

XXXIV

TECMUN Jr.

Food and Agriculture
Organization

XXXIV TECMUN Jr.
Session schedule

Wednesday, November 11th

Registration	8:00 – 9:00 h.
Opening Ceremony	9:00 – 10:00 h.
Break	10:00 – 10:30 h.
First Session	10:30 – 12:30 h.
Break	12:30 – 13:00 h.
Second Session	13:00 – 15:00 h.
Lunch	15:00 – 16:00 h.
Third Session	16:00 – 18:00 h.

Thursday, November 12th

Masterly Conference	8:30 – 9:30 h
Break	9:30 – 10:00 h..
Fourth Session	10:00 – 12:30 h.
Break	12:30 – 13:00 h.
Fifth Session	13:00 – 15:00 h.
Lunch	15:00 – 16:00 h.
Sixth Session	16:00 – 18:00 h.

Friday, November 13th

Seventh Session	8:00 – 9:30 h
Break	9:30 – 10:00 h
Eighth Session	10:00 – 12:00 h
Break	12:00 – 12:30 h
Ninth Session	12:30 – 14:40 h
Lunch	14:40 – 16:00 h
Closing Ceremony	16:00 – 18:00 h

XXXIV TECMUN Jr.
General Agenda

Secretary General: David Trujillo Loza

GENERAL COORDINATION

Undersecretary of General Coordination: Alexa Esmeralda Rivera Jimenez
General Coordination Supervisor for Secretary Co: Ana Sofia Parra Meza y Narda
Regina Rentería Martínez

GENERAL ASSEMBLY

General Subsecretary: Diego Alejandro Salazar Náfate
Coordination Supervisor: Maria Fernanda Granados Martínez

Plenary Session for the General Assembly

President: Andrea Teresa Romero Bravo

Topic A) Strategies to address the transnational financing networks and arms smuggling mechanisms sustaining the operations of Al-Shabaab in the Horn of Africa.

Topic B) Addressing Cross-Border protection measures and legal frameworks for climate displaced populations especially in the Bay of Bengal and South Asia.

First Committee on Disarmament and International Security

President: Marco Omar Montemurro Spano

Topic A) Measures to restore military transparency and reduce the operational preparation of nuclear arsenals between the Russian Federation and the United States of America.

Topic B) Strategies to confront the illicit trafficking of commercial explosives and military grade weaponry within South America, with emphasis on regional cooperation, stockpile security and the logistical capabilities of transnational criminal networks.

United Nations Office on Drugs and Crime

President: Jeshua Isaí Jordan López

Topic A) Measures to address human trafficking for forced criminality in scam compounds across the Mekong sub-region, with emphasis on transnational cooperation and the protection of trafficking victims.

Topic B) Strategies to dismantle the laundering of drug trafficking profits enabled by corruption in the Sahel region, with emphasis on the cocaine route between South America and Europe.

Comisión del Derecho Internacional
Presidenta: Alexa Ortiz Van Der Graaff

Tópico A) Estrategias para abordar la difusión transfronteriza de contenido sintético generado por inteligencia artificial, que compromete la integridad electoral y la estabilidad diplomática internacional.

Tópico B) Medidas para fortalecer la protección jurídica internacional de personas desplazadas por desastres naturales y crisis climáticas en regiones vulnerables del Sudeste Asiático y el Pacífico.

Haut Commissariat des Nations Unies Pour les Réfugiés
President: Mauricio Antillón Mota

Sujet A) Actions visant à renforcer l'accès aux services essentiels dans les camps de réfugiés rohingyas situés en République Populaire du Bangladesh, en mettant particulièrement l'accent sur les défis climatiques.

Sujet B) Stratégies pour renforcer l'assistance humanitaire destinée aux personnes déplacées internes en République du Soudan, dans le contexte du conflit armé entre les Forces armées soudanaises et les Forces de soutien rapide.

Fondo de las Naciones Unidas para el Desarrollo de la Infancia
Presidenta: Andrea Hernández Caballero

Tópico A) Estrategias para abordar la desinformación en línea y la amplificación algorítmica de contenido dañino que socava el acceso de los niños a información confiable en entornos digitales en Latinoamérica y el Caribe.

Tópico B) Estrategias para garantizar el acceso humanitario infantil en la Franja de Gaza durante los conflictos armados.

International Maritime Organization
President: Isabella Buendía Ramírez

Topic A) Mechanisms to strengthen international regulatory frameworks addressing the deployment of autonomous and AI-assisted maritime systems and their implications for maritime safety, accountability and international coordination.

Topic B) Measures to strengthen occupational safety and environmental sustainability in international ship recycling practices.

Special Political and Decolonization Committee
President: Ariadna Joseline Pacheco Spirina

Topic A) Measures to strengthen international cooperation for environmental remediation and humanitarian assistance in territories affected by the legacy of nuclear testing in the Pacific and Central Asia.

Topic B) Measures to address the legal and political implications of climate-induced territorial loss affecting Low-Lying Non-Self-Governing Territories.

Sixth Legal Committee

President: Diane González Martínez

Topic A) Measures to strengthen international cooperation for environmental remediation and humanitarian assistance in territories affected by the legacy of nuclear testing in the Pacific and Central Asia.

Topic B) Measures to address the legal and political implications of climate-induced territorial loss affecting Low-Lying Non-Self-Governing Territories.

ECONOMIC AND SOCIAL COUNCIL

General Subsecretary: María Fernanda Domínguez Heredia

Coordination Supervisor: Aitana Rodríguez Hernández

Organización Internacional de la Policía Criminal

Presidenta: Andrea Guadalupe Zaldívar Escamilla

Tópico A) Acciones para fortalecer la cooperación policial internacional en la identificación y desarticulación de organizaciones criminales transnacionales responsables de ataques de ransomware contra infraestructuras críticas en Europa, con énfasis en el Reino Unido de Gran Bretaña e Irlanda del norte .

Tópico B) Mecanismos para fortalecer la cooperación policial internacional en la identificación y desarticulación de redes criminales transnacionales dedicadas al tráfico ilícito de migrantes a través de rutas terrestres irregulares entre América Latina y América del Norte.

United Nations Interregional Crime and Justice Research Institute

President: Sara Vázquez Zamora

Topic A) Actions for enhancing multilateral eflorescencia to address human trafficking and cross border fraud and cybercrime with emphasis in the Republic of the Union of Myanmar.

Topic B) Measures to address the use of cryptocurrencies in the laundering of criminal proceeds conductas by drug cartels in Latin America with an emphasis in the United Mexican States

Comité de los Derechos del Niño

Presidenta: Camila Aimee Castañeda Espinoza

Tópico A) Medidas internacionales para prevenir el reclutamiento forzado de menores por grupos armados en la República de Haití frente al aumento de violencia de pandillas y crisis institucional.

Tópico B) Estrategias regionales para proteger a menores migrantes no acompañados en la frontera entre los Estados Unidos Mexicanos y los Estados Unidos de América frente al tráfico humano y la violencia del crimen organizado.

Entidad de las Naciones Unidas para la Igualdad de Género y el Empoderamiento de las Mujeres

Presidenta: Danna Valeria Márquez Mejía

Tópico A) Estrategias para fomentar el empoderamiento económico y la inclusión laboral de las mujeres migrantes y refugiadas por motivos de violencia sistemática en América Latina.

Tópico B) Medidas para garantizar la igualdad económica y el derecho a la propiedad de tierras de las mujeres en la reconstrucción de zonas post-conflicto en África, con énfasis en la República Democrática del Congo.

United Nations Institute for Disarmament Research

President: Emiliano Sánchez Dorantes

Topic A) Security risks associated with the transfer, proliferation, and regulation of military artificial intelligence systems in the Indo-Pacific Region.

Topic B) Counterspace capabilities, including cyberattacks and jamming against satellite networks, and their impact on communications, navigation, and strategic systems in Eastern Europe.

Consejo de Derechos Humanos

Presidenta: Andrea Meza Hernández

Tópico A) Medidas para garantizar la protección de periodistas y el acceso libre a la información en situaciones de conflicto armado, con énfasis en la región de Oriente Medio.

Tópico B) Acciones para garantizar la protección de las infancias y adolescencias frente al reclutamiento forzado y las violaciones a los derechos humanos en la región del Sahel ante la expansión de grupos extremistas.

Comité de Expertos de las Naciones Unidas sobre la Gestión Global de la Información Geospacial

Presidenta: Regina Hernández Caballero

Tópico A) Reducción de la brecha tecnológica geoespacial en los Estados Insulares del Pacífico.

Tópico B) Fortalecimiento de la gobernanza ética de datos en sistemas de prevención y respuesta ante desastres naturales en Estados insulares del Caribe.

Food and Agriculture Organization

President: Mariana Jiménez Zamudio

Topic A) Strategies to address bioprospecting and genetic patenting inciting biopiracy that undermines traditional agricultural knowledge and smallholder seed sovereignty in Southern Asia.

