

NEWS AUGUST 2019

TEACHING RESOURCE: LOWY INSTITUTE

DR. SUSAN BLISS

CHINA'S SPACE AMBITIONS ARE TAKING OFF.

STR/AFP/Getty <https://www.bloomberg.com/opinion/articles/2019-01-05/china-s-lunar-rover-isn-t-a-victory-in-the-space-race>

CURRICULUM

AETA News August 2019 covers FIVE topics across curriculums

TOPICS	SUBJECTS GENERAL CAPABILITIES
Asia: Fast race into space-China, India, Japan	Science, ICT, Technology, History, Critical and Creative Thinking, Difference and Diversity
China: Expansion in Antarctica	Science, Geography, Legal Studies, Technology, Sustainability, Ethical Understanding
Japan: Resumption of commercial whaling	Science, Geography, Legal Studies, Ethical Understanding, Sustainability
Syria: Behind the veil-women in Jihad after the caliphate	Society and Culture, Religious Studies, History, Human Rights, Intercultural Understanding, Legal Studies, Personal and Social Capability, Ethical Understanding,
India: Globalisation-vulnerable women working in the Nokia factory	Economics, Business Studies, Gender, Work and Enterprise, Legal Studies, Personal and Social Capability

TEACHING RESOURCES

LOWY INSTITUTE

<https://www.lowyinstitute.org/>

The **Lowy Institute** founded in April 2003 by Frank Lowy, is an independent think tank with a global outlook. The Institute provides an abundant of contemporary **teaching** and **learning resources** on **Asia** for subjects such as History, Geography, Economics, Society and Culture, Civics and Citizenship/Politics, Legal Studies, Aid and Development, Journalism, Sport, Science and the Arts.

The Lowy Institute presents the **latest topics** and hosts distinguished speakers from around the world, enabling students, teachers and university lecturers to obtain commentary from experts on **current events** as well as **original relevant research**, covering International/Australian political, strategic, technological, environmental, social and economic issues.

The Lowy Institute's resources incorporate **countries** in the Asia Region such as: China (economy, military, trade relations, South China Sea and its relations with Australia); India; Japan; Vietnam; Indonesia; South Korea; North Korea; Myanmar, and the Middle East.

Its digital magazine, *The Interpreter*, publishes **interactive research** such as the **Asia Power Index** in the AETA July 2019 news, **Global Diplomacy Index**, and the **Pacific Aid Map**.

LATEST FROM theinterpreter

02.08.2019

The curious case of
Hamza bin Laden's
death

01.08.2019

Economic diplomacy:
Guns versus butter, trade
wars, and feeding PNG

01.08.2019

China's aid: lend your
money, (don't) lose your
friend

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LOWY INSTITUTE

SPACE RACE

ASIA GROWS BIGGER AND BOLDER

<https://www.lowyinstitute.org/the-interpreter/space-race-asia-grows-bigger-and-bolder>

A rocket was fired by **China** in 1232, but the country did not send an astronaut into space until 2003. However in 2019 China is catching up with one the fastest-growing space programs in the world. China is not alone in the space race, as **India** boasts its Mars Orbiter Mission (MOM) referred to as the "Pride of Asia" by China, and rockets fly from **Japan**, **North Korea** and **South Korea**.

Their space organisations and achievements include:

- **China:** National Space Administration (CNSA). Anti-satellite weapons tests and manned flights.
- **Japan:** Institute of Space and Astronautical Science (ISAS) and National Space Development Agency (NASDA). Kaguya lunar mission and Kibo module for the International Space Station (ISS).
- **India:** Space Research Organisation (ISRO). Chandrayaan 2, July 2019 second attempt to launch moon mission.
- **South Korea:** Aerospace Research Institute (KARI). Astronaut's visit the ISS.
- **North Korea:** National Aerospace Development Administration (NADA). Plans to launch more satellites before 2020.



<https://www.popsoci.com/chinas-race-to-space-domination/>

ASIA'S SPACE RACE

Space programmes in the Asian and Indo-Pacific region are dominated by three established spacefaring powers — China, India and Japan — and several emerging players, including Australia, Bangladesh, Indonesia, Iran, Israel, Malaysia, North Korea, Pakistan, Singapore, South Korea, the United Arab Emirates, and Vietnam.

Given the contentious nature of major power relationships in Asia, it appears unlikely that space will emerge as a platform for cooperation among all the major Asian spacefaring powers. Instead, it is possible that the divide will only get deeper because of deep-rooted disagreements. While all major Asian powers acknowledge that space should be used only for peaceful purposes, there is a growing gap between the rhetoric and reality.

