



TWENTY LIES ABOUT NUCLEAR WEAPONS AND HOW TO RESPOND

A set of arguments for associations and individuals fighting for a safer and more peaceful world free of nuclear weapons.



This document was drawn up following a seminar between associations financed by the Leopold Charles Meyer Foundation for the Progress of Humankind. Its purpose is to provide associations and individuals campaigning for nuclear disarmament with arguments in response to the lies spread in public by supporters of nuclear deterrence. It is free of rights and may be widely distributed or reproduced with acknowledgement of the source.

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The Organisations:

- **ICAN France** is the national relay for the International Campaign to Abolish Nuclear Weapons, which was awarded the Nobel Peace Prize in 2017 for its '*work to raise awareness of the catastrophic humanitarian consequences of any use of nuclear weapons*', as well as for this '*groundbreaking initiative to obtain a ban on these weapons by means of a treaty*'. This campaign in France is supported by around fifty organisations and carries out information, awareness-raising and advocacy activities aimed at public opinion, members of parliament, the media and, in particular, young people. The aim is to encourage political debate on the subject of 'military nuclear weapons', and to provide information on the humanitarian and environmental consequences of any use of nuclear weapons, in order to win the support of civil society and ultimately France's ratification of the Treaty on the Prohibition of Nuclear Weapons (TPNW). Website: www.icanfrance.org - Twitter / X: [@ICAN_France](https://twitter.com/ICAN_France). Contact: coordination@icanfrance.org
- **Initiatives for Nuclear Disarmament (IDN)**: The aim of IDN is to work towards the progressive and balanced elimination of nuclear weapons from the planet, to help build a safer world. IDN was set up on 21 January 2016 to continue the work begun by the 'Stop the Bomb' association founded in 2014. Its work is part of a more general reflection on the strategic challenges of the early 21st century and on France's ability to ensure its territorial security while continuing to influence the course of the world. Website: www.idn-france.org - Twitter / X: [@IDN_Nucleaire](https://twitter.com/IDN_Nucleaire). Contact: marc.finaud@idn-france.org

I. THE CONCEPT OF NUCLEAR DETERRENCE

1st Lie:

The two American atomic bombs dropped on Japan in 1945 put an end to the Second World War.

'I am surprised that worthy people, who in most cases had no intention of going to the Japanese front themselves, should take the position that we should have sacrificed a million American and a quarter of a million British lives, rather than drop that bomb.' Winston Churchill, [Speech to the House of Commons](#), 16 August 1945.

Response:

This 'narrative' was used for a long time by the United States to justify dropping atomic bombs on Japan when that country was on the verge of surrendering. Such a discourse was officially accepted by Japan because it absolved it of its own responsibility in the war and helped it to save face. Indeed, in his radio [address](#) on 15 August 1945, nine days after the bombing of Hiroshima, the Emperor of Japan announced that it was unfortunately necessary to capitulate because the enemy was now using *'a new and most cruel bomb, whose destructive power is indeed incalculable and which has cost the lives of many innocent people'*.

In reality, as numerous studies by historians based on documents from the period have shown, the Japanese leaders waited several days after the bombing of Hiroshima and only decided to capitulate after the Soviet Union entered the war on 9 August and invaded Manchuria with more than a million soldiers, followed by the American bombing of Nagasaki. In a second radio [address](#) to the Japanese military on 17 August, Emperor Hirohito acknowledged this:

'Now that the Soviet Union has entered the war, to continue under present conditions at home and abroad would only cause further unnecessary damage and ultimately endanger the very foundations of the empire's existence.'

The bombing of Nagasaki, unnecessary to force Japan to capitulate, was in fact intended by the United States to impress the USSR and discourage Stalin from extending Soviet domination over Asia.

For more information:

- Jean-Jacques Allevi, '[Did the nuclear bomb make Japan capitulate?](#)', *GEO*, 7 August 2018.
- Bernard Birolli, '22 - Le Japon a capitulé en raison d'Hiroshima', in: Jean Lopez (ed.), [Les mythes de la Seconde Guerre mondiale : Tome 1](#) (pp. 387-407). Paris, Perrin, 2018.
- Ward Wilson, [Nuclear weapons: what if they were useless? Five myths to debunk](#), Foreword by Michel Rocard, GRIP, 2015 (pp. 29-64).
- Ward Wilson, [It Is Possible - A Future Without Nuclear Weapons](#), Avenues The World School Press, 2023 (pp. 94-109).

2nd lie:

Nuclear weapons protect us and ensure peace and national independence.

'The fundamental purpose of NATO's nuclear capability is to preserve peace, prevent coercive action and deter aggression'. [NATO Strategic Concept, 2022](#).

Response:

The day after Hiroshima, Albert Camus published an [editorial](#) in the newspaper *Combat* asking a question whose crucial nature had apparently not yet been realised:

'Mechanical civilisation has just reached its last degree of savagery. We are going to have to choose, in not too distant a future, between collective suicide or the intelligent use of scientific conquests'.

A thought that is still a reality in the 21st century and that must be taken into account when faced with claims that nuclear weapons guarantee peace. Apart from the fact that it is 'proliferating' - for what State would not want to be at peace and independent in its freedom of movement? - is based on very thin thinking.

First of all, as the philosopher Alain suggested, we need to clearly define the meaning of words. So, what meaning should we give to the word 'peace'? If it refers to peace on the territory of metropolitan France, it is a reality: the national territory has not been invaded since 1942. But that does not mean that this is due solely to nuclear weapons. For example, should we rule out the creation of the European Coal and Steel Community (ECSC in 1951), and then the European Union, as causes of peace in European countries?

If we look at the powers that have nuclear weapons, they have on several occasions been at war with other states that have nuclear weapons:

- the Russian-Chinese war in 1969 over an island in the Ussuri river;
- India and Pakistan took military action and carried out missile strikes in 1999, 2002 and 2019.

These nuclear powers have also had to defend themselves against attacks by non-nuclear states:

- Egypt attacked Israel in 1967;
- Argentina did not fear the British nuclear weapon in 1982 when it wanted to annex the Falkland Islands;
- Iraq struck major Israeli cities with conventional ballistic missiles in 1991...;
- Iran attacked Pakistan and then Israel in early 2024;
- Ukraine entered Russian territory on 6 August 2024, forcing at least 130,000 people to flee, taking control of almost 1,500 sq.km and shattering the myth of an invincible nuclear Russia.

The facts are stubborn: nuclear weapons do not prevent war or a national territory from being attacked. Conversely, the overwhelming majority of non-nuclear-weapon states have not been the victims of aggression. On the other hand, since 22 February 2022 there has been one truth: a state (Russia) can wage a conventional war (and commit war crimes) under cover of nuclear threats that intimidate Ukraine and dissuade other powers from intervening in the conflict.

Objectivity also requires us to observe that while the European continent and, more broadly, the major nuclear powers did not suffer any major attacks on their national territories during the Cold War, these states (in particular the USSR, the United States and China) led and participated in numerous asymmetric and deadly wars (Korea, Central America, Nigeria, Congo, etc.).

As the philosopher Paul Ricœur wrote in his book [True and False Peace](#) (1955):

'The title of this report may seem strange: true and false peace... As if we were threatened not only by war but by peace.'

Peace in the shadow of nuclear war cannot be seen as a condition for total security. As the States Parties to the Treaty on the Prohibition of Nuclear Weapons (TPNW) [declared](#) in December 2023:

'Far from preserving peace and security, nuclear weapons are used as instruments of policy, linked to coercion, intimidation and heightening of tensions. The renewed advocacy, insistence on and attempts to justify nuclear deterrence as a legitimate security doctrine gives false credence to the value of nuclear weapons for national security and dangerously increases the risk of horizontal and vertical nuclear proliferation.'

Nuclear weapons would ensure national independence

At a time when interdependence governs the smooth running of the international community and multilateralism is the source of national security, it seems risky to assert that nuclear weapons guarantee national independence. While it is true that France alone has the capacity to decide to use its nuclear arsenal, it should be remembered that the acquisition of weapons systems and their use were only possible under cover of foreign aid.

First of all, the French scientists involved in the [Manhattan Project](#) (1942-1945) acquired a range of know-how. While the military nuclear programme was secretly launched under the Fourth Republic, the construction of an experimental nuclear submarine (the Q244 with a natural uranium and heavy water reactor) ran into major technical difficulties. The project was abandoned. It was not until the United States provided technological support ([agreement of 7 May 1959](#)) that the first submarine nuclear reactor was developed, enabling production of the submarine component to be launched.

The United States agreed to sell France 440 kg of highly enriched uranium, an essential material for this technology. National independence is also very much in the English language when it comes to exchanging processes linked to the 'Simulation' programme, or has an Austrian flavour when it comes to the specific glass plates needed to operate the [Megajoule Laser](#). Of course, the [Strategic Air Forces](#) (SAF) component, which has ensured permanent nuclear operational readiness since 1964, has only been able to operate (until 2018) thanks to American KC-135 Boeing tanker aircraft (purchased from 1962).

Another French nuclear component was able to deliver a thermonuclear weapon (H-bomb), also with support from London and Washington. Faced with the difficulties encountered by French scientists at the [Atomic Energy Commission](#) (CEA) in achieving the fusion/fission process, the British, with the tacit consent of the Americans, delivered the right formula in 1967.

Finally, given that France is a member of the Atlantic Alliance (NATO), it seems unlikely, to say the least, that Paris would decide to use its nuclear arsenal without consulting its two closest allies, the United Kingdom and the United States. In this case, even if the operation is under way, it is not impossible that the English-speaking counterparts will do everything in their power to call a halt to the process.

For more information:

- André Bendjebbar, [Histoire secrète de la bombe atomique française](#), Éd. Le Cherche Midi, 2000.
- Peter Maurer *et al.*, '[75 years after Hiroshima and Nagasaki, the shadow of a nuclear war still hangs over our heads](#)', *Le Monde*, 6 August 2020.
- Benoît Pelopidas, [Repenser les choix nucléaires : La séduction de l'impossible](#), Sciences Po Les Presses, 2023.
- United Nations, [Political Declaration of the Second Meeting of the States Parties to the Treaty on the Prohibition of Nuclear Weapons](#), New York, 27 November-1 December 2023.

3rd lie:

Nuclear deterrence, including according to French doctrine, is a strictly defensive policy.

'*The French nuclear deterrent has an exclusively defensive vocation*'. Ministry of the Armed Forces, "[The French nuclear deterrent](#)", 2020.

Response:

The nuclear deterrence strategy, described by France as 'the keystone of our defence strategy', is defined as follows in the 2022 [National Strategic Review](#):

'The fundamental aim of deterrence is to prevent a major war that would threaten the nation's survival by protecting France against any state-sponsored aggression against its vital interests and against any attempt at blackmail.'

On the face of it, then, this is a defensive and preventive strategy. However, in successive speeches since the 1970s, French presidents have evoked the concept of a 'final warning', a scenario involving the offensive use of nuclear weapons in a conflict. President Emmanuel Macron confirmed this in his [speech](#) to the École Militaire on 7 February 2020:

'Our nuclear forces have been configured for this with the necessary flexibility and responsiveness. In the event of any misunderstanding about France's determination to preserve its vital interests, a one-off nuclear warning could be issued to a state aggressor to send a clear signal that the nature of the conflict has changed and re-establish deterrence.'

To include this hypothesis in the French strategy is to acknowledge that **nuclear deterrence is likely to fail**, which seems contradictory to the assertion that it is preventive and constitutes the 'keystone' of the country's security. Furthermore, it is hard to imagine how, in the event of a conflict with another nuclear power, the latter would refrain from retaliating by nuclear means, and how escalation into all-out nuclear war could be avoided. Finally, the airborne nuclear bomb that would then be used has a yield of [300 kt](#), i.e. 20 times the destructive power used at Hiroshima, and it is hard to see how this so-called 'last warning' strike could be limited to a military target without causing major 'collateral' civilian casualties.

For more information:

- Jean-Marie Collin, '[The Flawed Logic of the French Nuclear Warning](#)', European Leadership Network, 15 June 2020.
- Élysée, '[Speech by President Emmanuel Macron on defence and deterrence strategy](#)', 7 February 2020.
- Marc Finaud, '[France and the ultimate warning: a dangerous drift](#)', IDN, 14 September 2020.
- Ministry of the Armed Forces, '[National Strategic Review 2022](#)'.

