

TOPIC:

**Addressing the Growing
Threat of Biocrime in a
Rapidly Changing Global
Environment**

**President: Fatima El Khalidi
Deputy President: Sasha Kassab
Chair: Tala Nahouli**



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I. Committee Description:

Established in 1997, the United Nations Office on Drugs and Crime (UNODC) is presented as the primary UN agency in charge of addressing illicit drugs, transnational organized crime, corruption, terrorism, and criminal justice issues. Working in more than 150 countries, the UNODC works closely with governments, international organizations, and civil society to improve the rule of law, encourage justice, and boost cross-border partnerships through research, expert help, and fulfillment of international conventions.

This committee plays a crucial role in helping members' status grow, expand effective policies and harmonize responses, thus developing security challenges as criminal networks continue to develop across borders. The UNODC stays at the forefront of international efforts to defend and protect peace, security, and sustainable development.

II. Introduction to the topic:

Scientific progress has transformed modern society through advances in medicine, agriculture, and biotechnology. Biotechnology uses biological processes to meet human needs, while synthetic biology is a specialized field that allows scientists to reprogram living organisms. Alongside



gene editing, artificial intelligence, and genetic engineering, these technologies help combat diseases, improve food security, increase human longevity, and respond to global health challenges.

However, these technologies can also pose serious risks when intentionally misused. As biotechnology becomes more accessible and advanced, biological materials, genetic information, and laboratory technologies can be exploited for biocrimes, bioterrorism, illegal

genetic engineering, bio-cybercrime, and biological weapons. These threats can cross borders quickly, making them concerns for international security and public health.

This topic focuses on the dual-use nature of biotechnology and challenges delegates to consider how the international community can protect humanity while preserving scientific progress. Delegates should aim to balance scientific innovation with global security, ensuring biotechnology continues to improve lives while being ethically, responsibly, and safely managed to prevent its misuse.

A. Main Events:

1. 1925 – Geneva Protocol

Following the widespread use of poisonous gases during World War I, the international community sought to strengthen international law against chemical and biological warfare. At the Geneva Conference for the Supervision of the International Traffic in Arms in 1925, delegates agreed to adopt the Geneva Protocol, which was signed on 17 June 1925. The Protocol prohibited the use of poisonous gases and bacteriological (biological) methods of warfare in armed conflict. It expanded earlier agreements by specifically including biological weapons alongside chemical weapons.



The Geneva Protocol was the first major international agreement to ban the use of biological weapons in war, establishing a global norm against biological warfare. It laid the legal and ethical foundation for later treaties, particularly the 1972 Biological Weapons Convention (BWC). However, the Protocol only prohibited the use of biological weapons; it did not ban their development, production, or stockpiling, allowing many countries to continue biological weapons research for decades.

The Geneva Protocol represents the beginning of international efforts to address biocrimes and biological warfare. It marked the first collective recognition that biological agents posed a serious threat to global peace and security. While it was an important milestone, its limitations demonstrated the need for stronger international agreements, eventually leading to the Biological Weapons Convention and modern biosecurity measures.

2. 1932–1945 – Unit 731: Japan's Secret Biological Weapons Program

Japan established its first biological weapons program in 1932 under microbiologist Shiro Ishii, later expanding it into Unit 731 in 1936. The program conducted brutal experiments on prisoners and civilians, deliberately exposing victims to diseases such as plague, anthrax, cholera, and typhoid, as well as conducting vivisections and other inhumane experiments. Unit 731 also carried out field tests, spreading disease through contaminated materials and infected fleas, causing thousands of deaths.

After Japan surrendered in 1945, many members of the program, including Ishii, received immunity from the United States in exchange for research data. Unit 731 remains a major example of a biocrime and the misuse of scientific research, highlighting the importance of biosecurity, ethical oversight, and international measures against biological warfare.

3. 1972 – Biological Weapons Convention (BWC)

The Biological Weapons Convention (BWC) is a legally binding treaty that prohibits biological weapons. Negotiations began in 1969; it opened for signature on 10 April 1972 and entered into force on 26 March 1975. It currently has 187 States Parties and remains the main international framework preventing the misuse of biological agents.



The BWC bans the development, production, acquisition, stockpiling, retention, and transfer of biological weapons, toxins, and related equipment for non-peaceful purposes. However, it does not prohibit peaceful biological research or biodefense programs.