<https://www.orfonline.org/research/asia-in-space-cooperation-or-conflict-44890/>

China's long-term plans for outer space have raised concerns.

China's human space activities have remained an integral part of its goal to construct and operate a space station in low earth orbit by 2024. The decision by the Indian government to have a manned mission by 2022 is a partial reflection of the competition in Asia, especially with China.

While the participation of the private sector in space is still largely a Western phenomenon, there are many private space firms developing in China, India and Japan.

The international power struggle has an impact on the governance of this global commons-outer space.

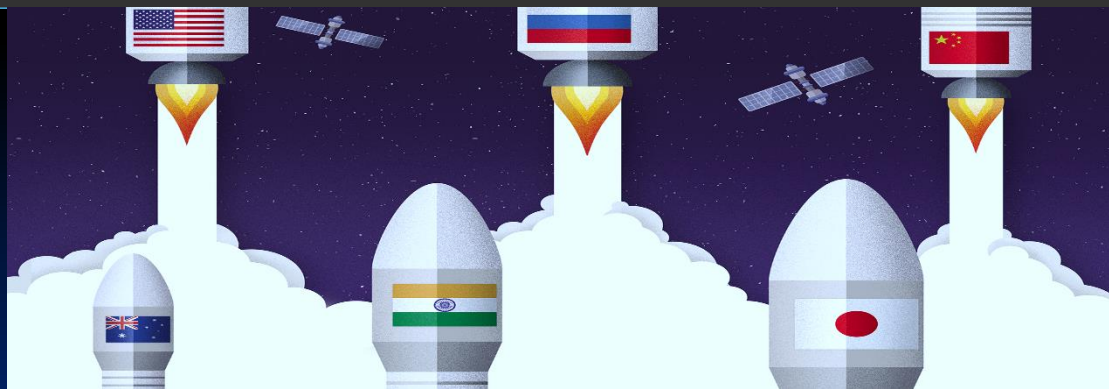
<https://www.orfonline.org/research/asia-in-space-cooperation-or-conflict-44890/>

Asian countries are exploring space for a variety of **reasons** such as improved social and economic development, superior telecommunications and upgraded national security. These countries have **divergent space goals** with a tendency to focus on **national** solutions and self-reliance rather than regional cooperation

<https://www.bookdepository.com/Asias-Space-Race-James-Clay-Moltz/9780231156882>

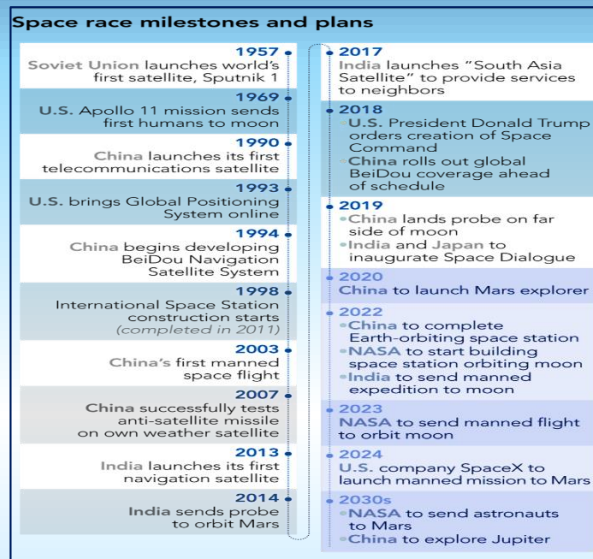
<https://www.eastasiaforum.org/2018/05/18/a-new-space-race-in-asia/>

ASIA'S SPACE RACE

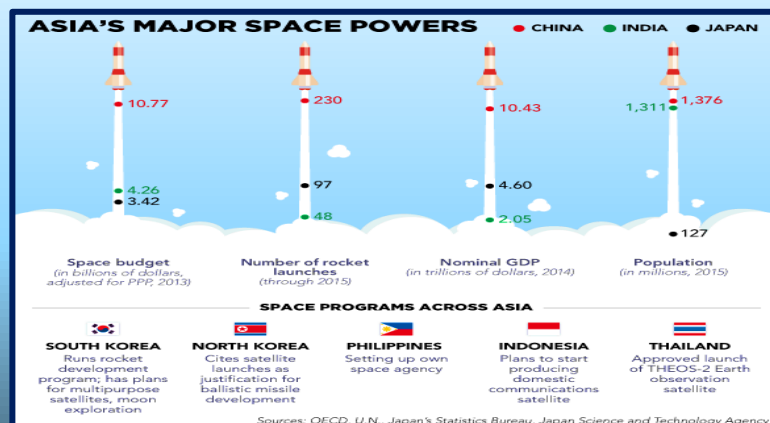


A Chinese rover on the Moon. An Indian space probe orbiting Mars. A Japanese commander at the International Space Station. Future Chinese plans for robot missions to Mars and Indian plans for Venus. Most of the first wave of spaceflight was government-sponsored. But a new trend is evolving in Asia. Space flight is now for sale.

