of Health and Family Welfare, or could perhaps be delegated to state or local governments).

The general objective is to improve diet quality for vulnerable households, while the specific objective is to increase purchases and consumption of F&V. Depending on the country context, the card or app could include other nutritious foods like legumes and milk, but the current focus on F&V is due to the fact that in many contexts these items are often more expensive and thus less accessible than other healthy products.

Solution's alignment to the 'game changing and systemic solution' criteria: This solution is a feasible, evidence-based, multi-sectorial initiative that would support vulnerable populations, which would at the same time be supporting different vendors of F&V. In regards to impact potential, Flores and Rivas (2016) argue that subsidies offer 'the best balance between effectiveness and monetary benefits to society' and can also ' among disadvantaged Aboriginal children thanks to a subsidy programme[24], and New Zealand, where researchers carried out a modelling study of a F&V subsidy in conjunction with taxes on saturated fat, sugar, and salt and found that such an initiative could have considerable positive healagh 4 (i)-3.3 (n)-0.

strategy to combat micronutrient malnutrition; LSFF would contribute to the proposed Anaemia Alliance, as LSFF can combat iron deficiency at scale through fortification of rice and flours; and the data collected under this solution could feed into the micronutrient data gap workstream of the ‘Digital Data Cornucopia’ solution.

Problem addressed within food systems: Micronutrient deficiencies and malnutrition are an enormous global challenge, undermining health, survival, and child development, and costing the global economy billions in lost productivity and health care expenses each year Anaemia is estimated 3 (aie)-3 (sn)2.2

leveraged to inspire and inform new investment in R&D and innovation by a range of stakeholders, including donors, NGOs, governments, researchers, food producers, and other businesses. These efforts will be catalysed by donor and development partner investments, business interests, and civil society pressure.

Advocacy and Accountability: Timely and accessible data on fortification quality equip civil society to drive compliance and accountability of national fortification programmes through strategic use of media and coordinated action at national level. This aspect of the solution is about using compliance data to hold government and industry accountable through coalition-building with national non-government stakeholders (consumer associations, public health advocates, and others) and investment to elevate their voices and build their power through enhanced coordination, communications support, and capacity building.

Under this solution, improved access to timely micronutrient data will be facilitated by:

- Enhanced collection of market and household data to assess availability of adequately fortified foods and contributions of fortification to addressing dietary inadequacies
- Improved record keeping, surveillance at production facilities and border entry points, and more effective regulation and data collection at the factory level
- Increased use of modelling to provide actionable and timely information for government officials, donors, and other stakeholders
-

17.

larger global push towards fossil-free economic development. Regulatory support for companies that provide helpful healthy processing, while also limiting unhealthy ultra-processing will also require tailoring to each country's national nutrition policies but can be expedited through global standards and data sources that distinguish between healthy and unhealthy forms of food processing.

18. Promote production and consumption of sustainably produced high-quality proteins

The Solution: A global, multi-stakeholder engagement that promotes production and consumption of sustainably produced high-quality proteins to mitigate global risk of protein-energy malnutrition (PEM) and other related conditions. The initiative will also seek ways of assessing the land use and environmental implications of consuming a diet consisting of fewer high-quality protein sources. The initiative will seek commitments from global food/agriculture companies and organisations to conduct the necessary research to assess global dietary protein needs more accurately. Progress will be determined and reported globally via published research, symposia at high-level international health/nutrition conferences, and expert workshops.

Source(s) of the Solution: The initiative builds off ongoing research on the measurement of dietary protein quality as called for in FAO Report #92 (Dietary Protein Quality Evaluation in Human Nutrition, Further, it should be noted that while a lack of high-quality protein foods represents an ongoing issue in LMICs, it is also not an insignificant problem for several demographic groups in high-income countries. Numerous studies have identified protein as a key nutrient for well-fed elderly adults. High protein intake may improve muscle health, prevent sarcopenia, and help maintain energy balance, weight management, and cardiovascular function in the elderly and others. Multiple health benefits have also been noted in physically active people, children, and individuals consuming specialised diets who reside in Western countries.

