



NOMBRE

SAMONU 2025

COLEGIO LOS SAMANES





Ficha de Competencias <i>Procesofolio</i> SAMONU					
	Comisi	ón			
Nombre			Delegación		
Áreas	Asignaturas	Competencias			
Ciencias Sociales	Filosofía	Analizar problemas éticos y políticos	Pensamiento Crítico		
	Políticas y Eco	Pensamiento Reflexivo y sistémico	Interpretación y Análisis de Perspectivas		
Humanidades	English	Comunicativa	Funcional		
	Lenguaje	Comprensión e interpretación textual	Lectura crítica		
Matemáticas	Estadística	Interpretación y representación	Razonamiento y argumentación		
	Cálculo	Formulación y ejecución			
Ciencias Naturales	Biología	Observar y obtener información	Analizar problemas		
	Química	Desarrollar la capacidad crítica, reflexiva y analítica			
	Física	Indagación	Uso del conocimiento científico		

Tabla de observaciones

Áreas	Asignaturas	Observaciones
Ciencias Sociales	Filosofía	se ve un gran análisis de la problemática y asimismo se dieron distintos ejemplos de casos ocurridos por la misma, haciendo de este ejercicio un gran análisis del problema planteado, también se dan buenas soluciones.
	Políticas y Eco	se evidencia la relación que hace la delegación entre la problemática y las políticas y economía, sin embargo, es recomendable que aparte de exponer las leyes ya existentes, también la delegación proponga nuevas leyes para así darle mas solidez y profundidad a sus argumentos, hacer esto tomando en cuenta que es una fundación que vela por el cuidado de la fauna y flora a nivel global.
Humanidades	English	Excelente manejo y aplicación del inglés, da buena estructura y forma al texto lo cual lo hace profundo y bastante elaborado para el ejercicio.
	Lenguaje	
Matemáticas	Estadística	no presenta gráficas ni porcentajes los cuales respalden los argumentos dados y las soluciones planteadas, recordar que esto es importante para realizar estimaciones a futuro y asimismo darle solidez a los argumentos y proyectos planteados.
	Cálculo	no presentan cifras las cuales respaldan tus argumentos o expongan la problemática más a fondo.
Ciencias Naturales	Biología	buen análisis de cómo la problemática afecta los ecosistemas y el medio ambiente a nivel global, haciendo relaciones entre estos de gran manera, excelente trabajo.
	Química	Genera muy buenas reflexiones y críticas a la manera en la que se ha sobrellevado el tema e invita a tomar aún más acciones referente a este, haciendo de este un gran ejercicio.

excelente investigación de la delegación, todo concuerda con las referencias usadas.

Física

CARTA DE POSICIÓN

A. INTRODUCTION

World Wildlife Fund for Nature (WWF), founded in 1961 by Sir Julian Huxley, Max Nicholson, Peter Scott, and other environmentalists, is an international non-governmental organization based in Gland, Switzerland, that focuses on wildlife conservation, climate action, and sustainable development. It operates in more than 100 countries worldwide and collaborates with governments, corporations, and communities to protect biodiversity and natural resources. Its annual revenue surpasses 300 million USD, with strong support from global donations, partnerships, and corporate sponsorships. In 1986, the organization changed its name from World Wildlife Fund to World Wide Fund for Nature to reflect its broader focus, though it continues to be known by its original name in North America.

Over the decades, WWF has launched impactful initiatives such as *Earth Hour* (2007), the *Living Planet Report* (issued biennially since 1998), and large-scale conservation projects in critical ecosystems including the Amazon, the Arctic, and the

Coral Triangle. It has been instrumental in advocating for international agreements like the Paris Climate Accord and the Convention on Biological Diversity, ensuring policy alignment between global environmental goals and local implementation.

WWF recognizes that it operates within a donation-based global system, receiving support from individuals, corporations, and governments. This funding allows the organization to expand its conservation efforts and global influence. However, WWF believes that conservation in today's market-driven world must be guided by clear rules and strong oversight. The organization stresses that environmental action should always prioritize the protection of ecosystems, the fight against climate change, and the respect for indigenous peoples' rights. By working closely with governments, scientific institutions, and local communities, WWF promotes the sustainable and responsible development of conservation strategies and environmental policies worldwide.

B. OVERVIEW OF POSITION

TOPIC 1: Safeguarding Ecosystems through Precautionary Regulation

WWF holds that Genetic manipulation should never replace traditional conservation measures such as protecting habitats, restoring ecosystems, and addressing climate change.

Instead, it must remain a complementary and last-resort tool.