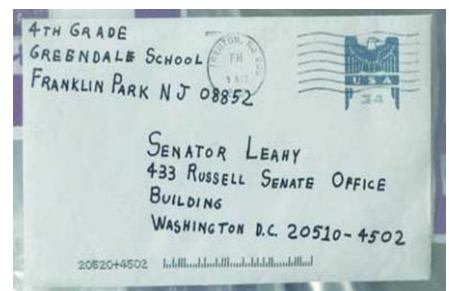
Despite its importance, the Convention has faced challenges, including violations by the Soviet Union and Iraq, as well as recent compliance concerns involving China, Russia, Iran, and North Korea. To strengthen cooperation, States Parties hold Review Conferences every five years and use confidence-building measures to share information on biological research, laboratories, outbreaks, and national programs.



In 2006, the BWC created the Implementation Support Unit (ISU) in Geneva to assist countries, promote cooperation, and support the Convention's implementation. The BWC continues to be a key tool in preventing biological threats and strengthening global security.

4. Anthrax Letter Attacks (2001)

The Anthrax Letter Attacks were a major bioterrorism event that occurred in the United States in September–November 2001, shortly after the September 11 terrorist attacks. Letters containing *Bacillus anthracis* (anthrax) spores were mailed to media organizations and U.S. Senators, infecting 22 people and



causing 5 deaths. The attacks created widespread panic and demonstrated the danger of biological agents being deliberately misused as weapons. The anthrax used was from the Ames strain, which was connected to biological research laboratories, raising concerns about the security and control of dangerous biological materials.

The attacks became a key example of the growing threat of biocrimes, showing the need for stronger international cooperation, improved biological security, and better preparedness to prevent the misuse of biotechnology and biological agents.

5. 2012 – H5N1 Gain-of-Function Research Moratorium

In 2012, scientists announced a temporary pause on gain-of-function experiments involving highly pathogenic avian influenza H5N1 viruses that could increase their ability to spread among mammals. The decision came after concerns from the scientific community and the National Science

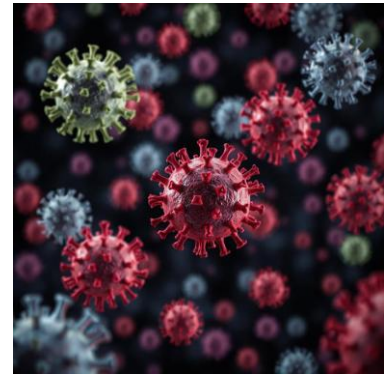


Advisory Board for Biosecurity (NSABB) about research that identified mutations allowing H5N1 to become transmissible in mammals. The U.S. government later supported extending the moratorium until clearer safety guidelines and scientific agreements were developed.

This event became an important moment in addressing the risks of biocrimes and biological security, as it highlighted the challenge of balancing scientific research with preventing the misuse of dangerous biological information. The moratorium encouraged discussions about safer research methods, stronger containment measures, and responsible management of biotechnology.

6. COVID-19 Pandemic (2020)

The COVID-19 pandemic, caused by SARS-CoV-2, has caused millions of deaths and major global disruption. Since its beginning in 2019, the origins of the virus have been debated, with theories suggesting it was either a bioweapon or the result of a laboratory leak. However, scientists consider natural zoonotic transmission from animals to humans the most likely explanation.



While bioweapons can cause fear and disease, past biological attacks have never reached the scale of the COVID-19 pandemic.

The possibility of a laboratory leak was investigated because of previous accidental releases of biological agents. However, genetic studies showed that SARS-CoV-2 does not contain signs of human manipulation or genetic enhancement. Research suggests it most likely developed naturally and spread from animals to humans.



Understanding the true origins of COVID-19 is important for reducing misinformation, improving pandemic responses, and preventing future outbreaks.

7. The Growing Threat of Synthetic Biology and CRISPR-Enabled Biocrimes (2020s–Present)

Advances in synthetic biology and CRISPR-Cas9 have transformed biotechnology by allowing scientists to design and modify living organisms with greater speed and precision. While these technologies benefit medicine, agriculture, and research, their dual-use nature creates new biosecurity risks, including the potential misuse of biological systems or pathogens.