4th lie:

Permanent membership of the UN Security Council goes hand in hand with possession of nuclear weapons. Nuclear weapons ensure France's status as a great power.

'Nuclear deterrence and the choice of nuclear weapons made at the time enabled us to become a permanent member of the Security Council'. Fabien Roussel, [Interview](#) to CNews, 8 March 2022.

Response:

Confusing the status of permanent member of the UN Security Council with the status of nuclear state is a twofold error.

Firstly, historically, France became a [permanent member](#) of the UN Security Council in 1945 even though it did not possess nuclear weapons and would not do so until the early 1960s. It was as a member of the group of countries that defeated Nazi Germany that France became a permanent member of the Security Council and thereby acquired great power status.

Secondly, while it is true that the five permanent members became nuclear nations after the United States, which alone possessed atomic weapons in 1945, there is no causal relationship between permanent membership and the possession of nuclear weapons. Moreover, France has been campaigning for several years for the number of permanent members of the Security Council to be expanded to include other countries, such as Germany, Japan and Brazil, which are not nuclear states. On the other hand, some countries have acquired and possess nuclear weapons without being permanent members of the Security Council (North Korea, India, Israel, Pakistan). Invoking an equivalence between the status of permanent member and that of nuclear power would constitute an incentive to proliferation.

Finally, and more fundamentally, there is the question of the link between nuclear weapons and great power status, or more precisely between nuclear power and great power status. Does being a nuclear power make a country a great power? The question may be asked if we look at the cases of India and Pakistan or Israel, which are, at least for the time being, only regional powers, and *a fortiori* the case of North Korea.

It is true that nuclear weapons have become, rightly or wrongly, a symbol of power in the collective imagination. France, with its backward-looking vision of its role in the world, clings to this shagreen as an instrument of prestige. It does not ask itself what 'power' has become these days and what the concept of power means in a globalised world. Frozen in an archaic geopolitical vision, its nuclear fixation prevents it from projecting a positive image and embodying its universalist vocation. As a result, it is moving backwards into the world of tomorrow.

For more information:

- Bertrand Badie, [Les puissances mondialisées](#), Éd. Odile Jacob, 2021.
- Carnegie Endowment for International Peace, '[Reform of the UN Security Council: What the World Thinks](#)', 28 June 2023.
- Benoît Pelopidas '[To Have the Bomb': Rethinking power in a context of global nuclear vulnerability](#)', CERISCOPE Puissance, 2013.
- Paul Quilès, Jean-Marie Collin, Michel Drain, [L'illusion nucléaire](#), Éditions Charles-Léopold-Mayer, 2018.
- United Nations, Charter of the United Nations of 26 June 1945, [Article 23](#).

5th Lie:

If Ukraine had kept its nuclear weapons inherited from the Soviet Union, it would not have been attacked by Russia.

'We gave up nuclear weapons as a result [of the Budapest Memorandum]. Now there is a strong feeling in Ukraine that we made a big mistake (...). In the future, no matter how the situation in Crimea is resolved, we need a much stronger Ukraine. If you have nuclear weapons, people don't invade you'. Pavlo Ryzanenko, Ukrainian MP, [interview](#) to *USA Today*, March 2014.

Response:

This hypothetical argument is fallacious in more ways than one.

1°) Like Belarus and Kazakhstan, when the USSR dissolved at the end of 1991 Ukraine inherited thousands of Soviet nuclear weapons deployed on its territory: according to the Nuclear Threat Initiative (NTI), an [estimated](#) total of 1,900 strategic warheads and between 2,650 and 4,200 tactical weapons. In reality, **Ukraine has never possessed these weapons or exercised the slightest control over them**, which has always been retained by Russia. It had neither the know-how nor the resources to ensure that these weapons were maintained and made operational. Like the other two former Soviet republics, it therefore negotiated the complete transfer of these weapons to Russia. In exchange, it obtained a commitment to support its independence and territorial integrity, included in the [Budapest Memorandum](#) of 1994 signed with the three depositary countries of the Non-Proliferation Treaty (NPT), the United States, the United Kingdom and Russia, for Ukraine's accession to the NPT as a non-nuclear weapon state.

2°) Admittedly, this commitment was violated by Russia when it annexed Crimea in 2014 and invaded Ukraine in 2022, but even on the theoretical assumption that Ukraine could have retained operational nuclear weapons, **it is hard to see how it could have used them against its neighbour without causing massive damage to itself**, given its geographical proximity; thus, its threat to prevent a Russian attack would not have been credible.

3°) To invoke this argument today is tantamount to **endorsing the idea that nuclear weapons do guarantee the security of countries that possess them against any aggression**. So why deprive non-possessor countries of this right through the NPT? How then can we deny this right to countries such

as North Korea or Iran? This argument therefore encourages proliferation, which is precisely what the NPT aims to prevent.

For more information:

- Rose Gottemoeller, '[Should Ukraine Have Kept Nuclear Weapons?](#)', *The Foreign Service Journal*, October 2022.
- Benjamin Hautecouverture, '[Comment l'Ukraine a abandonné son arsenal nucléaire](#)', *La Croix*, 14 March 2022.
- Benoît Pelopidas, [Repenser les choix nucléaires](#), Sciences Po Les Presses, 2022 (p. 145-154).

6th lie:

The possession and/or use of nuclear weapons is compatible with international law, including the law of armed conflict (international humanitarian law).

'The rules of Additional Protocol I of 1977, which prohibit the use of 'methods or means of warfare which are designed or may be expected to cause widespread, long-term and severe damage to the natural environment', do not prohibit or regulate the use of nuclear weapons.' [Comments by the French Government on draft General Comment No. 36 on Article 6 of the International Covenant on Civil and Political Rights, concerning the right to life](#), October 2018.

Response:

This legal question on the applicable law, in this case international humanitarian law (IHL), can only be answered in the negative.

1. [The Declaration of St Petersburg, 1868](#) (customary IHL): the Declaration of St Petersburg set '**the technical limits at which the necessities of war must yield to the requirements of humanity**' and continues to guide the examination of the legality of a weapon under IHL. The Declaration affirms that '*the only legitimate aim which States must set themselves in war is the weakening of the military forces of the enemy*' (i.e. not the annihilation of the country or the planet), that '*this aim would be exceeded by the use of weapons which would needlessly increase the suffering of men hors de combat or would seek their inevitable death*' and that '**the use of such weapons would therefore be contrary to the laws of humanity**'. Consequently, the possession and/or use of nuclear weapons, and therefore also the doctrines of nuclear deterrence, although they did not exist at the time, are contrary to the fundamental principles of IHL enshrined in the Declaration because they are impossible to use in compliance with these rules. These doctrines therefore raise questions about the rights of states, which '**must stop before the demands of humanity**', their ability to control the technologies created and the human suffering they are prepared to inflict and authorise in the conduct of war.

2. The 2021 [Treaty on the Prohibition of Nuclear Weapons \(TPNW\)](#): the TPNW incorporates the fundamental principles of the St Petersburg Declaration as rules of international law, which is customary law and therefore applicable even to States that have not ratified the TPNW. The

prohibition and elimination of nuclear weapons, their possession, use or threat of use, stockpiling, etc., and nuclear tests because of their '*catastrophic humanitarian consequences*' are now legally binding '*in all circumstances*', since the entry into force of the TIAN on 22 January 2021. The preamble to the TPNW echoes the position expressed by the International Court of Justice (ICJ) in its [Advisory Opinion](#) of 8 July 1996 on '*The Legality of the Use of Nuclear Weapons by a State in Armed Conflict*', stating that '*any use of nuclear weapons would be **contrary to the rules of law applicable in armed conflict, in particular to the principles and rules of international humanitarian law***' (para. 8) and would also be '*unacceptable in the light of **the principles of humanity and the dictates of public conscience***' (para. 11, referring to the customary IHL enshrined in the '[Martens Clause](#)').

Consequently, the possession, use and threat of use of nuclear weapons - and therefore the doctrine of nuclear deterrence - are not compatible with IHL because they violate all the fundamental principles of this law without exception, nor with the most fundamental ethical principles. Any weapon or method of warfare is illegal if it does not allow all or some of these fundamental principles to be respected, '*in particular the principle that the right of parties to an armed conflict to choose methods or means of warfare is not unlimited, the principle of distinction, the prohibition of indiscriminate attacks, the rules relating to proportionality and precautions in attack, the prohibition of the use of weapons of a nature to cause superfluous injury or unnecessary suffering, and the rules relating to the protection of the natural environment*' (para. 9). Nuclear weapons, like other weapons of mass destruction and their use, violate all these fundamental principles without exception. Their use would constitute all international crimes: genocide, war crimes and crimes against humanity. The threat of their use - the doctrine of deterrence - also violates the United Nations Charter (including Articles 2, 26 and even 51) applicable at all times, including outside armed conflict. This is why '*all States must comply at all times with applicable international law, in particular international humanitarian law (IHL) and the* This is why '*all States must comply at all times with applicable international law, in particular international humanitarian law (IHL) and international human rights law*' (para. 10 of the preamble to the TPNW), the latter also being applicable in peacetime. The [Political Declaration](#) adopted by the First Meeting of States Parties to the TPNW, Vienna, 21-23 June 2022, reaffirms these principles and rules as well as '*the requirement for all States to respect applicable international law, including IHL*' (para. 2) and '*moral and ethical imperatives*' (para. 3). It reaffirms that '*the use or threat of use of nuclear weapons constitutes a violation of international law, including the Charter of the United Nations*' and '*unequivocally condemns any threat, whether explicit or implicit, under any circumstances*' (para. 4).

3. The fundamental principles and rules of conventional and customary IHL: while the TPNW is legally binding only on States parties (having signed, ratified or acceded to it), the [fundamental principles](#) of general international law, IHL and the body of conventional rules governing the conduct of hostilities in IHL - all of which are also customary - are imperatively legally binding (*jus cogens*). All States must respect them and ensure that they are respected '*in all circumstances*', and all parties to an armed conflict must respect them in their conduct of hostilities. The same applies to the fundamental ethical and moral rules and imperatives contained in the [Martens Clause](#) (which, according to the ICJ, also constitute a peremptory norm of customary IHL). It should be noted that the '*dictates of the public conscience*' play a fundamental role in advancing the principles of humanity.

4. The [International Committee of the Red Cross \(ICRC\)](#): the ICRC, the guardian of IHL, reaffirms that the fundamental principles and rules of IHL applicable to all means (weapons) and methods of warfare are applicable to nuclear weapons, **even in self-defence**, and that it is '*extremely unlikely*', not to say **impossible, that nuclear weapons could be used in conformity with the principles and**

rules of IHL. In view of the *'catastrophic humanitarian consequences'* that would result from any use of nuclear weapons, the ICRC also reaffirms, by referring to 'a humanitarian imperative', *'the obligation of all States at all times to respect applicable international law, including IHL'* and to prohibit and eliminate such weapons and to undertake never to use them. Among the fundamental principles of IHL (enshrined and detailed in the Geneva Conventions and Additional Protocols) that would be violated by the use of nuclear weapons are the principles of **humanity, distinction** (between civilian and military targets), **precaution, proportionality** and the **prohibition of superfluous injury and unnecessary suffering.**

5. The [Advisory Opinion of the International Court of Justice \(ICJ\) of 8 July 1996](#) : in its Advisory Opinion of 8 July 1996 on the Legality of the Threat or Use of Nuclear Weapons, the ICJ affirmed the applicability of the fundamental principles and rules of IHL to nuclear weapons, their use and threat of use, and that *'their use does not in fact appear to be reconcilable with respect for such requirements'*. It described them as **'intransgressible principles of customary international law'** (para. 79), an undefined legal innovation formulated for the occasion, which could in reality mean norms of *jus cogens* (peremptory and from which no derogation is permitted) if it had wanted to clearly settle the question of the illegality of these weapons. The dissenting opinions of three judges clearly affirmed their illegality. But in a strange legal pirouette, a sort of **'non liquet'** ('it is not clear') clause that is questionable and confusing on the part of one judge, it did not feel able to specify *'definitively'* and absolutely that the threat or use of these weapons, *'in the light of the current state of international law'* could be *'lawful or unlawful in an extreme circumstance of self-defence in which the very survival of a State would be at stake'*. This pirouette represents a sort of *'jura non novit curia'* (the parties do not have to prove the existence of a rule of law, supposedly known by the court) aimed at satisfying the nuclear powers and their doctrine of nuclear deterrence by evoking the *'fundamental right of every State to survival'*, but which is legally irrelevant because it comes under *jus ad bellum* (law applicable before any armed conflict) and would be *'absurd'* if it granted the seal of legality to an action leading to the destruction of the international society that the Court and the United Nations are supposed to protect. This position appeared to be flawed, worrying and legally questionable. Contrary to the nuclear powers' assertion that the use or threat of use of nuclear weapons was justified by the *'inherent right of individual or collective self-defence if a member of the United Nations is the object of armed aggression'* provided for in Article 51 of the UN Charter, the ICJ's conclusion could also mean that it was not in a position to judge whether this excuse was permanently admissible, since the situation of aggression and self-defence had to be analysed on a case-by-case basis. Yet it is on this basis that the nuclear powers, including France, justify their position and their doctrine of nuclear deterrence.

