New York City, NY, USA
NY–A: 29 March – 2 April 2026
NY–B: 6 – 10 April 2026

General Assembly Second Committee
Background Guide 2026

Written by Meg Traska, Synne I. Kverndal, Harrison Baile, and Nadine Al Ali

NATIONAL MODEL UNITED NATIONS

NATIONAL MODEL UNITED NATIONS

THE WORLD'S LARGEST UNIVERSITY-LEVEL SIMULATION • SINCE 1927
13570 Grove Dr., Suite 294 • Maple Grove, MN 55311
www.nmun.org • info@nmun.org • 612.353.5649

Dear Delegates,

Welcome to the 2026 National Model United Nations New York Conference (NMUN•NY)! We are pleased to introduce you to our committee, the General Assembly Second Committee (GA2). Your committee's work is facilitated by volunteer staffers. This year's committee staff are: Director Harrison Baile and Assistant Director Meg Traska (Conference A), and Director Nadine Al Ali and Assistant Director Synne I. Kverndal (Conference B). Harrison recently graduated with a Master's in Political Science from the University of Saskatchewan and currently works as a Senior Legislative Adviser for a territorial government. Meg received her B.S from the University of Wisconsin Oshkosh in Psychology. She currently works as a Human Resource Compliance Specialist for a jewelry insurance company. Nadine holds degrees in Political Science and Communication Arts and works as an AI Specialist focusing on cybersecurity frameworks. Synne holds a Bachelor of Arts in International Studies and Peace and Justice Studies. She is currently pursuing a M.S. in Global Conflict, Security, and Cybercrime. The preparation of these materials was supported by Under-Secretaries-General Vikram Sakkia (Conference A) and Nicole Fett (Conference B).

The topics on the agenda for this committee are:

1. Promoting Sustainable Transport for the Achievement of the 2030 Agenda
2. Strengthening Global Supply Chains to Promote Food Security

This Background Guide serves as an introduction to the topics for this committee. However, it is not intended to replace individual research. We encourage you to explore your Member State's policies in depth and use the bibliography to further your knowledge on these topics. In preparation for the conference, each delegation should submit a Position Paper by 11:59 PM ET on 1 March 2026 in accordance with the guidelines in the Position Paper Guide and the NMUN•NY Position Papers website.

Two resources, available to download from the NMUN website, serve as essential instruments in preparing for the Conference and as a reference during committee sessions:

- The NMUN Delegate Preparation Guide, which explains each step in the delegate process, from pre-conference research to the committee debate and resolution drafting processes. Please take note of the information on plagiarism, and the prohibition on pre-written working papers and resolutions.
- The NMUN Rules of Procedure, which includes the long and short form of the rules, as well as an explanatory narrative and example script of the flow of procedure.

In addition, please review the mandatory NMUN Conduct Expectations on the NMUN website. They include the conference dress code and other expectations of all attendees. We want to emphasize that any instances of sexual harassment or discrimination based on race, gender, sexual orientation, national origin, religion, age, or disability will not be tolerated. If you have any questions concerning your preparation for this committee, please contact the Deputy Secretaries-General at dsg.ny@nmun.org.

We wish you all the best in your preparations and look forward to seeing you at the Conference!

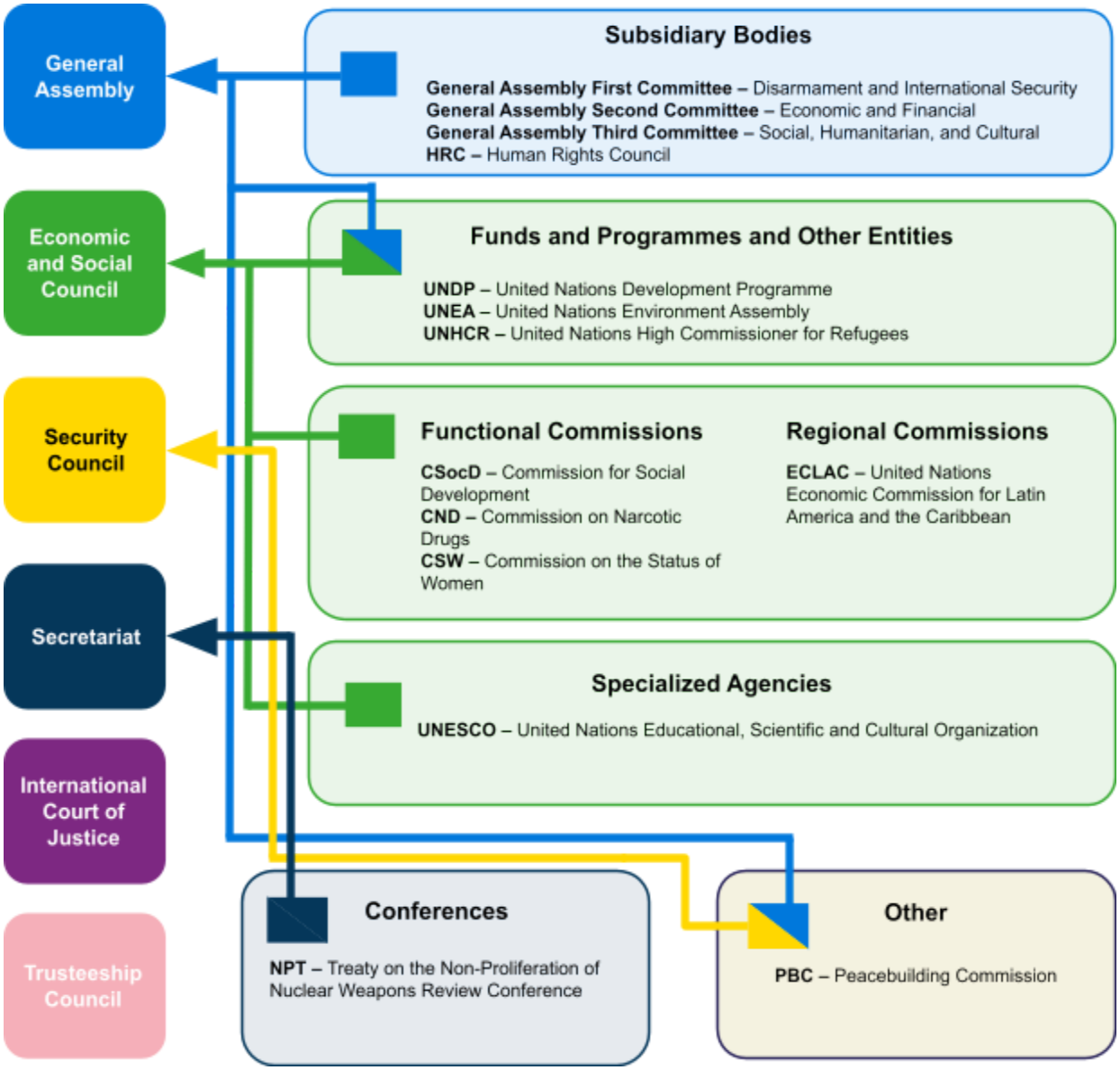
Harrison Baile, Director
Meg Traska, Assistant Director
Conference A

Nadine Al Ali, Director
Synne I. Kverndal, Assistant Director
Conference B

Table of Contents

United Nations System at NMUN•NY

This diagram illustrates the United Nations system simulated at NMUN•NY. It shows where each committee "sits" within the system to demonstrate the reportage and relationships between entities. Examine the diagram alongside the Committee Overview to gain a clear picture of the committee's position, purpose, and powers within the United Nations system.



Committee Overview

Introduction

The General Assembly is the main deliberative and policy-making body in the United Nations system.[1] With its universal membership, the General Assembly makes policy recommendations to actors at all levels, including governments, regional bodies, and other United Nations bodies.[2] Its work is spread across six Main Committees, each of which discusses and negotiates on topics within its thematic area, adopting resolutions that are then considered by the broader General Assembly Plenary.[3]

The Second Committee, the Economic and Financial Committee, addresses issues in eleven topical clusters: macroeconomic policy; operational activities for development; financing for development; groups of countries in special situations; globalization and interdependence; eradication of poverty; sustainable development; information and communication technologies for development; agriculture development, food security, and nutrition; human settlements and sustainable urban development; sovereignty of the Palestinian people over their natural resources; and the issue of global partnership.[4] Its powers and functions are derived from the broader mandate of the General Assembly, which was established by the Charter of the United Nations (1945).[5]

Mandates, Functions, and Powers

Chapter IV of the Charter established the foundational composition and capabilities of the General Assembly.[6] The mandate provided is broad, allowing for discussion on any questions or matters within the scope of the Charter.[7] The General Assembly acts as a forum for dialogue and cooperation, providing general policy recommendations rather than carrying out operative tasks.[8] Its policy recommendations are non-binding, and their implementation is conducted by Member States, the United Nations Secretariat, and other United Nations bodies, each of which independently align their work with General Assembly resolutions.[9]

Under this mandate, the General Assembly adopts resolutions, which are formal documents expressing the agreement and will of the international community.[10] The vast majority of these resolutions are adopted by consensus, meaning no vote is taken and no Member States have objections to the content.[11]

---

[1] United Nations, Department of Global Communications. *Main Bodies*. N.d.
[2] Permanent Mission of Switzerland to the United Nations. *The GA Handbook: A Practical Guide to the United Nations General Assembly*. 2017. pp. 1, 52.
[3] United Nations, Dag Hammarskjöld Library. *UN General Assembly Documentation*. 2023.
[4] Permanent Mission of Switzerland to the United Nations. *The GA Handbook: A Practical Guide to the United Nations General Assembly*. 2017. p. 71.
[5] Ibid.
[6] United Nations Conference on International Organization. *Charter of the United Nations*. 1945.
[7] Ibid.
[8] Permanent Mission of Switzerland to the United Nations. *The GA Handbook: A Practical Guide to the United Nations General Assembly*. 2017. p. 36.
[9] Ibid. p. 52.
[10] Permanent Mission of Switzerland to the United Nations. *The GA Handbook: A Practical Guide to the United Nations General Assembly*. 2017. p. 52; Council on Foreign Relations. *The Role of the UN General Assembly*. 2023.
[11] Permanent Mission of Switzerland to the United Nations. *The GA Handbook: A Practical Guide to the United Nations General Assembly*. pp. 37, 52.

In line with the *Charter of the United Nations*, the mandate of the General Assembly can be summarized as:

- The General Assembly **will generally**: make recommendations to Member States, the Security Council, other United Nations bodies and organs, United Nations specialized agencies, and other international actors; initiate studies and advance efforts to promote international cooperation in the economic, social, cultural, educational, and health fields and in the realization of human rights and fundamental freedoms; consider or request reports from other United Nations bodies and specialized agencies; establish United Nations observance days, create expert groups or commissions, formulate mechanisms for treaty negotiation, or refer an issue to the International Court of Justice.[12]

- The General Assembly **will not generally**: dictate the specific actions required for the implementation of policies it recommends, allowing Member States and other bodies to determine operational details; create new bodies, except for in those rare instances where ubiquitous international demand requires the consolidation of existing bodies or a concept and mandate have been fully developed, typically through years of negotiations; make recommendations on situations under consideration by the United Nations Security Council.[13]

Most debate, negotiation, and drafting of recommendations occur within the General Assembly's Main Committees.[14] The General Assembly's mandate is the basis for each of its subsidiary committees' mandates, though each has its own working methods, traditions, and practices.[15] The Second Committee tends to make broad policy recommendations on the issues under its purview and adopts approximately 35-45 resolutions each year, mostly by consensus and without a recorded vote, after which they are sent to the General Assembly Plenary.[16]

Governance, Funding, and Structure

The General Assembly is composed of all 193 United Nations Member States.[17] It meets in regular annual sessions and may also convene special sessions on a particular topic at the request of the Secretary-General, Security Council, or a majority of Member States.[18] Each Member State has one equal vote and most decisions require a simple majority.[19] The Second Committee's procedures are managed

[12] Permanent Mission of Switzerland to the United Nations. *The GA Handbook: A Practical Guide to the United Nations General Assembly*. p. 36; United Nations Conference on International Organization. *Charter of the United Nations*. 1945; UNFOLD ZERO. *UN Bodies*. N.d.
[13] United Nations, Dag Hammarskjöld Library. *Are UN resolutions binding?*. 2023; United Nations, Office of the Secretary-General's Envoy on Youth. *UN Women: The United Nations Entity for Gender Equality and the Empowerment of Women*. N.d.; United Nations, Human Rights Council. *Welcome to the Human Rights Council*. 2023; United Nations Conference on International Organization. *Charter of the United Nations*. 1945.
[14] Permanent Mission of Switzerland to the United Nations. *The GA Handbook: A Practical Guide to the United Nations General Assembly*. 2017. p. 68.
[15] Ibid.
[16] Ibid. p. 72.
[17] United Nations Conference on International Organization. *Charter of the United Nations*. 1945.
[18] Ibid.
[19] Ibid.

by its Secretariat and an elected Bureau.[20] The Bureau of the committee assists with opening and closing each meeting, managing the discussions, pronouncing decisions, assisting with drafts and documents, and ensuring compliance with the rules of procedure.[21] The United Nations Secretariat assists the Second Committee by delivering substantive and logistical support.[22]

As a principal organ of the United Nations, the General Assembly is largely self-governing, determining its own agenda, procedures, officers, president, and subsidiary bodies.[23] Its current subsidiary bodies include: the Disarmament Commission, the Human Rights Council, the International Law Commission, the Joint Inspection Unit, and an assortment of standing committees and ad-hoc bodies.[24] The General Assembly also jointly oversees the Peacebuilding Commission with the Security Council and the High-Level Political Forum on Sustainable Development with the Economic and Social Council (ECOSOC).[25] ECOSOC and the General Assembly also jointly receive reports from and provide oversight to the United Nations's funds and programs and various other United Nations entities.[26]

The Second Committee specifically considers reports from the United Nations Environment Assembly, the United Nations Human Settlements Programme, and the Governing Councils for the *Convention on Biodiversity* (1992), the *United Nations Framework Convention on Climate Change* (1992), and the *Convention to Combat Desertification* (1994).[27] As with all General Assembly committees, its meetings and events are funded through the United Nations regular budget.[28]

[20] Permanent Mission of Switzerland to the UN. *The GA Handbook: A Practical Guide to the United Nations General Assembly*. 2017. p. 18.
[21] United Nations, General Assembly. *Rules of Procedure of the General Assembly (A/520/Rev.19)*. 2021. pp. 30-31.
[22] Permanent Mission of Switzerland to the United Nations. *The GA Handbook: A Practical Guide to the United Nations General Assembly*. 2017. p. 69.
[23] Ibid. pp. 13, 15, 44.
[24] United Nations Conference on International Organization. *Charter of the United Nations*. 1945.
[25] Ibid.
[26] Ibid.
[27] Permanent Mission of Switzerland to the United Nations. *The GA Handbook: A Practical Guide to the United Nations General Assembly*. 2017. p. 72.
[28] New Zealand Ministry of Foreign Affairs and Trade. *United Nations Handbook 2025-26*. 2025. p. 412.

