



SDG delivery Working Group: Work Plan 2023-24

Supply chain resilience for Food, Energy
and Water Security – Julian Hilton

EGRM Geneva, April 25-28 2023

ASSURING SUSTAINABILITY IN RESOURCE MANAGEMENT

SDG Delivery WG Work Plan 2023-24



“Poverty is not a Destiny”

Eng. Mohamed Tahar Heouaine

AFA Chairman, Chairman and Chief
Executive Officer, ASMIDAL



“Hunger is not a Destiny”

It is a collective failure of the global village to safeguard
the universal right of all its members
to a secure supply of nutritious food

What is food security?

Food security is the beneficial economic outcome of necessary and sufficient investment in the complete food supply and value chain.

- It depends on Governments to take the lead investment role, but for the private sector to continue and enhance this investment, by socially responsible, long-term, climate-smart innovation, against a background of secure political stability. Food insecurity is the direct consequence of political instability. Ref. **Prof. Ashraf El Arabi, President - Institute of National Planning (INP) Former Minister of Planning and International Cooperation, Egypt, AFA Conference Feb. 21, 2023**
- It depends on industry's willing acceptance of its current responsibility for making a major contribution to GHG emissions and climate change and transforming this into a transformative solution provided for the wholly interdependent goals of food, energy and water security by leading on NextGen Ag-Tech solutions such as
 - Highly enhanced plant nutrient use efficiency through innovative, climate smart NextGen fertilisers
 - Precision farming
 - Regenerative Agriculture in close partnership with
 - Sustained higher yields and water use efficiency
 - Significant investment in blue and green production technologies, eg blue and green ammonia
 - Smart use of new resource and supply-chain management systems grounded in block-chain and AI technologies

Ref. **Eng. Abdulrahman Shamsaddin, CEO, SABIC Agri-Nutrients AFA Conference Feb. 21, 2023**



Example: Food Supply Chain – 1945-2019



From 1945 to 2019 the driving preoccupation of both high and middle income countries was food production by volume and security of supply, characterised by:

- Fear of the sustained periods of high food insecurity during a) the Great Depressions pre-war in US and Europe and b) World War II
- Post 1945 central role of the global mineral fertiliser industry

Resulting in high, stable food security (of supply) but:

- Long, complex but highly-integrated, high-carbon footprint global supply chains
- Low prices, often exploitative of the workforce of the supplier country
- Effectively no seasonality in consumption
- Extensive, avoidable food waste
- Rising pandemic of obesity as one of a range of modes of malnutrition
- High levels of GHG emissions (CO_2 and methane (CH_4)) in agriculture and livestock (meat) production

Outcome: Food security characterised as a long-term staple responsibility, underwritten by government, powered by a commoditised fertiliser and agro-food business sector

Food Security, 2020-23: the Broken Chain



Three unforeseen but catastrophic events revealed the extreme vulnerability of food security supply and value chains and the need for immediate, smart and agile responses:

2020 – 2022 COVID Pandemic

2022 – Outbreak of Russia-Ukraine Conflict

2023 – Turkish Earthquake

Resulting in widespread food insecurity (by food type and food scarcity overall)

Highly disrupted or broken supply chains

High global food price inflation

Soaring energy costs (mostly hydrocarbon fuels) and very high sectoral profits

High global fertiliser price increases (linkage to energy costs)

Sectoral weakening of commitments to decarbonisation and net zero by 2050

Structural change in global markets caused by weaponisation of food resources

The new food security narrative, 2023- Resilience; innovative, systemic investment; collective responsibility



Food Security as a Universal Right and Public Good:

- a fundamental human right
- a collective responsibility with regional and global dimensions
- a win/win opportunity for a transformative business model for the “green” fertiliser industry
- adoption of Circular Economy principles of resource value conservation, value enhancement and Zero Waste

Framed by Ethical Reset

- driven by SDG 2, Zero Hunger
- restoration of Food Security as a collective responsibility of all members of society,
- smarter, less wasteful production and consumption

Food Security as defined by the Resilience of the Supply Chain through

- shortening of supply lines
- resilience end to end
- fundamental revision of inventory management for rapid crisis mitigation and management
- Whole life-cycle traceability and trackability.



SDG Delivery Working Group – Priorities for 2023-24 Work Plan



1. Continue with ongoing work programme (now into year 3) to deploy Blockchain and AI techniques and capabilities to UNRMS, using and building on open-source code
2. Collaborate closely with organisations and integrated CRM supply chain projects eg, Ciran and AfricaMaVal, EU Horizon (<https://intra.eu/projects/>) and AMREC, AUC/ AMDC (<https://au.int/amdc/work-streams>) with shared goals to ensure an affordable, accessible and sustainable supply of raw materials critical to life through a UN Social Resource Contract: outcome - food, energy and water security for all
3. Review and consolidate reporting standards for [cities](#), [companies](#), [states and regions](#) for a) SDG alignment; b) sustainability, impact (eg GRI <https://www.globalreporting.org/standards/>); c) sustainability, ethics (eg conflicts of interest), transparency and traceability (<https://www.cdp.net/en/guidance/>); d) proposed EU Law on due diligence for Supply Chain sustainability, and align with UNRMS design and specifications
4. Work with key stakeholders, use block chain and AI tools to help eliminate avoidable losses, wastes and thefts from critical materials supply and value chains, whether food, water or critical minerals (traceability and trackability of molecules and monies)
5. Prioritise SDG WG support for supply chains focused on climate action interventions and net zero outcomes eg EVs, renewables/ clean energy, combined with empowering learning and decision-support tools

Thank you!

Julian Hilton

Chair, EGRM SDG Delivery WG

Chairman 

jhilton@aleffgroup.co.uk

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