Topic B) Confronting the causes of child labour and exploitative practices within West African cocoa supply chains with emphasis in the Republic of Côte d'Ivoire.

Historical Commission on Crime Prevention and Criminal Justice

President: Sofía López Rodríguez

Topic A) Mechanisms to counter the transnational growth of the Primeiro Comando da Capital while addressing the systemic prison crisis in the Federative Republic of Brazil (1993-2016).

Topic B) Mechanisms to combat the transnational trafficking of women and sexual exploitation networks operated by the Russian Mafia (Bratva) in Post-Soviet states (1991-2005).

SPECIALIZED AGENCIES AND REGIONAL ORGANISMS

General Subsecretary: Miguel Ander Hernández Aguilar

Coordination Supervisor: Romina Valle Velázquez

Organización del Tratado del Atlántico Norte

Presidente: Emilio Gutierrez

Tópico A) Medidas para enfrentar las crecientes tensiones internacionales, así como la amenaza de un posible conflicto bélico en la región del Medio Oriente, con énfasis en el crecimiento del programa nuclear de la República Islámica de Irán y sus posibles implicaciones para la seguridad global

Tópico B) Medidas para responder al incremento de las tensiones en Europa Oriental, así como a sus posibles repercusiones en la seguridad y estabilidad de la República de Polonia y la República de Lituania, con especial énfasis en la militarización del enclave de Kaliningrado por parte de la Federación de Rusia.

Organización Mundial de la Salud

Presidente: Javier Gil Rodríguez

Tópico A) Acciones para fortalecer la vigilancia, prescripción responsable y acceso regulado a fármacos antimicrobianos en los centros hospitalarios de la Unión Europea, con énfasis en la resistencia bacteriana a los antibióticos, el uso inadecuado de fármacos y las fallas estructurales asociadas.

Tópico B) Medidas para apoyar la recuperación de la infraestructura sanitaria y reforzar la protección del personal de salud en zonas de conflicto armado, con un enfoque crítico en la desnutrición aguda infantil en la República de Sudán.

Consejo de Seguridad

Presidente: Joaquín Pérez y Rodríguez

Tópico A) Estrategias para contrarrestar el conflicto armado en Sudán, haciendo énfasis en el genocidio y los crímenes de guerra cometidos en Darfur y las amenazas que representa para la estabilidad del África Oriental.

Tópico B) Medidas para frenar los ataques militares de los Estados Unidos de América y el Estado de Israel contra el territorio de la República Islámica de Irán, poniendo especial atención en el riesgo de escalada a un conflicto armado generalizado en Medio Oriente.

Fondo Monetario Internacional

Presidente: Daniel Emiliano Morales Ramírez

Tópico A) Estrategias para mitigar el impacto económico global causado por el conflicto en el estrecho de Ormuz tras las tensiones en Oriente Medio,

Tópico B) Mecanismos para enfrentar las repercusiones de las políticas arancelarias de Estados Unidos de América en las economías comerciales asociadas.

Organización Internacional de Energía Atómica

Presidenta: Natalia García Olmos

Tópico A) Reforzamiento de los mecanismos internacionales de verificación y no proliferación en relación con el programa nuclear de la República Islámica de Irán.

Tópico B) Fortalecimiento de las medidas y mecanismos internacionales para mitigar los riesgos ambientales, garantizar la seguridad nuclear y reforzar la protección tecnológica de las instalaciones nucleares en Ucrania.

Counter-Terrorism Committee

President: Santiago Castañeda Castro

Topic A) Measures to address the humanitarian and security crisis in Cabo Delgado, with emphasis on the violent campaign of Ahlu Sunnah Wa-Jamo (ASWJ) and extremist recruitment prevention.

Topic B) Mechanisms to eradicate the security vacuum in Somalia as a consequence of the transition from ATMIS, in the context of the operational resurgence of Al-Shabaab.

Organization for the Prohibition of Chemical Weapons

President: Mauricio Alejandro Salazar López

Topic A) Measures to address the threat of undeclared chemical weapons stockpiles and the proliferation of dual-use chemical substances in the Syrian Arab Republic after the fall of the Assad government.

Topic B) Measures to strengthen international emergency response and assistance mechanisms in relation to alleged chemical weapons incidents in the Republic of the Sudan.

Organización de los Estados Americanos

Presidenta: Andrea Vázquez Zamora

Tópico A) Mecanismos para la supervisión del uso de vehículos aéreos no tripulados en zonas con altas tasas de crimen organizado en Latinoamérica con énfasis en la República de Haití.

Tópico B) Medidas para la regulación del uso de Inteligencia Artificial (IA) enfocado en la manipulación de procesos electorales en Latinoamérica con énfasis en la República Federativa de Brasil.

International Criminal Court

President: Marco Bourget Alvarez

Case A) The Prosecutor v Rodrigo Roa Duterte for alleged crimes against humanity in the Republic of the Philippines.

Case B) 2017 Clearance Operations in the Republic of the Union of Myanmar, with emphasis on the application for a warrant of arrest against Min Aung Hlaing, Commander-in-Chief of the Myanmar Defence Services at the time of the operations, for alleged crimes against humanity.

“The world offers you comfort. But you were not made for comfort, you were made for greatness”

- Joseph Ratzinger

Dear reader,

Five years ago, I began this project without knowing what it would become. I arrived at TECMUN thinking that it was only an academic event; three days later, that perception had completely changed, and eight models later, they made me realize that the meaning I once saw in it does not come close to what I see it as today and what it truly is. Like many others, I began with the belief that TECMUN was a model of agents seeking to change and solve the problems that develop in our world. However, diplomacy and communication are only a small part of what this model is about and what it gives you to go out and truly make a difference.

The problem in our days does not lie in the lack of knowledge we have about them, but in the lack of willingness of those who know and do not act. The human fear of attempting that which we know makes us uncomfortable surpasses the desire we have to do it and, in an attempt to change that mindset, TECMUN came to shape and change those who hesitate to act out of fear of transcending and facing realities. The agents of change that I thought were formed through formality were, in reality, being shaped through adversity and setbacks, with people willing to embrace what is difficult, people willing to empty themselves of what they have in abundance and fill themselves with what they lack.

Understanding this, I invite you, delegate, advisor, and secretariat, to empty yourself of what is simple and fill yourself with what is complex. I invite you to leave conformity behind and choose transcendence for these three days. Because if you long for change as much as I do, there is no better initiative than starting with oneself. In this way, many Model United Nations conferences can teach you communication and diplomacy, but few seek a transition the way TECMUN does. Love change and work with love for it, because only then will greatness prevail over conformity.

David Trujillo Loza
Secretary General for the
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"Every great dream begins with a dreamer. Always remember, you have within you the strength, the patience, and the passion to reach for the stars to change the world."

- Harriet Tubman.

Querido soñador:

Siempre he pensado que cada uno de nosotros llegó a este universo con un mismo propósito: cambiar el mundo. Estoy segura de que debes tener miles de sueños y metas que anhelas cumplir en un futuro; yo vengo a pedirte que nunca te rindas. Hoy en día el mundo está lleno de noticias sobre cómo la humanidad está siendo gobernada por el poder y la ambición, y yo sé que eso puede llegar a desanimar e incluso desviar nuestros propósitos, pero, por favor, nunca dejes que los retrocesos sean una razón para dejar de intentar; al contrario, que se conviertan en el porqué de tus pasos hacia el cambio.

Hace algunos años mis sueños seguían borrosos, no era muy consciente de mis alrededores y tampoco tenía herramientas para comprenderlo del todo, pero el día que entré a Tecmun fue como si hubiera visto con lentes por primera vez. Tecmun me ha enseñado que el primer paso para el cambio es el volvernos conscientes; con esto me refiero a no hundirnos en la ignorancia y empezar a ver el mundo desde cualquier perspectiva posible, empezar a investigar sobre todo lo bueno y lo malo y formar un criterio de ello.

Si me preguntaran cómo describiría a Tecmun, diría que es un espacio para descubrir; dentro de este eres capaz de pensar más allá e intentar buscar soluciones para problemáticas que gente real vive día con día. No solo analizas, te vuelves un poquito más empático con cada propuesta que realizas. Tecmun es un lugar para soñadores; está basado en un modelo de naciones que surgió para evitar futuros conflictos, pero yo considero que Tecmun es aún más que eso.

Para mí, Tecmun se ha convertido en los tres días que espero con ansias cada semestre. El motivo eres tú; trabajar durante todo el semestre para llegar al modelo y poder verte list@ para adentrarte en un mundo lleno de ideas y soluciones, de creatividad y pasión, hace que todo mi esfuerzo valga la pena. Mi propósito es que te enamores de Tecmun al igual que yo lo hice; busco transmitirte mi pasión y hacerte ver este proyecto como lo hago yo, como el lugar en el que los sueños se hacen realidad.