Historical cases demonstrate the risks of human interventions gone wrong. The introduction of cane toads in Australia (1935), initially intended to control pests, became an invasive disaster, destabilizing ecosystems. Similarly, the overuse of DDT once promised

agricultural benefits but resulted in devastating impacts on wildlife before being globally restricted. These lessons underscore that interventions in natural systems carry unpredictable consequences.

WWF emphasizes that the release of genetically altered species into natural ecosystems demands the highest level of precaution. Once released, living modified organisms cannot be fully controlled or recalled, and unintended effects on food webs, endangered species, or ecosystem resilience could be irreversible. Therefore, WWF calls for the global adoption of precautionary safeguards as a non-negotiable standard. These safeguards must include independent, peer-reviewed ecological risk assessments to ensure that evaluations are not influenced by corporate or political interests but are instead grounded in transparent, evidence-based science.

Equally important is the inclusion of indigenous and local communities in governance processes, since these groups often live in direct relationship with the ecosystems at stake and hold centuries of ecological knowledge. Their participation is not only a matter of justice but also of effectiveness: policies designed without their input risk overlooking key social and ecological dynamics, leading to failures in implementation and legitimacy.

TOPIC 2: Establishing Ethical and Legal Boundaries in Biotechnology

WWF believes that biotechnology must be subject to strict international guardrails in order to prevent misuse and protect biodiversity. While genetic tools such as cloning, genome editing, and synthetic biology may offer innovative opportunities, they also carry

risks that, if left unregulated, could cause irreversible damage to ecosystems and natural genetic diversity.

International precedents already highlight the need for caution. The UNESCO Universal Declaration on the Human Genome and Human Rights (1997) emphasizes the principles of dignity and ethical responsibility in scientific progress, underscoring that technology must always serve humanity's common good. Similarly, the IUCN Resolution on Synthetic Biology (2016) raises explicit concerns about gene drives and calls on the international community to apply the precautionary principle before considering their release into the environment. These frameworks provide important foundations for building a comprehensive global governance system for biotechnology.

Building on these principles, WWF supports three key measures. First, the adoption of international moratoria on practices such as germline editing and the release of gene drives into natural ecosystems until sufficient scientific evidence demonstrates their long-term ecological safety. Second, the establishment of binding transparency requirements that obligate corporations and research institutions to disclose their funding sources, methodologies, and environmental risk assessments, ensuring that no decisions are taken behind closed doors. Third, the creation of multidisciplinary ethical boards that bring together scientists, ethicists, indigenous representatives, and civil society organizations to evaluate projects in advance and from multiple perspectives, ensuring both ecological and social accountability.

TOPIC 3: Building Public Trust through Transparency and Education

Public perception of genetic technologies is shaped by misinformation, ethical concerns, and lack of transparency. Fear without understanding creates resistance, while secrecy and corporate control deepen distrust. WWF argues that building legitimacy requires scientific rigor combined with open and inclusive communication.

Citizens must be informed through clear, accessible, science-based education that explains both risks and benefits in simple terms. Open dialogue platforms should give communities, especially indigenous and local groups, a voice in decision-making, ensuring fair and ethical governance. Collaborative campaigns between NGOs, universities, and governments are also needed to counter misinformation and make knowledge widely accessible.

Evidence shows this works: a Pew Research Center study (2018) found that acceptance of gene editing increases when transparency and ethical safeguards are explained. This proves that mistrust stems less from rejection of science and more from secrecy and lack of oversight.

Finally, WWF warns against "technological optimism": biotechnology cannot replace systemic solutions such as protecting forests, tackling overfishing, reducing pollution, and addressing climate change. Genetic tools may contribute, but only as complements to broader conservation and governance reforms.

TOPIC 4: Shared Responsibility in Global Governance of Genetic Technologies

WWF emphasizes that no single state, company, or institution should control or dictate the use of genetic technologies, as their consequences are not confined within national borders. Ecosystems are interconnected, and any genetic intervention has the potential to spread beyond political boundaries, altering biodiversity on a global scale. For this reason, only multilateral cooperation and shared responsibility can guarantee responsible regulation.

WWF calls for the United Nations to play a central role in establishing global norms, particularly through mechanisms under the Convention on Biological Diversity (CBD) and the United Nations Environment Programme (UNEP). These bodies already provide legal and institutional frameworks to address transboundary environmental issues and are best positioned to set compliance standards for biotechnology in conservation. Once these standards are defined, national governments must integrate them into domestic legislation to ensure effective enforcement and accountability at local levels.