<https://www.lowyinstitute.org/the-interpreter/asia-space-sale>; <https://www.thedailybeast.com/its-on-asias-new-space-race>;
<https://asia.nikkei.com/Spotlight/Asia-Insight/India-and-Japan-awaken-to-risks-of-superpower-space-race>



<https://asia.nikkei.com/Spotlight/Asia-Insight/India-and-Japan-awaken-to-risks-of-superpower-space-race>



<https://asia.nikkei.com/Business/Science/India-China-rivalry-reaches-into-orbit-and-beyond2>

FROM MOON WALK TO SPACE WARS

Adapted: <https://www.asiatimes.com/2019/07/opinion/from-moon-walk-to-space-wars/>
<https://www.aspistrategist.org.au/from-moon-walk-to-space-wars/>

In July 2019, fifty years after astronauts first walked on the moon, space wars have gone from Hollywood fantasy to looming threat. Countries not content with possessing nuclear weapons to wipe out life on Earth, they are rapidly militarising space.

In 2014 India became the first Asian country to reach Mars and in January 2019 China became the first country to land an unmanned robotic spacecraft on the far side of the moon. Additionally, Japan and South Korea are pursuing lunar missions.

MAIN ISSUES

INTERNATIONAL NORMS AND LAWS MUST BE STRENGTHENED

The 1967 Outer Space Treaty bans space-based weapons of mass destruction, but not other types of weapons or Anti-Satellite Weapon (ASAT) tests.

A new treaty is required to outlaw *all* use of force in space, with clearly delineated – and reliably enforced – consequences for violations.

THREATS TO COUNTRIES FROM SPACE

India used a ballistic-missile interceptor to destroy one of its own satellites orbiting at nearly 30,000km/h, making it the fourth power (after US, Russia and China) to **shoot down objects in space**. Indians are “concerned about threats to their nation from space,” and “feel they require a capability to defend themselves in space”.

CHINA CHALLENGING US FOR GLOBAL LEADERSHIP IN SPACE

Trump directed the US Department of Defence to establish the **Space Force** to undertake space-related missions to protect its “margin of dominance” in space.

However the margin is “quickly shrinking,” as newer powers such as China become adept at **militarising commercial space technologies**

VULNERABILITY OF SPACE ASSETS

The existing **space infrastructure** comprises at least **1,880 satellites** owned or operated by **45 countries**.

These assets support a wide range of activities, including telecommunications, navigation, financial-transaction authentication, connectivity, remote sensing, and weather forecasting. From a security perspective, they facilitate intelligence, surveillance, arms-control verification, and missile guidance.

COUNTRIES DEVELOPING MILITARY SPACE CAPABILITIES

Shoot down incoming ballistic missiles (**defensive**) and/or

Use **anti-satellite (ASAT)** weapons technologies that target space assets (**offensive**).

China has “experimental” satellites that can potentially aid military operations. According to the US the purpose is to hold their space assets hostage in the event of a conflict with China.

It is July 20, 2044: 75

*years to the Earth-day since Apollo 11 put moonboots on the ground. But that was way up, near the equator. Today, we're setting out at high lunar latitude, close to the pole. Where the cold and dark lies just steps away from the hot and bright. This is where the action is: A handful of companies and a few nations variously competing and cooperating on a mostly friendly quest, mostly for ancient ice. It's not for making margaritas. It's for rocket propellant and life support; what market futures analysts call **Cosmic Consumable Commodities**: "Triple C's."* <https://www.space.com/future-moon-2044-apollo-anniversary-op-ed.html>

Who Gets to Decide What Our Space Settlements Look Like?

How Will We Govern Ourselves in Space?