Como jóvenes debemos luchar por un mundo mejor; somos el futuro de nuestra sociedad y debemos actuar como tal. Nuestro deber como estudiantes es querer ser mejor cada día, pero no por los demás, sino porque esa alma soñadora que tenemos en nuestros corazones nos vea triunfar y ser la persona más feliz del mundo, siempre apegada a nuestros valores, siempre perseverante, siempre libre. Luchemos por tener un mundo mejor, pensemos en grande y no dejemos que nunca nadie nos quite lo más importante que poseemos, nuestra humanidad. Gracias por estar aquí, por hacer el cambio, por no rendirte.

Alexa Esmeralda Rivera Jiménez
Subsecretaría de Coordinación para el
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"Just because you have rights today does not mean you will have rights tomorrow"

- Sheryl Lee Ralph

Queridos visionarios:

Seamos honestos: las problemáticas globales que están frente a nosotros no son sólo simulaciones; son un reflejo de la fricción exacta que define nuestro presente. Deben considerarse afortunados de poder tener una voz con la cual expresar sus ideas, opiniones y descontentos. Sean mentes revolucionarias y recuerden que el simple hecho de cuestionarse el mundo en el que viven es un acto puro de rebeldía. Vivimos en un mundo donde cada vez nos preocupamos menos por el de al lado, y ustedes son quienes deben recordar que, al estar aquí, participando en este modelo, han adquirido un compromiso con la transformación social.

Desde que empecé mi camino en TECMUN, nunca me hubiera imaginado ser la persona que soy ahora. Ser parte de este modelo te lleva a lugares increíbles, pero lo más importante son las cosas que te llevas de él. El hecho de que la mayoría de nuestra sociedad no se preocupe por lo que pasa al otro lado del mundo, mientras que ustedes tienen la oportunidad no solo de conocer estas problemáticas, sino también de buscarles solución, habla muy bien de lo valientes que pueden llegar a ser. Una vida puede cambiar si tan solo se decide actuar. Por eso, el consejo más valioso que puedo darles es que no tengan miedo de expresarse ni de alzar la voz, porque no saben el poder que tienen. Luchen y hablen por las personas que hoy no pueden hacerlo o a quienes su voz les fue arrebatada. Puede que sean pequeños, pero no dejen que eso los defina y, mucho menos, que se convierta en un limitante para soñar en grande.

Les deseo mucha suerte en este modelo y espero que salgan de cada sesión satisfechos y felices de sí mismos. No vean desde el privilegio, atrévanse a más y recuerden que el verdadero cambio empieza aquí y empieza en ustedes.

María Fernanda Domínguez Heredia
Subsecretary for the Economic and Social Council for the
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“The harder you push yourself, the more you discover there is no end”

— Aryton Senna

Dear delegate:

Today, you are beginning a challenge that not everyone chooses to face: confronting your own voice in order to achieve a difference. By being here and daring to discuss conflicts that most people choose to ignore, you have already decided to be part of the change. It won't be easy, because standing up for what you believe is right never is, but that does not mean it is not worth trying. It takes courage, and you have already demonstrated it by committing yourselves to this model.

As a former delegate, I know exactly how you are feeling. And if there is one advice I would appreciate giving you is to believe in yourselves. You would not be here if it weren't for the power each of you carries within to innovate beyond TECMUN. I am certain that within every one of you lies the courage to face conflicts far greater than those discussed in this committee.

So, dare to raise your placard for a controversial idea. Dare to innovate with your proposals. But above all, dare to challenge yourselves, because only then will you realize that you have no limits, and that may be the first step toward becoming the best version of yourselves.

If you believe an idea deserves to be heard, that an opinion could change the course of the debate, or that your voice should be raised, then believe in yourselves enough to make it happen. Because many times, the voice that chooses to remain silent is the very one capable of changing the world. And even though you cannot solve every global conflict in three days, you can make these three days the beginning of something extraordinary for yourselves. Enjoy every moment, use this experience to challenge yourselves, and discover new perspectives.

Make every moment worth it. .

Mariana Jiménez Zamudio
President of the Food and Agriculture Organization for the
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Background

The Food and Agriculture Organization (FAO) works as a permanent specialized agency of the United Nations, which was officially founded on October 16th, 1945, in Quebec City, Canada. It was initiated with the goal of addressing global concerns regarding food security, hunger, agriculture, and rural development. The organization comprises 194 Member States, along with the European Union as a Member Organization and 2 Associate Members. Headquartered in Rome, Italy, FAO plays a fundamental role in supporting international cooperation regarding agricultural and environmental sustainability additionally to humanitarian assistance.

Faculties

The Food and Agriculture Organization is committed to enhance agricultural development, improve global supply systems, and promote international cooperation in rural development.

It has the authority to:

- Promote the international cooperation to address challenges related to hunger, nutrition, and agricultural development through coordinated global initiatives;
- Develop policy frameworks and strategic guidelines to promote protection and sustainability within agricultural, forestry and fisheries sectors;
- Facilitate the establishment of inclusive distribution networks and systems to enhance accessibility, availability and efficiency throughout production and supply chains;
- Support communities facing environmental, humanitarian, and economic crises through early warning systems aimed at strengthening preparedness, monitoring, and adaptive mechanisms;

- Administer and mobilize international financial assistance and security mechanisms, emergency resources, and development funding to support response efforts.

Topic A

Strategies to address bioprospecting and genetic patenting inciting biopiracy that undermines traditional agricultural knowledge and smallholder seed sovereignty in Southern Asia

Introduction

Southern Asia is recognized as one of the world's major agricultural regions, according to the International Management Water Institute approximately 70% of its population is denominated in this sector, which accounts for a significant fragment of the economy. They are the principal exporters of crops such as rice, wheat, sugarcane, cotton, and tea. Even though this region has been threatened by the consequences of climate change, due to being one of the most vulnerable territories. During recent years, South Asia has been victim of heat waves, cyclones, droughts, and floods, which have had a significant impact on the productivity of agriculture. These conditions have also made the region an important target for international *bioprospecting*¹. Although this practice has the purpose of the exploration of medicinal plants or resilient seed varieties to investigate for profitable genetic patents in order to achieve the commercialization of products along with the encouragement of rural development, it has often resulted in *biopiracy*², where corporate entities modify these indigenous genetic resources, including materials and knowledge, to secure exclusive *intellectual property rights*³. These practices have effectively facilitated the privatization of biological resources by transforming generational agricultural knowledge, traditional ecological practices, and ancestral assets into private monopolies without the prior consent and equitable benefit sharing of the original farming communities.

Therefore, the expansion of intellectual property rights has significantly affected the smallholder seed sovereignty across Southern Asia by transforming plant genetic resources from a shared heritage that had sustained rural communities for decades into private commercial stock. As highlighted by S. Verma in a regional agricultural research for the

¹ **Bioprospecting:** searching for plant or animal species for use as a source of commercially exploitable products, such as medicinal drugs. (Collins English Dictionary, 2012)

² **Biopiracy:** the commercial exploitation or monopolization of biological or genetic material, usually without compensating the Indigenous peoples or countries from which the material or relevant knowledge is obtained. (Thesaurus, n.d)

³ **Intellectual Property Rights:** the legal mechanisms that grant exclusive ownership and control over new plant varieties, breeding technologies, or genetic traits. (Verma, S, 2025)

SAARC Journal of Agriculture, seed sovereignty refers to the collective ownership and autonomy of local farming communities over their indigenous knowledge systems. However, international frameworks driven by commercial plant breeders and legal alignments had dismantled the traditional autonomy of farmers through granting exclusive rights to biotechnological corporations. These regulations may limit the ability of vulnerable producers to freely save, multiply and sell their traditional seeds. This weakening of seed sovereignty has created a market dependency alternatively to resilient indigenous cultivars with uniform commercial varieties, and has destabilized local agro-systems, eventually jeopardizing the long-term *food security*⁴ and agricultural sustainability of the entire region.

From a broader perspective, this conflict has been heavily shaped by a discrepancy between global legal orders. On one side, international trade agreements encourage the imposition of patent regimes over plant varieties, while on the other, environmental alliances such as the Convention on Biological Diversity or the Nagoya Protocol that advocate for seed sovereignty over the genetic resources and fair sharing of benefits for the sustenance of rural development. Consequently, Southern Asia has become a primary laboratory for this legal intersection, leaving the agricultural sectors entangled between global economic integration and the protection of sovereign natural wealth. Correspondingly, the lack of consistency among the global injunctions leaves the agricultural sectors of the region operating within regulatory uncertainty that perplexes conservation and commercial development.

Background

Rural populaces across South Asia have played a fundamental role for centuries in the conservation and enhancement of agricultural biodiversity. Populations have been able to develop a wide variety of plant species to meet their growing needs through careful seed

⁴ **Food security:** when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. (World Bank Group, n.d)

selection, cultivation and transfer methods. These methods also have provided a means for the transfer of traditional agricultural knowledge, and have given farming communities the ability to grow multiple types of crops, which have helped them manage potential environmental threats such as pests, diseases, and droughts that could disrupt their production. Therefore, traditional agricultural methods have played a critical role in both food security and preserving biodiversity in this region.