Research institutions and corporations must commit to open data sharing and ethical licensing, preventing monopolies over genetic knowledge that limit fair access or concentrate power in a few hands. Biotechnology must serve the global public good, not private profit. NGOs and civil society also play a key role as watchdogs, ensuring accountability and defending the rights of indigenous peoples and local communities most vulnerable to ecological disruptions.

WWF positions itself as both mediator and advocate, using its decades of expertise in conservation science and global partnerships to defend biodiversity against irresponsible applications of genetic technologies. The organization promotes equitable participation in

governance and insists that innovation must always align with ecological integrity and human rights.

Ultimately, WWF believes science should serve ecosystems and humanity, not corporate or geopolitical interests. Only through shared responsibility and global cooperation can genetic technologies be managed responsibly, promoting fairness while protecting nature.

C. CONCLUSION.

The World Wide Fund for Nature (WWF) reaffirms that biotechnology, while holding potential for addressing global challenges, must never be developed or applied without strict safeguards, ethical boundaries, and global oversight. WWF argues that cloning, gene drives, and CRISPR-based editing must be subject to independent ecological risk assessments and reviewed by boards that include scientists, indigenous representatives, and civil society. It also calls for stronger international biosafety frameworks, demanding transparency in research, disclosure of funding, and ethical licensing to prevent monopolization of genetic knowledge. Above all, WWF insists that no single government, company, or institution should dictate the future of biotechnology. Shared global responsibility, grounded in precaution, equity, and accountability, is the only way to ensure

that genetic innovation protects biodiversity, strengthens communities, and serves the common good.

DISCURSO DE APERTURA

Honorable Chair, distinguished delegates, and esteemed participants.

The World Wild Fund for Nature is honored to join this assembly to address the pressing issue of genetic technologies and their impact on biodiversity. WWF recognizes the promise of biotechnology, but also its risks if applied without strong ethical and ecological safeguards.

Our position is clear: precaution must guide every decision, transparency must build public trust, and international cooperation must ensure that no single actor controls the future of life on Earth. For WWF, biotechnology is acceptable only when it protects ecosystems, respects communities, and serves the common good.

We look forward to constructive dialogue and to working together in shaping a framework that ensures science remains a tool for conservation, sustainability, and humanity as a whole.

INVESTIGACIÓN DE SU DELEGACIÓN

A: PUBLIC AWARENESS AND ACCEPTANCE OF GENE EDITING

Research shows that public awareness is a decisive factor in shaping perceptions of gene editing. According to Pew Research and other studies, people who are more familiar with this technology are significantly more likely to view it as safe for use in both agriculture and medicine. Conversely, individuals with little knowledge often express distrust or fear, requiring extensive evidence, sometimes decades of research without negative outcomes, before reconsidering their position.

This highlights the importance of transparent communication and proactive engagement. Historically, the introduction of genetically modified organisms (GMOs) suffered from a lack of public dialogue, which damaged trust in biotechnology. Today, gene editing risks facing the same challenge if lessons from the past are ignored. Clear distinctions between gene editing and genetic modification must also be communicated: gene editing makes precise changes within an organism's DNA, while genetic modification introduces foreign genetic material. Without this clarity, the public tends to conflate the two, reinforcing misconceptions.

Public opinion also depends on the purpose of the intervention. Surveys consistently show that medical uses, such as treating genetic diseases like sickle cell anemia, are more widely accepted than agricultural applications, which face greater skepticism. Evidence suggests that ethical framing and transparent safeguards can increase support. For example,

when citizens are informed about therapeutic benefits and independent oversight, acceptance rises considerably.

B: WWF'S POSITION ON GENETIC MODIFICATION AND GMOS

WWF acknowledges that biotechnology can play a role in addressing food security and health challenges, but it strongly warns against the reckless use of genetically modified organisms (GMOs) without strict safeguards. Unlike traditional breeding, which works within species boundaries, modern genetic modification crosses species barriers, introducing foreign genes into plants and animals in ways that carry unpredictable ecological and health risks. For example, the insertion of a flounder gene into tomato plants to withstand cold temperatures demonstrates how biotechnology can override natural barriers, but also raises concerns about the unknown effects on those who consume the product and the ecosystems where it grows.

Evidence of ecological risks is already visible. A Cornell University study revealed that Bt corn pollen killed nearly half of monarch butterfly caterpillars exposed to it. The alarming aspect was that this discovery came only after the Bt gene had already been introduced into nearly a quarter of U.S. corn crops. Such cases highlight WWF's core argument: once released, GMOs cannot be fully controlled or recalled, and their unintended impacts on food webs, pollinators, or endangered species may be irreversible. Moreover, cross-pollination could spread resistance traits to wild plants, producing "super-weeds" immune to herbicides like Monsanto's Roundup, effectively undermining agriculture and creating new ecological crises.