Background: <https://slate.com/technology/2019/07/space-settlement-decolonizing-forum.html>

ACTIVITIES

- **Compare national space programs of China, Japan and India.**
https://en.wikipedia.org/wiki/Comparison_of_Asian_national_space_programs
- **List 10 countries with the most advanced space technology. Highlight the Asian examples.**
<https://www.worldblaze.in/countries-with-most-advanced-space-technology/>
- **Which countries possess the best space agencies in the world? List Asian examples.**
<https://www.forbes.com/sites/quora/2017/05/22/which-space-agencies-are-considered-the-best-in-the-world/#33c456985245>
- **Explain the function of The Asia-Pacific Regional Space Agency Forum (APRSAF)**
<https://www.aprsaf.org/about/>
- **Asia in space: Cooperation or conflict? Describe the two diverse views.**
<https://www.orfonline.org/research/asia-in-space-cooperation-or-conflict-44890/>
- **In groups, list the space expenditures of Southeast Asian Countries, their organisations and first communications satellite launches-Vietnam, Thailand, Malaysia, Singapore, Indonesia, Philippines and Laos** <https://spacewatch.global/2019/03/spacewatchgl-feature-southeast-asian-space-programmes-capabilities-challenges-and-collaborations/>
- **Space is no longer seen from a peaceful perspective alone as the national security aspects of outer space utilisation are gaining dominance, particularly in the Asian context. Can the space race be stemmed? Explain your answer**
<https://www.orfonline.org/research/the-new-space-race-in-asia/>
- **Describe the *Case for Outer Space Cooperation in South Asia***
<https://thediplomat.com/2019/01/the-case-for-outer-space-cooperation-in-south-asia/>

OTHER RESOURCES:

- **China's space program soars** <https://www.asiatimes.com/2019/03/opinion/chinas-space-program-soars/>
- **China's race to space domination** <https://www.popsoci.com/chinas-race-to-space-domination/>
- **India and Japan awaken to risks of superpower space race. Fears for satellite security grow as US and China take confrontation into orbit** <https://asia.nikkei.com/Spotlight/Asia-Insight/India-and-Japan-awaken-to-risks-of-superpower-space-race>
- **China has a head start in the new space race. The "Age of Apollo" is over and the Change era has dawned.** <https://thediplomat.com/2019/05/china-has-a-head-start-in-the-new-space-race/>
- **China's Get-Rich Space Program. Unlike other nations, China's space ambitions are centred on wealth creation through a space-based economy.**
<https://thediplomat.com/2019/02/chinas-get-rich-space-program/>
- **China and the US want to put humans back on the moon**
<https://www.bloomberg.com/graphics/2019-us-vs-china-moon-race/>
- **US-China space plans: How much pressure is NASA under?**
<https://www.abc.net.au/radionational/programs/breakfast/us-china-space-plans-how-much-pressure-is-nasa-under/11324124>
- **China to mine moon, asteroids and races to be "1 space power by 2045"**
<https://www.washingtonexaminer.com/washington-secrets/china-to-mine-moon-asteroids-races-to-be-1-space-power-by-2045>
- **India and Japan awaken to risks of superpower space race. Fears for satellite security grow as US and China take confrontation into orbit** <https://asia.nikkei.com/Spotlight/Asia-Insight/India-and-Japan-awaken-to-risks-of-superpower-space-race>



<https://www.teacherspayteachers.com/Product/Space-Race-Timeline-and-Newspaper-Project-Lesson-674770>

SPACE RACE TIMELINE NEWSPAPERS

Directions:
You have been assigned one of the key events in what is known as the "Space Race". During the Cold War, America and the Soviet Union had a fierce competition to beat each other into Outer Space.

You will need to read your assigned article and create a newspaper front page for this event.

You must include:

1. A name of your newspaper.
2. The date of your event.
3. An appropriate headline.
4. A picture of your event.
5. A caption for your picture.
6. An article describing the significance of your event.

You will then present your newspaper to the class and each event will be added to a timeline we will create on the Space Race.

© Students of History - <http://www.teacherspayteachers.com/Store/Students-Of-History>

<http://studenthistory.blogspot.com/2013/04/space-race-newspaper-and-timeline.html?m=1>

ANTARCTICA

CHINA'S EXPANDING INFLUENCE

In 1985, China became a full Consultative Party (CP) to the Antarctic Treaty (AT). That year it established its first base. Today the evolution of China's physical presence in Antarctica is perceived by some countries as an 'Asian threat'.

China:

- Is investing heavily in infrastructure in Antarctica with research stations, airfields and field camps.
- Is currently building its **fifth Antarctic research station** at Inexpressible Island on the Ross Sea ice shelf.
- Wants to establish an **Antarctic Specially Managed Area (ASMA)** around Chinese Kunlun Station in the area known as **Dome Argus (Dome A)**, the highest place on the Antarctic ice sheet.
- declared that the government will invest in **polar research** through the Xue Long Tan Ji Project in its 13th Five Year Plan (2016-2020)

<https://www.lowyinstitute.org/the-interpreter/heights-china-s-ambition-antarctica>

SCIENTIFIC RESEARCH AND EXPLORATION

In 2017, China's first White Paper on its activities in Antarctica aims to **expand scientific research and exploration of the mineral-rich continent**. China has no immediate plans to mine or extract natural resources that could be exposed as the ice cap shrinks, according to officials from the State Oceanic Administration (SOA).