As biotechnology continued to advance through the twentieth century, there also came many advances in the field of the value of biological resources in regions all over the world that have rich biodiversity. One of the results of the increased value of natural assets was an increase in bioprospecting. This practice has been adopted by various sectors, including agriculture, crop protection, ergonomics and pharmaceuticals, as many of these industries drawn upon traditional knowledge systems for information regarding the use of genetic and biochemical materials. In addition to the development of bioprospecting, increased economic value placed on biological resources led to an expansion of intellectual property frameworks, including the patenting of genetic resources. Consequently, there are many questions related to access, ownership, control over bioresources as well as traditional knowledge associated with agricultural practices.

In 1992, the adoption of the Convention on Biological Diversity (CBD) marked a response to growing awareness concerning the use of genetic resources alongside related traditional knowledge. Subsequently, as a way to advocate the proposed goals, the Nagoya Protocol was established as a supplementary agreement by member nations in 2010 in order to cooperate with the objectives of CBD. The Protocol establishes legal mechanisms including prior informed consent and fair and equitable benefit sharing regarding the use of genetic resources. Furthermore, the Nagoya Protocol recognizes the value of traditional knowledge held by Indigenous Peoples and Local Communities and encourages their

participation in decisions regarding access to genetic resources. These two international legal arrangements have, therefore, grand the seeds for an internationally recognized framework from which to solve legal issues associated with biopiracy and the patenting of genetic resources, as well as issues related to protecting traditional knowledge relevant to agricultural practices.

Socioeconomic impacts on rural communities through market dependency and seed monopolies

The commercialization of genetic resources has transformed natural materials and ancestral knowledge into profitable products, creating patent regimes to secure ownership and control over the basic building blocks of life. In Southern Asia, this profit driven exploitation directly rattles sustainable and traditional farming systems by shifting the agricultural landscape away from conventional and community managed seed sharing toward a restrictive commercial supply chain. For instance, transnational biotech corporations have been engaged in biopiracy of diverse native South Asian resources, including disputes surrounding patents related to the pesticidal properties of neem, claims involving Basmati rice varieties, and debates regarding the introduction and modification of indigenous brinjal (eggplant) varieties. These intervention mechanisms introduce to the market *high-yielding*⁵ seeds that legally restricts the rights of local smallholders to save, exchange, reproduce, or sell. Therefore, because these proprietary seeds are significantly more expensive and demand valuable synthetic inputs, vulnerable farmers are deprived of their self sufficiency. This increased commercial dependency traps hundreds of thousands of smallholder farmers across the subcontinent in severe debt cycles, financially debilitating agrarian communities.

⁵ **High-yielding:** agricultural plants specifically bred or genetically modified to produce greater quantities of food and fiber per unit of land. (Gossett, D, 2023)

Beyond the immediate economic implications, the expansion of patented materials has disrupted the social fabric and food security of rural communities. Traditionally, many farming systems in South Asia tend to rely on the open, communal exchange of native varieties, which serves as a safety net for smallholders and structures a core part of their cultural identity. By restricting these traditional community practices and criminalizing the savings and sharing of cultivars, as said before, the patent regimes potentially reduce their autonomy. As a consequence the crops leave local food systems highly exposed to market volatility, which directly compromises the food security of the area when smallholders are not able to afford commercial seeds. In addition, this structural transition has accelerated the erosion of indigenous knowledge, as their community practices are replaced by an external dependency. Ultimately, the uneven distribution of benefits is leaving the transnational corporations generating massive profits while the farming communities of South Asian biodiversity are left without their right of profit along with the facing of food insecurity, social displacement, and the systematic loss of their agricultural heritage.

This socioeconomic imbalance is convoluted by the systemic failure of benefit-sharing mechanisms to provide compensation to local farmers. Within the Southern Asian agricultural sectors, traditional knowledge holders and rural smallholders have been excluded from access to benefit contracts, leaving them in an unequal position opposed to commercial entities that commercialize local genetic resources. Even though there have been instances where regional benefit-sharing agreements materialize, the transactional structures yields the economic compensation percentages drop as low as 0.1% of total corporate profits (Silva, 2020), meaning that the rural farmers that have managed this biodiversity for generations are still being left uncompensated. So, these functioning models fail to reward local producers for their role as custodians of biodiversity, allowing external associations to

capitalize on the region's wealth while denying South Asian agrarian communities their rightful share of financial gains.

The evasion of international law and the exploitation of seed regulations

The persistence of biopiracy in South Asia is closely linked to the violation of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT), two mechanisms established under the Nagoya Protocol. These measures are intended to ensure that local communities authorize the use of their genetic resources and receive a fair share of the benefits generated from their commercialization. However, transnational entities continue to exploit institutional and regulatory gaps, bypassing these legal policies to manage ancestral agricultural varieties as unowned or freely accessible materials. This practice undermines the *Farmers' Rights*⁶ adopted by the Food and Agriculture Organization in 2001, including the right to equitably participate in sharing benefits derived from the use of plant genetic resources. Furthermore, commercial entities dismiss the knowledge of South Asian smallholders while recharacterization collective agricultural heritage as private innovations by avoiding the concept of *Prior Art*⁷ and manipulating these international boundaries to isolate the local communities from statutory protections and compensation they are inherently owed.

The operational execution of the Mutually Agreed Terms has been debilitated by an imbalance in technical capacity during contract negotiations. While the Nagoya Protocol Hub commands that MAT must define clear dispute-settlement clauses, intellectual property provisions, and definite benefit-sharing arrangements before bioprospecting access is granted, foreign entities capitalize the lack of national legal registries in Southern Asia to avoid these administrative impediments altogether. This oversight alter the Multilateral System

⁶ **Farmers' Rights:** enabling farmers to maintain and develop crop genetic diversity, and recognizing and rewarding them for this indispensable contribution to the global pool of genetic resources and to local and global food security, and their right to seed, propagating material and crop genetic diversity in general. (Farmers' Rights, 2022)

⁷ **Prior Art:** any evidence that your invention is already known or available to the public before your patent application's filing date. (Oppenhuizen Law PLC, n.d)

established by the International Treaty on Plant Genetic Resources for Food and Agriculture, a mechanism to pool global plant genetic resources through a *Standard Material Transfer Agreement*⁸ while avoiding the privatization of food crops. Transnational associations employ this system by importing specific genetic material and conducting minor molecular adjustments in foreign laboratories, then legally reclassifying these altered arrangements as new biotechnological inventions instead of raw germplasm. When corporations use resources obtained through these frameworks to register exclusive patents on regional crops such as Nap Hal wheat and non-sweet melons, they effectively turn an open international storehouse into closed commercial monopolies. By avoiding the SMTA framework through this legal separation of modified traits from their geographic origin, transnationals have been evading the mandatory financial contributions owed to the Food and Agriculture Organization Benefit Sharing Fund, ensuring that corporate profits remain unaffiliated from the agricultural communities that have been developing the resistance traits and genetic diversity for generations.

The evolution of biopiracy.

The technological evolution of biopiracy has been linked to the rise of Digital Sequence Information (DSI), a mechanism that dematerializes physical plant genetic resources into digital data. Through international initiatives such as the Earth BioGenome Project and sequencing registries managed by institutions like Kew Gardens, the *genomic*⁹ blueprints of regional crops are being systematically uploaded to open access related to public data bases. Due to the digitalization processes, an alteration in the traditional parameters of access and benefit-sharing has threatened South Asia, as transnational entities no longer require physical

⁸ **Standard Material Transfer Agreement:** a standard contract that sets out the terms and conditions ensuring that the relevant provisions of the International Treaty are followed when transferring plant genetic material that is included in the Multilateral System. (Food and Agriculture Organization, n.d)

⁹ **Genomic:** relating to the complete set of genetic material of a human, animal, plant, or other living thing. (Cambridge Dictionary, n.d)

interaction with the geographic origin of the seed to appropriate its valuable traits. Therefore, as documented in the regulatory frameworks of the Food and Agriculture Organization (FAO) and the Convention on Biological Diversity (CBD), the transition from physical *germplasm*¹⁰ to genomic cloud archives adequately bypasses territorial checkpoints, creating several cases where material extraction is evolving to data exploitation.

The core of this complication lies in the technical separation of genetic data from its physical source, which legalizes a structural *loophole*¹¹ regarding regulatory compliance. When genetic resources are translated into sequence data and received on international, open access platforms, the foundational legal requirements of the Prior Informed Consent and Mutually Agreed Terms, stipulated by the Convention on Biological Diversity, become functionally unenforceable. Transnational corporations advantage this public domain infrastructure to download specific target sequences, as they utilize synthetic biology and biotechnological tools to replicate or alter agricultural traits without establishing physical material transfer agreements. As a consequence, the standard multi party frameworks managed by the Food and Agriculture Organization have been threatened, as the digitization of the resources removes the obligation to log cross border seed movements. The intermittent schemes have transformed the public genomic knowledge into a baseline for private intellectual property, enabling external entities to secure exclusive proprietary rights by exploiting the existent loopholes in diverse agreements and frameworks in order to bypass the benefit-sharing mechanisms.