In other words, the Court confirms (para. 105^E, 1) on the one hand a clear and imperative rule of law: nuclear weapons, whose *'destructive power cannot be contained in space or time'* and their use or threat of use violate all the fundamental principles and rules of the law of armed conflict (*jus in bello*). However, a **'non liquet'** ('it is not clear') clause, which has no legal scope (the ICJ says it does not know the content of the rule!), introduced in paragraph 2 of para. 105^E, would attenuate its scope. But this no-notice clause in no way detracts from the general illegality set out above. The only right stated as such is the general illegality of the use or threat of use of nuclear weapons based on IHL (*jus in bello*), even in *'extreme cases of self-defence'* (*jus ad bellum*) when the survival of the State is at stake (which is the case in any armed conflict!).

This clause cannot therefore affect or invalidate the rule of *jus cogens* asserted to justify the use of nuclear weapons, since it makes an unacceptable amalgam between *jus ad bellum* and *jus in bello*, whose autonomy cannot be disputed. It should be noted that no justifying circumstance can be

alleged in order to exclude the unlawful nature of conduct that violates these fundamental principles and applicable rules of IHL. Circumstances precluding wrongfulness that apply in other branches of public international law (such as self-defence, state of necessity, etc.) cannot be invoked in this case. This is why the doctrine of nuclear deterrence based on and formulated according to this *non liquet* clause and based on the '*full exercise of the right of self-defence confirmed by Article 51 of the Charter of the United Nations*' does not allow any violation of the imperative obligations to respect the fundamental principles and rules of IHL, nor those of the United Nations Charter, which requires that '*States shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the Purposes of the United Nations*'. All the more so if the doctrine of nuclear deterrence allows for the first use of these weapons in '*preventive self-defence*'. The national security of countries with nuclear weapons cannot be ensured at the expense of global security, the security of all other countries and peoples, and... at [an annual cost](#) of \$91.4 billion for the maintenance and modernisation of the nuclear arsenals of the 9 countries with nuclear weapons in 2023.

Thus, the reservations and interpretative declarations reflecting this *non liquet* clause in paragraph 2 [introduced](#) by France when it ratified Additional Protocol II to the Treaty of Tlatelolco on the Nuclear-Weapon-Free Zone in Latin America and the Caribbean, ratified on 22 March 1974, violate the spirit of the treaty and are questionable because they do not comply with international law, including IHL. These declarations state that the commitments entered into do not impede the '*full exercise of the right of self-defence confirmed by Article 51 of the Charter of the United Nations*', by which is meant its right to use nuclear weapons.

For more information:

- Patrice Bouveret, '[Can international humanitarian law protect against the atomic bomb?](#)', *Alternatives humanitaires*, No 23, July 2023.
- ICRC, '[Never again: why the ICRC advocates the elimination of nuclear weapons and how the nuclear ban treaty can help achieve this](#)', 22 June 2022.
- ICRC, '[Nuclear weapons and international humanitarian law](#)', Information Note No 4, May 2013.

7th lie:

Compared with other weapons used in wars since 1945, nuclear weapons have caused few casualties and could be used in a conflict today without catastrophic effects.

'Civil wars and wars between countries killed hundreds of thousands of people in the second half of the 20th century. Nuclear weapons are not responsible for any of these killings.' Louis Delvoie, former Canadian minister, [Canadian Military Journal](#), autumn 2022.

'The effects [of the use of Russian tactical nuclear weapons in Ukraine] - depending on the weapon - would be similar to those of an accident in a nuclear power plant, but greater than those of the Chernobyl reactor accident.' Oliver Thränert, [Centre for Security Studies](#), University of Zürich, *swissinfo*, March 2022.

Response:

Hiroshima and Nagasaki: appalling carnage

Although the 'conventional' carpet bombs that had razed Japanese cities before 6 August 1945 had claimed more victims, the appalling and powerful signal that the destruction of Hiroshima and Nagasaki was intended to send ushered in a new era. According to some [estimates](#), in the four months following the atomic bombings, between 90,000 and 140,000 people died in Hiroshima (almost 39% of the population) and between 60,000 and 80,000 people died in Nagasaki (32% of the population). According to a recent [study](#), at least 38,000 children were killed in these bombings. Most of the deaths resulted from the immediate effects of blast and heat from the two bombs and, later, from burns and radiation.

To this initial total of 150,000 to 220,000 victims must be [added](#) cancers caused by radiation, which took several years, even decades, to appear. A partial study in 2000 revealed some 1,900 cancers among a group of survivors. By 2007, of the 250,000 or so recognised survivors, only 2,242 had been officially recognised as suffering from radiation-related illnesses under the strict criteria imposed by the Japanese government. A court [ruling](#) in 2020 extended the right to compensation to victims of radioactive 'black rain' affected in areas further away from the epicentres.

Although entirely justified, the focus on the number of victims in the only two cases of actual use of nuclear weapons in history does not contribute to a full analysis of the **ongoing risk associated with the production, testing and possession of nuclear weapons**. In order to assess this risk, it is true that scientists and researchers are hampered in their efforts by the lack of public data due to the secrecy that still surrounds nuclear weapons, particularly in non-transparent countries such as Russia, China, Israel and North Korea.

The victims of nuclear weapons production

The manufacture of nuclear weapons, especially on a large scale such as in the United States or the Soviet Union/Russia, is responsible for a high level of death and illness that continues to claim victims to this day. In 2016, a [study](#) concluded that, in US nuclear weapons manufacturing plants since 1945, some 107,394 employees had contracted cancer and other serious illnesses, and 33,480 had died as a result.

In August 2019, Russian officials [confirmed](#) reports of radioactive contamination, probably resulting from the explosion of a nuclear-powered missile during a series of tests carried out by the Russian navy in the Arkhangelsk region. At least five people died and several others were seriously injured, while radiation levels in the region peaked at between 4 and 16 times the norm.

Victims of nuclear weapons accidents

Since 1950, 32 nuclear weapon accidents have been [recorded](#) and are known as 'broken arrows'. This category includes unforeseen events involving nuclear weapons that could result in the accidental firing, detonation, theft or loss of nuclear weapons. To date, six nuclear warheads have been lost and never recovered. These accidents, involving nuclear aircraft or submarines, have caused hundreds of deaths and considerable radioactive contamination. In 2014, the British research centre at Chatham House published a detailed [study](#) of 13 incidents that almost resulted in nuclear explosions, some of which caused deaths and injuries, but miraculously avoided even more catastrophic consequences.

Victims of nuclear weapons testing

The largest proportion of victims of nuclear weapons since Hiroshima and Nagasaki is undoubtedly the result of the explosive testing of these weapons. Between 1945 and 2017, according to the [Arms Control Association](#), some **2,056 nuclear weapons were detonated**, including 528 in the atmosphere, on or under water, with a cumulative yield of more than 540 megatons, or more than 36,000 Hiroshima bomb equivalents. A 1991 [study](#) by the International Physicians for the Prevention of Nuclear War (IPPNW) predicted that some **2.4 million people** worldwide would eventually die of cancer attributed to atmospheric nuclear testing.

In the United States, which carried out almost half of all nuclear tests, a 2017 [study](#) estimated that fallout from nuclear testing was responsible for between **340,000 and 460,000 premature deaths** between 1951 and 1973. The study was based on new data that corrected a previous [estimate](#) by the *Center for Disease Control* (CDC) in 2003, which put the number of premature deaths at 11,000, mainly due to thyroid cancer.

Unfortunately, there are no independent statistics on the victims of nuclear tests carried out by the other nuclear powers, often outside metropolitan France, such as in Algeria or French Polynesia for France, Australia for the UK, Greenland for the US, Kazakhstan for the Soviet Union, or the Pacific Islands for the UK and the US. However, some partial studies give an idea of the impact of these tests. For example, [documents](#) declassified in 2013 show that some of the tests carried out by France in Algeria caused radioactive contamination as far away as southern Europe and sub-Saharan Africa. A group of 3,000 French veterans fighting for compensation, the *Association des vétérans des essais nucléaires* ([AVEN](#)), set up in 2001, [discovered](#) in 2008 that 35% of them (around 1,000) had contracted cancer or suffered from infertility and cardiovascular problems, while their children and grandchildren were also suffering from complications, based on their own definition dating back to 2008. The French Committee for the Compensation of Nuclear Testing Victims ([CIVEN](#)), an independent administrative authority set up by the Law of 5 January 2010 to award compensation or not, [validated](#) the cases of 1,026 civilian or military people recognised as victims between 2010 and 2023.

In Kazakhstan, although the Kazakh health authorities estimate that 1.5 million people were exposed to fallout from Soviet nuclear testing, only 5,700 of them were [recognised](#) as surviving victims in 2019.

From 1946 to 1958, the United States detonated some 67 nuclear bombs on the Marshall Islands, the equivalent in power of more than one and a half Hiroshima-type explosions [every day](#) for twelve years, causing intense [suffering](#) through forced evacuations, burns, birth defects and cancer. Today, the 90,000 cubic metres of nuclear waste dumped on the archipelago, affected by rising sea levels, [threaten](#) the region with catastrophic contamination.

The effects of so-called tactical nuclear weapons

Russia's invasion of Ukraine has given rise to speculation about the possible use by Moscow in combat of so-called 'tactical' or non-strategic nuclear weapons. Although not precisely defined internationally, these weapons, in the form of nuclear warheads carried by missiles or airborne bombs, would have a short range (300 km) and less destructive power than most so-called 'strategic' nuclear weapons (although some of the latter have less destructive capacity). Russia [possesses](#) around 2,000 of these weapons, with a yield of between 10 and 350 kt, and an uncertain number of them have been transferred to Belarus. It should be noted that these weapons are considered 'non-

deployed' in the sense that they are stored in warehouses and that their transfer to delivery systems would take time and would be detected by Western satellites.

In some commentaries, Russian and Western experts, while not believing it highly likely that Russia would use these weapons, have tended to play down the consequences. For example, according to [Héloïse Fayet](#) of the French Institute for International Relations (IFRI), '[tactical weapons] *are used for tactical purposes, to win a battle, to destroy a column of tanks or to penetrate defences, for example*'. A tactical nuclear missile could, according to her, be used to '*supplement the Russian army if it is in too much trouble*'.

The effects on the population and the environment of using tactical nuclear weapons are rarely mentioned. Yet Russia's weakest tactical weapon, at 10 kt, would be close to the power of the Hiroshima bomb (15 kt). A fortiori, a warhead of up to 100 kt (as in the case of the *Iskander* missiles), almost seven times the equivalent of Hiroshima, would cause a far greater number of victims than Hiroshima and could not in any way be focused on a military target, given the effects of blast, fire and the spread of radiation (including, in all likelihood, across borders).