Bibliography

Council on Foreign Relations. *The Role of the UN General Assembly*. 2023. Retrieved 7 November 2025 from: https://www.cfr.org/backgrounder/un-general-assembly-unga-role

New Zealand Ministry of Foreign Affairs and Trade. *United Nations Handbook 2025-26*. 2025. Retrieved 7 November 2025 from: https://www.mfat.govt.nz/assets/Peace-Rights-and-Security/Our-work-with-the-UN/United-Nations-Handbook-2025-26.pdf

Permanent Mission of Switzerland to the United Nations. *The GA Handbook: A Practical Guide to the United Nations General Assembly*. 2017. Retrieved 7 November 2025 from: https://www.eda.admin.ch/dam/mission-new-york/en/documents/UN_GA__Final.pdf

UNFOLD ZERO. *UN Bodies*. N.d. Retrieved 7 November 2025 from: https://www.unfoldzero.org/un-bodies/

United Nations Conference on International Organization. *Charter of the United Nations*. 1945. Retrieved 7 November 2025 from: https://www.un.org/en/about-us/un-charter/full-text

United Nations, Dag Hammarskjöld Library. *Are UN resolutions binding?* 2023. Retrieved 7 November 2025 from: https://ask.un.org/faq/15010

United Nations, Dag Hammarskjöld Library. *UN General Assembly Documentation*. 2023. Retrieved 7 November 2025 from: https://research.un.org/en/docs/ga/committees

United Nations, Department of Global Communications. *Main Bodies*. N.d. Retrieved 7 November 2025 from: https://www.un.org/en/about-us/main-bodies

United Nations, General Assembly. *Rules of Procedure of the General Assembly (A/520/Rev.19)*. 2021. Retrieved 7 November 2025 from: https://undocs.org/en/A/520/Rev.19

United Nations, Human Rights Council. *Welcome to the Human Rights Council*. 2023. Retrieved 7 November 2025 from: https://www.ohchr.org/en/hr-bodies/hrc/about-council

United Nations, Office of the Secretary-General's Envoy on Youth. *UN Women: The United Nations Entity for Gender Equality and the Empowerment of Women*. N.d. Retrieved 7 November 2025 from: https://www.un.org/youthenvoy/2013/07/un-women-the-united-nations-entity-for-gender-equality-and-the-empowerment-of-women/

1. Promoting Sustainable Transport for the Achievement of the 2030 Agenda

Introduction

Sustainable transport is a cornerstone of sustainable development, and is linked to nearly all Sustainable Development Goals (SDGs).[29] In 2015, the United Nations General Assembly adopted the *2030 Agenda for Sustainable Development* (2030 Agenda), introducing the 17 SDGs.[30] Sustainable transportation is defined by the United Nations High-level Advisory Group on Sustainable Transport as "...the provision of services and infrastructure for the mobility of people and goods—advancing economic and social development to benefit today's and future generations—in a manner that is safe, affordable, accessible, efficient, and resilient, while minimizing carbon and other emissions and environmental impacts."[31] Realizing sustainable transport can help achieve 92% of the SDGs, including SDG 9 (industry, innovation and infrastructure) and SDG 11 (sustainable cities and communities).[32]

Limited access to sustainable transportation has significant consequences, with over one billion people worldwide lacking adequate transport options as of 2021.[33] The consequences of a lack of sustainable transportation, and transportation in general, impact more than the movement of people and goods.[34] Developing countries often lack access or cannot afford newer, more environmentally friendly vehicles and often rely on older second-hand imports.[35] Reliance on older secondhand vehicles leads to higher emissions and greater risks of environmental contamination in developing countries.[36] Additionally, sustainable transport can address social challenges by enhancing access to services, including youth accessing education and rural populations accessing healthcare, both of which are part of SDG 4 (quality education) and SDG 3 (good health and well-being), respectively.[37] Administrative and regulatory harmonization, resulting in more efficient transport of goods and people, is estimated to increase global GDP by 4.7%.[38] Regional regulatory cooperation, such as the Single African Air Transport Market, a regional framework for harmonizing air transport regulations, can reduce barriers to regional transportation and increase economic connections within regions.[39]

---

[29] United Nations, Department of Economic and Social Affairs. *Sustainable transport*. N.d.; United Nations, Department of Economic and Social Affairs. *Sustainable transport, sustainable development: Interagency report for second Global Sustainable Transport Conference*. 2021. p. 7.
[30] United Nations, General Assembly. *Transforming Our World: The 2030 Agenda for Sustainable Development (A/RES/70/1)*. 2015. p. 1.
[31] United Nations, High-Level Advisory Group on Sustainable Transport. *Mobilizing Sustainable Transport for Development*. 2016. p. 7.
[32] United Nations, Department of Economic and Social Affairs. *Sustainable transport, sustainable development: Interagency report for second Global Sustainable Transport Conference*. 2021. p. 6.
[33] Ibid. p. 18.
[34] Ibid. p. 18.
[35] Ibid. p. 28.
[36] Ibid. p. 28.
[37] Ibid. pp. 37, 70.
[38] United Nations, High-Level Advisory Group on Sustainable Transport. *Mobilizing Sustainable Transport for Development*. 2016. p. 16.
[39] United Nations, Department of Economic and Social Affairs. *Policy Brief: Advancing Sustainable Transport and Capacity-Building for Landlocked Developing Countries via the UN Decade of Sustainable Transport (2026-2035)*. 2025. p. 8.

Sustainable transportation has several areas for growth, including inefficient urban-rural linkages and countries in special situations.[40] Urban-rural linkages are the economic, labor, service, knowledge, and governance interactions between urban and rural areas.[41] Countries in special situations can be defined as least developed countries (LDCs), landlocked developing countries (LLDC), small island developing states (SIDS), and fragile states.[42] Countries in special situations face additional challenges regarding transportation compared to other states.[43] For example, LLDCs often pay double the transport costs, due to longer supply chains and additional customs barriers, compared to states with sea transport access.[44] Sustainable transportation, with a focus to address urban-rural disparities, has the potential to give rural populations access to urban services such as education, healthcare, and increased labor mobility.[45]

International and Regional Framework

For decades, the United Nations and the international community have underscored the vital role of sustainable transportation in promoting economic growth, social development, and environmental protection.[46] During the United Nations Conference on Environment and Development in 1992, over 178 Member States adopted *Agenda 21*.[47] *Agenda 21* outlines a holistic approach to sustainable development, balancing economic growth, social progress, and environmental protection.[48] *Agenda 21* highlights transportation as an integral part, with a focus on strengthening infrastructure and conducting research on safe and efficient transportation.[49] In 2002, the *Report of the World Summit on Sustainable Development* reinforced this, emphasizing transportation in the context of poverty eradication, consumption patterns and production, and health.[50] For example, it promotes investment and partnerships for sustainable and energy-efficient transportation systems.[51] The need for safe and efficient transportation for economic growth and improving accessibility is highlighted by the 2012 General Assembly resolution 66/288 on “The future we want.”[52] This resolution stresses the importance of the impact that sustainable transportation can have on improving social equity, health, urban-rural linkages, and the productivity of rural areas.[53] In addition to economic growth and community development, sustainable transportation helps the environment by lowering emissions.[54] In 2024, the *Pact for the*

[40] United Nations, Department of Economic and Social Affairs. *Fact Sheet Countries in Special Situations*. 2021; United Nations, High-Level Advisory Group on Sustainable Transport. *Mobilizing Sustainable Transport for Development*. 2016. p. 13.
[41] Interreg Europe. *Urban-rural Linkages: A Policy Brief from the Policy Learning Platform for a Europe closer to Citizens*. 2024. p. 5.
[42] United Nations Institute for Training and Research. *2018 Focus on Countries in Special Situations*. 2018.
[43] United Nations, Department of Economic and Social Affairs. *Fact Sheet Countries in Special Situations*. 2021.
[44] Ibid.
[45] Interreg Europe. *Urban-rural Linkages: A Policy Brief from the Policy Learning Platform for a Europe closer to Citizens*. 2024. p. 4.
[46] United Nations, General Assembly. *Strengthening the links between all modes of transport to achieve the Sustainable Development Goals (A/RES/78/148)*. 2023. p.4.
[47] United Nations Conference on Environment and Development. *Agenda 21*. 1992. p. 1.
[48] Ibid. p. 79.
[49] Ibid. pp. 41, 42, 174.
[50] United Nations, World Summit on Sustainable Development. *Report of the World Summit on Sustainable Development (A/CONF.199/20)*. 2002. p.1.
[51] Ibid. p. 19.
[52] United Nations, General Assembly. *The future we want (A/RES/66/288)*. 2012. p. 25.
[53] Ibid. p. 26.
[54] Ibid. p. 26.

Future, adopted at the Summit of the Future, outlines 56 actions to advance sustainable development for future generations, including Action 9, which addresses climate change and the need to reduce emissions from transportation through the use of zero- and low-emission vehicles.[55]

The international community has developed and committed to several frameworks focused on sustainable development.[56] To build a stronger system for financing global development, the Third International Conference on Financing for Development adopted the *Addis Ababa Action Agenda of the Third International Conference on Financing for Development* (2015) (AAAA).[57] The AAAA aims to bridge the economic, social, and environmental gaps between urban and rural areas, addressing the diverse needs of countries in special situations, and developing efficient transport and transit systems.[58] The SDGs help advocate for safe, reliable, and affordable transportation through SDG 3 (good health and well-being), SDG 9 (industry, innovation, and infrastructure), SDG 11 (sustainable cities and communities), and SDG 13 (climate action).[59] These goals serve as a guide for overall sustainable development, and the *New Urban Agenda* (2016) furthers the goal of SDG 11 by focusing on making cities and human settlements more inclusive, safe, resilient, and sustainable through transportation.[60] In addition, the *New Urban Agenda* (2016) promotes urban-rural connectivity by strengthening sustainable transport and mobility.[61] In 2025, at the 4th International Conference on Financing for Development, Member States adopted General Assembly resolution 79/323 on "Sevilla Commitment," outlining a renewed global financing framework.[62] This resolution affirms the need to improve transport systems for countries in special situations to help achieve the SDGs and enhance trade capacities.[63]

The international community recognizes the importance of sustainable transport for Member States in special situations through the adoption of various documents.[64] The *Vienna Programme of Action for Landlocked Developing Countries for the Decade* (2014) (VPoA) addresses the challenges faced by LLDCs.[65] The VPoA aims to contribute to the eradication of poverty stemming from the lack of coastal access.[66] The VPoA outlines and calls attention to the need for critical transit policies and infrastructure, trade and trade facilitation, regional integration, and structural economic transformation.[67] SIDS face a different set of obstacles; instead of being landlocked, SIDS struggle with isolation and the growing risks

[55] United Nations, General Assembly. *The Pact for the Future (A/RES/79/1)*. 2024. pp. 3, 9.
[56] United Nations, General Assembly. *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1)*. 2015. p. 1.
[57] United Nations, General Assembly. *Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda) (A/RES/69/313)*. 2015. p. 9.
[58] Ibid. pp. 3, 11.
[59] United Nations, General Assembly. *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1)*. 2015. p. 14.
[60] United Nations, General Assembly. *New Urban Agenda*. 2016. p. 13.
[61] Ibid. p. 15.
[62] United Nations, General Assembly. *Sevilla Commitment (A/RES/79/323)*. 2025. p. 1.
[63] Ibid. p. 3, 25.
[64] United Nations, General Assembly. *Strengthening the links between all modes of transport to achieve the Sustainable Development Goals (A/RES/78/148)*. 2023. p. 3.
[65] United Nations, Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States. *Vienna Programme of Action for Landlocked Developing Countries for the Decade*. 2014. p. 1.
[66] Ibid. p. 1.
[67] Ibid. p. 13-14.

of climate change, both of which pose significant challenges to transportation.[68] The *SIDS Accelerated Modalities of Action Pathway* (2014) aims to help SIDS overcome these unique vulnerabilities and achieve lasting social, economic, and environmental progress through access to environmentally sound, safe, and affordable transportation.[69] Sustainable transport supports not just a way to promote growth and trade, but also to make SIDS more accessible.[70] Reliable and sustainable transportation networks are also a key theme in the *Sendai Framework for Disaster Risk Reduction* (2015).[71] This agreement encourages Member States to build resilient infrastructure, enabling communities to access life-saving and essential services, particularly during and after disasters.[72]

Several regional sustainable transportation frameworks were developed to improve road safety, increase accessibility, and lower greenhouse gas (GHG) emissions.[73] In 2022, the *Regional Action Programme for Sustainable Transport Development in Asia and the Pacific*, which aids Member States in adopting road safety infrastructure and policies.[74] The programme aims to ensure that countries in special situations have access to and connectivity with markets, promoting equitable development.[75] In Europe, the European Sustainable Shipping Forum (ESSF), established in 2013, discusses various environmental topics in maritime transport, including air pollution and GHG emissions.[76] The ESSF has helped organize joint proposals to the International Maritime Organization (IMO) and is a contributor to the Green Shipping Guarantee Programme.[77] The need to accelerate the transition to decarbonized mobility and net-zero or low-emission transportation is emphasized in the United Nations Economic Commission for Europe declaration, *Harnessing the full potential of inland transport solutions in the global fight against climate change* (2023).[78]

Role of the International System

The Economic and Financial Committee (Second Committee) of the General Assembly plays a pivotal role in promoting sustainable transportation.[79] In 2014, the General Assembly adopted resolution 69/213 on “Role of transport and transit corridors in ensuring international cooperation for sustainable development,” stressing the importance of financing and cooperation for transportation infrastructure

[68] Ibid; United Nations, Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States. *SIDS Accelerated Modalities of Action (S.A.M.O.A.) Pathway*. 2014.
[69] United Nations, Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States. *SIDS Accelerated Modalities of Action (S.A.M.O.A.) Pathway*. 2014. p. 38.
[70] Ibid. p. 37.
[71] United Nations, General Assembly. *Sendai Framework for Disaster Risk Reduction 2015-2030 (A/RES/69/283)*. 2015. p. 17.
[72] Ibid. p. 17.
[73] United Nations Regional Commissions. *Messages from the United Nations Regional Commissions on Sustainable Transport*. N.d.
[74] United Nations, Economic and Social Commission for Asia and the Pacific. *Review of the implementation of the Regional Action Programme for Sustainable Transport Development in Asia and the Pacific (2022–2026)*. 2024.
[75] Ibid. p. 3.
[76] European Commission. *European Sustainable Shipping Forum*. 2025.
[77] Ibid.
[78] United Nations, Economic Commission for Europe. *Report of the Inland Transport Committee on its eighty-fifth session (ECE/TRANS/328)*. 2023. p. 30.
[79] United Nations, Department of Global Communications. *Economic and Financial Committee (Second Committee)*. 2025.