The continued reliance on open-access genomic archives ultimately completes a management of commercial accumulation that disassembles value from its indigenous and regional origins. These operations ensure that while digital data remains unregulated under

¹⁰ **Germplasm:** seeds, or plant or animal tissues, that are kept for the genetic material they contain and used in breeding programs and for research. (Cambridge Dictionary, n.d)

¹¹ **Loophole:** a small mistake in an agreement or law that gives someone the chance to avoid having to do something. (Cambridge Dictionary, n.d)

the disguise of global scientific advancement, the proprietary technologies derived from it are being protected by international patent systems. Thereupon, the multilateral composition overseen by the Food and Agriculture Organization and the Convention on Biological Diversity faces an ongoing institutional crisis, as its core objectives regarding seed sovereignty over genetic resources are being neutralized by digital appropriation. Because of the loopholes regarding the usage of genetic resources on the digital market, the genomic cloud continues to operate as a subtle mechanism for the unauthorized appropriation of regional agricultural heritage.

The global and regional relevance of biopiracy

The maintenance and appropriate management of genetic resources are an important part of maintaining resilient agricultural systems that can allow rural communities to provide food security globally and regionally. The genetic variation in the genetic resources results in the development of crops that can cope with sudden changes in conditions such as disease, pests and climate change. Local effects of climate change on agriculture are still felt in all countries and thus the conservation and utilization of these resources is crucial for rural development across the region. Within this context, the Food and Agriculture Organization maintains that plant genetic resources constitute an essential global public good that must be governed through equitable multilateral frameworks to prevent unilateral exploitation. Therefore, the misappropriation of these resources through biopiracy has brought consequences, both for the native communities, as well as for the agricultural sustainability and food security, directly undermining the international benefit sharing mechanisms that the FAO oversees to protect regional farming heritage.

As far as biotechnology and plant breeding developments contribute to the development of sustainable agriculture, farmers have been overlooked for their role in preserving and improving plant genetic resources. Indeed, for many years, farming

communities preserved agricultural biodiversity through seed-saving and selection practices. The concept of Farmers' Rights came into being in order to recognize those contributions and secure the interests of farmers associated with seeds, traditional knowledge, and genetic resources. Those rights imply the need to preserve traditional agricultural knowledge, share benefits equitably, and participate in making decisions regarding plant genetic resources. Altogether, the conflict of biopiracy implies reaching to the beneficiary balance between scientific breakthroughs and farmers' rights.

Given the transnational nature of genetic resources and traditional knowledge, multilateral cooperation remains an important element for achieving long term sustainability in the governance of this natural wealth. In response, the Republic of India has deployed a Traditional Knowledge Digital Library to legally block illicit foreign patents, while the Islamic Republic of Pakistan and the People's Republic of Bangladesh have enacted strict National Biodiversity Strategy and Action Plans to safeguard indigenous heritage. By regulating the access and benefit-sharing arrangements, these international treaties establish a transparent system designed to guarantee equitable compensation for all participating associations while reinforcing the mandatory requirement of prior informed consent. Ultimately, the stability of this multilateral system depends on its capacity to forge a structural equilibrium that recognizes the ancient indigenous heritage while simultaneously accommodating the advancements of biotechnology.

References

1. Background Brief: Traditional Knowledge and intellectual property. (n.d). World Intellectual Property Organization. Retrieved June 10, 2026, from:
https://www.wipo.int/export/sites/www/pressroom/en/documents/background_brief_tk.pdf
2. Benefit-sharing. (n.d). Nagoya Protocol HuB. Retrieved June 10, 2026, from:
<https://nagoyaprotocol-hub.de/benefit-sharing/>
3. Climate and Development in South Asia. (2026). World Bank Group. Retrieved June 5, 2026, from:
<https://www.worldbank.org/en/region/sar/brief/integrating-climate-and-development-in-south-asia/integrating-climate-and-development-in-south-asia-region>
4. Consideration of “Digital Sequence Information / Genetic Sequence Data” on Plant Genetic Resources for Food and Agriculture for the Objectives of the International Treaty. (2023). Food and Agriculture Organization of the United Nations. Retrieved June 11, 2026, from:
<https://openknowledge.fao.org/server/api/core/bitstreams/9850dca1-be16-47a7-bde5-1d5c0e8b82e9/content>
5. COPING WITH CLIMATE CHANGE: THE IMPORTANCE OF GENETIC RESOURCES FOR FOOD SECURITY (2011). Commission on Genetic Resources for Food and Agriculture, Food and Agriculture Organization of The United Nations. Retrieved June 11, 2026, from:
https://fsnnetwork.org/sites/default/files/coping_with_climate_change_food_security.pdf

6. Digital sequence information on genetic resources. (2025). Convention on Biological Diversity. Retrieved June 11, 2026, from: <https://www.cbd.int/dsi-gr>
7. Godde, J. (2024). Biopiracy and bioprospecting. EBSCO. Retrieved June 5, 2026, from:
<https://www.ebsco.com/research-starters/science/biopiracy-and-bioprospecting#biopiracy>
8. Heinemann, J., Coray, D., Thaler, D. (2018). EXPLORATORY FACT-FINDING SCOPING STUDY ON “DIGITAL SEQUENCE INFORMATION” ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE. Commission on Genetic Resources for Food and Agriculture. Retrieved June 11, 2026, from:
<https://openknowledge.fao.org/server/api/core/bitstreams/178e26e0-b1f2-416d-9521-eabd92b352d0/content>
9. Horton, R., Lee, E. (2024). What is digital sequence information (DSI)?. Royal Botanic Gardens: KEW. Retrieved June 11, 2026, from:
<https://www.kew.org/read-and-watch/what-is-dsi>
10. How Genomics Is Transforming Agriculture. (2025). Earth Biogenome Project. Retrieved June 11, 2026, from:
<https://www.earthbiogenome.org/newsletter-blogs/agriculture-genomes>
11. INTERGOVERNMENTAL COMMITTEE ON INTELLECTUAL PROPERTY AND GENETIC RESOURCES, TRADITIONAL KNOWLEDGE AND FOLKLORE. (2004). World Intellectual Property Organization. Retrieved June 10, 2026, from:
https://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_6/wipo_grtkf_ic_6_8.pdf
12. International Treaty on Plant Genetic Resources for Food and Agriculture (2026) Food and Agriculture Organization of the United Nations. Retrieved June 6, 2026, from: <https://www.fao.org/plant-treaty/areas-of-work/farmers-rights/overview/en>

13. International Treaty on Plant Genetic Resources for Food and Agriculture. (2009).
Food and Agriculture Organization of the United Nations. Retrieved June 10, 2026,
from: <https://www.fao.org/4/i0510e/i0510e.pdf>
14. Katy, M. (2010). Lessons from Bioprospecting in India and Nigeria. Cultural
Survival. Retrieved June 5, 2026, from:
<https://www.culturalsurvival.org/publications/cultural-survival-quarterly/lessons-bioprospecting-india-and-nigeria>
15. Nagoya Protocol and Participation of Indigenous People and Local Communities in
Policy Making Process and Benefit Sharing (2018). Centre for International
Sustainable Development Law (CISDL). Retrieved June 11, 2026, from:
<https://grassrootsinstitute.net/files/abs6.pdf>
16. NAGOYA PROTOCOL ON ACCESS TO GENETIC RESOURCES AND THE
FAIR AND EQUITABLE SHARING OF BENEFITS ARISING FROM THEIR
UTILIZATION TO THE CONVENTION ON BIOLOGICAL DIVERSITY. (2011).
Convention on Biological Diversity United Nations. Retrieved June 6, 2026, from:
<https://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf>
17. Portillo, S. (2023). The Impact of Biopiracy on Indigenous Communities and
Traditional Knowledge. Journal of Biodiversity, Bioprospecting and Development.
Retrieved June 6, 2026, from:
<https://www.hilarispublisher.com/open-access/the-impact-of-biopiracy-on-indigenous-communities-and-traditional-knowledge.pdf>
18. Shiva, V. (2016). NATIONAL IPR POLICY CANNOT GO AGAINST VALUES
AND *ordre public* EMBODIED IN INDIAN CIVILISATION, THE INDIAN
CONSTITUTION, AND THE INDIAN BIODIVERSITY AND PATENT ACT.