Another central concern for WWF is the dominance of biotech corporations such as Monsanto and Novartis, which market themselves as "life science companies." These firms patent GMO seeds and often block independent research, concentrating power over global food systems in the hands of a few actors. By tying ecological safety to commercial gain, they risk turning biodiversity into a commodity and ignoring long-term ecological consequences. For WWF, leaving gene technology solely under corporate or scientific control is unacceptable; it must instead be subject to transparent, democratic oversight.

In response, WWF calls for:

- •A global moratorium on GMO release until comprehensive, peer-reviewed ecological risk assessments prove they are safe.
- **Independent statutory regulation**, with authority to block or delay GMO use when risks remain unclear.
- Full transparency and labeling, so that citizens have the right to know and choose what they consume.
- •Inclusion of public dialogue, ensuring local and indigenous communities, those most directly affected, can influence decision-making.

C: WWF - POSITION ON GENETIC MODIFICATION AND GM SOY

The World Wide Fund for Nature (WWF) maintains a cautious and restrictive stance on genetic modification, insisting on a moratorium for the release of genetically modified organisms (GMOs) until their ecological and social risks are fully understood. WWF emphasizes the precautionary principle of the Cartagena Protocol on Biosafety and calls for independent impact assessments, strict regulation, and transparent public debate before any release of GMOs.

WWF argues that GM crops pose significant ecological risks: genetic contamination of wild species, the emergence of herbicide-resistant "super-weeds," and potential collapse of insect populations, as seen with **Bt corn pollen killing monarch butterfly caterpillars** in U.S. studies. Beyond ecological threats, GM soy expansion in South America has caused large-scale deforestation, pesticide contamination, and the **displacement of up to 90,000 campesinos annually in Paraguay**, showing that GM agriculture also deepens social inequalities.

The controversy intensifies around WWF's involvement in the **Round Table on Responsible Soy (RTRS)**. While WWF claims its role is to reduce environmental harm from within, critics argue that by allowing GM soy, which represents **over 90% of soy production in Argentina and the U.S., and 62% in Brazil**, to be labeled as "responsible," WWF risks legitimizing destructive practices driven by agribusiness giants like Monsanto and Cargill. This raises accusations of "greenwashing," where corporate interests overshadow ecological integrity.

Despite this tension, WWF positions itself as both **mediator and watchdog**, pushing for labeling of GM products, stronger biosafety governance, and sustainable alternatives. Its argument is clear: **biotechnology cannot be legitimized without strict safeguards**, **independent regulation, and equitable participation of affected communities**. Only under such conditions can innovation serve ecosystems and humanity rather than narrow corporate interests.

D: GROWING PUBLIC OPPOSITION TO AGRICULTURAL GENETIC ENGINEERING – WWF SURVEY

The WWF survey (2000) highlights a clear and growing resistance to the use of genetic engineering in agriculture. Nearly three-quarters of Swiss citizens (73%) rejected genetically modified products in farming, marking a sharp increase from 59% just two years earlier. This rapid rise demonstrates how public distrust deepens as awareness of GMOs spreads.

The survey also revealed a notable shift in attitudes toward medicine: **33% opposed the use of genetic engineering in medical applications**, up from only 12% in the previous survey. This shows that skepticism is not confined to food and agriculture, but extends to biotechnology as a whole.

Importantly, opposition was not limited to any single region, party, or demographic.

•Over 80% of left-wing respondents opposed GMOs, but even among the political center (73%) and right (61%), a majority expressed rejection.

- •75% of rural residents and 71% of urban populations said "no" to genetic engineering, proving that concerns are widespread and not tied to geography or lifestyle.
- •Both German-speaking (76.7%) and French-speaking (77.2%) Switzerland strongly supported a moratorium on GMOs in agriculture.

For WWF, these findings underscore an essential point: **the public does not see genetic engineering as a neutral scientific advance, but as a high-risk intervention with unpredictable consequences**. The fact that opposition grew significantly within only two years shows how fragile public trust in biotechnology truly is.

WWF argues that this widespread skepticism must be taken seriously in policymaking. It strengthens the case for a **precautionary moratorium on GMOs in agriculture** until independent, peer-reviewed risk assessments prove their safety for ecosystems, food systems, and human health. Ignoring this opposition risks not only environmental damage, but also a severe legitimacy crisis for governments and institutions that fail to respect societal concerns.

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