between Member States.[80] Additionally, the importance of sustainable transportation for job creation and improving connectivity is stressed in General Assembly resolution 72/212 (2018) on "Strengthening the links between all modes of transport to achieve the Sustainable Development Goals."[81] General Assembly resolution 72/212 (2018) called for the second meeting of the United Nations Global Sustainable Transport Conference (2021) to address the implementation of the outcomes from the first conference.[82] The Second Committee of the General Assembly has taken additional steps to promote sustainable transportation as a driver to achieving the 2030 Agenda by establishing 26 November as World Sustainable Transport Day and 2026-2035 as the United Nations Decade of Sustainable Transport.[83] The implementation plan for the Decade of Sustainable Transportation is set to be released by 2026, outlining a clear global vision for making transport an enabler of sustainable development, defining the main pillars of sustainable transport, and identifying potential funding sources.[84]

The second United Nations Global Sustainable Transport Conference (2021) addressed transport as an essential means to achieve the SDGs and leave no one behind.[85] In preparation, the United Nations Department of Economic and Social Affairs, among other United Nations agencies, published the *Sustainable Transport, Sustainable Development* (2021) report to provide background information about the challenges, opportunities, good practices, and solutions for sustainable transportation.[86] During the second meeting, discussion topics included the vulnerabilities of developing nations and landlocked nations, the impact of the COVID-19 pandemic, and the future opportunities of sustainable transportation.[87] The outcome document of the conference, the *Beijing Statement* (2021), covers the need for accessible, affordable, efficient, safe, and environmentally friendly transport systems.[88] The *Beijing Statement* calls for addressing the transportation needs of countries in special situations, strengthening regional and interregional connectivity, and increasing road safety to achieve sustainable transportation transformation.[89]

The United Nations Environment Programme (UNEP) supports sustainable transportation by advocating for increased investment in infrastructure, and working to cut emissions from transportation systems.[90] The United Nations Environment Assembly of UNEP has regular sessions discussing the topic of

---

[80] United Nations, General Assembly. *Role of transport and transit corridors in ensuring international cooperation for sustainable development (A/RES/69/213)*. 2015. p. 3.
[81] United Nations, General Assembly. *Strengthening the links between all modes of transport to achieve the Sustainable Development Goals (A/RES/72/212)*. 2018. p. 5.
[82] Ibid. p. 2.
[83] United Nations, General Assembly. *Strengthening the links between all modes of transport to achieve the Sustainable Development Goals (A/RES/78/148 (2023))*. 2023. p. 7.
[84] United Nations, Department of Economic and Social Affairs. *Implementation Plan for the United Nations Decade of Sustainable Transport - Concept Note*. 2024. p. 2.
[85] United Nations, Department of Economic and Social Affairs. *Sustainable transport, sustainable development: Interagency report for second Global Sustainable Transport Conference*. 2021. p. VI; United Nations, Department of Economic and Social Affairs. *Report of the Second United Nations Global Sustainable Transport Conference*. 2021. p. 3.
[86] United Nations, Department of Economic and Social Affairs. *Sustainable transport, sustainable development: Interagency report for second Global Sustainable Transport Conference*. 2021. p. V.
[87] Ibid. pp. VI-VII.
[88] United Nations, Department of Economic and Social Affairs. *Report of the Second United Nations Global Sustainable Transport Conference*. 2021. pp. 40-42.
[89] Ibid. pp. 40-42.
[90] United Nations Environment Assembly. *Sustainable and resilient infrastructure (UNEP/EA.5/Res.9)*. 2022. p. 1.

sustainable transportation and recently adopted resolution EA.5/Res.9 (2022) on "Sustainable and resilient infrastructure," which emphasizes the need for increased funding for sustainable transportation.[91] Through research, UNEP examines climate risks impacting the transport sector and provides recommendations for mitigating those risks, as outlined in *Climate Risks in the Transport Sector* (2024).[92] UNEP supports several initiatives that help lower emissions, for instance, the Electric Mobility Programme helps support the shift to electric mobility, such as electric vehicles, in low- and middle-income Member States worldwide through developing fiscal and regulatory policies.[93]

Several other United Nations agencies also play a role in advancing sustainable transportation.[94] The World Health Organization provides actions to improve road safety through the creation of the *Global Plan for the Decade of Action for Road Safety 2021–2030* (2021) to help achieve the goal of reducing road deaths and injuries by at least 50% by 2030.[95] To further efforts in sustainable transportation, the IMO works to reduce emissions from maritime transport.[96] The *2023 IMO Strategy on Reduction of GHG Emissions from Ships* (2023) highlights the urgent need to lower CO2 emissions, identifies obstacles to adopting more efficient transport, and improves support through capacity building, technical cooperation, and more investment in research and development.[97] The World Bank's Sustainable Mobility for All (SuM4All) Global Tracking Framework helps Member States evaluate and monitor their transportation systems using over 100 indicators across four key areas: universal access, efficiency, safety, and green mobility.[98]

The Organization for Economic Co-operation and Development's International Transport Forum (ITF) develops transportation policy and holds annual conferences for Member State transportation ministers.[99] As the only global body covering all transport modalities, the ITF serves as a platform for discussions on transport policy issues applicable to all Member States.[100] In 2024, the *Sustainable Accessibility for All* report calls attention to the need for safe and accessible transportation for all.[101] As a result, a sustainable transport access framework was developed, highlighting the need to address the planning challenges that affect the implementation of sustainable transit and accessibility policies for underrepresented and hard-to-reach groups.[102] The ITF hosted its annual summit in 2025 on Transport Resilience to Global Shocks.[103] The discussions focused on protecting global supply chains and transportation systems against shocks and disruptions.[104] While the ITF develops policies, it also initiates projects like the Sustainable Transport Systems Initiative, which identifies challenges that Member States face in creating sustainable transport policies and engages stakeholders to implement solutions.[105]

---

[91] Ibid. pp. 3-4.
[92] United Nations Environment Programme. *Climate Risks in the Transportation Sector*. 2024.
[93] United Nations Environment Programme. *Supporting the global shift to electric mobility*. 2025.
[94] United Nations, General Assembly. *Role of transport and transit corridors in ensuring international cooperation for sustainable development (A/RES/69/213)*. 2015. p. 2.
[95] World Health Organization. *Global Plan for the Decade of Action for Road Safety 2021–2030*. 2021.
[96] International Maritime Organization. *2023 IMO Strategy on Reduction of GHG Emissions from Ships*. 2023. pp. 10-11.
[97] Ibid. pp. 10-11.
[98] Sustainable Mobility For All. *Global Tracking Framework for Transport*. 2025.
[99] International Transport Forum. *About ITF*. 2025.
[100] International Transport Forum. *Sustainable Accessibility For All*. 2024. p. 11.
[101] Ibid. p. 11.
[102] Ibid. p. 11.
[103] International Transport Forum. *Thank you for joining us at #ITF25*. 2025.
[104] Ibid. 2025.
[105] International Transport Forum. *Sustainable Transport Systems Initiative*. 2025.

Strengthening Sustainable Freight Transportation Infrastructure to Facilitate Economic Development and Environmental Sustainability

Freight transportation is vital to sustainable development and economic growth.[106] The International Road Transport Union defines sustainable freight transportation as "...logistics systems designed to balance economic, social, and environmental needs."[107] It is estimated that by 2050, freight transportation will grow by over 2.6 times, yet almost all freight transport runs on fossil fuels.[108] Rapid growth and barriers such as an aging global fleet of freight modalities, underinvestment in infrastructure, and the absence of strong safety policies limit the progress towards SDG target 9.1 on resilient and sustainable infrastructure, and SDG target 11.2 on providing access to safe, affordable, accessible, and sustainable transport systems for all and expanding public transport.[109] Environmental sustainability relates to GHG emissions, resource depletion, and climate disruptions.[110] Whereas, economic sustainability refers to market access, resilience, connectivity, and energy efficiency.[111] Sustainable freight transportation encompasses both environmental and economic sustainability, promoting sustainable economic growth.[112]

While road transportation is the largest source of CO2 emissions from transportation, shipping, aviation, rail, and pipeline transport account for 26% of total transportation emissions.[113] As a result, a shift to more environmentally sound modes of freight is crucial for progress towards SDG 12 (reusable consumption and production) and SDG target 13.2 on implementing climate change measures into national policies and planning.[114] Challenges remain because of the massive volume of freight and outdated infrastructure.[115] The vast majority of freight is transported via road or by sea, over 26.8 trillion tonne-kilometres and 101.5 trillion tonne-kilometres respectively.[116] To help address pollution from ships, the *International Convention for the Prevention of Pollution from Ships* (1973) (MARPOL) was adopted along with six annexes.[117] MARPOL and the annexes cover preventing and minimizing pollution from ships - both accidental pollution and from routine operations, as well as special areas of pollution such as air, sewage, and garbage.[118] Current electric vehicle infrastructure is not viable for long-haul heavy freight

---

[106] UN Trade and Development. *Angola sustainable freight transport assessment*. 2025. p. 3.
[107] International Road Transport Union. *Sustainable freight transport*. 2025.
[108] United Nations, Department of Economic and Social Affairs. *Sustainable transport, sustainable development: Interagency report for second Global Sustainable Transport Conference*. 2021. p. 29; UN Trade and Development. *Review of Maritime Transportation 2023*. 2023. p. 29; International Union of Railways. *2023 Global Rail Sustainability Report*. 2023. p. 15; Greene. MIT Climate Portal. *Freight Transportation*. 2023.
[109] United Nations, Department of Economic and Social Affairs. *Sustainable transport, sustainable development: Interagency report for second Global Sustainable Transport Conference*. 2021. p. 29; UN Trade and Development. *Review of Maritime Transportation 2023*. 2023. p. 29; International Union of Railways. *2023 Global Rail Sustainability Report*. 2023. p. 15.
[110] UN Trade and Development. *What is sustainable freight transport?*. 2025.
[111] Ibid. 2025.
[112] Ibid. 2025.
[113] United Nations Environment Programme. *Climate Risks in the Transportation Sector*. 2024.
[114] United Nations, Department of Economic and Social Affairs. *Sustainable transport, sustainable development: Interagency report for second Global Sustainable Transport Conference*. 2021. pp. 7-11.
[115] Ibid. pp. 9-11.
[116] Greene. MIT Climate Portal. *Freight Transportation*. 2023.
[117] International Maritime Organization. *International Convention for the Prevention of Pollution from Ships (MARPOL)*. 1973.
[118] Ibid. 1973.

transport vehicles, which continue to rely on diesel.[119] Hence, the Global Fuel Economy Initiative, supported by UNEP and ITF, helps Member States develop and implement policies that promote the adoption of more efficient vehicles, including electric vehicles.[120] In addition to implementing policies, shifting the focus to other, more sustainable methods of freight transportation, such as railways, will help reduce emissions.[121]

Tailored freight solutions and frameworks aid in advancing sustainable freight systems on both global and regional scales.[122] For example, the UN Trade and Development (UNCTAD) *Sustainable Freight Transport Framework* (2017) covers the three dimensions of sustainability.[123] It offers a clear and practical approach for planning, developing, and carrying out a sustainable freight transport strategy.[124] This framework allows specific steps to happen at the same time, helping account for different levels of sustainable freight transport readiness, local needs, available resources, and schedules.[125] At a regional level, the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) hosts training-of-trainers (TOT) capacity building workshops on strengthening the workforce in the transport and logistics sector while making a more integrated logistics network across the subregion.[126] For example, ESCAP hosted a TOT workshop with Nepal Freight Forwarders Association to address the special challenges they face as an LLDC with high logistics costs to cross-border transport.[127]

Leveraging Sustainable Transportation for Urbanization and Urban-Rural Integration

Accessible, safe, and reliable transportation is vital for connectivity at all levels, promoting economic growth, creating jobs, and providing access to essential goods and services.[128] Access to sustainable transportation is not created equal in both rural and urban areas.[129] In rural areas, an estimated 1 billion people still lack access to all-weather roads.[130] Compared to urban residents, only 6 in 10 rural residents had convenient access to public transit.[131] Furthermore, in low-income Member States, roughly 67% of the population lives in rural areas, compared to 60% in lower-middle-income Member States.[132] Access to transportation doesn't guarantee safety; even though low-income Member States have less than 1% of

[119] UN Trade and Development. *Sustainable transport, sustainable development: Interagency report for second Global Sustainable Transport Conference*. 2021. p. 48.
[120] United Nations Environment Programme. *Global Fuel Economy Initiative*. N.d.
[121] United Nations Framework Convention on Climate Change. *Climate Action Pathway Transport Action Table*. 2021. p. 2.
[122] UN Trade and Development. *UNCTAD Framework for Sustainable Freight Transport*. 2017.
[123] Ibid; UN Trade and Development. *Why the UNCTAD SFT framework*. 2025.
[124] UN Trade and Development. *UNCTAD Framework for Sustainable Freight Transport*. 2017. p. 46; UN Trade and Development. *Why the UNCTAD SFT framework*. 2025.
[125] UN Trade and Development. *UNCTAD Framework for Sustainable Freight Transport*. 2017. p. 46.
[126] United Nations Economic and Social Commission for Asia and the Pacific. *ESCAP - BRUFA Training-of-Trainers (TOT) Capacity Building Workshop*. 2021.
[127] United Nations Economic and Social Commission for Asia and the Pacific. *Training-of-Trainers Capacity Building Workshop*. 2022.
[128] United Nations, Department of Global Communications. *The Sustainable Development Goals Report*. 2024. pp. 23, 26, 27, 30.
[129] World Bank Group. *Transport Overview*. 2025.
[130] Ibid.
[131] United Nations, Department of Global Communications. *The Sustainable Development Goals Report*. 2024. p. 41.
[132] United Nations, Department of Economic and Social Affairs. *World Social Report 2021: Reconsidering Rural Development*. 2021. p. 3.

the world's paved inter-urban roads, they only account for 13% of fatalities.[133] Well-designed roads are crucial for safety, but Member States are failing to meet the necessary regulations.[134]

Rural transport is about connecting people to other communities, transportation nodes, and markets, but the last leg of transport can be the most difficult.[135] Developing countries can lack the capacity, expertise, or resources to deploy and maintain sustainable transportation networks effectively.[136] Thus, the last leg of transportation is often complex and costly due to improper or unsafe transportation.[137] This struggle is known as the "last mile."[138] The "last mile" is referred to as the final stage in getting services, goods, or information to people, communities, and locations that are hardest to access and where development needs are most significant.[139] The United Nations Development Programme created *A Last Mile Action Agenda* (2016) outlining eight ways, such as best practice sharing and increased funding, allowing LDCs to target the last mile in addition to sustainable development to improve rural connectivity.[140]

Transportation links between rural and urban areas drive economic growth and development, yet access to transportation remains uneven.[141] Developing rural communities are often completely disconnected from the major roads, rail lines, and public transport services.[142] Investment in roads can enhance agricultural production, employment, living standards, and poverty reduction, helping with the achievement of SDG 1 (no poverty), SDG 3 (good health and well-being), and SDG 8 (decent work and economic growth).[143] Although building roads is one way to improve accessibility in rural areas, it does not address mobility challenges within both rural and urban areas.[144] The SuM4All initiative focuses on sustainable mobility and offers training in partnership with the World Bank called "Sustainable Mobility Requires a New Policy Approach Today."[145] This training aids policymakers in making sure their policy and infrastructure choices align with the SDGs.[146] Urban-rural linkages are ways to tackle accessibility for both urban and rural areas together, as they are interconnected.[147] The United Nations Human Settlements Programme First International Forum on Urban-Rural Linkages aimed to examine how innovative interventions such as intermediate cities and investing in tourism, played a role in revitalizing