Medium. Retrieved June 6, 2026, from:

<https://medium.com/@drvandanashiva/seeds-biodiversity-and-iprs-845187d00951>

19. Silva, D. (2020). Biopiracy: the largely lawless plundering of Earth's genetic wealth.

Think Landscape: Global Landscapes Forum. Retrieved June 10, 2026, from:

<https://thinklandscape.globallandscapesforum.org/48905/biopiracy-the-largely-lawless-plundering-of-earths-genetic-wealth/>

20. Sisodia, R. (2011). Biopiracy in India: The case of the aubergine. Aljazeera. Retrieved June 6, 2026, from:

<https://www.aljazeera.com/opinions/2011/10/31/biopiracy-in-india-the-case-of-the-aubergine>

21. South Asia. (n.d). International Water Management Institute. Retrieved June 5, 2026, from: <https://www.iwmi.org/where-we-work/south-asia/>

22. The Convention on Biological Diversity: changing ethical and legal frameworks for biodiversity research and prospecting (n.d) Food and Agriculture Organization of the United Nations. Retrieved June 6, 2026, from:

<https://www.fao.org/4/y1237e/y1237e05.htm>

23. Verma, S. (2026). Seed Sovereignty and Intellectual Property Rights: A Critique on the Legal Spectrum in South Asia with Special Reference to the Indian Legal Landscape. *SAARC Journal of Agriculture*, 23(2), 239–251. Retrieved June 6, 2026, from: <https://doi.org/10.3329/sja.v23i2.84348>

24. What are Farmers' Rights? (2022). ARC Centre of Excellence for Plant Success in Nature and Agriculture. Retrieved June 11, 2026, from:

<https://www.plantsuccess.org/wp-content/uploads/2022/10/13-What-are-Farmers-Rights-Fact-Sheet.pdf>

Topic B

Confronting the causes of child labour and exploitative practices within West African cocoa supply chains with emphasis in the Republic of Côte d'Ivoire

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Introduction

The global distribution of child labour is fundamentally bounded to the structural progress of rural economies, as statistical data from the International Labour Organization and the European Union establishes that the agricultural sector accounts for over 70% of worldwide cases, encompassing more than 112 million children. The Food and Agriculture Organization (FAO) approaches this crisis through its institutional mandate: to enable inclusive and efficient agricultural systems, ensure food security, and elevate the socioeconomic conditions of rural populations. Reports from the FAO demonstrate that agricultural child labour is currently increasing due to climate disasters, local market failures, and conflicts that directly destabilize smallholder livelihoods. As a consequence of these exploitations predominantly occurring within family farming units rather than formal industries, the FAO has been responsible for addressing the concealed agrarian vulnerabilities, such as low crop yields and household food insecurity, that drive communities to rely on youth and labour exploitation.

In the Republic of Côte d'Ivoire, these agrarian vulnerabilities are located within the smallholder cocoa supply chain, falling directly under the FAO's awareness regarding sustainable agrifood systems. Fields assessments by the Pulitzer Center and Humanium show that the majority of cocoa smallholders receive a minimal fraction of global industry revenues, leaving these farming households under severe economic deprivation. Econometric analysis published by Agricultural Economics reveals that these low *farmgate values*¹² create a structural loss where families are not able to afford external labour during intensive harvest periods. Within this economic framework, the use of child labour serves as an agricultural coping mechanism to handle physically demanding tasks, linking low agricultural productivity to exploitative labour outcomes.

¹² **Farmgate value:** the price received by farmers for their produce at the farm, before any additional costs for processing and transport. It represents the earnings directly obtained by farmers from their agricultural products. (Zhou, 2015)

Consequently, the technical extension of the FAO in the Republic of Côte d'Ivoire focuses on transforming the agricultural variables that drive these labour dependencies. The FAO's institutional competences involve monitoring and capacity-building initiatives in household crop diversification, the financial strengthening of agricultural resilience, and the transition toward sustainable and efficient *agroforestry*¹³ systems. Considering that the enforcement of labour laws relies outside the jurisdiction of agrifood governance, the structural stabilization of the Republic of Côte d'Ivoire cocoa sector constitutionally depends on mitigating post-harvest losses, modernizing smallholder infrastructure, and establishing stability for rural incomes. Investigative frameworks have shown that addressing these agricultural entry points, principally through the documentation of systemic vulnerabilities and the enhancement of farming livelihoods, functions as the key mechanism to counteract the structural and economic factors that sustain the use of child and exploitative labour within agrarian communities situated inside the primary cocoa-producing belt and the Bas-Sassandra district.

Background

The Republic of Côte d'Ivoire is the largest producer of cocoa globally, and cocoa cultivation forms an essential means of livelihood for many households in rural settings. In spite of the significant economic contribution of the industry, many growers have not achieved financial stability due to issues such as fluctuating commodity prices, high production costs, limited farm sizes, and limited income opportunities. Research shows that many of these producers earn less than the minimum living income necessary to meet their basic needs on a regular basis. Consequently, this income shortfall restricts the liquidity of agrarian households by

¹³ **Agroforestry:** a land management system that intentionally integrates trees and shrubs with crops and/or livestock on the same area of land to create productive, resilient, and ecologically balanced farming systems. (Agricultural Recruitment Specialists, n.d)

leaving smallholders unable to afford structural farm investments or endure sudden market instabilities.

Inadequacies in agricultural activities also make the community vulnerable with regard to cocoa production across the region. Most small-scale farmers have old cocoa plantations that have been suffering from constraints such as low soil fertility, disease outbreaks, and lack of planting material, fertilizer, and plant treatment services. Lack of adequate financing also denies farmers an opportunity to rejuvenate their farms and adopt better farming practices. Poor yield and profitability lead to economic insecurity and enable exploitation to persist in the cocoa industry. Low productivity and lack of investments also limit the farmer's ability to improve labour standards and increase their reliance on exploitative labour.

Both at the national and sectoral levels, efforts have been made to address the structural causes of vulnerability in the cocoa sector of the Republic of Côte d'Ivoire. The restoration of soil fertility and enhancement of agricultural productivity are promoted through sustainable agroforestry systems. Such approaches aim to rejuvenate ageing plantations and create alternative sources of income for farmers beyond cocoa monoculture. Financial mechanisms promoted by the Ivorian Government, together with the United Nations Environment Programme Finance Initiative and the European Union Facility for Reducing Emissions from Deforestation and Forest Degradation have been proposed to compensate producers for the short-term costs of adopting these practices and to improve their credit access. These initiatives have the potential to address problems such as low productivity, underinvestment, and reliance on volatile cocoa prices. However, their uptake remains limited due to inadequate financing, insufficient access to improved planting materials, and the limited capacity of many smallholder farmers to absorb temporary income losses.

Manual labour dependencies as a consequence of the lack of agricultural technology

The production of cocoa across the Republic of Côte d'Ivoire has been defined by low levels of rural mechanization and a structural reliance on rudimentary agricultural tools. Documentation of the Food and Agriculture Organization (FAO) and global sustainability partnerships suggest that, despite emerging efforts toward agricultural modernization in the region, the vast majority of smallholder plantations continue to operate without automated machinery. The FAO's regional frameworks suggest that agricultural mechanization in Sub-Saharan Africa is structurally depressed, with an average of fewer than 2 tractors per 1,000 hectares of cropland, compared with a ratio of about 10 tractors per same area in regions like South Asia or Latin America. Indispensable stages of the cultivation cycle, such as the pruning of cocoa trees, the manual harvesting of ripe pods, and the splitting of husks to extract the beans, are performed almost entirely through human physical labor, utilizing handheld tools like machetes. This lack of technological infrastructure means that the physical workload required to maintain crop productivity cannot be performed by automated systems, creating a high demand for manual labor directly within the operational framework of West African cocoa farming.

The technological deficit extends beyond cultivation tools into the near-complete absence of rural transport networks and post-harvest infrastructure within cocoa-growing communities. The Pulitzer Center and international labour databases have stated that the lack of paved access roads, motorized transport, and communal processing centers shifts the burden of logistics onto human labor. Once cocoa husks are split, the wet beans must be transported immediately to prevent fermentation; as documented in field reports by African Agribusiness, in the absence of mechanical transport, individual workers, including children, must carry jute sacks weighing up to 50 kilograms over several kilometers of rough terrain on foot. Furthermore, as smallholder sectors lack artificial mechanical dryers and automated storage facilities, the labour-intensive processes of constantly raking beans under the sun and

protecting them from adverse climatic conditions require continuous manual monitoring. This infrastructural gap has transformed logistical disruptions into physical demands, creating an environment in which households survival depends on resorting to children to fill gaps left by the absence of rural transport and industrial machinery.

Because the purchase of modern agricultural inputs is not financially feasible for the average rural household, the operational expansion of these localized plantations is restricted by the physical capacity of the available workforce. Without the machinery to automate processing or the tools to optimize field management, smallholders cannot reduce the large number of hours needed to maintain crop outputs. Therefore, this shortfall in rural technological infrastructure makes manual labor the primary determinant of agricultural productivity in the West African cocoa sector. Ultimately, until rural development strategies make a concerted effort to close this technological gap, the structural dependence on manual labor will persist, leaving smallholder families caught in a cycle of production that directly stimulates the exploitation of child labor to compensate for the lack of the mechanization.