For more information:

- Marc Finaud, '75 ans plus tard, les armes nucléaires tuent encore' in Marc Finaud, [L'Arme nucléaire : éliminons-la avant qu'elle nous élimine](#), Preface by Paul Quilès, Éd. L'Harmattan, 2020.
- Marc Finaud, '[Les victimes des armes nucléaires](#)', IDN, 6 August 2020.
- Hugues Maillot, '[Guerre en Ukraine : quelle serait la capacité de destruction d'une arme nucléaire tactique ?](#)', *Le Figaro*, 29 April 2019.
- Dominique Lalanne and Patrice Bouveret, '[Et si une bombe nucléaire explosait sur Lyon?](#)', L'Observatoire des Armements and ICAN France, 2014.
- Tim Wright, '[The impact of nuclear weapons on children](#)', ICAN, August 2024.

II. NUCLEAR DISARMAMENT

8th Lie:

In the current international context, France cannot disarm unilaterally because it would jeopardise its security in the face of other countries that possess nuclear weapons or are seeking to obtain them (proliferation).

'There is no alternative to nuclear deterrence to guarantee a form of strategic stability on the [European] continent. Corentin Brustlein, IFRI, [Le Monde](#), 14 February 2020.

Response:

In his [speech](#) to the École Militaire on 7 February 2020, President Emmanuel Macron indirectly criticised supporters of the Treaty on the Prohibition of Nuclear Weapons (TPNW):

'Unilateral nuclear disarmament would be tantamount for a nuclear-weapon state such as ours to exposing itself and its partners to violence and blackmail, or to relying on others to ensure its security.'

This criticism of **'unilateral' disarmament** is all the more incomprehensible because:

1°) On the one hand, **neither the NPT nor the TPNW require it** : according to Article VI of the NPT, which has been binding on France since 1992, the obligation is *'to pursue **negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control***' and, according to Article 4 of the TPNW, the nuclear powers have the choice of disarming (either unilaterally or in concert with the other nuclear powers) before joining the Treaty, or joining the Treaty and disarming according to a **plan negotiated** with the other States Parties to the TPNW.

2°) On the other hand, the [disarmament record](#) of which France prides itself - and which is far from negligible - (see below the response to the 12th lie) has always been based on a **unilateral approach**: neither the number of its warheads or delivery systems (missiles, aircraft, submarines), nor the cessation of nuclear testing and the production of fissile material have been negotiated with anyone.

In short, no one is calling for France to disarm unilaterally, contrary to what it has always done.

For more information:

- Élysée, ['Speech by President Emmanuel Macron on defence and deterrence strategy'](#), 7 February 2020.
- Permanent Representation of France to the Conference on Disarmament, ['Nuclear disarmament: France's concrete commitment'](#), 23 March 2011.
- United Nations, [Treaty on the Non-Proliferation of Nuclear Weapons](#) (1968).
- United Nations, [Treaty on the Prohibition of Nuclear Weapons](#) (2017).

9th lie:

Even if the nuclear powers agreed to disarm, disarmament would be doomed to failure because nuclear weapons cannot be dis-invented.

“We cannot dis-invent the atomic weapon”. Dominique Moisi, IFRI, [Ouest-France](#), 26 July 2023 .

Response:

Nuclear physics certainly cannot be dis-invented. On the other hand, to equate one of the major scientific discoveries of the 20th century with a weapon, even if it is an application of that weapon, is tantamount to a rather unscientific manipulation.

We cannot dis-invent nuclear physics, but we can see that nuclear weapons are an obsolete weapon from a strategic and technological perspective. The history of conflicts is full of examples of weapons or applications that have been abandoned, such as the crossbow, the sailboat or the kerosene lamp.

At the strategic level, it is true that nuclear weapons, through their destructive capacity, are incomparable, but this specificity through its radicality, far from guaranteeing strategic stability as nuclear activists claim, is on the contrary a factor of strategic instability, as demonstrated by the war of aggression waged by Russia against Ukraine. It is, as it always has been, the weapon of predatory states.

What's more, its destructive power condemns democratic states to an impossible choice between strategic renunciation and the absurdity of collective suicide. Here again, it encourages the predatory will of totalitarian states.

In technological terms, the emergence of new [disruptive technologies](#) based on dazzling progress, in particular artificial intelligence, quantum computing and nanotechnologies, raises two questions. Firstly, it raises questions about the usefulness of nuclear deterrence in the face of new threats such as cyber threats and space threats, one of the characteristics of which is the difficulty of identifying the aggressor and the accompanying ‘fog’ that is incompatible with the doctrine of deterrence. Secondly, it makes it possible to bypass nuclear deterrence in favour of conventional deterrence, thereby restoring the fundamental principles of deterrence.

Finally, in today's complex, chaotic and multifaceted strategic landscape, the doctrine of nuclear deterrence is no longer adapted to a changing situation in which new areas are emerging, with threats that are not necessarily new but which may take broader forms, such as hyper-terrorism. Nuclear deterrence is thus proving incapable of responding to the new security challenges, but at the same time it is becoming more dangerous because, faced with the uncertainty and complexity of a shifting strategic landscape, it increases the risk of nuclear conflict.

For more information:

- Georges Charpak, Richard L. Garwin and Venance Journé, [De Tchernobyl en tchernobyls](#), Odile Jacob, September 2005.
- Jacques Fath, ‘[Dissuasion nucléaire : pertinence ou obsolescence ?](#)’, *Cahiers de l'Institut de documentation et de recherche sur la paix*, September 2015.

- George Perkovich and James Acton, ‘ [Rebutting the Standard Arguments against Disarmament](#) ’, *Bulletin of the Atomic Scientists*, 15 July 2009.
- Ward Wilson, ‘ [Five myths about nuclear weapons](#) ’, *Reporterre*, 3 March 2015.

10th Lie:

The Non-Proliferation Treaty (NPT) has limited the proliferation of nuclear weapons and allows countries that possessed nuclear weapons in 1967 to keep them indefinitely.

‘[France] must finally demonstrate that modernising its deterrent is not incompatible with its commitments under the NPT...’. Senate, ‘The necessary modernisation of the nuclear deterrent’, [Information Report](#) No 560, 23 May 2017.

Response:

1°) The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) was negotiated in Geneva in a forum boycotted by France; it was opened for signature in 1968 and entered into force in 1970. France, like China, did not join it until 22 years later, in 1992. This treaty recognises the status of so-called ‘**nuclear-weapon States**’ for the five countries that had detonated a nuclear weapon before 1st January 1967 (China, the United States, France, the United Kingdom and the Soviet Union/Russia). It is true that, in the 1960s, it was feared that 20 to 30 countries would acquire nuclear weapons because they had the capacity to do so. Although the treaty prevented this number from being reached, it did not prevent **the number of nuclear powers** from **doubling**, from five to ten (with, chronologically, Israel, South Africa, India, Pakistan and North Korea; this number fell back to nine with the unilateral disarmament carried out by South Africa in 1989).

In this respect, the NPT cannot be considered a spectacular success, even if it can be credited with having contributed to the halting of advanced military nuclear programmes of countries such as Argentina, Brazil, Sweden and Switzerland.

2°) As for the status of nuclear weapons possessed by the ‘nuclear-weapon States’, **Article VI of the Treaty in no way establishes a right to possess them indefinitely**. On the contrary, and this is generally considered to be the ‘grand bargain’ between the nuclear-weapon States and the non-nuclear-weapon States, the latter have agreed to give up their nuclear weapons in exchange for a commitment by the nuclear-weapon States to eliminate theirs in the context of ‘general and complete disarmament’. This provisional nature was confirmed by the International Court of Justice (ICJ) in its 1996 [Advisory Opinion](#), which stated that:

‘[T]he obligation at issue here [Article VI] is that of achieving a specific result – nuclear disarmament in all its aspects – through the adoption of a specific course of conduct, namely the pursuit in good faith of negotiations in this field.’

The illicit nature of the possession of nuclear weapons was enshrined in the Treaty on the Prohibition of Nuclear Weapons (TPNW), which was rejected by the possessing countries.

For more information:

- Marc Finaud, ‘ [Response to the Foreign Ministry's NPT argument](#) ’, IDN, 7 May 2020.
- United Nations, [Treaty on the Non-Proliferation of Nuclear Weapons](#) (1968).
- United Nations, [Treaty on the Prohibition of Nuclear Weapons](#) (2017).

11th Lie:

The Treaty on the Prohibition of Nuclear Weapons (TPNW) is incompatible with the Non-Proliferation Treaty (NPT) and risks weakening it.

'The Treaty [TPNW] undermines the legitimacy of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), which has been the cornerstone of the nuclear non-proliferation regime for more than fifty years; it does not include the highest standards of safeguards of the International Atomic Energy Agency (IAEA), which are enshrined in the NPT; and lastly, it does not include any verification mechanism, unlike the NPT'. Florence Parly, Minister of the Armed Forces, [response](#) to a Senator's written question, 11 February 2021.

Response:

Immediately after the use of nuclear weapons in Hiroshima and Nagasaki (6 and 9 August 1945), the newly founded United Nations took up the subject of 'atomic weapons'. The very first General Assembly [resolution](#), adopted on 24 January 1946, decided to set up a commission to study the problems associated with the discovery of nuclear energy, with a mandate that included '*the elimination of atomic weapons from national armaments*'. The refusal of the United States to take action to destroy its small arsenal (less than 10 weapons in 1946), followed by the arrival of the Soviet Union as a nuclear power (1949), triggered a vast movement of nuclear proliferation across the planet.

In a bid to limit and put an end to this proliferation, the United States, the United Kingdom and the Soviet Union (on the basis of work carried out by Ireland in particular), drafted the NPT which came into force in 1970 (with 40 States parties at the time). While the NPT tackles nuclear proliferation, Article VI also obliges all States Parties to '*pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament*'. It also aims to enable States Parties to benefit from nuclear technologies for peaceful purposes (energy, industry, medicine, etc.). After strongly denigrating this treaty, France acceded to it in August 1992, 22 years after its entry into force.

While the NPT has virtually put a stop to nuclear proliferation (only North Korea has developed a nuclear arsenal and withdrew from the treaty in 2003, and Iran has pursued an ambiguous policy), the process of nuclear disarmament has stalled. Admittedly, the number of nuclear weapons has been reduced to around 12,120 since the nuclear peak in 1986 (almost 70,000 weapons), but all the so-called 'nuclear-weapon States', whether parties to the NPT or not, have begun the process of modernising and renewing their arsenals. In 2021, France [announced](#) its intention to have nuclear systems until at least 2090, almost a century after it joined the NPT!

In addition to this complete lack of political will for nuclear disarmament and the belief in myths (status, place in the world, security), there were two strong legal reasons for holding back a global commitment to a world without nuclear weapons. The first was the absence of a global ban on nuclear weapons, even though other weapons of mass destruction (biological and chemical) had been banned. No legal norm, not even the NPT, totally banned the most powerful weapon of mass destruction created by humans. The second reason is that the NPT is an essential treaty, but it leaves a number of loopholes (legal vacuum) that allow the nuclear threat to persist.

The complete elimination of a weapons system is always preceded by the creation of a norm prohibiting it, not the other way around. It was therefore logical for the UN and its Member States to initiate a process in 2017 to create a legally binding instrument against nuclear weapons. Adopted on 6 July 2017, the Treaty on the Prohibition of Nuclear Weapons (TPNW) entered into force on 22 January 2021. Three years after its entry into force, on 22 January 2024, it had 93 signatory States (i.e. half of the States parties to the NPT), 70 of which had ratified it.

The negotiation of the TPNW, like that of the NPT in the mid-1960s, was motivated by **humanitarian concerns**. Both treaties recognise in their preambles the danger to humanity inherent in a nuclear war and the need to do everything possible to avoid such a war. However, the TPNW creates new prohibitions – absent from the NPT – on the use or threat of use of nuclear weapons (or the strategy of nuclear deterrence), their financing and the transfer of technology (between nuclear-armed powers), and reaffirms existing prohibitions such as the transfer of nuclear weapons between nuclear and non-nuclear powers. The treaty also strengthens the international safeguards regime administered by the International Atomic Energy Agency (IAEA), which aims to prevent the diversion of peaceful nuclear materials and technologies to military use. Like the NPT, the TPNW requires the adoption of specific obligations to combat nuclear proliferation (at minimum the current safeguards).