The combination of AI and biotechnology can further accelerate genetic research, creating concerns about biocrimes, bioterrorism, and accidental biological incidents. As these technologies become more accessible, delegates should consider strengthening global biosecurity, laboratory safety, DNA screening, ethical regulations, and AI safeguards while ensuring that scientific innovation continues to benefit humanity.

8. AI and Synthetic Biology Risks (2023–Present)

The integration of artificial intelligence (AI) into biological sciences has created new opportunities while raising concerns about its potential misuse. Tools such as AlphaFold, RoseTTAFold, and RFdiffusion can model protein structures and assist in designing biological molecules, which could potentially be misused for harmful purposes.

However, current AI cannot independently create complex biological threats, such as new pandemic viruses, due to the complexity of biology, limited data, and the need for laboratory testing. While AI can support vaccine development, disease research, and public health, future advances may make harmful applications more accessible. Delegates should consider how international monitoring, responsible research, and strong biosecurity measures can prevent AI-enabled biological crimes while preserving scientific innovation.

B. Link to SDGs:

- **SDG 3:** SDG 3 aims to ensure healthy lives and promote well-being for all by strengthening healthcare systems, preventing diseases, and supporting medical innovation. Modern biotechnology is a tool to grow medical knowledge, cure diseases, and ensure humanity's good health; however, this same technology, when misused, could pose a great threat to Earth's health and well-being. Preventing bio-crimes is essential, for it protects public health, safeguards medical research, and ensures humanity's health as a whole.

- **SDG 16:** SDG 16 promotes peaceful and inclusive societies, access to justice, and effective, accountable institutions capable of addressing crime and upholding the rule of law. Countering biocrimes is often the task of several countries rather than one; therefore, an international entity must step in to ensure the application of law and guarantee that justice is found.

C. Link to Theme:

The yin and yang is a philosophy in which two seemingly opposite forces must exist in harmony; biotechnology and biosecurity embody this philosophy. Biotechnology has the power to cure diseases, fix food systems, and revolutionize medicine; this same power, if too much expanded, will eventually lead to bioterrorism and biocrime. This committee



challenges delegates to find the balance between scientific innovation and global security by guaranteeing that humanity still benefits from new biotechnology without compromising public security, international peace, and ethical responsibility.

D. Link to Good Governance Pillars:

- **The Rule of Law:** The Rule of Law ensures that laws are applied fairly, consistently, and equally to all individuals and organizations, while protecting rights and maintaining justice. A strong ethical law ensures ethical boundaries without restricting medical advancement. Biotechnology is developing faster than most institutions can manage; therefore, it is crucial to make sure that law is being applied efficiently and orderly.



- **Accountability:** Good governance depends on the ability of governments, institutions, and companies to open up to the public and take responsibility for their actions. Accountability plays a major role when fighting biocrime, for when institutions admit their faults and take responsibility, public trust is built, and thus opportunities for misuse and corruption are reduced.

III. Subtopics:

A. Subtopic 1: Preventing the Misuse of Emerging Biotechnologies, including AI-assisted Biotechnology and Gene Editing, by Criminal Actors

Like any newly introduced technology, biotechnology has the potential to enforce and produce new medical opportunities while at the same time opening doors for criminal activities. Biocrime consists of unethical conduct, biological misuse, trafficking, and exploitation of biological materials and technologies, which often extend beyond internal borders, making international cooperation essential.

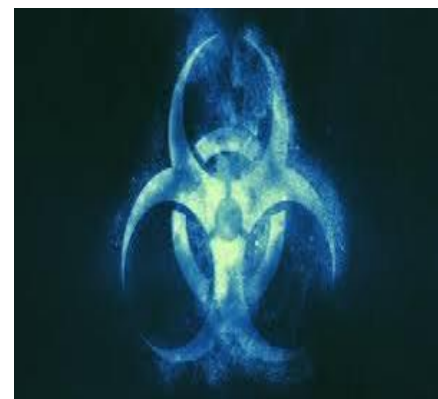


This subtopic mainly focuses on strengthening collaboration between countries, law enforcement agencies, and scientific institutions to efficiently counter and avoid biological threats. It addresses the rising pressure of improving biosecurity capabilities worldwide, supporting countries with limited capabilities and developing stronger, more efficient methods to uncover culprits and solve crimes, making sure that all involved get the punishment they deserve.