<https://www.straitstimes.com/asia/east-asia/china-to-expand-its-presence-in-antarctica>

FEARS ANTARCTICA IS NEW FRONTIER FOR CHINA'S MILITARY

There are fears that while US, Russia and China are conducting legitimate scientific activity, their Antarctic ground stations will be used to control offensive weapons systems and relay intelligence signals.

Activity on Antarctica is governed by the Antarctic Treaty System, which bans militarisation but permits the use of military personnel or equipment for peaceful purposes.

AUSTRALIAN LINKS

China has four Antarctic stations:

- Great Wall and Zhongshan, set up in the late 1980s
- Kunlun in 2009
- Taishan in 2014

Three are located in Australian territory.

<https://www.theaustralian.com.au/nation/foreign-affairs/fears-antarctic-is-the-new-frontier-for-chinas-military/news-story/2edba5f56a0cd1f4b849329c1829f393>

CHINA IN ANTARCTICA

<https://www.news.com.au/technology/innovation/military/as-australia-looks-north-chinas-presence-in-the-antarctic-continues-to-grow/news-story/d93aa030c6846e5bfe98f6fdc12f93c9>

*The Australian Antarctic Acceptance Act 1933 proclaimed the **Australian Antarctic Treaty (AAT)** and gave the country “sovereignty” of around 42% of land area.. In 1959, twelve countries including Australia signed the **Antarctic Treaty System (AT)**. It came into force in 1961. The treaty was a diplomatic expression of operational and scientific co-operation.*

Currently the AT has 53 member states, from which 29 countries have consultative status, such as China. This means they are able to conduct "substantial research activity" on Antarctica.

*Antarctica is governed as an ‘**open access commons**’ where any state/country with scientific capabilities can establish a presence/base.*

WHY IS CHINA INTERESTED IN ANTARCTICA?

Adam Lockyer said there are several reasons for China’s interest in the region:

- **Global influence and domination**-China, is increasing its presence everywhere-South America, Africa, other Asian countries and South Pacific (South China Sea).
- **Natural resources**-could prove hugely lucrative with large mineral deposits
- **Scientific purposes.**
- **Military purposes**

China wants to become a “**great polar power.**” With huge investments in the Arctic **Polar Silk Route**, as well as four research stations and an airport in Antarctica, China has the presence and capabilities to assert a claim in the southern polar region in the future.

WHAT IS THE NEW SPACE ARMS RACE?

Anne-Marie Brady, a specialist in Chinese politics, has warned a **new space-based arms race** is under way in Antarctica between US, Russia and China. “The **installation of satellite earth stations** by US, Russia and China is a game changer in terms of the military importance of the continent.”

“The US, Russia, and China’s use of their Antarctic ground stations to control **offensive weapons systems and the relay of signals intelligence has the potential to shift the strategic balance that has maintained peace in the Asia-Pacific for nearly 70 years.**” If **China and Russia** are denied access to **US GPS**, China could employ **BeiDou** and **Russia GLONASS**, to transport cruise and ballistic missiles to different areas around the world. Aimed to avoid dependency and increase security, China and Russia are currently building their own network of navigation satellites.

WHAT IS THE FUTURE OF ANTARCTICA?

As China continues to increase its presence in the region, the big question will come up in **2048** when the Antarctic Treaty (AT) is up for renegotiation.

Chinese diplomacy has shown to be collaborative and cooperative. However, many countries fear the rise of the Chinese dragon and its insatiable appetite for resources and global power, focusing on Antarctica.

<https://www.news.com.au/technology/innovation/military/as-australia-looks-north-chinas-presence-in-the-antarctic-continues-to-grow/news-story/d93aa030c6846e5bfe98f6fdc12f93c9>

<https://www.bbc.com/news/magazine-27910375>

CHINA IN ANTARCTICA

Unlike Australia, one of the original signatories of the Antarctic Treaty, China is still a relatively new player in the region. In January 2018, a government white paper surfaced detailing plans to build a “polar silk road”, supporting Beijing’s ambitions to extend its global power into the South Pole.