[133] World Health Organization. *Global status report on road safety*. 2023. pp. 5-7.
[134] Ibid. p. 23.
[135] United Nations, Department of Economic and Social Affairs. *Sustainable transport, sustainable development: Interagency report for second Global Sustainable Transport Conference*. 2021. p. 53.
[136] Ibid. pp. 34, 36.
[137] United Nations, High-Level Advisory Group on Sustainable Transport. *Mobilizing Sustainable Transport for Development*. 2016. p. 14.
[138] Ibid. p. 14.
[139] United Nations Development Programme. *Getting to the Last Mile in Least Developed Countries*. 2016. pp. 8-9.
[140] Ibid. p. 84.
[141] United Nations, General Assembly. *Towards comprehensive cooperation among all modes of transport for promoting sustainable multimodal transit corridors. (A/RES/70/197)*. 2016. p. 3.
[142] Research Community for Access Partnership and Partnership on Sustainable et. al. *The Contribution of Rural Transport to Achieve the Sustainable Development Goals*. N.d.
[143] United Nations, Department of Economic and Social Affairs. *Thematic discussion 2: Reaching the most remote: rural transport challenges and opportunities*. 2016.
[144] Ibid.
[145] Sustainable Mobility for All Initiative. *World Bank Open Learning Campus*. N.d.
[146] Ibid.
[147] United Nations Human Settlements Programme. *Urban-Rural Linkages*. N.d.

rural areas.[148] One focus was on improving transportation, making it easier for farmers to get their agricultural products to cities.[149]

Climate-related events can cause severe damage to transport infrastructure (i.e., roads, railways, ports) that harms accessibility and use.[150] In some cities, this kind of infrastructure damage is also fueling a surge in rural-to-urban migration, as people move in search of more reliable access and transportation.[151] Approximately 27% of all global road and railway assets are exposed to at least one climate hazard, and the annual cost of damage to road and railway assets is estimated to range from $3.1–22 billion.[152] Rural areas, especially in LDCs and SIDS, are more vulnerable to climate-related events and more susceptible to damage to transportation infrastructure.[153] These impacts can affect access to essential goods and services, delay recovery, and stifle the economy.[154] Mitigating the effects of climate events on transport infrastructure requires financing to improve or build climate-resilient infrastructure.[155] Financing for climate-resilient infrastructure is lower for LDCs than for other Member States, posing challenges for rural areas, such as fewer transport options and larger distances to travel.[156]

Conclusion

By realizing sustainable transportation, the global community can achieve demonstrable progress towards the SDGs.[157] However, challenges remain, including transportation being a major source of carbon emissions and rural transport infrastructures' vulnerability to climate-related events.[158] Areas for growth, such as urban and rural populations' uneven access to transportation, demonstrate that the global community must take a holistic approach to achieve the SDGs.[159] The United Nations Decade of Sustainable Transportation begins in 2026, providing the United Nations and the global community with the opportunity to progress towards the SDGs via sustainable transportation.[160] The General Assembly has committed to closing the gap in infrastructure in developing countries, including transportation infrastructure and freight transportation systems.[161]

---

[148] United Nations Human Settlements Programme. *First International Forum On Urban-Rural Linkages*. 2019. p. 3.
[149] Ibid. p. 12.
[150] United Nations Environment Programme. *Climate Risks in the Transportation Sector*. 2024.
[151] United Nations Development Programme. *Cities have a key role to play in tackling climate change – here's why*. 2024.
[152] UN Trade and Development. *Sustainable transport, sustainable development: Interagency report for second Global Sustainable Transport Conference*. 2021. p. 11.
[153] World Bank Group. *Climate Resilience and Transport in Small Island Developing States*. N.d.
[154] Ibid.
[155] United Nations, Office for Project Services. *Guidelines for developing inclusive transport infrastructure*. 2023.
[156] World Bank Group. *Financing Climate Action for Transportation in Developing Countries*. 2024. pp. xiii, 81.
[157] United Nations, Department of Economic and Social Affairs. *Sustainable transport*. N.d.
[158] Ritchie. Our World in Data. *Cars, planes, trains: where do CO_2 emissions from transport come from?*. 2020; World Bank Group. *Climate Resilience and Transport in Small Island Developing States*. N.d.
[159] United Nations, Department of Economic and Social Affairs. *Sustainable transport, sustainable development: Interagency report for second Global Sustainable Transport Conference*. 2021. p. VI.
[160] United Nations, Department of Economic and Social Affairs. *Implementation Plan for the United Nations Decade of Sustainable Transport - Concept Note*. 2024. p. 3.
[161] United Nations, General Assembly. *Sevilla Commitment (A/RES/79/323)*. 2025. pp. 3, 5.

Further Research

As delegates conduct further research and consider how to address this topic, they should consider: How can the General Assembly use the *United Nations Decade of Sustainable Transportation* to promote achievement of the SDGs? In what ways can Member States and the United Nations work with the private transportation sector to implement sustainable transport systems? How can sustainable transportation benefit from the Sevilla Commitment? How can inefficient administrative barriers across Member States be addressed? How can Member States use the interlinkages between sustainable transportation and the SDGs to achieve the SDGs? In what ways can the transportation of freight globally become more sustainable? How can the international community address the transportation deficit in rural areas, particularly in LLDCs?

Bibliography

European Commission. *European Sustainable Shipping Forum*. N.d. Retrieved 23 July 2025 from: https://transport.ec.europa.eu/transport-themes/sustainable-transport/european-sustainable-shipping-forum_en

Greene. MIT Climate Portal. *Freight Transportation*. 2023. Retrieved 23 July 2026 from: https://climate.mit.edu/explainers/freight-transportation

International Maritime Organization. *International Convention for the Prevention of Pollution from Ships (MARPOL)*. 1973. Retrieved 30 August 2025 from: https://www.imo.org/en/about/conventions/pages/international-convention-for-the-prevention-of-pollution-from-ships-%28marpol%29.aspx

International Maritime Organization. *2023 IMO Strategy on Reduction of GHG Emissions from Ships*. 2023. Retrieved 29 August 2025 from: https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/annex/MEPC%2080/Annex%2015.pdf

International Road Transport Union. *Sustainable freight transport*. 2025. Retrieved 5 October 2025 from: https://www.iru.org/what-we-do/facilitating-trade-and-transit/different-types-freight-transport/what-sustainable-freight-transport

International Transport Forum. *Sustainable Accessibility For All*. 2024. Retrieved 25 June 2025 from: https://www.itf-oecd.org/sites/default/files/docs/sustainable-accessibility-for-all.pdf

International Transport Forum. *About ITF*. 2025. Retrieved 23 June 2025 from: https://www.itf-oecd.org/about-itf

International Transport Forum. *Sustainable Transport Systems Initiative*. 2025. Retrieved 23 June 2025 from: https://www.itf-oecd.org/sustainable-transport-systems-initiative

International Transport Forum. *Thank you for joining us at #ITF25*. 2025. Retrieved 23 June 2025 from: https://summit.itf-oecd.org/2025/

International Union of Railways. *2023 Global Rail Sustainability Report*. 2023. Retrieved 30 July 2025 from: https://uic.org/IMG/pdf/2023_global_rail_sustainability_report_web_1_1_.pdf

Interreg Europe. *Urban-rural Linkages: A Policy Brief from the Policy Learning Platform for a Europe closer to Citizens*. 2024. Retrieved 23 June 2025 from: https://www.interregeurope.eu/sites/default/files/2024-11/Policy%20brief%20on%20urban-rural%20linkages.pdf

Research Community for Access Partnership and Partnership on Sustainable et. al. *The Contribution of Rural Transport to Achieve the Sustainable Development Goals*. N.d. Retrieved 27 June 2025 from: https://sustainabledevelopment.un.org/content/documents/16933The_Contribution_of_Rural_Transport_to_Achieve_the_Sustainable_Development_Goals.pdf

Ritchie. Our World in Data. *Cars, planes, trains: where do CO_2 emissions from transport come from?*. 2020. Retrieved 23 June 2026 from: https://ourworldindata.org/co2-emissions-from-transport

Sustainable Mobility For All Initiative. *Global Tracking Framework for Transport*. N.d. Retrieved 25 August 2025 from: https://www.sum4all.org/global-tracking-framework

Sustainable Mobility for All Initiative. *World Bank Open Learning Campus*. N.d. Retrieved 25 July 2025 from: https://www.sum4all.org/training-courses

UN Trade and Development. *UNCTAD Framework for Sustainable Freight Transport*. 2017. Retrieved 23 June 2025 from: https://unctad.org/system/files/official-document/dtltlb2017d5_en.pdf

UN Trade and Development. *Review of Maritime Transportation 2023*. 2023. Retrieved 30 July 2025 from: https://digitallibrary.un.org/record/4042151?ln=en&v=pdf

UN Trade and Development. *Angola sustainable freight transport assessment*. 2025. Retrieved 23 June 2025 from: https://sft-framework.unctad.org/sft-rapid-assessment-reports

UN Trade and Development. *What is sustainable freight transport?*. 2025. Retrieved 23 June 2025 from: https://sft-framework.unctad.org/what-is-sustainable-freight-transport

UN Trade and Development. *Why the UNCTAD SFT framework*. 2025. Retrieved 25 June 2025 from: https://sft-framework.unctad.org/why-the-unctad-sft-framework

United Nations Conference on Environment and Development. *Agenda 21*. 1992. Retrieved 19 June 2025 from: https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf

United Nations Development Programme. *Getting to the Last Mile in Least Developed Countries*. 2016. Retrieved 23 June 2025 from: https://www.undp.org/sites/g/files/zskgke326/files/publications/getting-to-the-last-mile-oct-2016.pdf

United Nations Development Programme. *Cities have a key role to play in tackling climate change – here's why*. 2024. Retrieved 24 August 2025 from: https://climatepromise.undp.org/news-and-stories/cities-have-key-role-play-tackling-climate-change-heres-why

United Nations, Economic and Social Commission for Asia and the Pacific. *ESCAP - BRUFA Training-of-Trainers (TOT) Capacity Building Workshop*. 2021. Retrieved 28 July 2025 from: https://www.unescap.org/events/2021/escap-brufa-training-trainers-tot-capacity-building-workshop

United Nations, Economic and Social Commission for Asia and the Pacific. *Training-of-Trainers Capacity Building Workshop*. 2022. Retrieved 28 July 2025 from: https://www.unescap.org/sites/default/d8files/event-documents/Dec14_Conclusions_NEFFA.pdf

United Nations, Economic and Social Commission for Asia and the Pacific. *Review of the implementation of the Regional Action Programme for Sustainable Transport Development in Asia and the Pacific*

(2022–2026). 2024. Retrieved 23 July 2025 from: https://www.unescap.org/sites/default/d8files/event-documents/EN_CTR8_2.pdf

United Nations, Economic Commission for Europe. *Report of the Inland Transport Committee on its eighty-fifth session (ECE/TRANS/328)*. 2023. Retrieved 20 July 2025 from: https://docs.un.org/en/ECE/TRANS/328

United Nations Environment Assembly. *Sustainable and resilient infrastructure (UNEP/EA.5/Res.9)*. 2022. Retrieved 28 July 2025 from: https://docs.un.org/en/UNEP/EA.5/Res.9

United Nations Environment Programme. *Global Fuel Economy Initiative*. N.d. Retrieved 29 July 2025 from: https://www.unep.org/topics/transport/partnership-clean-fuels-and-vehicles/global-fuel-economy-initiative

United Nations Environment Programme. *Climate Risks in the Transportation Sector*. 2024. Retrieved 19 July 2025 from: https://www.unepfi.org/wordpress/wp-content/uploads/2024/05/Climate-Risks-in-the-Transportation-Sector-1.pdf

United Nations Environment Programme. *Supporting the global shift to electric mobility*. 2025. Retrieved 19 July 2025 from: https://www.unep.org/explore-topics/resource-efficiency/what-we-do/cities/sustainable-transport-and-air-pollution

United Nations Environment Programme. *Sustainable transport and air pollution*. 2025. Retrieved 19 July 2025 from: https://www.unep.org/explore-topics/resource-efficiency/what-we-do/cities/sustainable-transport-and-air-pollution

United Nations Framework Convention on Climate Change. *Climate Action Pathway Transport Action Table*. 2021. Retrieved 27 July 2025 from: https://unfccc.int/sites/default/files/resource/Transport_ActionTable_2.1.pdf

United Nations Human Settlements Programme. *Urban-Rural Linkages*. N.d. Retrieved 25 July 2025 from: https://unhabitat.org/topic/urban-rural-linkages

United Nations Human Settlements Programme. *First International Forum On Urban-Rural Linkages*. 2019. Retrieved 25 July 2025 from: https://unhabitat.org/sites/default/files/2021/10/ifurl-brief_24122020.pdf

United Nations Institute for Training and Research. *2018 Focus on Countries in Special Situations*. 2018. Retrieved 02 August 2025 from: https://unitar.org/sites/default/files/media/file/Infographic_SpecialSituations_ver3%20final_0.pdf

United Nations Regional Commissions. *Messages from the United Nations Regional Commissions on Sustainable Transport*. N.d. Retrieved 22 July 2025 from:

https://www.un.org/regionalcommissionsnyoffice/sites/www.un.org.regionalcommissionsnyoffice/files/rc_brochure_18_october_final.pdf

United Nations, Department of Economic and Social Affairs. *Sustainable transport*. N.d. Retrieved 24 October 2025 from: https://sdgs.un.org/topics/sustainable-transport

United Nations, Department of Economic and Social Affairs. *What we do*. N.d. Retrieved 20 July 2025 from: https://www.un.org/en/desa/what-we-do

United Nations, Department of Economic and Social Affairs. *Thematic discussion 2: Reaching the most remote: rural transport challenges and opportunities*. 2016. Retrieved 25 July 2025 from: https://sdgs.un.org/sites/default/files/documents/11682Thematic%2520discussion%25202%2520concept%2520note.pdf

United Nations, Department of Economic and Social Affairs. *Report of the Second United Nations Global Sustainable Transport Conference*. 2021. Retrieved 23 June 2025 from: https://sdgs.un.org/documents/report-second-united-nations-global-sustainable-transport-conference-46987

United Nations, Department of Economic and Social Affairs. *Sustainable transport, sustainable development: Interagency report for second Global Sustainable Transport Conference*. 2021. Retrieved 20 July 2025 from: https://sdgs.un.org/sites/default/files/2021-10/Transportation%20Report%202021_FullReport_Digital.pdf

United Nations, Department of Economic and Social Affairs. *Fact Sheet Countries in Special Situations*. 2021. Retrieved 02 August 2025 from: https://www.un.org/sites/un2.un.org/files/media_gstc/FACT_SHEET_Countries_in_Special_Situations.pdf

United Nations, Department of Economic and Social Affairs. *World Social Report 2021: Reconsidering Rural Development*. 2021. Retrieved 24 August 2025 from: https://desapublications.un.org/publications/world-social-report-2021-reconsidering-rural-development