Member states should work together through enhanced information sharing, capacity building, and coordinated international action to protect public safety and make sure that biotechnology is being used to save humanity and not against it.

B. Subtopic 2: The Dark Web and Illegal Trafficking of Biological Materials

The web is like a knife; it kills in the hands of a murderer yet mends in the hands of a doctor. For ages, the dark web has been a major source for crimes all around the world; however, what happens when it becomes a threat not only to a certain group of people but to humanity as whole? With the rapid expansion of the dark web, criminal access to biological research has never been more accessible.



While most biological materials are legally regulated, hidden online marketplaces can potentially be exploited to facilitate their illegal purchase, exchange, or trafficking. This creates a challenge for law-enforcement agencies, as transactions can involve multiple countries, anonymous identities, and constantly changing online platforms.

Delegates are expected to focus on solving the issue of exploitation of the dark web for biological trafficking as well as possible ways to strengthen cooperation, investigation, and prevention efforts without getting in the way of beneficial scientific research.

IV. Main Actors:

1. United States: Bruce Ivins

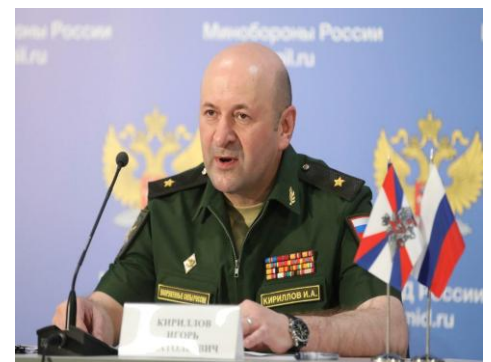
Bruce Ivins was an American microbiologist who became a central figure in the investigation surrounding the 2001 anthrax attacks in the United States. He worked at the U.S. Army Medical Research Institute of Infectious Diseases, where he researched anthrax and helped develop medical treatments and vaccines. In September and October 2001, letters containing anthrax spores were mailed to media organizations and U.S. senators, resulting in five deaths and multiple infections. The FBI launched a major



investigation known as Amerithrax, which eventually identified Ivins as the person responsible for the attacks. Ivins died in 2008 before he could be prosecuted. His case became an important example of the risks created when individuals with access to dangerous biological materials use scientific knowledge for criminal purposes.

2. Russia: Igor Kirillov

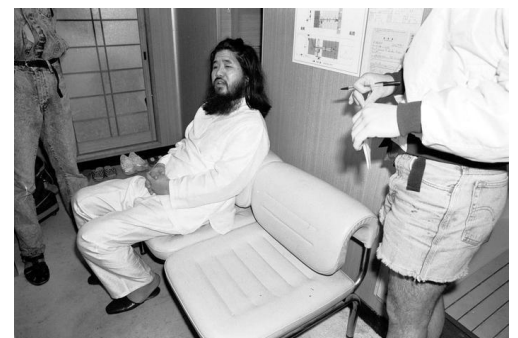
Igor Kirillov was a Russian military official who served as the head of Russia's Radiation, Chemical and Biological Defence Troops. He became a well-known figure in Russia's discussions about biological and chemical security, particularly through his repeated claims that foreign biological laboratories posed threats to Russian



national security. These allegations were disputed by the United States, Ukraine, and other governments, making Kirillov a controversial figure in international discussions about biological weapons. His role highlights the importance of transparency, verification, and international cooperation when countries make allegations concerning biological weapons.

3. Japan: Shoko Asahara

Shoko Asahara was the founder and leader of Aum Shinrikyo, a Japanese extremist organization that became one of the most notorious examples of terrorism involving unconventional weapons. The group gained



international attention after carrying out the 1995 sarin gas attack on the Tokyo subway.

It killed 13 people and injured thousands. However, Aum Shinrikyo's activities went beyond chemical weapons. The organization also attempted to obtain and develop biological weapons, showing that extremist groups could attempt to use scientific knowledge and biological materials for violent purposes. Asahara's leadership demonstrated how a non-state organization could gather scientists, financial resources, and technical equipment in an attempt to develop unconventional weapons.