Climate impacts and agrarian yields vulnerabilities

Environmental unpredictability and unstable climate patterns across West Africa have introduced structural disruptions to the ecological conditions required for traditional cocoa cultivation. Frameworks compiled by the Food and Agriculture Organization (FAO) and international climate adaptation assessments for the Republic of Côte d'Ivoire demonstrate that increasing temperatures, prolonged seasonal droughts, and erratic rainfall have reduced agricultural yields and accelerated soil degradation within localized plantations. As cocoa is an environmentally sensitive *perennial*¹⁴ crop, these climate-driven disturbances undermine the predictability of seasonal harvests, provoking severe capital deficits and food insecurity for smallholder households whose livelihoods depend entirely on crop productivity.

¹⁴ **Perennial:** a plant that lives for several years. (Cambridge Dictionary, n.d)

Encountered by the weakening of agricultural outputs and escalating operational costs associated with adapting to climate change, farming households experience an erosion of their income resilience. With the objective of maintaining baseline productivity, without the financial capacity to employ adult wage labour, many smallholder respond to these environmental pressures by intensifying the mobilization of family members, transforming the ecological vulnerabilities of the region into a structural incentive for dependence on child labour.

Quantitative statistics documented by the United Nations Development Programme and the Food and Agriculture Organization's SCALA initiative for the Republic of Côte d'Ivoire reveal that increasing temperatures are projected to reduce suitable cocoa-producing land by nearly 50% by mid-century, forcing possible geographical displacement of cultivation toward the western regions of the country. This ecological shift alters the *flowering cycles*¹⁵ of the cocoa tree (*Theobroma cacao*), leading to uncertain harvest windows that disrupts traditional rural labour calendars. Consequently, instead of predictable biannual harvests, smallholders continue to face *erratic micro-harvests*¹⁶ that require immediate and labour-intensive interventions, including manual shade management and soil moisture conservation. This continuous diversification of the agricultural cycle has eliminated the distinct off-season periods, locking rural production units into a state of constant emergency that relies on the assistance of family members, including minors, to manage volatile crops.

Supply chain disparities impacting farmgate value

The global cocoa value chain represents a 100 billion-dollar market, according to the Foreign Affairs Forum; however, the distribution of this revenue remains unequal between

¹⁵ **Flowering cycle:** the critical period in a plant's development when it transitions from vegetative growth to reproductive development. (Chen, M., Zhang, J., 2024)

¹⁶ **Erratic Micro-harvest:** the fragmentation of the agricultural calendar caused by climate-driven rainfall and temperature volatility, forcing farmers to small-volume fruit collection throughout the year. (Harvard Salata Institute, 2025)

transnational corporations and local producers. Due to the high market concentration, international companies have been holding the economic capacity to dictate global price formation. As a consequence of this corporate control, smallholders across the Republic of Côte d'Ivoire remain vulnerable to financial impacts as they have no control over the sudden price fluctuations in international exchanges. The price collapse occurred because a sharp drop in international futures contract prices caused a large financial deficit in the national stabilization fund. With the aim of handling these market crises, national regulatory authorities have previously performed measures reported by African Agribusiness, such as lowering the guaranteed farmgate price by 25%, directly placing the economic burden on the weakest income link in the supply chain.

When the farmgate value declines, smallholders are forced to reduce production costs as they are unable to afford adult agricultural laborers. Evidence analyzed on the Journal of Agricultural Economics underscores how this lack of financial liquidity directly drives the demand for unpaid, domestic child labour in order to maintain the cocoa harvesting activities. Furthermore, studies on market concentration from the SEO Amsterdam Economics demonstrate that when international price formations constrains local profit margins, leaving smallholders with only 3.5% to 6.5% of the chocolate's final value, families must maximize crop yields by using all available household resources. Consequently, the consolidation of low profit margins and uncompensated family labour have created an ongoing economic dependence on child labour, undermining internationally recognized human rights criteria within rural communities.

The link between global market imbalances and rural exploitation points to an entrenched systemic cycle within the cocoa industry. When transnational corporate structures reduce the local farmgate value, the financial stability of agricultural households is compromised. This socioeconomic complication has transformed child labour from a

confined choice into an involuntary mechanism for the operational endurance on small-scale farms. Therefore, this circumstance operates as an economic consequence of international trade dynamics that penalize primary producers. Ultimately, financial volatility at the top of the supply chain functions as one of the primary causes of the social and labour realities of rural families across the region.

Food and Agriculture Organization role and global topic significance

Cocoa is an important global and regional commodity with West Africa accounting for over 70% of the total world production and the Republic of Côte d'Ivoire being the leading producer in the world. Cocoa production is a major source of income and livelihood to thousands of farmers in the region along with being a significant contributor to economic activity and export revenues. Being one of the most prominent agricultural commodities in the international market, cocoa is a leading input in the food chain in the global markets. The challenges of sustainability of cocoa production have implications on a regional and global scale as a result of the economic, social and environmental consequences of the challenges facing the cocoa production sector.

As mentioned by the Food and Agriculture Organization, one of the key objectives is to improve the efficiency and sustainability of the cocoa sector in order to target conflicts associated with the structure of child labor and exploitative practices in the Republic of Côte d'Ivoire. As a result of the application of the Sustainable Cocoa Programme, the organization supports smallholders in their productivity through the implementation of sustainable agricultural practices. The goal of the programme is to increase the farmer's income in order to reduce the financial motivation to employ exploited labor. Moreover, the organization cooperates with the farming communities to promote climate-smart agriculture and rural development, strengthening the resilience of the communities involved in cocoa production.

As a result of productivity, stable income generation, and job opportunities in agriculture, the organization attempts to reduce the vulnerability of the farming households.

In addition, the Food and Agriculture Organization has been collaborating with the World Bank in order to stop child labour in agricultural projects. With the aim to focus on problems such as hunger, lack of resilience and financial development in the rural communities which are recognized to be the major driving forces behind child labour in the sector. With this collaboration, both organizations have developed training guidelines to identify and solve the problem in agricultural projects. These efforts have facilitated the implementation of mitigation strategies under the 350 million-dollar Integrated Cocoa Value Chain Project in Côte d'Ivoire. At the national level, the Government of the Republic of Côte d'Ivoire participates through the Conseil du Café-Cacao, which is responsible for implementing the project and coordinating the institutions involved in the country's cocoa value chain. The project focuses on developing cocoa livelihoods and increasing sustainability of the value chain by reducing economic dependence on child labour.

References

1. Advancing medium and long-term adaptation planning in Côte d'Ivoire. (n.d). UNDP *Climate Change Adaptation*. Retrieved June 27, 2026, from:
<https://www.adaptation-undp.org/projects/advancing-medium-and-long-term-adaptation-planning-cote-divoire>
2. Babo, A. (2014). *CHILD LABOR IN COCOA-GROWING COMMUNITIES IN CÔTE D'IVOIRE: WAYS TO IMPLEMENT INTERNATIONAL STANDARDS IN LOCAL COMMUNITIES*. University of California Davis. Retrieved June 27, 2026, from:
https://www.researchgate.net/publication/273692927_Child_Labor_in_Cocoa-Growing_Communities_in_Cote_d'Ivoire_Ways_to_Implement_International_Standards_in_Local_Communities
3. Bhardwaj, A. (2026). *The Cocoa Crisis: Examining the Threats to Ivory Coast's \$100 Billion Industry*. Foreign Affairs Forum. Retrieved June 28, 2026, from:
<https://www.faf.ae/home/2025/6/3/the-cocoa-crisis-examining-the-threats-to-ivory-coasts-100-billion-industry>
4. Bowman, M. (2026). *Ivory Coast Cocoa Prices Cut 57%*. ADM Investor Services. Retrieved June 28, 2026, from:
<https://www.admis.com/ivory-coast-cocoa-prices-cut-57/>
5. Braga, A. (2024). *The dark side of chocolate: child labour in the cocoa industry*. Humanium. Retrieved June 21, 2026, from:
<https://www.humanium.org/en/the-dark-side-of-chocolate-child-labour-in-the-cocoa-industry/>

6. Building a resilient cocoa culture in Côte d'Ivoire. (2022). *UNDP Climate Change Adaptation*. Retrieved June 27, 2026, from:
<https://www.adaptation-undp.org/scala-building-a-resilient-cocoa-culture-in-cote-d-iv-voire>
7. Child Labour in Agriculture. (n.d). *Food and Agriculture Organization of the United Nations*. Retrieved June 21, 2026, from:
<https://www.fao.org/childlabouragriculture/en/>
8. *Climate Change Impacts on Agriculture and Food Security: Feeding a Warming World*. (2025). Climate Change Academy. Retrieved June 27, 2026, from:
<https://climatechange.academy/climate-change-society/climate-change-impacts-agriculture-food-security/>
9. *CLIMATE CHANGE: WHAT DOES IT MEAN FOR AGRICULTURE AND FOOD SECURITY?*. (2016). Food and Agriculture Organization of the United Nations. Retrieved June 27, 2026, from:
<https://openknowledge.fao.org/server/api/core/bitstreams/bc2b20a8-dccb-4731-9b55-850010a24d81/content>
10. *Côte d'Ivoire's Agriculture Sector: Navigating Growth Amidst Global Demand and Climate Challenges*. (2025). AfricaRisk Control. Retrieved June 21, 2026, from:
<https://africariskcontrol.com/analysis/cote-divoires-agriculture-sector-navigating-growth-amidst-global-demand-and-climate-challenges/>
11. *Côte d'Ivoire's Quiet Agricultural Revolution*. (2025). Primer Africa. Retrieved June 21, 2026, from: <https://primerafrica.blog/cote-divoires-quiet-agricultural-revolution/>
12. *Digital Agriculture Profile Côte D'Ivoire*. (n.d). Food and Agriculture Organization of the United Nations. Retrieved June 21, 2026, from:

<https://openknowledge.fao.org/server/api/core/bitstreams/bd54b741-84d5-421b-b987-236c7a7a0a1a/content>

13. European Commission. (n.d). *To eradicate child labour we must focus our attention on agriculture*. European Commission. Retrieved June 21, 2026, from:
https://international-partnerships.ec.europa.eu/news-and-events/stories/eradicate-child-labour-we-must-focus-our-attention-agriculture_en
14. Fairtrade International, EMC, & Impact Institute. (2025). *Cocoa Farmer Income: The household income of cocoa farmers in Côte d'Ivoire and strategies for improvement*. Retrieved June 21, 2026, from:
<https://www.fairtrade.net/content/dam/fairtrade/fairtrade-international/library/2025/cocoa-household-income/Cocoa%20household%20income%20study%202025.pdf>
15. Food and Agriculture Organization of the United Nations. (2021). *Ending child labour in agriculture*. Retrieved June 28, 2026, from:
<https://www.fao.org/investment-centre/latest/news/detail/Ending-child-labour-in-agriculture/>
16. Food and Agriculture Organization of the United Nations. (2025). *The Sustainable Cocoa Programme: Improving the livelihoods of millions of cocoa farmers in Côte d'Ivoire*. Retrieved June 28, 2026, from:
<https://www.fao.org/investment-centre/latest/news/detail/the-sustainable-cocoa-programme--improving-the-livelihoods-of-millions-of-cocoa-farmers-in-c%C3%B4te-d'ivoire/en>
17. *Global Partnerships, Local Action: Fighting Child Labor in Côte d'Ivoire's cocoa sector*. (2026). Sustainable Agricultural Supply Chains Initiative. Retrieved June 21, 2026, from:

<https://www.sustainable-supply-chains.org/news/global-partnerships-local-action-fighting-child-labor-in-cote-divoires-cocoa-sector/>

18. International Journal of Agriculture and Forestry. (2020). *Exploring Cocoa Farm Land Use in the West African Region*. Retrieved June 28, 2026, from:
https://www.researchgate.net/publication/340858113_Exploring_Cocoa_Farm_Land_Use_in_the_West_African_Region
19. International Labour Organization. (n.d). *Child Labour in Agriculture*. International Labour Organization. Retrived June 21, 2026, from:
<https://www.ilo.org/international-programme-elimination-child-labour-ipecc/sectors-and-topics/child-labour-agriculture>
20. *Ivory Coast slashes farmgate cocoa price by 57%*. (2026). African Agribusiness. Retrieved June 28, 2026, from:
<https://africanagribusiness.com/ivory-coast-slashes-farmgate-cocoa-price-by-57-percentage/5453/>
21. Kaestner, K., Brensch, G., Vance, C. (2026). *Pass-Through of Cocoa Prices Along the Supply Chain: What's Left for Farmers in Côte d'Ivoire?* Journal of Agricultural Economics. Retrieved June 28, 2026, from:
<https://onlinelibrary.wiley.com/doi/10.1111/1477-9552.70021>
22. Laven, A., Oomes, N., Tieben, B., Ammerlaan, T., Appelman, R., Buunk, E., Biesenbeek, C. (2016). *Market Concentration and Price Formation in the Global Cocoa Value Chain*. SEO Amsterdam Economics. Retrieved June 28, 2026, from:
https://www.researchgate.net/publication/316924045_Market_Concentration_and_Price_Formation_in_the_Global_Cocoa_Value_Chain
23. Nkamleu, G.B. & Kielland, A. (2006). *Modeling farmers' decisions on child labor and schooling in the cocoa sector: a multinomial logit analysis in Côte d'Ivoire*.

Agricultural Economics. Retrieved June 21, 2026, from:

<https://onlinelibrary.wiley.com/doi/10.1111/j.1574-0862.2006.00165.x>

24. Olaigbe, O. (2026). *Cocoa, Child Labour and Côte d'Ivoire: The Emerging Change*.

Pulitzer Center. Retrieved June 21, 2026, from:

<https://pulitzercenter.org/stories/cocoa-child-labour-and-cote-divoire-emerging-change>

25. Termeer, E., Vos, B., Bolchini, A., Van Ingen, E., Abrokwa, K. (2023). *Digitalization and child labour in agriculture*. Food and Agriculture Organization of the United

Nations. Retrieved June 21, 2026, from: <https://doi.org/10.4060/cc6040en>

26. UN Environment Programme Finance Initiative (UNEP FI) & EU REDD Facility.

(n.d.). *Economic and Financial Challenges to Scaling Up Sustainable Cocoa*

Production in Côte d'Ivoire: Executive Summary. Retrieved June 21, 2026, from:

https://redd.unfccc.int/uploads/2234_48_economic_and_financial_challenges_to_scaling_up_sustainable_cocoa_production_in_cote_d_ivoire.pdf

27. Utkina, I. (2018). *Child labour in agriculture is on the rise, driven by conflict and*

disasters. Food and Agriculture Organization of the United Nations. Retrieved June

21, 2026, from:

<https://www.fao.org/newsroom/detail/Child-labour-in-agriculture-is-on-the-rise-driven-by-conflict-and-disasters/en>

XXXIV TECMUN Jr.
Glossary of Forbidden Words

Forbidden Words

Defined by the United Nations, are non diplomatic terms participants must avoid to mention during their speeches on the debate and in the writing of resolution projects

Forbidden Words	Permitted equivalents
First world countries	Developed countries
Third world countries	Developing countries
Gay ¹⁷	Member of the LGBTIQ+ community
War ¹⁸	Armed conflict
Rape	Sexual abuse
Terrorist	Extremist
Kill or murder	Deprive someone of their life
Death	Casualties
Assassination	Homicide
Army	Military forces
Money	Economic resources
Poor	Lack of resources
Okay	Yes or agree
Black ¹⁹	Afrodescendant

¹⁷ The word *Gay* is replaced by a more inclusive term, recognizing that not all people within the LGBTIQ+ community identify in the same way.

¹⁸ The word *War* can be used in order to refer to historical contexts, such as the Cold War, the First World War, etc. It can only be used in the Security Council to refer to armed conflicts.

¹⁹ The word *Black*, in reference to ethnicity, is not prohibited but it is recommended to limit its use and refer to this sector as a dark-skinned person or afrodescendant as the case may be.

XXXIV TECMUN Jr.
Glossary for Resolution Projects

Preambulatory Phrases

Preambulatory Phrases are used at the beginning of every Resolution Paper in order to give context about the resolutions made for the topic. Preambulatory Phrases must be written in italics followed by a sentence that gives said context. For each Resolution Paper there must be five sentences beginning with a Preambulatory Phrase.

Affirming	Desiring	Noting with deep concern
Alarmed by	Emphasizing	Noting with satisfaction
Approving	Expecting	Noting further
Bearing in mind	Expressing its appreciation	Observing
Believing	Fulfilling	Reaffirming
Confident	Fully aware	Realizing
Contemplating	Further deploring	Recalling
Convinced	Further recalling	Recognizing
Declaring	Guided by	Referring
Deeply concerned	Having adopted	Seeking
Deeply conscious	Having considered	Taking into consideration
Deeply convinced	Having examined	Taking note
Deeply disturbed	Having received	Viewing with appreciation
Deeply regretting	Keeping in mind	Welcoming

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Glossary for Resolution Projects

Operative Clauses

Operative Clauses are used at the beginning of every resolution within the Resolution Paper on the debated topic. They must be written in italics and bold.

Accepts	Endorses	Notes
Affirms	Draws the attentions	Proclaims
Approves	Emphasizes	Reaffirms
Authorizes	Encourages	Recommends
Calls	Expresses its appreciation	Regrets
Calls upon	Expresses its hope	Reminds
Condemns	Further invites	Requests
Confirms	Further proclaims	Solemnly
Congratulates	Further reminds	Affirms
Considers	Further recommends	Strongly
Declares accordingly	Further requests	condemns
Deplores	Further resolves	Supports
Designates	Has resolved	Takes note of
		Transmits
		Trusts

[illegible]