United Nations, Department of Economic and Social Affairs. *Expert Group Meeting on Sustainable Transport*. 2023. Retrieved 23 June 2025 from: https://sdgs.un.org/sites/default/files/2024-04/Report_of_the_EGM_on_Sustainable_Transport_Nov2023.pdf

United Nations, Department of Economic and Social Affairs. *Implementation Plan for the United Nations Decade of Sustainable Transport - Concept Note*. 2024. Retrieved 25 June 2025 from: https://sdgs.un.org/sites/default/files/2024-10/Concept%20Note_Implementation_Plan_Sust.Transport_Decade.pdf

United Nations, Department of Economic and Social Affairs. *Policy Brief: Advancing Sustainable Transport and Capacity-Building for Landlocked Developing Countries via the UN Decade of Sustainable Transport (2026-2035)*. 2025. Retrieved 6 September 2025 from: https://sdgs.un.org/sites/default/files/2025-06/Final%20Policy%20Brief%20-%20Advancing%20Sustainable%20Transport%20in%20LLDCs.pdf

United Nations, Department of Economic and Social Affairs. *UN Decade of Sustainable Transport – Building Capacities for Action and Seeking Feedback on the Implementation Plan*. 2025. Retrieved 25 June 2025 from: https://sdgs.un.org/events/un-decade-sustainable-transport-geneva-workshop#background

United Nations, Department of Global Communications. *The Sustainable Development Goals Report*. 2024. Retrieved 27 July 2025 from: https://unstats.un.org/sdgs/report/2024/The-Sustainable-Development-Goals-Report-2024.pdf

United Nations, Department of Global Communications. *Economic and Financial Committee (Second Committee)*. 2025. Retrieved 28 June 2025 from: https://www.un.org/en/ga/second/index.shtml

United Nations, General Assembly. *The future we want (A/RES/66/288)*. 2012. Retrieved 19 June 2025 from: http://undocs.org/en/A/RES/66/288

United Nations, General Assembly. *Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda) (A/RES/69/313)*. 2015. Retrieved 19 June 2025 from: http://undocs.org/en/A/RES/69/313

United Nations, General Assembly. *Role of transport and transit corridors in ensuring international cooperation for sustainable development (A/RES/69/213)*. 2015. Retrieved 19 June 2025 from: https://docs.un.org/en/A/RES/69/213

United Nations, General Assembly. *Sendai Framework for Disaster Risk Reduction 2015-2030 (A/RES/69/283)*. 2015. Retrieved 19 June 2025 from: http://undocs.org/en/A/RES/69/283

United Nations, General Assembly. *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1)*. 2015. Retrieved 19 June 2025 from: http://undocs.org/en/A/RES/70/1

United Nations, General Assembly. *New Urban Agenda*. 2016. Retrieved 19 June 2025 from: http://undocs.org/en/A/RES/71/256

United Nations, General Assembly. *Towards comprehensive cooperation among all modes of transport for promoting sustainable multimodal transit corridors (A/RES/70/197)*. 2016. Retrieved 27 June 2025 from: https://docs.un.org/en/A/RES/70/197

United Nations, General Assembly. *Strengthening the links between all modes of transport to achieve the Sustainable Development Goals (A/RES/72/212)*. 2018. Retrieved 19 June 2025 from: https://docs.un.org/en/A/RES/72/212

United Nations, General Assembly. *Strengthening the links between all modes of transport to achieve the Sustainable Development Goals (A/RES/78/148)*. 2023. Retrieved 19 June 2025 from: https://undocs.org/en/A/RES/78/148

United Nations, General Assembly. *The Pact for the Future (A/RES/79/1)*. 2024. Retrieved 26 August 2025 from: https://docs.un.org/en/A/RES/79/1

United Nations, General Assembly. *Sevilla Commitment (A/RES/79/323)*. 2025. Retrieved 7 October 2025 from: https://docs.un.org/en/A/RES/79/323

United Nations, High-Level Advisory Group on Sustainable Transport. *Mobilizing Sustainable Transport for Development*. 2016. Retrieved 19 June 2025 from: https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=2375&menu=1515

United Nations, Office for Project Services. *Guidelines for developing inclusive transport infrastructure*. 2023. Retrieved 25 July 2025 from: https://content.unops.org/publications/Guidelines-for-developing-inclusive-transport-infrastructure.pdf

United Nations, Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States. *SIDS Accelerated Modalities of Action (S.A.M.O.A.) Pathway*. 2014. Retrieved 19 June 2025 from: https://www.un.org/ohrlls/sites/www.un.org.ohrlls/files/samoa_pathway.pdf

United Nations, Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States. *Vienna Programme of Action for Landlocked Developing Countries for the Decade*. 2014. Retrieved 19 June 2025 from: https://www.un.org/ohrlls/sites/www.un.org.ohrlls/files/vienna_programme_of_action.pdf

United Nations, World Summit on Sustainable Development. *Report of the World Summit on Sustainable Development (A/CONF.199/20)*. 2002. Retrieved 19 June 2025 from: http://undocs.org/en/A/CONF.199/20

World Bank Group. *Climate Resilience and Transport in Small Island Developing States*. N.d. Retrieved 25 July 2025 from: https://www.worldbank.org/en/topic/transport/publication/climate-resilience-and-transport-in-small-island-developing-states

World Bank Group. *Transport Overview*. N.d. Retrieved 27 July 2025 from: https://www.worldbank.org/en/topic/transport/overview

World Bank Group. *Financing Climate Action for Transportation in Developing Countries*. 2024. Retrieved 25 July 2025 from: https://openknowledge.worldbank.org/server/api/core/bitstreams/e3962d0f-6e6d-4fb4-8c7a-796da7e00827/content

World Health Organization. *Global Plan for the Decade of Action for Road Safety 2021–2030.* 2021. Retrieved 29 August 2025 from: https://cdn.who.int/media/docs/default-source/documents/health-topics/road-traffic-injuries/global-plan-for-road-safety.pdf?sfvrsn=65cf34c8_35&download=true

World Health Organization. *Global status report on road safety*. 2023. Retrieved 27 July 2025 from: https://iris.who.int/bitstream/handle/10665/375016/9789240086517-eng.pdf?sequence=1

2. Strengthening Global Supply Chains to Promote Food Security

"It is both more humane and strategically smarter to protect and sustain agricultural and rural livelihoods before food crises hit, rather than rebuild them."[162]

Introduction

Food security faces significant threats from disruptions in global supply chains caused by conflict, climate change, and other systemic challenges.[163] Food security is achieved by ensuring that everyone consistently has physical, social, and economic access to enough safe and nutritious food, tailored to meet their dietary needs and preferences for a healthy life.[164] The World Economic Forum identifies armed conflict, extreme weather events, and resource shortages as the top risks facing global supply chains in 2025, with local disruptions having widespread international repercussions due to global interconnectedness.[165] These risks have stalled progress in achieving food security in recent years, as in 2025, over 800 million people face acute hunger globally.[166] Persistent inflation and supply chain disruptions have continued to raise food prices, increasing the share of household income that must be devoted to food.[167] This impact is especially acute in low-income countries, where households often spend over half their income on food, compared to 10 to 20% in middle- and high-income countries.[168] Nearly 30% of food produced for human consumption is lost or wasted along supply chains each year, highlighting the need for greater efficiency and resilience in global networks.[169]

Integrated approaches that address infrastructure, innovation, and inclusive participation are crucial for building resilient food systems and tackling the root causes of food insecurity.[170] The six dimensions of food security - availability, access, utilization, stability, agency, and sustainability - are all impacted by the effectiveness and resilience of agrifood supply chains.[171] The absence of any dimension places people at risk of food insecurity as availability ensures sufficient food exists, access guarantees that people can obtain it, and stability means that both availability and access are consistent over time.[172] Digital transformation, including the adoption of artificial intelligence (AI), blockchain, and the Internet of Things (IoT), plays an increasingly relevant role in enhancing transparency, efficiency, and adaptability within

---

[162] United Nations, Department of Global Communications. *Keeping critical food supply chains operative to save lives during COVID-19, urges new UN-backed report*. 2020.
[163] Economist Impact. *Addressing global food insecurity: priorities for 2025*. 2025.
[164] High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security. *Food Security and Nutrition: Building a Global Narrative Towards 2030*. 2020. p. 25.
[165] Elsner et al. World Economic Forum. *Global Risks Report 2025*. 2025.
[166] Food and Agriculture Organization of the United Nations. *The State of Food Security and Nutrition in the World 2023*. 2023. p. 6.
[167] Lacerta Group. *Food Supply Chain*. 2025.
[168] Food and Agriculture Organization of the United Nations. *The State of Food Security and Nutrition in the World 2024*. 2024.
[169] Food and Agriculture Organization of the United Nations. *The State of Food and Agriculture 2021*. 2021. p. 9.
[170] Arthurs. Foods Connected. *The future of food supply chains: how businesses can adapt to changing market demands*. 2025; Unnikrishnan et al. Boston Consulting Group. *Building Resilience in Agrifood Supply Chains*. 2025.
[171] High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security. *Food Security and Nutrition: Building a Global Narrative Towards 2030*. 2020. p. 28.
[172] Ibid. p. 28.

food supply chains.[173] However, access to these technologies varies widely across regions, and many countries face barriers related to digital infrastructure, technical expertise, and cost.[174] Trade barriers imposed during recent conflicts, including those in Eastern Europe, North and West Africa, and the Middle East," have disrupted global food flows by limiting grain exports, increasing import costs, and creating significant market volatility.[175] In 2025, new tariffs on agricultural imports have further increased prices, underscoring an urgent need for international cooperation and policy harmonization to keep supply chains functioning effectively.[176] To address these multi-layered challenges, coordinated policies and inclusive planning are required to meet the diverse needs of different populations and build long-term food system resilience.[177]

International and Regional Framework

Adequate access to food is globally recognized as a fundamental human right, which must be protected.[178] The right to an adequate standard of living, explicitly including food, is set out in Article 25 of the *Universal Declaration of Human Rights* (UDHR) (1948).[179] Building on this, the 1966 *International Covenant on Economic, Social and Cultural Rights* (ICESCR) was adopted to give legal effect to the rights enshrined in UDHR.[180] Article 11 strengthens rights to adequate food and emphasizes improved methods of production, distribution of technology, and knowledge.[181] Additionally, ICESCR highlights the importance of addressing challenges faced by Member States concerning food export and import.[182] The 2014 *Rome Declaration on Nutrition and the Framework for Action* (Rome Declaration), adopted at the Second International Conference on Nutrition, notes that limited access to food supplies is among the leading causes of malnutrition.[183] Additionally, the Rome Declaration recognizes the impact of conflict, natural disasters, and post-conflict conditions on food security.[184] By acknowledging the impact of food scarcity, the Rome Declaration promotes the production of sustainable and climate-resilient food, further strengthening Article 25 of UDHR.[185]

---

[173] Arthurs. Foods Connected. *The future of food supply chains: how businesses can adapt to changing market demands*. 2025.
[174] Food and Agriculture Organization of the United Nations. *Science and Innovation Forum 2024*. 2024.
[175] Food and Agriculture Organization of the United Nations. *COVID-19 and the Risk to Food Supply Chains: How to Respond?*. 2020.
[176] Funk. Eden Green Technology. *The Impact of Tariffs on the U.S. Agriculture Industry*. 2025.
[177] Organisation for Economic Co-operation and Development. *Can Your Cupboard Survive the Next Shock? Rethinking Resilience in Food Supply Chains*. 2025.
[178] Office of the United Nations High Commissioner for Human Rights. *The Right to Adequate Food, Fact Sheet No. 34*. 2010. pp. 1-7.
[179] United Nations, General Assembly. *Universal Declaration of Human Rights (A/RES/217 A (III))*. 1948.
[180] Office of the United Nations High Commissioner for Human Rights. *International Bill of Human Rights*. 2025.
[181] Ibid.
[182] United Nations, General Assembly. *International Covenant on Economic, Social and Cultural Rights (A/RES/2200(XXI))*. 1966. p. 4.
[183] Food and Agriculture Organization of the United Nations et al. *Conference Outcome Document: Rome Declaration on Nutrition (ICN2 2014/2)*. 2014. p. 1.
[184] Ibid. pp. 1-2, 4.
[185] Ibid; United Nations, General Assembly. *Universal Declaration of Human Rights (A/RES/217 A (III))*. 1948.

Strengthening food supply chains as a means to eradicate hunger is at the forefront of international discussions on food security.[186] The *2030 Agenda for Sustainable Development* (2030 Agenda) (2015) addresses food security through its Sustainable Development Goals (SDGs), including SDG 2 (zero hunger), SDG 9 (industry, innovation and infrastructure), and SDG 12 (responsible consumption and production).[187] So far, SDG 2 shows limited progress, as the share of the global population experiencing hunger has risen from 7.7% in 2015 to 8.2% in 2024.[188] Achieving SDG 2, SDG 9, and SDG 12 depends on strengthening global supply chains by improving accessibility and resources, reducing food waste, and reinforcing resilience.[189] As a supporting framework, the 2015 *Addis Ababa Action Agenda* (AAAA) addresses global supply chains and food security through global frameworks for financing sustainable development.[190] It promotes building resilient food systems by enhancing access to markets, improving infrastructure, and advancing sustainable development, which are central to strengthening long-term food security.[191] Moreover, it highlights that increased investment, infrastructure development, and an inclusive economy promote food security and require international collaboration among Member States and United Nations bodies.[192] AAAA is strengthened through the 2025 *Sevilla Commitment,* adopted at the Fourth International Conference on Financing for Development (FFD4), which addressed current challenges in food security and financing, and called for investments in agrifood systems in developing countries.[193] Additionally, FFD4 builds on challenges identified in financing development since the adoption of AAAA in 2015 through strengthened monitoring and planned follow-ups in 2029.[194] As part of this, the General Assembly will hold the High-level Dialogue on Financing for Development on a quadrennial basis alongside related forums on sustainable development to continue the discussion on development financing.[195]

Recognizing the disproportionate impact of food insecurity on vulnerable regions, various regional frameworks have emerged to reinforce food supply chain resilience and sustainable agricultural development.[196] *The Small Island Developing States (SIDS) Accelerated Modalities of Action Pathway* (SAMOA Pathway) (2014) recognizes the unique vulnerabilities that SIDS face in achieving the SDGs, including climate change challenges such as increasing sea levels and coastal erosion.[197] The SAMOA Pathway seeks to help SIDS become more integrated into trade markets by utilizing political will and strengthening leadership with special emphasis on climate change mitigation and adaptation as priority areas.[198] On the African continent, the *Malabo Declaration on Accelerated Agricultural Growth and*

[186] United Nations, General Assembly. *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1)*. 2015.
[187] Ibid. pp. 3-4, 7-9, 14-15, 20, 22.
[188] United Nations, Department of Economic and Social Affairs. *The Sustainable Development Goals Report 2025*. 2025. p. 10.
[189] United Nations, General Assembly. *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1)*. 2015 p. 22; United Nations, Department of Economic and Social Affairs. *Goal 12: Ensure sustainable consumption and production patterns*. 2025.
[190] United Nations, General Assembly. *Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda) (A/RES/69/313)*. 2015.
[191] Ibid. p. 35.
[192] Ibid. pp. 2-3, 5.
[193] United Nations, General Assembly. Sevilla Commitment (A/RES/79/323). 2025. pp. 2, 5, 17.
[194] Ibid. pp. 39-42.
[195] Ibid. p. 41.
[196] United Nations, General Assembly. *SIDS Accelerated Modalities of Action (SAMOA) Pathway (A/RES/69/15)*. 2014.
[197] Ibid.
[198] World Bank Group. *Increasing Connectivity for Enhanced Food Supply Chain Resilience*. 2024.