4. China: Chen Wei

Chen Wei is a Chinese military scientist and physician whose work has focused on infectious diseases, vaccines, and biological defence. She became particularly well known for her involvement in China's response to COVID-19 and the development of vaccines against



infectious diseases. Her career represents China's growing capabilities in biomedical research and its efforts to protect its population from biological threats. Her work represents the challenge faced by governments in encouraging scientific innovation while also ensuring that biological research, laboratories, and technologies are properly monitored and protected from criminal misuse.

5. United Kingdom: Professor Susan Hopkins

Professor Susan Hopkins is a British infectious-disease physician and epidemiologist who serves as the Chief Executive of the UK Health Security Agency (UKHSA). She has spent much of her career working in infectious diseases, epidemiology, public-health surveillance, and emergency preparedness. Through the UKHSA, Hopkins is

involved in Britain's ability to detect and respond to infectious diseases and other threats to national health security. Therefore, Hopkins represents the prevention and public-health side of the fight against biological threats.

6. India: Dr. Rajesh S. Gokhale

Dr. Rajesh S. Gokhale is an Indian scientist who serves as the Secretary of India's Department of Biotechnology (DBT). The department is responsible for supporting and developing biotechnology research and innovation in India, including work related to healthcare, agriculture, industry, and other scientific fields. Gokhale's position



places him within one of India's main government bodies responsible for advancing biotechnology. This is important to the topic because India has become a major center for biotechnology and pharmaceutical research, meaning that the country must balance scientific development with appropriate biosafety and biosecurity measures. Gokhale represents India's role in managing the opportunities and risks created by modern biotechnology.

7. Iran: Professor Ehsan Mostafavi

Professor Ehsan Mostafavi is an Iranian researcher associated with the Pasteur Institute of Iran, an important institution involved in biomedical research and infectious diseases. Mostafavi has worked in the field of emerging and re-emerging infectious diseases, including research and surveillance related



to diseases that can pose serious public-health threats. His work represents the scientific side of Iran's role in biological security. At the same time, the development of advanced biological research creates a need for responsible oversight and protection of biological materials.

8. Germany: Uğur Şahin

Uğur Şahin is a German physician, immunologist, and researcher who co-founded BioNTech, one of Germany's leading biotechnology companies. He became internationally recognized for his work in mRNA technology and the development of the BioNTech-Pfizer COVID-19 vaccine. His



career represents the rapid development of modern biotechnology and the potential benefits that advanced biological research can provide to society. However, the same rapid development also creates new challenges for international security. Şahin therefore provides an example of why governments need to protect scientific innovation while developing effective safeguards against the criminal use of emerging biotechnology.

9. Canada: Dr. Joss Reimer

Dr. Joss Reimer became Canada's Chief Public Health Officer on April 1, 2026, placing her at the center of Canada's national public-health system. Before taking the position, she worked in public health and medicine, including as Chief Medical Officer for the Winnipeg



Regional Health Authority. As Chief Public Health Officer, Reimer provides leadership

and advice on public-health threats and works with different levels of government and health organizations. Canada also has a national system for controlling human pathogens and toxins, designed to reduce the risk that dangerous biological materials are accidentally or deliberately misused.

V. Suggested solutions:

- Require researchers to report suspected attempts to misuse biotechnology to national authorities.
- Enforce penalty laws for groups that hide essential information from the public.
- Create international standards that institutions can follow to ensure ethical conduct.
- Ensure that companies conduct assessments on technology and research before it's released.
- Establish protections and reporting channels for scientists who expose illegal or unsafe biological activities.
- Encourage countries to develop specialized law-enforcement units dedicated to investigating biocrimes.
- Create international guidelines for controlling access to AI-generated biological information that could facilitate biocrimes.

VI. Questions to consider, Tips, and Suggested Sites:

A. Questions to consider:

- What has your delegation contributed to in order to prevent biocrimes?
- Is your delegation involved in any way with an incident related to biocrimes?
- Has your delegation ever been a victim of biocrime activities in the past?
- What famous speeches have been delivered by your representative?
- What type of biological research is your country upholding or planning to do in the near future?

- What other delegations have harmed your country in the past?
- Who are the countries that could help you achieve a better condition when it comes to the topic discussed?
- Which delegation might be opposed to the countering of biocrime?