<https://www.airport-technology.com/features/chinas-airport-in-antarctica/>



<https://www.theaustralian.com.au/nation/foreign-affairs/fears-antarctic-is-the-new-frontier-for-chinas-military/news-story/2edba5f56a0cd1f4b849329c1829f393>

Chinese research stations in Antarctica

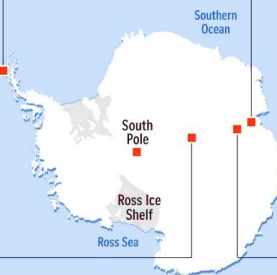


Great Wall
 • Built in 1985
 • Capacity: Up to 80 people during summer



Kunlun
 • Built in 2009 • Capacity: 25

Chinese scientists have picked a site for the fifth station, which will be near the Ross Sea. Construction will begin as early as next year. The US has five research stations in Antarctica and Russia has eight.



Zhongshan
 • Built in 1989 • Capacity: 60



Taishan
 • Built in 2014 • Capacity: 20

Source: AFP PHOTOS: XINHUA STRAITS TIMES GRAPHICS

<https://www.straitstimes.com/asia/east-asia/china-to-expand-its-presence-in-antarctica>

ACTIVITIES

- List the Chinese stations located in the Australian Antarctic Territory (AAT)? What has been the Australian response?
- Should Australia be cautious? If so, why?
- Discuss China's Zhongshan Station big role in exploring Antarctica
http://www.xinhuanet.com/english/2019-02/27/c_137852680.htm

CHINESE TRANSPORT IN ANTARCTICA

Transport in Antarctica has been transformed from foot explorers to advanced technologies enabling faster movements of people and goods by air, water and land. Due to the fragility of the Antarctic environment, **sustainable transport technologies** are used to reduce the ecological footprint. Tourists and scientists depend on Antarctic transport. From 2009 to 2010 over 37,000 tourists visited Antarctica. Chinese tourists exploded from about 100 in (2008) to 4,000 (2016). Antarctica has 20 airports without public-access or landing facilities. At present China is building a **permanent airfield (year-round runway)** in Antarctica near Zhongshan Station. Chinese analysts say the permanent airport will support scientists, emergency situations, and enhance airspace management in the Antarctic.



<https://myrepublica.nagariknetwork.com/news/infographic-china-builds-permanent-airfield-in-antarctic/>