Transformation for Shared Prosperity and Improved Livelihoods (Malabo Declaration) (2014) focuses on food security concerns, including food supply chain dependency, and external production, addressing sustainable African agriculture.[199] However, the declaration, which sought to end hunger and food insecurity in Africa by 2025 through sustainable agricultural growth, has fallen short of its targets.[200] To address this, the African Union launched a post-Malabo process and adopted the *Kampala Declaration on Building Resilient and Sustainable Agrifood Systems in Africa* (Kampala Declaration) (2025).[201] By 2035, it aims to increase continental agrifood production by 45%, while ensuring food security within a decade.[202] The operations of the Kampala Declaration differ from those of the Malabo Declaration by shifting focus from agriculture and production to agrifood systems, including industrialization and transportation alongside production.[203] *Agenda 2063: The Africa We Want* (Agenda 2063) (2015) of the African Union is the blueprint for African development and delivery on SDGs by prioritizing socioeconomic development to reposition the African continent in the global arena.[204]

Role of the International System

The General Assembly addresses food security through policymaking and standard-setting, as well as serving as a forum for discussion among Member States.[205] During the High-level Week of its 78th session, the General Assembly held the 2023 SDG Summit focusing on meeting basic needs and advancing the SDGs, including through improved access to food and more resilient supply chains.[206] Furthermore, resolution 78/168 on "Agriculture development, food security and nutrition" was adopted to address the importance of supporting regional programs, such as the African Union's Agenda 2063.[207] Beyond that, in resolution 72/239 on the "United Nations Decade of Family Farming (2019–2028)," the General Assembly emphasized the role of family-operated farms in achieving sustainable food systems and rural development and designated this period to encourage Member States to strengthen public policies on family farming and exchange best practices at the international level.[208] The resolution further highlights the importance of technology and innovation as a factor to strengthen sustainable agriculture to increase food security.[209] Additionally, the General Assembly continues to address concerns of developing countries by recognizing the interlinked causes of food insecurity, such as limited resources, poverty, and

[199] African Union. *Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihood*. 2014. pp. 1-4, 6.
[200] African Union. *The African Union adopts ten-year strategy and action plan to transform Africa's agri-food systems and ensure food security*. 2025.
[201] Ibid.
[202] Ibid.
[203] Ibid.
[204] African Union. *Agenda 2063: The Africa We Want*. n.d.
[205] United Nations, General Assembly. *Functions and Powers of the General Assembly*. N.d.
[206] United Nations, Department of Global Communications. *Programme & Statements SDG Summit*. 2023; United Nations, Department of Economic and Social Affairs. *The Sustainable Development Goals Report Special Edition*. 2023.
[207] United Nations, General Assembly. *Economic and Financial Committee (Second Committee)*. N.d.
[208] Food and Agriculture Organization of the United Nations. *World Agriculture Watch*. 2025; United Nations, General Assembly. *United Nations Decade of Family Farming (2019-2028) (A7RES/72/239)*. 2017. p. 3.
[209] United Nations, General Assembly. *United Nations Decade of Family Farming (2019-2028) (A7RES/72/239)*. 2017. p. 1.

climate change.[210] Finally, the General Assembly addresses the economic challenges that hinder progress towards the SDGs and the realization of Article 25 of UDHR.[211]

International organizations such as the World Bank and World Trade Organization (WTO) provide resources and conduct market accessibility projects to enhance the resilience in food supply chains.[212] The cost of food is driven by challenging infrastructure, especially in developing countries, where transportation costs can amount up to 50% of food prices.[213] The World Bank aims to strengthen food security across multiple sectors through transportation projects that address rural road development, enhance domestic food security, improve connectivity, and facilitate international trade.[214] Currently, the World Bank finances 179 projects within the transportation sector with USD 40.9 billion of total active commitments.[215] At the 12th Ministerial Conference in 2022, Member States of WTO agreed to the *MC12 Outcome Document*, also known as "Geneva Package," which includes agreements to exempt food items from export restrictions and establish a food security working program conducted by the World Food Programme (WFP), targeting Least Developed Countries and net food-importing developing countries.[216] Through participation in the Agricultural Market Information System, an inter-agency platform working to enhance policies targeting food security, WTO aims to strengthen market transparency while promoting dialogue on food price increases.[217] Leading experts discuss the critical role of international trade in food security through WTO's Trade Dialogue on Food series, emphasizing both the importance and complexity of food trade.[218] The *WTO Trade Facilitation Agreement* (2013) aims to streamline customs procedures and reduce supply chain bottlenecks by expediting movements, clearance, and release of goods through digitalization and standardization of import procedures.[219]

WFP, the Food and Agriculture Organization (FAO), and the International Fund for Agricultural Development (IFAD) play complementary roles in advancing food security.[220] WFP provides life-saving food supplies to people affected by conflict, natural disasters, and crop failure in over 120 countries through collaborations with governments, other United Nations agencies, and non-governmental organizations (NGOs).[221] FAO focuses on improving food security and defeating hunger worldwide by working to strengthen and promote sustainable agriculture that is able to withstand environmental changes.[222] FAO's Responsible Business Conduct provides governments and policymakers with resources such as global standards and outlines the development and risk management of agricultural supply chains through due diligence, focusing on topics such as human rights and trade inclusivity.[223]

---

[210] United Nations, General Assembly. *Agriculture development, food security and nutrition (A/RES/79/443)*. 2024. pp. 4-6.
[211] Ibid. pp. 3-6.
[212] World Bank Group. *Increasing Connectivity for Enhanced Food Supply Chain Resilience*. 2024.
[213] Ibid.
[214] Ibid.
[215] World Bank Group. *Transport*. 2025.
[216] World Trade Organization. *MC12 Outcome Document (WT/MIN(22)/24)*. 2022.
[217] Agricultural Market Information System. *About AMIS*. 2024.
[218] World Trade Organization. *Trade Dialogues on Food*. 2025; World Trade Organization. *Insights from WTO Trade Dialogues on Food and Agri-Food Business Day*. N.d.
[219] World Trade Organization. *Protocol Amending the Marrakesh Agreement Establishing the World Trade Organization*. 2014. pp. 3, 5, 8, 12.
[220] World Food Programme. *Who we are*. 2025.
[221] Ibid.
[222] fundsforNGOs. *FAO's Impact on Global Food Security and Sustainable Agriculture*. N.d.
[223] Food and Agriculture Organization of the United Nations. *Responsible Business Conduct (RBC) in Agriculture*. 2025.

Together, FAO and WFP monitor the progress in achieving food security and analyze challenges in achieving the SDGs through the annual flagship report *The State of Food Security and Nutrition in the World*.[224] The report utilizes indicators such as undernourishment, malnutrition, and price inflation in tracking progress on ending food insecurity and global hunger.[225] IFAD, on the other hand, is an international financial institution committed to tackling poverty and hunger in rural areas by improving food security, increasing income, building resilience, and aiming to make food systems more equitable and sustainable.[226] Through its Rural Socioeconomic Opportunities Programme, IFAD has invested in infrastructure such as water and training, allowing farmers to increase production by 64%.[227] Additionally, IFAD has invested USD 3.3 billion in agricultural development projects over a three-year cycle.[228]

The World Resource Institute (WRI) and the United Nations Technology Bank for the Least Developed Countries (UNTB) play an increasingly important role in supporting innovation, sustainability, and knowledge transfer.[229] WRI partners with governments, businesses, and civil society to address environmental and food security challenges and provides research and policy recommendations on sustainable agriculture, resource management, and climate adaptation.[230] UNTB utilizes technology needs assessments to facilitate access to technology, knowledge, and innovation for the world's most vulnerable economies, supporting digitalization and capacity-building in the food and agriculture sectors.[231] The United Nations Technical Platform, alongside United Nations Global Platform for Data Sharing and Statistical Collaboration, and 2030 Connect, provides resources for Member States including technical manuals and guidance documents on implementing adaptation of technology in food supply chains.[232]

NGOs and the private sector have addressed supply chains and food security through a multitude of actions.[233] For example, Oxfam plays an important role in strengthening supply chains and food security through advocacy for funding assistance programs and policy promotion.[234] Additionally, NGOs collaborate with local communities in enhancing their local supply chains through strengthening production, access, and utilization of food.[235] The Resilient Local Food Supply Chains Alliance (RLFSC) is a multi-stakeholder network aiming to build resilient local supply chains.[236] RLFSC supports public-private partnerships to collaborate with civil society in developing sustainable supply chains to strengthen food

---

[224] Food and Agriculture Organization of the United Nations. *FAO and UN System Partnerships*. 2025.
[225] Food and Agriculture Organization of the United Nations. *The State of Food Security and Nutrition in the World 2025*. 2025. pp. 1-28, 48-70, 81-84.
[226] International Fund for Agricultural Development. *Transforming food systems*. 2025.
[227] International Fund for Agricultural Development. *IFAD12 Impact Assessment Report*. 2025. pp. 4-5; International Fund for Agricultural Development. *Transforming food systems*. 2025.
[228] International Fund for Agricultural Development. *IFAD Annual Report 2024: IFAD invests more than US$3.3 billion in new projects*. 2025.
[229] United Nations Technology Bank for the Least Developed Countries. *Who We Are*. 2025; World Resources Institute. *Our Work*. 2025.
[230] World Resources Institute. *Creating a Sustainable Food Future*. 2025; World Resources Institute. *Our Work*. 2025.
[231] United Nations Technology Bank for the Least Developed Countries. *Who We Are*. 2025.
[232] United Nations, Department of Economic and Social Affairs. *Technical Platform on the Measurement and Reduction of Food Loss and Waste in Support of SDG 12.3*. 2025.
[233] Global Agricultural Productivity Report. *Private Sector Invests in the Success of Agriculture*. 2018.
[234] FundsforNGOs. *What is the role of NGOs in improving global food security?*. N.d.; United Nations Food Systems Coordination Hub. *Resilient Local Food Supply Chains Alliance (RLFSC Alliance)*. N.d.
[235] FundsforNGOs. *What is the role of NGOs in improving global food security?*. N.d.
[236] Resilient Local Food Supply Chains Alliance. *Strategy*. N.d.

security through resource mobilization and technical support.[237] Within the private sector, companies have created programs strengthening food security through investments in their supply chains by promoting agricultural techniques and resilient technology, as well as increasing crop yields and funding charity programs.[238]

The Role of Technology and Innovation in Supply Chain Resilience

Addressing barriers to technology adaptation and ensuring equitable access to innovation are critical for inclusive and sustainable improvement in global food supply chains.[239] Especially in the global south, climate change has made harvests more unpredictable and farmers often rely on networks to manage these risks.[240] Many low and middle-income countries face challenges in benefiting from innovative technologies in food chains due to limited digital infrastructure, high cost, and lack of technical expertise, hindering technological adaptation.[241] Digital tools including AI, machine learning, and data analytics enable real-time monitoring, predictive modeling, and early warning systems for supply chain disruptions.[242] Hence, public-private partnerships and international cooperation are essential to invest in infrastructure, capacity-building, and knowledge transfer.[243] In countries including Egypt, Sudan, and Ethiopia, providing access to networks through increased technological infrastructure gives farmers real-time weather data via text messages.[244] Similarly, countries like Mongolia have developed systems maintaining livestock health by spreading information on disease outbreaks.[245] Connectivity further allows farmers to coordinate transportation, increases accessibility to markets, and, in turn, decreases waste after harvest.[246]

Leveraging digital technologies and innovation is essential for building resilient, transparent, and adaptive food supply chains.[247] Utilizing collaboration models, market-investment, and insight provides support for accelerated technology adaptation in food supply chains.[248] The introduction of modern technology in food supply chains strengthens resilience through mitigation and adaptation of farming, ensuring soil fertility and water accessibility.[249] Additionally, food accessibility is strengthened through enhancing technologies such as transportation, storage, and processing methods.[250] Blockchain and IoT devices enhance

---

[237] Ibid.
[238] Pepsico. *Food and Nutrition Security*. 2025.
[239] Food and Agriculture Organization of the United Nations. *Digital Agriculture: Farmers in the Digital Age*. 2023.
[240] Samberg. World Economic Forum. *How new technology could help to strengthen global food security*. 2018.
[241] Benfica et al. *Food System Innovation and Digital Technologies to Foster Productivity Growth and Rural Transformation*. 2023.
[242] World Bank Group. *Transforming Agriculture through Digital Innovations*. 2025.
[243] World Bank Group. *Public-Private Partnerships for Agribusiness Development*. 2025.
[244] Samberg. World Economic Forum. *How new technology could help to strengthen global food security*. 2018.
[245] Ibid.
[246] Ibid.
[247] Food and Agriculture Organization of the United Nations. *The State of Food and Agriculture 2022*. 2022. pp. 81-83.
[248] World Economic Forum. *Leveraging technology and innovation to transform food systems*. 2025.
[249] United Nations Conference on Trade and Development. *The role of science, technology and innovation in ensuring food security by 2030*. 2017. p. 9.
[250] Ibid. p. 9.

traceability, transparency, and food safety by securing the tracking of products from farm to consumer.[251] Implementing IoT and cloud analytics from harvest through transportation enables early detection of food nearing spoilage, allowing it to be rerouted to local grocers rather than long-distance or transnational routes, thereby reducing retail-level food waste.[252] Mobile applications and satellite imaging support precision agriculture and efficient resource management, reducing waste and improving yields.[253] Control of vegetation and soil quality can be provided through tools such as satellite-based crop monitoring, while apps such as Jeevn AI Advisory provide AI-based recommendations for planting schedules.[254] Successful initiatives, such as WFP's digital supply chain platform, Optimus, a program that calculates cost-effective, nutritious food basket designs and optimizes distribution to those in need, demonstrate technology's potential to streamline logistics and improve efficiency.[255]

Multilateral organizations leverage technology in strengthening food supply chains through innovative support and infrastructural investments to bridge digital divides in agriculture and food systems.[256] In implementing technology to strengthen food security, UNTB ensures tailored support to areas and sectors for meaningful impact through capacities for innovation, introducing biotechnological research exchange, and strengthening Indigenous technologies.[257] FAO's e-Agriculture Strategy Guide was developed in 2018 as a tool for Member States to improve food chain efficiencies and agricultural systems.[258] Regional banks, including the African Development Bank and the Asian Development Bank, provide support in introducing connectivity programs, aiming to close digital divides through broadening infrastructure and affordability of technology.[259] The programs focus on investment in technology and infrastructural development, through collaborations with organizations like the World Bank and FAO.[260]