Finally, this legal norm reinforces the existing stigma attached to these weapons, as does the NPT, and aligns the status of nuclear weapons, which are to be banned in the same way as other weapons of mass destruction, biological or chemical weapons, and certain conventional weapons because of their humanitarian consequences (anti-personnel landmines, cluster munitions, so-called ‘inhumane’ weapons).

Far from wishing to lead an anti-NPT front, the States Parties to the TPNW (unlike the nuclear States) are constantly affirming the complementary nature of these two treaties, as in the [Political Declaration](#) (23 June 2022) adopted at the First Meeting of the States Parties to the TPNW:

‘We recognize the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) as the cornerstone of the disarmament and non-proliferation regime, and deplore threats or actions that risk undermining it. As fully committed states parties to the NPT, we reaffirm the complementarity of the Treaty with the NPT. We are pleased to have advanced the implementation of the NPT’s Article VI by bringing into force a comprehensive legal prohibition of nuclear weapons, as a necessary and effective measure related to the cessation of the nuclear arms race and to nuclear disarmament.’

Contrary to the assertions of the French Minister for the Armed Forces, the TPNW does require the minimum verification obligations of the NPT to be maintained (which applied only to non-nuclear-weapon States, whereas under the NPT, nuclear-weapon States are also subject to verification). The ‘high standard’ of the IAEA invoked by the Minister concerns the [Additional Protocol](#) to the Safeguards Agreements, which did not exist at the time of the NPT, has been in place since 1997, and which the TPNW encourages its States Parties to adopt (Article 3).

The TPNW is thus part of this legal architecture for combating nuclear weapons of which the cornerstone is the NPT. These two treaties complement each other, form an integral part of the international system of nuclear non-proliferation and disarmament and pursue the same objective: a world free of nuclear weapons. The accusations made by the nuclear powers against the TPNW and their unilateral interpretation of the NPT as meaning that the possession and threat of use of nuclear weapons are legitimate show that their objective is to keep their nuclear weapons.

For more information:

- Jean-Marie Collin, [The Treaty on the Prohibition of Nuclear Weapons](#), report 2018/9, GRIP, December 2018.
- Jean-Marie Collin, 'L'interdiction du financement et de l'investissement dans le traité sur l'interdiction des armes nucléaires' in [Le droit international et le nucléaire](#), edited by Kiara Neri, Centre de droit international, Université Lyon III, 2021.
- ICAN France, '[Complémentarité du Traité de non-prolifération et du Traité sur l'interdiction des armes nucléaires](#)', 25 July 2022.
- Hans M. Kristensen and Robert S. Norris, '[Global Nuclear Weapons Inventories, 1945-2013](#)', *Bulletin of the Atomic Scientists*, 16 October 2013.

12th Lie:

When it comes to non-proliferation and disarmament, France has an exemplary record.

'Nuclear disarmament cannot be decreed; it must be built through concrete action, and France has an exemplary - and in some areas unrivalled - record in this area.' Ministry of Europe and Foreign Affairs, '[Questions and Answers on the Treaty on the Non-Proliferation of Nuclear Weapons](#)'.

Response:

In international fora, in particular the United Nations and the Non-Proliferation Treaty (NPT) Review Conferences, French representatives often boast about France's record on non-proliferation and nuclear disarmament. In particular, they [point out](#) that:

1. France's **nuclear arsenal** has been halved in almost ten years, from 600 warheads to 'less than 300' between 1998 and 2008;
2. France has completely dismantled the **ground-based component** of its deterrent force (the Albion plateau missiles followed by the Pluton and Hadès missiles);
3. It has reduced the **oceanic component** of its nuclear forces (four nuclear-powered ballistic missile submarines - SNLE - instead of six);
4. It has also reduced the **airborne component** of its deterrent force by withdrawing early from service and dismantling the AN52 nuclear bombs carried by Jaguar and Mirage III aircraft and withdrawing Mirage IV strategic aircraft from the nuclear mission, and then by cancelling one of its own aircraft squadrons.
5. It has ceased underground **nuclear testing** and dismantled its test site in the Pacific;
6. It has ceased the **production of fissile material** for weapons purposes and dismantled its production site.

In reality, this record is more mixed than it seems:

1. While it has indeed reduced the number of its nuclear weapons and their delivery systems (missiles, aircraft, submarines), France has embarked on an ambitious and costly programme to **modernise and renew its nuclear forces** over the long term. The power of some of these

weapons has been increased. For example, the 16 new M51 missiles, which equip each SNLE submarine and can each carry up to ten [100 kt](#) TNO warheads, have a destructive capacity greater than [1,000 times](#) the Hiroshima bomb (i.e. a potential of 120 million victims per submarine!).

2. The Albion Plateau **ground-based missiles** and the Pluto and Hades missiles were eliminated because they had become too vulnerable to pre-emptive attack or were aimed at targets in countries that had become NATO members (East Germany, Poland, etc.).
3. 2. The **cessation of underground tests** in the Pacific and the closure of the test centre is a salutary measure for the protection of the environment and health, but has had no consequences in terms of disarmament since France has continued simulated laboratory tests ([Laser Megajoule](#) project) which have enabled it to modernise and develop its arsenal. The [Comprehensive Nuclear Test Ban Treaty](#) (CTBT) is important not as an instrument of disarmament, but as a means of non-proliferation, to prevent new countries from developing a nuclear arsenal.
4. Stopping the **production of fissile material** for weapons purposes is also salutary in terms of the risks of accidents or proliferation, but it has had no effect in terms of disarmament, since France has [accumulated stocks](#) of weapons-grade plutonium of nearly 10 tonnes and around 25 tonnes of highly enriched uranium, which would enable it to manufacture between 480 and 3,000 new nuclear weapons, and in any case to cover its long-term fissile material requirements. The draft [treaty banning the production of fissile material for weapons purposes](#) proposed by France in 2015 at the Conference on Disarmament would only cover future production and would therefore have no effect in terms of disarmament as it would not apply to existing stocks.

For more information:

- Jean-Marie Collin and Patrice Bouveret, '[Déchets nucléaires: la face cachée de la bombe atomique française](#)', Heinrich-Böll Stiftung, December 2021.
- Marc Finaud, '[Réponse à l'argumentaire sur le TNP du ministère des Affaires étrangères](#)', IDN, 7 May 2020.
- Marc Finaud, 'La France et le désarmement : un bilan mitigé', in Association française pour les Nations unies, [Livre bleu : La France et les Nations unies](#), December 2022, p. 105-115.
- International Panel on Fissile Material (IPFM), '[Global Fissile Material Report 2022](#)', 2024.
- Paul Quilès, Bernard Norlain and Marc Finaud, '[Dissuasion nucléaire : la France invente le multilatéralisme à géométrie variable](#)', JDD, 2 July 2019.
- Permanent Representation of France to the Conference on Disarmament, '[What tangible action has France taken for nuclear disarmament?](#)', April 2019.
- Permanent Representation of France to the Conference on Disarmament, '[Nuclear Disarmament: France's Concrete Commitment: Implementation by France of the "13 Practical Steps" Contained in the 2000 Review Conference Final Document](#)', 14 March 2023.

13th Lie:

Getting rid of nuclear weapons would trigger a conventional arms race that would increase the risk of conflict.

'Some French experts [consider] that by rekindling the conventional arms race and drawing attention to chemical and biological weapons, nuclear disarmament would generate new sources of instability'. Isabelle Lasserre, 'Désarmement nucléaire : Paris résiste à l'option zéro', [Le Figaro](#), 3 February 2010.

Response:

Historically, the number of nuclear weapons in the world has fallen from 70,000 in 1985 to 12,120 in 2024, a reduction of more than 85%. At the same time, the total number of conventional, inter-state or internal conflicts, according to the [University of Oslo](#), has fluctuated: from around 40 per year in 1989, it has declined to around 30 per year before rising again to 55 per year in 2022. So there has been no correlation between nuclear disarmament and conventional conflicts. Furthermore, according to the [United Nations](#), the number of internal conflicts rose steadily (reaching 50 per year) until the end of the Cold War, when the curve reversed in parallel with the increase in the number of UN peacekeeping operations made possible by the renunciation of the Great Powers' veto. Here again, the correlation was not between nuclear disarmament and armed conflict, but between the international response and armed conflict.

Today, the 'sources of instability' that persist or are emerging are in no way linked to a reduction in the number of nuclear weapons, but to a range of factors, including the development of potentially destabilising technologies: cyber-warfare, artificial intelligence and biotechnology are often propagated by non-state entities that are indifferent to global nuclear arsenals.

The idea that nuclear disarmament would 'draw attention to chemical and biological weapons' is equally nonsensical. These weapons of mass destruction have been banned by almost universal multilateral treaties: only four States remain outside the [Chemical Weapons Convention](#), which came into force in 1997 (Israel, which has signed but not ratified it; Egypt, North Korea and South Sudan, which have not signed it), and all declared stockpiles have been destroyed under the control of the Organisation for the Prohibition of Chemical Weapons (OPCW).

As for biological weapons, the [Biological and Toxin Weapons Convention](#) came into force in 1975 and only ten countries are not party to it: Chad, Comoros, Djibouti, Eritrea, Israel, and Kiribati, which did not sign it, and Egypt, Haiti, Somalia, and Syria, which did not ratify it. All declared biological weapons have been eliminated and no country, even one not party to the Convention, claims to possess them.

The use of chemical weapons in Syria, by the regular army and armed groups, provoked international indignation and pressure which hastened Syria's accession to the Convention. No use of biological weapons has been observed for decades, despite a few minor terrorist incidents. All in all, nuclear disarmament has had no negative influence on the use of other weapons of mass destruction. Moreover, it is because of their humanitarian consequences on civilians that the international community has drawn a parallel between the three categories of weapons of mass destruction, justifying their prohibition and elimination.

For more information:

- Alban Lapointe, '[Why a revision of the Non-Proliferation Treaty?](#)', *Études*, No 412, May 2010 (pp. 595-605).

- Ivana Nikolić Hughes, Xanthe Hall, Ira Helfand and Mays Smithwick, ‘ [Nuclear Deterrence is the Existential Threat, Not the Nuclear Ban Treaty](#) ’, *Bulletin of the Atomic Scientists*, 22 January 2024.
- French Senate, ‘[Désarmement, non-prolifération nucléaires et sécurité de la France](#)’, Information Report No 332, 24 February 2010.

III - THE COSTS AND BENEFITS OF NUCLEAR WEAPONS

14th Lie:

Nuclear weapons are a relatively inexpensive way for France to ensure its security.

'This phase of modernising and renewing [France's nuclear deterrent] has a cost, almost €5.6 billion by 2023, or 11% to 13% of annual defence spending each year. Less than €7 per month per French citizen'. National Assembly, [Information report](#) by the National Defence and Armed Forces Committee, 24 April 2023.

Response:

To measure the relationship between 'budgetary expenditure' and 'security', it is essential to bear in mind at all times that any explosion of a nuclear weapon, whether deliberate or accidental, would have consequences beyond all measure. As the French Red Cross [points out](#), such consequences would *'lead to insurmountable difficulties for humanitarian aid. There would also be a lack of adequate assistance capacity at both national and international level'*. Of course, any nuclear detonation would mean nothing less than major destruction of the global economy.

In 2024, France's nuclear deterrence policy will cost the French people €12,081 per minute; in 2019, this sum was 'only' €8,466 per minute. This massive increase is due to the process of modernising and renewing the nuclear components, as well as the various infrastructures (transmission system, programme, etc.).

But this cost is much more complex because, in reality, the budget of 6.35 billion euros planned for 2024 must be read as a minimum: the overall budget announced within the framework of the 2024-2030 military programming law is will actually rise to **53.69 billion euros**. As the French Minister of the Armed Forces Sébastien Lecornu [admitted](#) to the Senate on 27 June 2023, *"to certain military secrets, we must add a form of budgetary discretion"*. A formula launched by his distant predecessor Pierre Messmer in 1967.