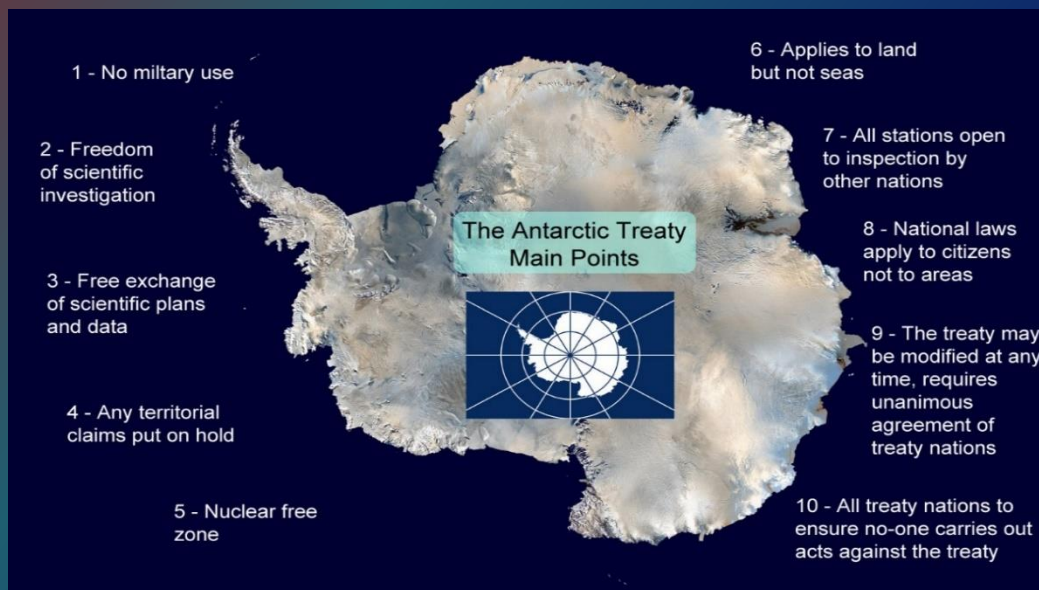
ACTIVITIES

- Chinese wanderlust for Antarctica grows as South Pole travel gets cheaper and easier. Explain the impact of the new airport on tourism, and its effect on the environment.
- List the regulations on tourists visiting Antarctica.
- Explain the problems of constructing an airport in fragile polar environments.
<https://economictimes.indiatimes.com/news/international/business/china-to-build-first-permanent-airport-at-south-pole/articleshow/66427652.cms>
- Tourism, mining, fishing and bioprospecting could threaten the sustainability of Antarctica. Present an electronic poster discussing their impacts on the environment and suggest strategies for preservation/conservation.
- Antarctica is sometimes viewed for military space capabilities, given that many satellites cross over it. Investigate the number of satellites passing over Antarctica and their multiple functions.
- China may strain the Antarctic Treaty to defend the greater 'utilisation' of Antarctica's resources and capabilities. Express your thoughts on this statement.

ACTIVITIES

- Take a virtual trip to Antarctica
https://www.educationworld.com/a_lesson/lesson/lesson042.shtml
- Antarctica Classroom Activities
<https://www.pinterest.com.au/michellepotter2/antarctica-classroom-activities/>
- Antarctica Lesson Plan Suggestions
https://www.coolantarctica.com/schools/lesson_suggestions.php
- The Polar Regions: Antarctic Lessons
<http://ku-prism.org/resources/polar/antlessions.html>
- View the slides on the Antarctic Treaty. In groups explain one of the main points in the Antarctic Treaty.

<https://www.coolantarctica.com/qr/antarctic-treaty/antarctic-treaty-pics-captions.php>



- The pressures to exploit Antarctica's land and ocean natural resources is likely to increase in the future. Should the **Antarctic Treaty** be upheld in its current state? Provide reasons for your answer.
- Imagine that the **Antarctic Treaty** has been modified to include development such as: the building of a commercial airport; tourist hotels, shops and restaurants; overfishing krill; mining quarry; and oil rigs. Using ICT draw Antarctica illustrating these modifications
- List the countries with **Territorial Claims** in Antarctica.
 - Territorial claims on hold <https://www.coolantarctica.com/qr/antarctic-treaty/antarctic-treaty-pics-captions.php>
 - ESRI Territorial Claims of the Antarctic
<https://www.arcgis.com/apps/MapJournal/index.html?appid=2b1fd17f462047c087e9ce27152b2379>
- Explain why do so many countries want a piece of Antarctica?
<https://www.bbc.com/news/magazine-27910375>. The fight to own Antarctica
<https://www.ft.com/content/2fab8e58-59b4-11e8-b8b2-d6ceb45fa9d0>
- Comment on the following quotes:
 - *Out of sight but not out of mind.*
 - *We all live in this Earth, we are a whole family in this Earth, so we all have a responsibility to protect it.*
 - *Cold war chill settles over Antarctica*

ACTIVITIES

- Refer to **satellite maps** and investigate the **recent growth** of China's bases in Antarctica. Where? Why? How? <https://www.abc.net.au/news/2019-03-30/china-in-antarctica-inspection-regime/10858486>.
- Discuss the **rise of China in Antarctica** and the **growing global concerns** over its expansion. <https://www.internationalaffairs.org.au/australianoutlook/defining-rise-china-antarctica/>
- Examine **China's views on the future of Antarctica**. Beijing rules out mining but tourism and fishing could be an environmental issue. https://chinadialogueocean.net/502-china-and-the-future-of-antarctica/?gclid=EAIaIQobChMI_e-p0Pq_4wIVjYBwCh2FMA8XEAAAYASAAEgJY_a_D_BwE
- What are **China's intentions in Antarctica**? <https://thediplomat.com/2019/06/what-are-chinas-intentions-in-antarctica/>;
- Review **China's activities and commitments under the Antarctic Treaty**. <https://www.aspirstrategist.org.au/whats-china-up-to-in-antarctica/>
- What does **China's Antarctic behaviour** tell us about the future of space? <https://thediplomat.com/2019/01/what-chinas-antarctic-behavior-tells-us-about-the-future-of-space/>
- China begins building first **permanent airfield** in Antarctica. What does this mean for tourism, scientific research, mining and development? <https://www.scmp.com/news/china/diplomacy/article/2170735/china-begin-building-first-permanent-airfield-antarctica>
- Who will be crowned the **Polar Superpower**? https://www.faiobserver.com/region/asia_pacific/antarctica-arctic-arms-race-polar-superpower-russia-china-news-10191/
- China's expedition team installs new **meteorological station** on Antarctic ice sheet. What are the benefits to the world? http://www.xinhuanet.com/english/2019-02/08/c_137807360.htm
- China's **polar drilling equipment** obtains Antarctic subglacial bedrock core sample. Why is this important globally? http://www.xinhuanet.com/english/2019-02/15/c_137824049.htm
- Vehicles of **China's 35th Antarctic expedition** on their way to Zhongshan station. What type of vehicles are used? Are the vehicles sustainable? http://www.xinhuanet.com/english/2019-02/06/c_137803133.htm