Addressing Food Loss and Waste Across Supply Chains

Food loss and waste (FLW) represents one of the most urgent challenges to global food systems.[261] FLW causes a decrease in the quality and quantity of edible food, with food loss occurring due to production issues, and food waste resulting from the discarding of food still fit for human consumption.[262] Amounting to over one third of global production each year, FLW could sufficiently feed around three billion people

[251] Sylvester. Food and Agriculture Organization of the United Nations. *E-Agriculture in Action: Blockchain for Agriculture*. 2019.
[252] Payne. IoT For All. *IoT Offers a Fresh Solution for Tackling Food Waste in the Supply Chain*. 2024.
[253] Sylvester. Food and Agriculture Organization of the United Nations. *E-Agriculture in Action: Drones for Agriculture*. 2018. p. 2-3, 95.
[254] Farmonaut. *Precision Agriculture Yield Increase: 30% Output Boost – AI & Water Savings Redefine Modern Farming 2025*. 2025.
[255] World Food Program USA. *10 Ways WFP Is Using Digital Tech to Help Hungry People Around the World Better and Faster*. 2022.
[256] United Nations Technology Bank for the Least Developed Countries. *Who We Are*. 2025.
[257] United Nations Technology Bank for the Least Developed Countries. *Capacity Building for Transformation*. N.d.; United Nations Technology Bank for the Least Developed Countries. *Biotechnology Research Exchange and Policy Training*. 2025.
[258] Sylvester. Food and Agriculture Organization of the United Nations. *E-Agriculture Strategy Guide - Piloted in Asia-Pacific countries*. 2016.
[259] World Bank Group. *Increasing Connectivity for Enhanced Food Supply Chain Resilience*. 2024; Diebold et al. Center for data innovation. *Digital Equity 2.0: How to Close the Data Divide*. 2023.
[260] Asian Development Bank. *Regional Cooperation and Integration in Asia and the Pacific: Your Questions Answered*. 2025.
[261] Safdie. Greenly. *Global Food Waste in 2025*. 2024.
[262] Rezaei et al. Food and Agriculture Organization of the United Nations. *Food Loss and Waste in the Food Supply Chain*. 2017. p. 26.

and occurs at every stage, from on-farm production and post-harvest handling to processing, distribution, retail, and consumption.[263] The level where FLW occurs differs between developing and developed countries, with developing countries mostly experiencing FLW during production and transportation due to limited financial, managerial, and technical resources, and developed countries predominantly wasting food at the consumer level through over-merchandizing and changing consumption patterns.[264] In Sub-Saharan Africa, for example, up to 44% of FLW occur during production due to limited infrastructure and technology accessibility.[265] Developed countries, on the other hand, experience up to 40% of FLW through food waste, with the United Kingdom discarding an estimated €19 billion worth of food every year, while in the United States, FLW makes up 22% of landfill content.[266]

FLW not only undermines food security but also has a significant impact on resource depletion within the supply chain.[267] Wasting resources, including water, land, energy, and labor invested in production, FLW affects supply chains and costs the global economy an estimated USD 1 trillion annually, a quarter of these costs occurring at the production level.[268] Food loss of fruit and vegetables occurs during the harvest and sorting levels of supply chains as a result of grading to meet retail quality standards.[269] Food supply chain resilience is interconnected with sustainability, where practices to manage food quality directly reduce FLW, positively impacting food security and availability.[270] Reducing FLW is critical for achieving climate goals and improving the sustainability of food systems, as it affects climate change through cultivation and consumption, accounting for 8-10% of global greenhouse gases.[271] Conversely, climate change exacerbates FLW through decreased harvest predictability and extreme weather predictability, causing crop disruptions and highlighting the causal relation between climate change and FLW.[272]

International efforts require coordinated action by governments, businesses, and consumers across the entire supply chain.[273] The United Nations Environment Programme *Food Waste Index Report 2024* provides a global baseline for tracking progress, highlighting the importance of household, retail, and food service interventions.[274] The report revealed that household food loss and waste is a global phenomenon occurring consistently across all countries, regardless of development level.[275] Through implementations

[263] City Harvest. *Top 10 Food Waste Facts You Need to Know in 2025*. 2025; Safdie. Greenly. *Global Food Waste in 2025*. 2024; Ukpanah. Greenmatch. *The Impact of Food Waste*. 2024.
[264] Yong Kim. World Bank Blogs. *Food waste - a Bigger Problem Than You Thought*. 2014.
[265] Ibid; Picasso. Emerging Markets Today. *Global food waste: developed vs. developing countries*. 2021.
[266] eTakeawayMax. *Food Waste Statistics Every Business Should Know in 2025*. 2025; RTS. *Food Waste in America in 2025*. 2025.
[267] City Harvest. *Top 10 Food Waste Facts You Need to Know in 2025*. 2025.
[268] Safdie. Greenly. *Global Food Waste in 2025*. 2024; World Food Programme. *5 Facts About Food Waste and Hunger*. 2024.
[269] Olabode et al. Journal of Environmental Management. *Food loss and waste management in the retail food supply chain: Methods and framework to achieve environmental sustainability*. 2025.
[270] United Nations, Department of Global Communications. *Stop food loss and waste. For the people. For the Planet*. 2025.
[271] Kennedy. Green Umbrella. *How Climate Change Impacts Healthy Food Systems*. 2025; United Nations Framework Convention on Climate Change. *Food Loss and waste accounts for 8-10% of annual global greenhouse gas emissions; cost USD 1 trillion annually*. 2024.
[272] Kennedy. Green Umbrella. *How Climate Change Impacts Healthy Food Systems*. 2025; Safdie. Greenly. *Global Food Waste in 2025*. 2024.
[273] ReFED. *Approaching 2025: Checking In on Global Food Waste Reduction Efforts*. 2024.
[274] United Nations Environment Programme. *Food Waste Index Report 2024*. 2024.
[275] Ibid.

of national strategies, efficiencies within food supply chains can be developed.[276] Utilizing financial incentives and policies to reduce unfair trade practices can decrease FLW, ensuring efficient distribution and production of food.[277] Member States work to curb FLW through innovative solutions, shortening supply chains and strengthening regional growth.[278] Furthermore, digital solutions, such as To Good To Go, connect consumers and retailers, providing a platform to lower FLW by helping retailers avoid discarding surplus produce.[279]

Conclusion

Addressing the vulnerabilities within global supply chains is fundamental for promoting sustainable food security.[280] Recent crises, including conflict, pandemics, extreme weather, and economic shocks, have exposed persistent weaknesses within global agrifood systems, with pronounced impacts among the most vulnerable populations, including low-income households.[281] Building resilient and transparent supply chains requires continued innovation, equitable investment in infrastructure, and robust global cooperation among Member States, private sector actors, and civil society organizations.[282] Effective implementation of policy frameworks such as the 2030 Agenda, AAAA, and the Rome Declaration will require concrete action to enhance connectivity, foster knowledge transfer, and support innovation, especially in least developed countries and SIDS.[283] Ultimately, advancing cooperation, innovation, and inclusive action will be essential for ensuring that all people have access to sufficient, safe, and nutritious food in the years ahead.[284]

Further Research

As delegates conduct further research and consider how to address this topic, they should consider: How can investments in infrastructure and technology be made more accessible? What role can new digital tools and public-private partnerships play in reducing post-harvest losses and improving transparency along the supply chain? How can international cooperation be strengthened to minimize the harmful effects of export restrictions and trade interruptions during crises? What policy instruments are most effective in reducing food loss and waste at national and global levels? How can countries most effectively balance the need for immediate crisis response with long-term strategies for sustainability and

[276] Onethird. *Understanding UN SDG 12.3 on Food Loss and Waste*. 2023.
[277] Goodwin. World Resources Institute. *The Global Benefits of Reducing Food Loss and Waste, and How to Do It*. 2023.
[278] Elliott et al. World Economic Forum. *8 Innovative solutions for fighting food waste*. 2025; Keaten. AP News. *Free food fridges take off in parts of Europe in eco-friendly bid to fight waste*. 2023; UpLink. *Mishkat Agritech Farms with Fresh Shortcuts to Consumers*. 2025.
[279] Too Good To Go. *How Does The Too Good To Go App Work?*. 2025.
[280] United Nations, General Assembly. *Transforming Our World: the 2030 Agenda for Sustainable Development (A/RES/70/1)*. 2015.
[281] United Nations, Department of Economic and Social Affairs. *End hunger, achieve food security and improved nutrition and promote sustainable agriculture*. N.d.
[282] World Bank Group. *Increasing Connectivity for Enhanced Food Supply Chain Resilience*. 2024; World Food Programme. *Who We Are*. 2025.
[283] Food and Agriculture Organization of the United Nations et al. *Conference Outcome Document: Rome Declaration on Nutrition (ICN2 2014/2)*. 2014; United Nations, General Assembly. *Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda) (A/RES/69/313)*. 2015.
[284] Food and Agriculture Organization of the United Nations. *Digital Agriculture: Farmers in the Digital Age*. 2023.

resilience? What gaps exist in data and monitoring, and how can existing frameworks help guide future action?

Bibliography

African Union. *Agenda 2063: The Africa We Want*. N.d. Retrieved 7 October 2025 from: https://au.int/en/agenda2063/overview

African Union. *Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihood*. 2014. Retrieved 29 July 2025 from: https://www.resakss.org/sites/default/files/Malabo%20Declaration%20on%20Agriculture_2014_11%2026-.pdf

African Union. *The African Union adopts ten-year strategy and action plan to transform Africa's agri-food systems and ensure food security*. 2025. Retrieved 1 September 2025 from: https://au.int/en/pressreleases/20250113/african-union-adopts-ten-year-strategy-and-action-plan-transform-africas-agri

Agricultural Market Information System. *About AMIS*. 2024. Retrieved 30 August 2025 from: https://www.amis-outlook.org/home

Arthurs. Foods Connected. *The future of food supply chains: how businesses can adapt to changing market demands*. 2025. Retrieved 22 July from: https://blog.foodsconnected.com/the-future-of-food-supply-chains

Asian Development Bank. *Regional Cooperation and Integration in Asia and the Pacific: Your Questions Answered*. 2025. Retrieved 8 September 2025 from: https://www.adb.org/what-we-do/topics/regional-cooperation/your-questions-answered

Benfica et al. *Food System Innovation and Digital Technologies to Foster Productivity Growth and Rural Transformation*. 2023. Retrieved 6 October 2025 from: https://www.ncbi.nlm.nih.gov/books/NBK599642/

City Harvest. *Top 10 Food Waste Facts You Need to Know in 2025*. 2025. Retrieved 27 July 2025 from: https://cityharvest.org.uk/blog/top-10-food-waste-facts-you-need-to-know-in-2025/

Diebold et al. Center for Data Innovation. *Digital Equity 2.0: How to Close the Data Divide*. 2023. Retrieved 8 September 2025 from: https://datainnovation.org/2023/05/digital-equity-2-0-how-to-close-the-data-divide/

Economist Impact. *Addressing global food insecurity: priorities for 2025*. 2025. Retrieved 28 July 2025 from: https://impact.economist.com/i/addressing-global-food-insecurity-priorities-for-2025-9B7LBd91IGyNZGtPtvRvj

Elliott et al. World Economic Forum. *8 Innovative solutions for fighting food waste*. 2025. Retrieved 28 July 2025 from: https://www.weforum.org/stories/2025/04/innovations-to-reduce-food-waste/

Elsner et al. World Economic Forum. *Global Risks Report 2025*. 2025. Retrieved 17 June 2025 from: https://www.weforum.org/reports/global-risks-report-2025

eTakeawayMax. *Food Waste Statistics Every Business Should Know in 2025*. 2025. Retrieved 27 July 2025 from: https://etakeawaymax.co.uk/food-waste-statistics/

Farmonaut. *Precision Agriculture Yield Increase: 30% Output Boost – AI & Water Savings Redefine Modern Farming 2025*. 2025. Retrieved 8 September 2025 from: https://farmonaut.com/precision-farming/precision-agriculture-yield-increase-30-output-boost

Food and Agriculture Organization of the United Nations et al. *Conference Outcome Document: Rome Declaration on Nutrition (ICN2 2014/2)*. 2014. Retrieved 23 June 2025 from: http://www.fao.org/3/a-ml542e.pdf

Food and Agriculture Organization of the United Nations. *COVID-19 and the Risk to Food Supply Chains: How to Respond?*. 2020. Retrieved 23 June 2025 from: https://www.fao.org/documents/card/en/c/ca8388en

Food and Agriculture Organization of the United Nations. *The State of Food and Agriculture 2021*. 2021. Retrieved 27 June 2025 from: https://openknowledge.fao.org/items/437c1215-556b-4161-9af6-68163f5a1f84

Food and Agriculture Organization of the United Nations. *The State of Food and Agriculture 2022*. 2022. Retrieved 27 June 2025 from: https://www.fao.org/3/cb9479en/cb9479en.pdf

Food and Agriculture Organization of the United Nations. *Digital Agriculture: Farmers in the Digital Age*. 2023. Retrieved 27 June 2025 from: https://www.fao.org/digital-agriculture

Food and Agriculture Organization of the United Nations. *The State of Food Security and Nutrition in the World 2023. 2023*. Retrieved 29 July 2025 from: https://openknowledge.fao.org/items/445c9d27-b396-4126-96c9-50b335364d01

Food and Agriculture Organization of the United Nations. *Science and Innovation Forum 2024*. 2024. Retrieved 8 November 2025 from: https://www.fao.org/science-technology-and-innovation/science-innovation-forum-2024/programme-sif-2024/digital-agriculture-change-makers-in-action/en

Food and Agriculture Organization of the United Nations. *The State of Food Security and Nutrition in the World 2024*. 2024. Retrieved 31 August 2025 from: https://openknowledge.fao.org/items/ebe19244-9611-443c-a2a6-25cec697b361

Food and Agriculture Organization of the United Nations. *FAO and UN System Partnerships*. 2025. Retrieved 8 September 2025 from: https://www.fao.org/partnerships/fao-un-system/UN-Partners/fao-and-wfp/en

Food and Agriculture Organization of the United Nations. *Responsible Business Conduct (RBC) in Agriculture*. 2025. Retrieved 8 September 2025 from: https://www.fao.org/responsible-business-conduct-in-agriculture/en

Food and Agriculture Organization of the United Nations. *The State of Food Security and Nutrition in the World 2025*. 2025. Retrieved 3 September 2025 from: https://openknowledge.fao.org/items/ea9cebff-306c-49b7-8865-2aef3bfd25e2

Food and Agriculture Organization of the United Nations. *World Agriculture Watch*. 2025. Retrieved 2 October 2025 from: http://fao.org/world-agriculture-watch/tools-and-methodologies/definitions-and-operational-perspectives/family-farms/ar/

FundsforNGOs. *FAO's Impact on Global Food Security and Sustainable Agriculture*. N.d. Retrieved 28 July 2025 from: https://www2.fundsforngos.org/donor-agencies/faos-impact-on-global-food-security-and-sustainable-agriculture/