Solution's alignment to the 'game changing and systemic solution' criteria: Greater understanding and support for consumption of more high-quality protein sources has implications for all five of the FSS action tracks, as well as several SDGs, particularly SDGs 2, 3, 10 and 12, making this a strong game changing solution. High-quality protein foods, so important in the fight to reduce hunger and malnourishment, have an important role in the attainment of more equitable and sustainable food systems. Removing high-quality foods from the diet, or diminishing their use, may have severe unintended consequences.

Existing evidence: There are numerous studies that have demonstrated the benefits of adding more high-quality protein to the diets of malnourished people, particularly in LMICs. Several studies using dairy, eggs, and several other animal-source foods to supplement existing local diets have shown (though not exclusively)

The Solution: This solution will increase the production and consumption of vegetables, with positive livelihood and health ramifications, through three interrelated systemic changes: valuing vegetables, collective action, and relational and structural change.

Source(s) of the Solution: These game-changer ideas emerged from writing and discussion processes around the publication of the UNFSS Scientific Committee position paper "Fruits and vegetables for healthy diets: Priorities for food system research and action". The paper identified multiple opportunities for action (with very different levels of evidence) at macro, meso and micro levels, as well as pinpointing further evidence required. Based on a figure on 'systems change' shared by Lawrence Haddad as part of the UNFSS process, the ideas below focus on structural, relational or transformative levels of change, as 'big-picture' ideas for the UNFSS. This is not to negate all of the meso- and micro-level actions that need to be undertaken, from improving cold-chains to improving social marketing; these are summarised in Annex 3. What we provide here are the game-changers that would allow those other actions to be prioritised.

Problems addressed within food systems and approaches for doing so:

Valuing vegetables through transformative change (mental models) and structural change (policies and Practices): Vegetables are already a financially valuable crop: the annual farmgate value of global fruit and vegetable production is nearly $1 trillion and exceeds the farmgate value of all food grains combined (US$ 837 billion). But beyond economic value, these foods tend to be less prioritised in people's diets: As incomes rise, the consumption of meat, dairy and ultra-processed foods rise much faster than that of veg(o)-nat n thioeg(o)-nae-6 (s(i)-13 (eo)-3u(a)2.7 (i)-1.9 1)-0.6 ae, i th ifefsida ideals. These actions therefore need to be considered in context and by those affected by change, in light of an understanding of food system issues and bottlenecks limiting healthy diets in different places and for different people.

It is likely that the best way to start is to bring together diverse groups of people interested in these issues at different levels, to understand the issues and options from different perspectives and together prioritise which actions should be undertaken first in their own context. This is not easy, given inherent power disparities among interested parties, but with care and inclusion a strategy, policy or plan can be made to move towards enabling vegetable-rich food systems. As with all proposed solutions or actions, these can be informed by evidence but must be discussed by those affected by the changes through existing multilateral fora such as the UNCFS, with explicit efforts made to acknowledge and address inherent power imbalances among discussants. Having these conversations though the lens of equity, to address the needs of both winners and losers of food systems change (and other food system trade-offs), will be a vital part of the process in making change.

Relational change (Power dynamics) and Structural change (Resource flows): The Green Revolution in the latter part of the 20th century transformed agriculture's ability to produce sufficient calories to feed the world, but the focurfr tr wiso tfp(c)-4.9 (t)7.9 (t)4.9 (t)-6 (d.9)-2.8 (f (o)-9.7 2 (e)-3 (t)-5.9 .217 TD (o)-

Source(s) of the Solution: The idea came from the AT1 Food Safety Working Group. A competitive 'challenge' fund with knowledge management functions is a well-established concept, particularly in the context of addressing complex food system issues.

Problem addressed within food systems: There is growing recognition of the significant public health and economic burdens imposed on LMICs by unsafe food and of the need to strengthen the incentives and capacities to manage foodborne risks. Yet, there exists a relatively thin roster of well-tested, fit-for-context solutions. To date, most efforts to enhance food safety systems in LMICs have been informed by the experiences and institutional landscapes of today's high-income countries, which do not fit well with LMIC contexts, including their available resources, underdeveloped infrastructure, and often fragmented institutions. There is a need to identify, incubate, and validate a variety of alternative solutions that are more cost-efficient and effective in the market and institutional settings of LMICs.

There are no quick technological fixes or proven shortcuts that LMICs can take to develop well-functioning and trusted systems for food safety management [illegible] (c)1,ok sthti spal813.6 (s)1. -0.004 Tc 0.00