Thus, knowing precisely the share of nuclear deterrence in the military budget remains very complex, especially since this figure does not include all the sums linked to this policy. This cost should therefore only be read as being the minimum invested since:

- According to the [words](#) of General Bruno Maigret, Commander of the Strategic Air Forces (FAS), before the National Defence and Armed Forces Committee of the National Assembly on 12 June 2019, *"[w]hat is the budget for our airborne component , the credits specifically allocated to it only concern the operational preparation of the missile and the infrastructure, the rest not being financed under the nuclear budgetary aggregate. "* By the "rest", what should we understand? The costs linked to the training of pilots and personnel assigned for specific Strategic Air Force (FAS) missions, the specificities of the Rafale aircraft designed to carry out nuclear missions, the In-flight Refuelling Group?
- Expenditure relating to military nuclear waste and the dismantling of former fissile material production sites (Marcoule and Pierrelatte), the cost of which is estimated at €11 billion, is not charged to the deterrence aggregate;

- Expenditure relating to the victims of nuclear testing, as recognised by the Morin Act (almost €90 million since 2010), is charged to the Prime Minister's accounts.

For more information:

- Philippe Chapleau, '[Armes nucléaires : de moins en moins d'ogives mais de plus en plus de dépenses](#)', *Ouest-France*, 13 June 2023.
- ICAN, '[Wasted: 2022 Global Nuclear Weapons Spending](#)', June 2023.
- Ariane Lavrilleux, '[Le coût caché de la dissuasion nucléaire](#)', *Alternatives économiques*, 1st June 2023.

15th Lie:

Nuclear weapons technologies benefit research and industry, particularly the space industry.

"Deterrence contributes to improving France's competitiveness and acts as an industrial 'engine' by stimulating the development of applications in the civilian sector." National Assembly, [Information report](#) No 4301 on 'The industrial and technological challenges of renewing the two components of the deterrent', 14 December 2016.

Response:

Although the expression 'military-industrial complex' appeared at the beginning of the 20th century, it was President Dwight D. Eisenhower's end-of-term [speech](#) on 17 January 1961 that had the greatest impact:

'We must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist. We must never let the weight of this combination endanger our liberties or democratic processes.'

In its traditional sense, this expression includes the arms industry, the military and political decision-makers. In reality, scientists and members of parliament should also be included:

1. **Scientists**, in particular the major laboratories involved in military activities and, in France in particular, researchers at the Atomic Energy Commission (CEA)'s Military Applications Division (DAM) who, in the case of nuclear weapons, receive funding for 'upstream studies' and who, as a result, commit to carrying out weapons programmes even before they have been submitted for political approval. Nor should we forget scientists' ability to influence politicians and the military. As the father of the American H-bomb, Edward Teller, [put it](#):

'It is better not to ask the military what they want but rather to push scientific research to its limits. The needs will soon follow. Often, the military lacks the breadth to see the prospects offered by new scientific discoveries.'

Finally, in the field of nuclear weapons, there is a de-politicisation through technology that makes the weapons themselves actors in history, whereas, as Georges Le Guelte [wrote](#) in

2009, '[c]ontrary to a very widespread idea, technical progress is not an irresistible factor that forces us to introduce a new weapon as soon as it exists'.

2. **Members of parliament**, who fiercely defend the preservation and location of laboratories and defence industry sites, and hence jobs, in their constituencies. They are very often helped in this by the mobilisation of the trade unions and employees of the companies concerned. This is mainly the case in the United States, but there would be a French version of the definition of the military-industrial complex, which would become the 'arms mesosystem'. This term would refer to '*organisational methods and all the market and non-market relationships between agents in the same strategic area*'. In other words, '*the various players, forming a homogeneous network, work jointly and opaquely to shape the political decision in line with their common interests*'. In France, the parties concerned do not really deny the existence of a lobby, but above all they deny influencing government decisions.
3. However, several studies show that, on the contrary, **arms manufacturers**, with the support of **political and military networks**, have influenced the choice of this or that weapons system. On the other hand, these same industrialists pride themselves on advancing science and technology through their defence activities. They use this argument to bolster and legitimise the existence of France's nuclear strike force. According to them, it is thanks to the development of nuclear weapons systems that fundamental civilian applications have seen the light of day, notably in the creation of a space industry. It is true that the development of nuclear weapons and missiles - and therefore space launchers - occurred at the same time in France as in the other nuclear powers, all of which are also space powers. However, it would be an exaggeration to say that the space industry is a direct consequence of the development of nuclear weapons systems. It's a question of technology, because military missiles favour solid propulsion for reasons of ease of use and safety, whereas space launchers are looking for performance (at least before SpaceX) and are developing solutions using liquid or even cryogenic propellants.

All in all, although 'civilian' technological developments have very often been driven by military developments in the past, and conflicts and wars have been powerful accelerators of science, it would appear that this trend has been reversed and that it is now the sciences for civilian use that are driving military research. In the 1990s, a consensus emerged that the value of military research to the civilian sector had declined (Cowan and Foray, 1995). Nowadays, it is developments for civilian use that are finding military applications. The example of 5G mobile communications is revealing in this respect: according to a [report](#) published in 2021 in *Revue Défense Nationale*:

'By completing the integration of technologies such as cloud computing, big data, artificial intelligence, virtual reality, augmented reality, stemming from telecommunications and IT, 5G will become the backbone of the digital transformation of our societies... and thus contribute to the informational superiority sought today in armed conflicts.'

Another aspect that also illustrates this transfer of innovation to the civilian sector is the importance assumed by the GAFAMs in the field of innovation, but also in the field of supplying turnkey products or services to military users. Just think of Elon Musk's *Starlink* network being made available to the Ukrainian armed forces. In addition to the civil/military duality, there is also a public/private duality.

The resources allocated to the development of nuclear weapons systems are holding back investment in more promising sectors for the future. Finally, why should we think that the funds could not be transferred to other, more useful applications (disruptive technologies)?

In reality, the resources allocated to nuclear deterrence are draining the defence budget excessively, to the detriment of the other components. The new 2024-2030 programme law (LPM), which allocates €54 billion to nuclear weapons, i.e. 12.5% of the defence budget, illustrates this trend. Most of the increase is devoted to nuclear deterrence, to the detriment of conventional forces, whose resources have been cut, according to the National Assembly's [Information Report](#) No. 1223 of 10 May 2023.

In the field of arms exports, too, the arms industry argues that the effort deployed in favour of nuclear deterrence has enabled the export of derivative systems: for example, the experience acquired in the development of nuclear-powered ballistic missile submarines (SNLE) has enabled the development of conventional submarines such as the *Scorpène* series, which are sold for export. Better still, the former Minister for the Armed Forces, Florence Parly, even [declared](#) on 7 May 2019 to the French National Assembly that conventional arms exports made it possible to finance our nuclear strike force. This leads us to conclude that our nuclear deterrent, an instrument of French sovereignty, depends on third countries (which, moreover, often have little respect for international law). This contradicts the very definition of nuclear deterrence.

Finally, to the question 'why are industrialists so keen on nuclear weapons?', the answer is quite simply that weapons and delivery systems are designed to ensure France's strategic autonomy. For this reason, funds can only be allocated to national companies for reasons of security and confidentiality. They are therefore captive credits with no competition.

For more information:

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- Renaud Bellais and Fanny Coulomb, [Le complexe militaro-industriel, cinquante ans après Eisenhower](#), L'Harmattan, 2013.
- François Chesnais and Claude Serfati, [L'armement en France - Genèse, ampleur et coût d'une industrie](#), Nathan , 1992.
- Cowan, R. and Foray, D., ' [Quandaries in the Economics of Dual Technologies and Spillovers from Military to Civilian Research and Development](#) ', *Research Policy*, 24, 1995, p. 851-868.
- Yohan Droit, [L'avion de combat Rafale : de la matrice européenne à 'l'avion mondial'](#), PhD thesis, Université Paris-Sorbonne, 2014, p. 227-229.
- Institut de Hautes Études de défense nationale (IHEDN), Committee 5 of the 56th National Session (RDN), ' [Le ministère des Armées: acteur ou spectateur de la 5G?](#) ' *Revue Défense Nationale*, January 2021.
- IDN, [New technologies and nuclear strategy](#), 2021.
- Georges Le Guelte, [Les armes nucléaires - Mythes et réalités](#), Actes Sud, 2009.
- Benoît Pelopidas and Sébastien Philippe, ' [Unfit for Purpose: Reassessing the Development and Deployment of French Nuclear Weapons \(1956-1974\)](#) ', *Cold War History*, Vol. 1, 2021.
- Benoît Pelopidas, [Repenser les choix nucléaires : La séduction de l'impossible](#), Sciences Po Les Presses, 2022.
- Paul Quilès, Jean-Marie Collin & Michel Drain, [L'illusion nucléaire. The hidden face of the atomic bomb](#). Charles-Léopold Mayer, 2018.

16th Lie:

The production and maintenance of nuclear weapons create or maintain jobs.

'[Atomic energy Commission/Division of Military Applications] CEA/DAM is a major player in the French economy, with 4,700 direct jobs in its five regional centres. In recent years, it has generated nearly 10,000 indirect jobs through contracts awarded to French industry and services, as well as through the development of its technologies.' French Senate, [Information report](#) No 668 on 'The future of France's nuclear forces', 12 July 2012.

Response:

This argument of maintaining jobs to justify keeping a technology that has become obsolete is of the same order as if we had refused to replace steam locomotives to preserve that industry. France, which prides itself on its record of nuclear disarmament, has inevitably had to cut jobs or support the conversion of industries that have become redundant at each stage. Let's recall the steps regularly [invoked](#) by French representatives:

1. France's **nuclear arsenal** has been halved in almost ten years, from 600 warheads to 'less than 300' between 1998 and 2008;
2. France has completely dismantled the **ground-based component** of its deterrent force (the Albion plateau missiles followed by the Pluton and Hadès missiles);
3. It has reduced the **oceanic component** of its nuclear forces (four nuclear-powered ballistic missile submarines - SNLE - instead of six);
4. It has also reduced the **airborne component** of its deterrent force by withdrawing early from service and dismantling the AN52 nuclear bombs carried by Jaguar and Mirage III aircraft and withdrawing Mirage IV strategic aircraft from the nuclear mission, and then by cancelling one of its own aircraft squadrons.
5. It has ceased underground **nuclear testing** and dismantled its test site in the Pacific;
6. It has ceased the **production of fissile material** for weapons purposes and dismantled its production site.

To claim today that maintaining the nuclear deterrent is a way of preserving jobs cannot therefore be taken seriously. If France were to decide, unilaterally as it has always done, or multilaterally, to further reduce its arsenal and implement its disarmament obligations, there is no doubt that it would find the means to convert the jobs that have become redundant. Especially as its main institution, the Atomic Energy Commission ([CEA](#)), is also responsible for scientific research, which could easily be redirected towards civilian projects, and the CEA is now also in charge of renewable energies, which are strategic for the ecological and climatic transition.

For more information:

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- Roland de Penanros, [The nuclear component of the French military-industrial complex](#), GRIP, October 2018.
- French Senate, '[La dissuasion nucléaire: quel rôle dans la défense française aujourd'hui](#)', Information Report No 36, 24 October 2006.
- French Senate, '[L'avenir des forces nucléaires françaises](#)', Information report No 668, 12 July 2012.

17th Lie:

The cost of dismantling nuclear weapons facilities would be prohibitive.

'Huge nuclear arsenals remain in Russia, but also in the United States. And the technical and financial constraints of dismantling them are such that these stocks could in any case only be reduced very gradually'. Bruno Tertrais, 'Le bel avenir de l'arme nucléaire', [Critique internationale](#) No 13, April 2001.

Response:

Since the creation of its nuclear deterrent, France has spent, between 1945 and 2010, at least **357 billion euros** on operations related to its nuclear arsenal: construction, deployment, control, protection, dismantling and the fight against proliferation. So, to those who claim that nuclear deterrence is cheap, it should be remembered that building up the three nuclear components accounted for more than 30% of military equipment appropriations over the period 1963-1991, weighing heavily on the building up of a conventional armed force.

There are many figures to show the exorbitant financial cost of possessing these weapons of mass destruction. In 2018, for the first time, the official budget for nuclear deterrence passed the €4.04 billion mark, and in 2024 the €6 billion mark. From 2026, it will reach €7 billion. Objectively speaking, no one knows how long this amount will remain at this level, but there is every reason to believe that it should be maintained until 2050, when the modernisation process is due to be completed.