FundsforNGOs. *What is the role of NGOs in improving global food security?*. N.d. Retrieved 8 September 2025 from: https://www.fundsforngos.org/all-questions-answered/what-is-the-role-of-ngos-in-improving-global-food-security

Funk. Eden Green Technology. *The Impact of Tariffs on the U.S. Agriculture Industry*. 2025. Retrieved 8 September 2025 from: https://www.edengreen.com/blog-collection/tariff-impact-agriculture-industry

Global Agricultural Productivity Report. *Private Sector Invests in the Success of Agriculture*. 2018. Retrieved 8 September 2025 from: https://globalagriculturalproductivity.org/policy-goals-for-a-productive-sustainable-healthy-world/private-sector-engagement

Goodwin. World Resources Institute. *The Global Benefits of Reducing Food Loss and Waste, and How to Do It*. 2023. Retrieved 6 September 2025 from: https://www.wri.org/insights/reducing-food-loss-and-food-waste

High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security. *Food Security and Nutrition: Building a Global Narrative Towards 2030*. 2020. Retrieved 17 July 2025 from: https://www.fao.org/3/ca9731en/ca9731en.pdf

International Fund for Agricultural Development. *IFAD Annual Report 2024: IFAD invests more than US$3.3 billion in new projects*. 2025. Retrieved 1 October 2025 from: https://www.ifad.org/en/w/news/ifad-annual-report-2024-ifad-invests-more-than-us-3.3-billion-in-new-projects

International Fund for Agricultural Development. *IFAD12 Impact Assessment Report*. 2025. Retrieved 4 September 2025 from: https://webapps.ifad.org/members/eb/145/docs/EB-2025-145-R-21.pdf

International Fund for Agricultural Development. *Transforming food systems*. 2025. Retrieved 4 September 2025 from: https://www.ifad.org/en/food-systems

Keaten. AP News. *Free food fridges take off in parts of Europe in eco-friendly bid to fight waste*. 2023. Retrieved 5 September 2025 from: https://apnews.com/article/food-waste-switzerland-germany-geneva-austria-refrigerators-environment-fc8484f267f1403a4b76db8b20541f9a

Kennedy. Green Umbrella. *How Climate Change Impacts Healthy Food Systems*. 2025. Retrieved 7 October 2025 from: https://greenumbrella.org/food-for-thought-how-climate-change-impacts-healthy-food-systems/

Lacerta Group. *Food Supply Chain*. 2025. Retrieved 20 July 2025 from: https://www.lacerta.com/blog/food-supply-chain

Office of the United Nations High Commissioner for Human Rights. *The Right to Adequate Food, Fact Sheet No. 34*. 2010. Retrieved 31 October 2025 from: https://www.ohchr.org/sites/default/files/Documents/Publications/FactSheet34en.pdf

Office of the United Nations High Commissioner for Human Rights. *International Bill of Human Rights*. 2025. Retrieved 5 September 2025 from: https://www.ohchr.org/en/what-are-human-rights/international-bill-human-rights

Olabode et al. Journal of Environmental Management. *Food loss and waste management in the retail food supply chain: Methods and framework to achieve environmental sustainability*. 2025. Retrieved 4 September 2025 from: https://www.sciencedirect.com/science/article/pii/S0301479725016949

Onethird. *Understanding UN SDG 12.3 on Food Loss and Waste*. 2023. Retrieved 29 July 2025 from: https://onethird.io/one-third-blogs/understanding-un-sdg-12.3-on-food-loss-and-waste

Organisation for Economic Co-operation and Development. *Can Your Cupboard Survive the Next Shock? Rethinking Resilience in Food Supply Chains*. 2025. Retrieved 5 September 2025 from: https://www.oecd.org/en/blogs/2025/06/can-your-cupboard-survive-the-next-shock-rethinking-resilience-in-food-supply-chains.html

Payne. IoT For All. *IoT Offers a Fresh Solution for Tackling Food Waste in the Supply Chain*. 2024. Retrieved 8 September 2025 from: https://www.iotforall.com/iot-solution-food-waste-supply-chain

Pepsico. *Food and Nutrition Security*. 2025. Retrieved 5 September 2025 from: https://www.pepsico.com/our-impact/esg-topics-a-z/food-and-nutrition-security

Picasso. Emerging Markets Today. *Global food waste: developed vs. developing countries*. 2021. Retrieved 8 September 2025 from: https://emergingmarkets.today/food-waste-developing-countries/

ReFED. *Approaching 2025: Checking In on Global Food Waste Reduction Efforts*. 2024. Retrieved 27 June 2025 from: https://refed.org/articles/approaching-2025-checking-in-on-global-food-waste-reduction-efforts/

Resilient Local Food Supply Chains Alliance. *Strategy*. N.d. Retrieved 8 September 2025 from: https://rlfsc-coalition.org/wp-content/uploads/2025/05/FLYER-Alliance_v3.pdf

Rezaei et al. Food and Agriculture Organization of the United Nations. *Food Loss and Waste in the Food Supply Chain*. 2017. Retrieved 31 August 2025 from: https://openknowledge.fao.org/server/api/core/bitstreams/36cb45bc-392c-41fb-97f1-90ca1f16ee7f/content

RTS. *Food Waste in America in 2025*. 2025. Retrieved 27 July 2025 from: https://www.rts.com/resources/guides/food-waste-america/

Safdie. Greenly. *Global Food Waste in 2025*. 2024. Retrieved 31 July 2025 from: https://greenly.earth/en-gb/blog/industries/global-food-waste-in-2022

Samberg. World Economic Forum. *How new technology could help to strengthen global food security*. 2018. Retrieved 22 July 2025 from: https://www.weforum.org/stories/2018/03/food-security-s-social-network/

Sylvester. Food and Agriculture Organization of the United Nations. *E-Agriculture Strategy Guide - Piloted in Asia-Pacific countries*. 2016. Retrieved 8 September 2025 from: https://openknowledge.fao.org/items/b0e88471-d70e-4e07-a3f7-5bcc2f1ece61

Sylvester. Food and Agriculture Organization of the United Nations. *E-Agriculture in Action: Drones for Agriculture*. 2018. Retrieved 27 June from: https://openknowledge.fao.org/items/9771e773-0850-4ca5-af74-6271473d470a

Sylvester. Food and Agriculture Organization of the United Nations. *E-Agriculture in Action: Blockchain for Agriculture*. 2019. Retrieved 27 June 2025 from: https://www.fao.org/3/ca2906en/ca2906en.pdf

Too Good To Go. *How Does The Too Good To Go App Work?*. 2025. Retrieved 4 October 2025 from: https://www.toogoodtogo.com/en-us/how-does-the-app-work

Ukpanah. Greenmatch. *The Impact of Food Waste*. 2024. Retrieved 27 July 2025 from: https://www.greenmatch.co.uk/food-waste

United Nations Conference on Trade and Development. *The role of science, technology and innovation in ensuring food security by 2030*. 2017. Retrieved 27 July 2025 from: https://unctad.org/system/files/official-document/dtlstict2017d5_en.pdf

United Nations, Department of Economic and Social Affairs. *End hunger, achieve food security and improved nutrition and promote sustainable agriculture*. N.d. Retrieved 8 September 2025 from: https://sdgs.un.org/goals/goal2

United Nations, Department of Economic and Social Affairs. *The Sustainable Development Goals Report Special Edition*. 2023. Retrieved 3 October 2025 from: https://unstats.un.org/sdgs/report/2023/The-Sustainable-Development-Goals-Report-2023.pdf

United Nations, Department of Economic and Social Affairs. *Goal 12: Ensure sustainable consumption and production patterns*. 2025. Retrieved 20 July 2025 from: https://sdgs.un.org/goals/goal12#progress_and_info

United Nations, Department of Economic and Social Affairs. *Technical Platform on the Measurement and Reduction of Food Loss and Waste in Support of SDG 12.3*. 2025. Retrieved 29 July 2025 from: https://sdgs.un.org/partnerships/technical-platform-measurement-and-reduction-food-loss-and-waste-support-sdg-123

United Nations, Department of Economic and Social Affairs. *The Sustainable Development Goals Report 2025*. 2025. Retrieved 08 November 2025 from: https://unstats.un.org/sdgs/report/2025/

United Nations, Department of Global Communications. *Keeping critical food supply chains operative to save lives during COVID-19, urges new UN-backed report*. 2020. Retrieved 20 July 2025 from: https://news.un.org/en/story/2020/04/1062192

United Nations, Department of Global Communications. *Programme & Statements SDG Summit*. 2023. Retrieved 31 August 2025 from: https://www.un.org/en/conferences/SDGSummit2023/programme

United Nations, Department of Global Communications. *Stop food loss and waste. For the people. For the Planet*. 2025. Retrieved 1 September 2025 from: https://www.un.org/en/observances/end-food-waste-day

United Nations Environment Programme. *Food Waste Index Report 2024*. 2024. Retrieved 30 July 2025 from: https://www.unep.org/resources/publication/food-waste-index-report-2024

United Nations Food Systems Coordination Hub. *Resilient Local Food Supply Chains Alliance (RLFSC Alliance)*. N.d. Retrieved 8 October 2025 from: https://www.unfoodsystemshub.org/food-systems-coalitions/resilient-local-food-supply-chains-alliance-%28rlfsc-alliance%29/en

United Nations Framework Convention on Climate Change. *Food Loss and waste accounts for 8-10% of annual global greenhouse gas emissions; cost USD 1 trillion annually*. 2024. Retrieved 30 July 2025 from: https://unfccc.int/news/food-loss-and-waste-account-for-8-10-of-annual-global-greenhouse-gas-emissions-cost-usd-1-trillion

United Nations, General Assembly. *Economic and Financial Committee (Second Committee)*. N.d. Retrieved 31 August 2025 from: https://www.un.org/en/ga/second/index.shtml

United Nations, General Assembly. *Functions and Powers of the General Assembly*. N.d. Retrieved 1 October 2025 from: https://www.un.org/en/ga/about/background.shtml

United Nations, General Assembly. *Universal Declaration of Human Rights (A/RES/217 A (III))*. 1948. Retrieved 17 July 2025 from: http://www.un.org/en/documents/udhr/

United Nations, General Assembly. *International Covenant on Economic, Social and Cultural Rights (A/RES/2200(XXI))*. 1966. Retrieved 3 September 2025 from: https://undocs.org/A/RES/2200(XXI)

United Nations, General Assembly. *SIDS Accelerated Modalities of Action (SAMOA) Pathway (A/RES/69/15)*. 2014. Retrieved 27 October 2025 from: https://undocs.org/A/RES/69/15

United Nations, General Assembly. *Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda) (A/RES/69/313)*. 2015. Retrieved 17 June 2025 from: https://undocs.org/A/RES/69/313

United Nations, General Assembly. *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1)*. 2015. Retrieved 17 June 2025 from: https://undocs.org/A/RES/70/1

United Nations, General Assembly. *United Nations Decade of Family Farming (2019-2028) (A7RES/72/239)*. 2017. Retrieved 2 September 2025 from: https://undocs.org/A/RES/72/239

United Nations, General Assembly. *Agriculture development, food security and nutrition (A/RES/79/443)*. 2024. Retrieved 8 September 2025 from: https://undocs.org/A/RES/79/443

United Nations, General Assembly. *Sevilla Commitment (A/RES/79/323)*. 2025. Retrieved 27 October 2025 from: https://undocs.org/A/RES/79/323

United Nations Technology Bank for the Least Developed Countries. *Capacity Building for Transformation*. N.d. Retrieved 4 September 2025 from: https://www.un.org/technologybank/technology-transfer-programme

United Nations Technology Bank for the Least Developed Countries. *Biotechnology Research Exchange and Policy Training*. 2025. Retrieved 6 October 2025 from: https://www.un.org/technologybank/biotechnology

United Nations Technology Bank for the Least Developed Countries. *Who We Are*. 2025. Retrieved 27 June 2025 from: https://www.un.org/technologybank/who-we-are

Unnikrishnan et al. Boston Consulting Group. *Building Resilience in Agrifood Supply Chains*. 2025. Retrieved 22 July 2025 from: https://www.bcg.com/publications/2025/building-resilience-in-agrifood-supply-chains

UpLink. *Mishkat Agritech Farms with Fresh Shortcuts to Consumers*. 2025. Retrieved 5 September 2025 from: https://uplink.weforum.org/uplink/s/uplink-contribution/a012o00001pUsueAAC

World Bank Group. *Increasing Connectivity for Enhanced Food Supply Chain Resilience*. 2024. Retrieved 8 September 2025 from: https://www.worldbank.org/en/results/2024/04/11/increasing-connectivity-for-enhanced-food-supply-chain-resilience

World Bank Group. *Public-Private Partnerships for Agribusiness Development*. 2025. Retrieved 27 June 2025 from: https://www.worldbank.org/en/topic/publicprivatepartnerships/overview

World Bank Group. *Transforming Agriculture through Digital Innovations*. 2025. Retrieved 27 June 2025 from: https://www.worldbank.org/en/topic/agriculture/brief/digital-innovation-in-agriculture

World Bank Group. *Transport*. 2025. Retrieved 7 October 2025 from: https://www.worldbank.org/en/topic/transport/overview#2

World Economic Forum. *Leveraging technology and innovation to transform food systems*. 2025. Retrieved 8 September 2025 from: https://www.weforum.org/impact/food-innovation-hubs/

World Food Programme. *5 facts about food waste and hunger*. 2024. Retrieved 5 October 2025 from: https://www.wfp.org/stories/5-facts-about-food-waste-and-hunger

World Food Programme. *Who we are*. 2025. Retrieved 28 July 2025 from: https://www.wfp.org/who-we-are

World Food Program USA. *10 Ways WFP Is Using Digital Tech to Help Hungry People Around the World Better and Faster*. 2022. Retrieved 8 September 2025 from: https://www.wfpusa.org/news/10-ways-wfp-digital-tech-help-hungry-people-around-world/

World Resources Institute. *Creating a Sustainable Food Future*. 2025. Retrieved 1 August 2025 from: https://www.wri.org/food

World Resources Institute. *Our Work*. 2025. Retrieved 1 August 2025 from: https://www.wri.org/our-work

World Trade Organization. *Insights from WTO Trade Dialogues on Food and Agri-Food Business Day*. N.d. Retrieved 1 September 2025 from: https://www.wto.org/english/res_e/reser_e/agcd_tdf.pdf

World Trade Organization. *Protocol Amending the Marrakesh Agreement Establishing the World Trade Organization*. 2014. Retrieved 22 July 2025 from: https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/L/940.pdf&Open=True

World Trade Organization. *MC12 Outcome Document (WT/MIN(22)/24)*. 2022. Retrieved 8 November 2025 from: https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN22/24.pdf&Open=True

World Trade Organization. *Trade Dialogues on Food*. 2025. Retrieved 22 July 2025 from: https://www.wto.org/english/res_e/reser_e/tradedialonfood_e.htm

Yong Kim. World Bank Blogs. *Food waste - a Bigger Problem Than You Thought*. 2014. Retrieved 24 July 2025 from: https://blogs.worldbank.org/en/voices/food-waste-bigger-problem-you-thought