B. Tips:

1. During speeches:

- Stay in character as your country — represent your country's interests, not your personal opinion.
- Practice your speech in front of a mirror or audience prior to the conference day and master your timing.

2. During debate:

- Use pieces of evidence such as statistics, treaties, laws, and credible sources to make arguments stronger.

3. During resolution paper:

- Prepare resolutions in the form of points before the conference
- Be familiar with your allies and opponents to form blocs
- Proposals should be realistic and achievable.
- Consider funding, implementation, monitoring, and international cooperation.

4. Common mistakes to avoid:

- Don't make claims without having the correct sources.
- Don't attack any delegate personally.
- Don't forget your country's allies and policies when forming blocs or supporting resolutions.

- Never use personal pronouns such as “I, he, she, your, you, etc.”; stick to formal addressing words such as “the delegate, the representative, etc.”

5. General tips:

- Understand the flow of the debate before the conference day so that you are comfortable.
- Focus on the delegation’s speeches, taking notes to prepare your questions.
- Do make sure to enjoy your experience; every placard raised is an opportunity to grow and be confident in your skills; for every expert was once a beginner.
- Don’t hesitate to ask your Dais whenever you need clarification.

C. Suggested sites:

- National Academies of Sciences, Engineering, and Medicine. (2025). *AI-enabled biological design and the risks of synthetic biology*. In *The age of AI in the life sciences: Benefits and biosecurity considerations*. National Academies Press. <https://www.ncbi.nlm.nih.gov/books/NBK614591/>
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VII. Represented Countries:

Delegations Present	Bruce Ivins - United States
	Igor Kirillov - Russia
	Shoko Asahara - Japan
	Chen Wei - China
	Professor Susan Hopkins- United Kingdom
	Dr.rajesh s.gokhale-india
	Professor Ehsan Mostafavi- Iran
	Ugur Sahin- Germany
	Dr. Joss Reimer- Canada
America	Brazil
	Mexico
	Argentina
Europe	France
	Switzerland
	Netherlands
	Sweeden

	Turkey
Asia and Pacific	Australia
	Singapore
	Indonesia
	Pakistan
	South Korea
The Middle East and Africa	Saudi Arabia
	United Arab Emirates
	South Africa
	Nigeria
	Kenya
	Egypt
	Morocco
	Jordan

VIII- President's Note:

Dear delegates,

My name is Fatima Khalidi, and I am honored to serve as your president this year. Alongside my team, I welcome you to the UNODC. This committee is structured to challenge your problem-solving skills, wits, and your ability to uncover the truth. We have reached a time when biological research isn't only to benefit us, but it is also to do the exact opposite; you, my dear delegates, are tasked with finding a safer way for biotechnology and innovation, building a world with no space for crime. Whether you're new or a fellow MUNer, I want you to enjoy

your time with us and trust that you are in good hands. When you need any help, big or small, we are always ready to help. This committee isn't solely about debate; it's a place where you make friendships that last a lifetime and learn skills that will help you become the person you dream of being. MUN isn't just about winning an award; taking part in MUN is the award itself.

X. Contact Info:

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XI. SDG'S Note:

Dear Delegates,

As your Secretary-Generals, we hope this background guide gives you a strong foundation for the discussions ahead and helps you approach your committee with confidence. Beyond preparation, this conference is an opportunity to challenge yourself, step into new perspectives, and take part in conversations that demand thought and initiative.

This year's theme, "Yin and Yang: The Harmony in Opposites", reflects the idea that opposing sides can exist in balance, whether between conflict and cooperation or speaking and listening. It reminds us that meaningful progress often begins when we learn to understand perspectives different from our own.

As Leo Buscaglia said, "Change is the end result of all true learning," and we hope this experience leaves you with a stronger sense of the value your voice can carry. We cannot wait to meet you and see what you bring to this conference.

Warm regards,

The 15th HHHSMUN Secretary Generals

Mia, Hani and Omar

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Police Data Management and Analysis (Bioterrorism) <https://www.interpol.int/en/Crimes/Terrorism/Bioterrorism/Police-Data-Management-and-Analysis-Bioterrorism>

Resolution 1540 (2004) / adopted by the Security Council at its 4956th meeting, on 28 April 2004 <https://digitallibrary.un.org/record/520326?v=pdf&ln=en>