This 'death insurance', to use the [expression](#) of former Defence Minister Paul Quilès, is therefore costly, and to believe that it will not be dismantled would be nonsense. But this cost of dismantlement will be derisory compared with the cost of modernising and renewing the arsenals. For example, according to the [Ministry of Defence](#) (2010), the total cost of denuclearising the Albion plateau and its 18 silos, at the rate of one missile per month, was around €75 million. A small price to pay compared with the €54 billion allocated to deterrence in the 2024-2030 military programming law (LPM).

As another example, the cost of deconstruction (which relates to the hull components) and dismantling (which is spread over at least fifty years because of the need to allow the radiological activity of the various components of the nuclear reactor to decrease) amounts to several tens of millions of euros per submarine unit. To this must be added the cost of storing the waste, which is certainly more in terms of ethics and safety than financial.

In reality, the question of cost does not arise; it is merely a pretext for inaction. Although this cost has never been quantified (just as no provision has been made for the cost of dismantling civil nuclear power plants), and although it is clear that financial 'surprises' will arise with the

implementation of a programme to dismantle nuclear facilities and weapons, the cost will always be lower than the cost of the consequences of using nuclear weapons in a given region of the world.

On the other hand, the proponents of deterrence did not consider the economic burden on the State during the various stages of modernising the arsenals. They have spent hundreds of billions of euros, and are responsible for their lack of long-term vision in view of the expenditure required to implement this disarmament process. For example, the cost of dismantling the Marcoule and Pierrelatte sites (former plutonium and enriched uranium production sites) is estimated at 12 billion euros in 2020, rather than the 6 billion euros estimated in 2011. This financial cost of dismantling could have been included in the deterrence budget from the outset of the nuclear weapons procurement programmes, thereby demonstrating the reality of the cost of the bomb.

In 2011, right-wing MP Michel Grall launched a debate along these lines. In his 2011 [report](#) on 'The end-of-life of military equipment', he emphasised the need to integrate the entire life cycle of an item of equipment 'both operationally and financially'. To put it plainly,

'optimised recording of this liability in the accounts must make it possible to monitor its development and, above all, to adapt the level of the provision in line with changes in the associated risks [...]. This effort at transparency will become [...] a control tool for Parliament'.

Parliament will then finally be able to properly measure the cost of military nuclear programmes paid for by future generations for everything relating to the dismantling of equipment (from a submarine's nuclear boiler room to its reprocessing, as well as the management of fissile material from nuclear warheads, etc.).

Finally, it should be remembered that nuclear disarmament is a legal obligation accepted by France as a State Party to the Nuclear Non-Proliferation Treaty (NPT) since August 1992. The cost of not taking action can only undermine what French diplomats call 'the cornerstone' of the non-proliferation regime.

For more information:

- Bruno Barrillot, [Audit atomique. Le coût de l'arsenal nucléaire français 1945-2010](#), Centre de documentation et de recherche sur la paix et les conflits, 1999.
- Jean-Marie Collin, '[Les cimetières saturés des réacteurs nucléaires](#)', *Alternatives Économiques* No 49, 2010/12.
- Jean-Marie Collin, '[Risque nucléaire militaire ou désarmement nucléaire?](#)', *Revue Défense Nationale* 2015/7 (No 782).
- Julien Malizard, '[Analyse économique du désarmement: une revue de littérature](#)', *Stratégique*, No 108, January 2015 (pp. 71-93).
- Luc Mampaey, [Dismantling nuclear weapons and buildings: a terrifying legacy for future generations](#), GRIP, 20 June 2016.
- Susan Willett, [Costs of Disarmament - Disarming the Costs: Nuclear Arms Control and Nuclear Rearmament](#), UNIDIR, 2003.

IV - THE SO-CALLED CONSENSUS ON NUCLEAR DETERRENCE

18th Lie:

In France, the nuclear deterrence strategy is based on the consensus of society, starting with the military.

'One factor [...] must be taken into account by the European countries that are members of the Alliance: the acceptance by the people (and their governments) of the need for nuclear deterrence to ensure their ultimate security. While this is not a particular problem in France, where there is a consensus on deterrence, it is not the case in all the countries of the Alliance.' Colonel Julien Fourneret, [Revue Défense Nationale](#), 2022.

Response:

For years, the French authorities have been constantly asserting that the country's nuclear deterrence policy is based on the consensus of society. The Ministry of the Armed Forces regularly conducts opinion polls, the results of which appear to be favourable to its policy, but these results are distorted by the biased nature of the questions asked.

For example, in its **external Barometer 'The French and Defence'** (e.g. [IFOP-DICoD survey](#) of May 2017), the question is:

'With which statement do you most agree?'

- 1) To ensure its defence, France needs the nuclear deterrent and conventional forces;*
- 2) France can defend itself with conventional forces only;*
- 3) France can defend itself using only its nuclear deterrent.'*

Option 1 was chosen by 69% of respondents, option 2 by 13% and option 3 by 8%. The question presupposes that nuclear weapons will ensure France's defence and guarantee deterrence, and therefore a defensive policy.

Other opinion polls and surveys have produced very different results:

1°) According to a [Comisis-OpinionWay poll in December 2016](#), 71% of French people (and 77% of 18 to 24-year olds) considered that the Treaty on the Prohibition of Nuclear Weapons (TPNW), which was being negotiated at the UN at the time, was favourable to world peace and security. At a time when France was preparing to vote against the treaty, 51% of French people thought that France should review its position.

2°) According to a **2018 IFOP-La Croix poll**, 67% of those polled believe that France should commit to the TPNW, which would oblige France to eliminate its nuclear weapons, and 56% are opposed to renewing and modernising them.

3°) The results of a **March 2022 Comisis-OpinionWay poll** for IDN show that only 28% of French people consider themselves to be 'very well' or 'well protected by French nuclear weapons' and 70% of them consider nuclear weapons to be a 'threat to world security'.

4°) In his **book [Repenser les choix nucléaires](#)** (*Rethinking Nuclear Choices*), researcher Benoît Pelopidas reports on surveys carried out in France which:

'produce stable results that are incompatible with the consensus thesis. They make it possible to distinguish several possible attitudes and highlight the fact that, rather than support, the policies pursued have above all led to a distancing of the population from policies linked to nuclear weapons'.

Moreover, **the Minister for the Armed Forces, Sébastien Lecornu, admitted** on 26 April 2023 at the National Assembly, in [comments](#) relating to the 2024-2030 military programming law (LPM), **that nuclear deterrence 'is no longer always consensual'.**

Famous military figures opposed to nuclear weapons include:

- American Admiral **William Daniel Leahy** (1875-1959), who [opposed](#) President Truman's use of the atomic bomb against Japan.
- French General **Germain Jousse** (1895-1988), author of *L'Armée nationale* in 1947, who [said](#), *' History shows that, in the end, deterrence, that is, armed peace, has never succeeded. '*
- American Admiral **Hyman Rickover** (1900-1986), promoter of nuclear propulsion for submarines, who in 1982 regretted the use of nuclear energy also for weapons, [declaring](#): *' It is important that we try to control these forces and eliminate them.'*
- French General **Jacques de Bollardière** (1907-1986), who protested against French nuclear testing in 1973 and launched the [Movement for a Non-Violent Alternative](#) (MAN).
- French General **Paul Stehlin** (1907-1975), Chief of Staff of the French Air Force (1960-1963), who [said](#): *'Would France use nuclear weapons to retaliate in the event of nuclear aggression? It would mean the total annihilation of France. What Head of State would be foolish enough to set off a device that would be a veritable suicide operation for our country?'*
- American General **George Lee Butler** (born 1939), former commander of the *Strategic Air Command*, who [described](#) nuclear weapons as *'fundamentally dangerous, extraordinarily expensive, militarily ineffective and morally indefensible'.*
- French General **Bernard Norlain** (born 1939), former Commander of the Combat Air Force, co-founder with Paul Quilès, former Minister of Defence, and Jean-Marie Collin, of the association ['Arrêtez la Bombe'](#), which became 'Initiatives pour le désarmement nucléaire' (IDN).
- British nuclear submarine commander **Robert Forsyth**, born in 1939, who [campaigned](#) against the renewal of the UK's Trident programme.
- US General **James Cartwright**, born 1949, former US Deputy Chief of Staff (2007-2011), who joined ['Global Zero'](#) and campaigned for massive disarmament of the nuclear powers and an agreement with Iran.

For more information:

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- Global Zero, [' About Us / Movement Leaders '](#), 2023.
- Étienne Godinot, ['Dates et figures de la résistance à l'arme nucléaire de 1942 à 1968'](#), Institut de recherche sur la résolution non-violente des conflits, 2023.
- IDN, [' Pour 70 % des Français, l'arme nucléaire met en péril la sécurité du monde! '](#), 23 May 2022.

- French Ministry of Defence, ‘ [External barometer “The French and Defence”](#) ’, May 2017.
- Benoît Pelopidas, [Repenser les choix nucléaires](#), Sciences Po Les Presses, 2022 (p. 226-247).

19th Lie:

From a moral point of view, the possession of nuclear weapons, which prevents war, is compatible with the main religions.

‘The great danger here would be to have purely philosophical and moral considerations, or purely political and strategic considerations. We could have a philosophical-religious debate, based on morality, with the unconditional aim of abolishing these weapons. We could also have a debate focused solely on strategic realities and the need to prepare for war in order to ensure peace... Nuclear weapons have so far protected us from the reality of totalitarianism’. Mgr Antoine de Romanet, Catholic chaplain to the French Armed Forces, [hearing](#) at the National Assembly, 18 January 2023.

Response:

It can be said that the main universal religions, including their ancient traditions, mythologies and sacred texts, formally condemn the possession and use of nuclear weapons. However, apart from the Catholic Church (which is very clearly opposed) and a few Protestant churches (Methodist Church, Church of England and Church of Scotland), they have no clear prescriptions, doctrines or positions against nuclear weapons, which only came into existence relatively recently. The foundations of these religions are based on legal and moral principles that regulate the use of violence, the conduct of hostilities and the protection of people in war. This is the case with the Islamic or Hindu laws of war, which reflect the universal laws of humanity and are comparable to the norms of contemporary international humanitarian law. It might be thought that the use of weapons of mass destruction such as nuclear weapons would be contrary to these principles or laws of humanity, even though none of these norms formally prohibits nuclear deterrence.

However, this incompatibility needs to be qualified in the light of different theological interpretations, national political contexts and interests, changes in the geopolitical and security environment, and the threat perceptions of States themselves. The proximity and reciprocal influence between certain religions and the interests and security of national political power have led some religions – or theologians – to come to terms with the possession and threat of use of nuclear weapons. Not to mention the doctrines of certain religions that support both the possession of nuclear weapons and the doctrine of nuclear deterrence, which they believe can be defended to *‘avoid greater devastation in conventional wars’*. Some (opposed) and others (favourable) seem to be determined by a cost-benefit calculation.

In the first category, we find the Catholic Church and certain Protestant churches (Christian nuclear pacifism) for which *‘the cost and risk of nuclear detonation have become too great in relation to the gain permitted by deterrence’*. In other countries with a predominantly (or state religion) Christian Orthodox (Russia), Jewish (Israel), Muslim (Pakistan) or Hindu (India) population, *‘the morality of deterrence remains strong’*.

- 1) The Catholic Church and the Holy See** have opposed the existence of nuclear weapons since 1945. The current Pope Francis and Vatican diplomacy have ushered in a new era of

opposition to nuclear weapons on moral, legal and diplomatic grounds. The Pope has repeatedly (2014, 2017, 2022) [affirmed](#) a firm and radical position: the very possession of nuclear weapons is '*immoral*' and their use or threat of use is not only immoral but '*a crime against Man and his dignity*' (speech in Hiroshima in 2019), or '*an affront to international humanitarian law*'. The Pope also rejected the '*doctrine of deterring attacks*', which only offers '*false security*'. He also stated that '*the manufacture, modernisation, maintenance and sale of ever more destructive weapons are a continual outrage that cries out to Heaven*', going on to say that '*true peace can only be a disarmed peace*'. At the United Nations in September 2022, the Holy See's representative once again [stressed](#) that nuclear disarmament was a '*moral and humanitarian imperative*', while denouncing the lack of progress towards this objective at the 10th Non-Proliferation Treaty (NPT) Review Conference in August 2022. This position was forcefully [reiterated](#) at the First Meeting of the States Parties to the Treaty on the Prohibition of Nuclear Weapons (TPNW) in Vienna in June 2022. The Holy See appeals '*to the conscience of humanity*' and to respect for disarmament agreements '*when the world seems to be at a crossroads*', denying that it is adopting an '*idealistic position*'. Pope John XXIII, in his 1963 encyclical *Pacem in Terris*, after the Cuban missile crisis, had already played a very important role by taking up the torch of strong opposition to nuclear weapons, nuclear testing and the risk of proliferation, and by advocating verifiable nuclear disarmament. His successors have adopted more accommodating positions towards nuclear states (including John Paul II), describing nuclear weapons as '*scientific weapons*' and accepting their existence if not their use.

- 2) Protestantism:** The basic position of Protestants is fairly similar to that of the Catholic Church and has evolved in a similar way. While the majority condemn the use of nuclear weapons and the doctrine of deterrence, other Protestants are less ambitious, supporting a gradual disarmament approach. The Protestant heritage of the Reformation had a definite influence on the birth and development of international humanitarian law and the International Committee of the Red Cross (ICRC). The advent of the nuclear age [led](#) Protestant churches in all their diversity and in various countries (Germany, United States, etc.) to '*reconsider the foundations of their ethics of war and gradually adapt them to the question of nuclear weapons*'. Some churches and theologians began by revisiting the concept of the '*just war*' and taking the view that nuclear deterrence could be legitimate if it did not involve the first use of nuclear weapons or the annihilation of the adversary. Others hold to the '*moral principle*' that '*massive bombardments of civilian populations can never be considered just*'. Today, several Churches have totally condemned deterrence as incompatible with their ethics. This is the case of the Methodist Church, which considers that this doctrine takes civilian populations hostage and calls for an immediate renunciation of the use or possession of nuclear weapons. The Baptists of the *American Baptist Churches* (ABC) are also [campaigning](#) for the elimination of nuclear weapons, which are considered immoral because they could render the Earth uninhabitable for present and future generations. Since 1994, the Presbyterian Church (USA) has been calling for the use of nuclear weapons to be recognised as a crime against humanity. The same is true of Episcopal Churches such as the Church of Scotland, which opposes the United Kingdom's deterrent policy, accusing the UK of developing its nuclear arsenal, setting a bad example of proliferation and pursuing an illegal policy in terms of IHL; these Churches emphasise the immorality of weapons described as '*fundamentally evil*'. Many American Protestant churches, however, remain very discreet on the question of eliminating nuclear weapons.

- 3) The Russian Orthodox Church:** It is the only Christian Church to recognise the value of and support for nuclear deterrence and to legitimise it. This position illustrates the closeness or even fusion between the Moscow Patriarchate and the interests of the Russian government. This is typical of the Orthodox Churches, which are traditionally national, combining political and religious power and the security of the State with that of the faithful. While the official position of the Moscow Patriarchate is to advocate a world without nuclear weapons and gradual disarmament when the conditions are right, this objective remains long-term or utopian for some. The Patriarchate's position is also based on traditional religious grounds: as long as war exists, we must be able to defend ourselves, including with nuclear weapons, which can be precise, and not 'annihilate divine creation', which would be a mortal sin. Especially since, [according to this Church](#), the doctrine of deterrence has made peace possible. To reject nuclear war would therefore be 'to reject war, and the Orthodox Church condemns absolute pacifism'!
- 4) Islam:** The compatibility of Islam and nuclear deterrence has recently been the subject of much comment and analysis. While religious references clearly prohibit the use of such weapons, political considerations or interpretations also influence or disrupt the debate. The fundamental principles and rules of Islamic law of war in terms of primary sources (fundamental laws) and secondary sources (a multitude of interpretations and case law) reflect the same principles of humanity and the requirements of humane treatment that limit what Muslim combatants can do and are close to those of international humanitarian law (IHL), especially in its dimension of fundamental principles regulating the means and methods of conducting hostilities. The use or threat of use of weapons of mass destruction would fundamentally contravene these fundamental [principles](#). This is because of '*the threat that such weapons pose to world peace, their brutality and cruelty, their opposition to the idea of human brotherhood promoted by Islam, their incompatibility with legitimate means of defence and the material waste represented by their manufacture and design*'. But political influences have qualified this theological interpretation. In addition, the fundamental law (the Koran) and the *hadiths* also refer to the principle of deterrence (preparing for an attack in order to dissuade it), which could authorise revenge. It is on this religious, moral/ethical basis that various theologians and political leaders from different Sunni and Shia Islamic traditions have come out in favour of banning nuclear weapons. One example is the [fatwa](#) issued by Iran's Supreme Leader of the Revolution, Ayatollah Ali Khamenei, in 2005, which bans the production, stockpiling and use of these weapons, describing them as a 'threat to humanity' and 'contrary to the teachings of Islam', as did Ayatollah Khomeini before him, who opposed the use of other weapons of mass destruction (chemical weapons). At the same time, other ayatollahs have adopted *fatwas* to the contrary. In addition, Sunni jihadist movements such as Al Qaeda have spoken of the religious obligation to acquire weapons of mass destruction to defend the Muslim faith. And even theologians at the influential Al-Azhar University in Cairo have [come out](#) in favour of nuclear deterrence, '*establishing a religious obligation for Muslim countries to create the capacity to defend themselves and to deter, including nuclear attacks, while condemning their first use*'. And to recall Abu-Bakr's injunction to fight with his opponent's weapon! Pakistan, the only nuclear-armed Muslim state, makes no reference to religious arguments in its choice or strategy.
- 5) Judaism:** Jewish communities throughout the world, including Israel, have an ambiguous relationship with nuclear weapons and nuclear deterrence. The political/geopolitical dimension influences the interpretation of the purely moral and religious dimension. The fact that Israel is an endowed (unrecognised) state has a considerable influence on their position

on the morality of these weapons and the threat of their use, even beyond the different readings of the fundamental texts of the Jewish faith and the Jewish interpretative tradition, which is most often recontextualised. In Israel, a certain majority seems to fully support the possession, use or threat of use of this weapon of mass destruction and justifies it on moral and even religious grounds (disarmament would be 'immoral'). Others are more nuanced (in favour, for example, of pre-emptive strikes against Iran) and others are totally [opposed](#), in the very name of the principle of humanity that is the essence of this religion. In the Jewish communities of the diaspora, positions are generally in line with the law of the 'host' country and are often committed to disarmament and peace.

- 6) Buddhism:** This is associated with the total rejection of violence, with the non-violence (*ahimsâ*) of the Buddha as an absolute rule, and with pacifism, the value of life, justice, harmony and the interdependence of beings and actions. At the same time, the Dalai Lama recognises the sovereign's legitimate right to use violence to protect society from aggression, to the point where some theologians believe that the notion of deterrence (albeit non-nuclear) is not contrary to Buddhist ethics. The [Dalai Lama](#) navigates this crest, favouring the progressive banning of nuclear weapons, the greatest danger to humanity, as a prerequisite for global disarmament, synonymous with peace, while remaining nuanced and open to exceptions, in the name of the values of compassion, interdependence and universal love. While many communities are committed to pacifism and nuclear disarmament, many others remain more passive on the subject.
- 7) Hinduism:** In contrast to the pacifism - and moral considerations - of Gandhi (and Nehru) tinged with ascetic Hinduism and Jainism, the political Hinduism of the ruling Bharatiya Janata Party (BJP), linking Hindu nationalism, national interest, religious interest, and Hinduism has helped to justify and support India's access to nuclear weapons and its policy of nuclear deterrence, and to promote its desire for power on religious grounds and in the name of a 'just cause'. It would be difficult to assert the compatibility of Hinduism with the possession and use of nuclear weapons in the light of the fundamental principles of the laws of humanity and the laws of war specific to Hinduism (e.g. proportionality, just war). But Hinduism (founding texts, theologians, mythological accounts, etc.) also gives an important place to violence and has also valued the need to adapt to circumstances as a last resort '*if it is to undo an injustice*', to '*contain the enemy*', to '*minimise the risks of war with an appropriate arsenal*'. It did not, therefore, condemn the use of '*legitimate and clean warfare*', or warrior practices (those of the warrior caste), which must comply with Hindu law of war ([Manu's Laws](#) on the conduct of hostilities and the protection of persons).

For more information:

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- Emmanuelle Maitre, '[Is nuclear deterrence morally defensible: religious perspectives](#)', Foundation for Strategic Research, July 2016.
- Josei Toda, '[Declaration calling for the abolition of nuclear weapons](#)', 1957.

- Vatican News, '[The Pope's words on nuclear weapons](#)', 8 August 2020.
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20th Lie:

The possession and/or use of nuclear weapons is compatible with action to combat climate change and protect the environment.

'Nuclear weapons are not the only threat to humanity. [...] To meet these challenges, humanity needs global cooperation to align policies, pool resources, maintain essential global supply chains, build useful technologies and prevent the development of harmful technologies. Nuclear deterrence, combined with strong international organisations, laws, norms, alliances and economic dependencies, contributes to this cooperation.' Zachary Kallenborn, [Bulletin of the Atomic Scientists](#), 10 January 2024.

Response:

A blatant untruth that is easy to debunk, on both counts:

- Nuclear weapons possession: economic impact;
- Use of nuclear weapons: environmental and climate impact, with economic spin-offs.

1. The possession of nuclear weapons means maintenance, or even modernisation; in all cases, major expenditures, inevitably taken from other areas.

The new 2024-2030 military programming law (LPM) will have a huge impact on France's economic and social life. It provides for €413 billion in military spending over seven years, a 40% increase on the previous law, and at least €53.69 billion for nuclear weapons, or almost €8 billion a year. Of course, this public money is being used to the detriment of other areas of expenditure, especially innovative spending that is not yet a given and that needs to be accepted. But the fight against the climate crisis and to protect the environment is exactly that: we need to change scale on both fronts, because the planet demands it. So what else is being done? A strong budgetary commitment is needed. However, according to a recent [report](#) by the Transnational Institute, rich nations spend 30 times more on their armies than on tackling climate change.

2. The use of a nuclear weapon, whatever its power, will lead to immediate mass destruction and death, but will also have formidable medium- and long-term effects on health, the environment and the climate.

The consequences for health and the environment have been documented by monitoring the populations affected by the Hiroshima and Nagasaki bombs (1,000 times less powerful than most of the nuclear bombs ready for use today), but also by the impact on the regions where the nuclear tests took place, in particular, for France, in the Algerian Sahara and in French Polynesia.

The impact on the climate is the subject of scientific studies that all converge on the certainty that a nuclear conflict, even one confined to a restricted region of the globe, would seriously

upset the planet's climate: this is the 'nuclear winter' [predicted](#) by scientists as early as the 1980s. They established that the smoke from fires ignited by nuclear explosions and the clouds of dust raised would be so dense that they would block out the sun, making the Earth cold, dark and dry, killing plants and preventing agriculture for at least a year over a vast area, causing worldwide famine and 2 to 5 billion victims. More recent climate models predict that the effects would persist for more than a decade.

In conclusion: linking nuclear weapons, climate and the environment is not demagogy, it is a reality, and a necessity. It is not sufficiently taken into account by climate defenders. And yet it is one of the most immediate dangers, in these tense times that are generating a new arms race, and so conducive to accidents or acts of human folly. Our era is dominated by cross-disciplinary problems and risks, and cross-disciplinary responses are essential.

For more information:

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- Ira Helfand, '[Nuclear famine: 2 billion people at risk](#)', IPPNW, November 2013.
- International Committee of the Red Cross (ICRC), '[Climate Effects of a Nuclear War and Implications for Global Food Production](#)', Information Note No 2, 2013.
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- Paul Quilès and Bernard Norlain, '[Armes nucléaires et dérèglement climatique](#)', *La Croix*, 2 September 2019.
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- Transnational Institute, '[Climate Collateral: How Military Spending Accelerates Climate Breakdown](#)', 14 November 2022.
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