ICT

- China and Antarctica: Hot ambitions in an icy climate <https://pdfs.semanticscholar.org/f71a/81d8fd045e20ebb6a15ae6ebf2ff38410471.pdf>
- China and the future of Antarctica https://www.chinadialogue.net/blog/9858-China-and-the-future-of-Antarctica/en?gclid=EAIaIQobChMI5p60mv_W4wIVz4RwCh0CgtKEAAAYASAAEgLKPPD_BwE

PERSPECTIVES:

Head of **Australia's Antarctic mission**, Kim Ellis, brushed aside warnings from security experts that Australia is letting Chinese expansionism in Antarctic go unchecked, declaring the concerns "xenophobic" and unfounded. What are the opposing views from security experts? <https://www.theaustralian.com.au/nation/politics/antarctic-chief-ices-unfounded-china-concerns/news-story/e4a0424c3c74a36d0d92f6815dff6a2e>

Science has long served as a bridge builder in Antarctica, but how long can it sustain this role? It is generally asserted that the capacity of science to serve as a form of "soft power" diplomacy is sound and that sovereignty can best be sustained by deploying a continuous and substantial scientific program.

*But, although Antarctica is considered "a reserve for peace and science" under International governance, the robustness of the Antarctic Treaty too is often discussed. Contemporary media continues to **illustrate concerns over Australia's claim in Antarctica**. <https://theconversation.com/as-china-flexes-its-muscles-in-antarctica-science-is-the-best-diplomatic-tool-on-the-frozen-continent-86059>*

JAPAN BACK HUNTING WHALES



A minke whale is unloaded at Kushi Port on the first day of the commercial whale hunt, 1 July 2019, in Kushiro, Hokkaido, Japan (Photo: The Asahi Shimbun via Getty)
<http://www.lowyinterpreter.com.au/the-interpreter/japan-again-hunting-whales-what-can-be-done>

1 JULY 2019, JAPAN BACK HUNTING WHALES

<http://www.lowyinterpreter.com.au/the-interpreter/japan-again-hunting-whales-what-can-be-done>

The 1970s saw the beginning of the global anti-whaling movement.

*In 1982 the **International Whaling Commission (IWC)** adopted a moratorium on commercial whaling, but permits Aboriginal, subsistence and special permit whaling, as well as whaling for scientific purposes.*

*Under Article 65 of the **1982 United Nations Convention on the Law of the Sea (UNCLOS)** countries have an obligation to “cooperate with a view to the conservation” of whales, including working with the **International Whaling Commission (IWC)** for their conservation, management and study.*

*On **26 December 2018**, Japan announced it was withdrawing its membership from the IWC and would resume **commercial whaling** within its territorial waters and its 200-mile exclusive economic zones (EEZ). On **1 July 2019**, Japan recommenced **commercial whaling for the first time in over 30 years**. On the other hand Japan said it would cease whaling activities in the **Antarctic Ocean, northwest Pacific Ocean, and Australian Whale Sanctuary**.*

ACTIVITIES

- The **International Whaling Commission (IWC)** is an international body set up by the terms of the **International Convention for the Regulation of Whaling** <https://iwc.int/home>
 - Define the **role** of the IWC.
 - Describe the **environmental concerns** of whaling by the IWC.
 - Explain one of the IWC's **conservation plans**.
 - Designate areas where IWC **sanctuaries** are located. Explain the significance of the sanctuaries.
- The **moratorium** on commercial whaling **prohibits the killing of whales for a profit**. The moratorium includes exceptions-**Aboriginal, subsistence, special permit and scientific whaling**.
 - Describe the 1982 moratorium on commercial whaling that commenced in 1985. What is it? Why was it introduced? How many countries support it? Has it been effective?
 - Clarify what is meant by Aboriginal, subsistence and special permit whaling.
- Japan wanted the **moratorium overturned** but after repeated rejections by the IWC it finally announced its intention to withdraw from the Convention and the IWC on 26 December 2018. The withdrawal came into effect on 1 July 2019.
 - Explain why the Japanese support the commercial hunting of whales. Include **economic and social/cultural aspects**.
 - **Iceland, Norway** and Japan, maintain a **commercial whaling industry**, despite the negligible contribution that whaling makes to their economies and growing opposition from around the world.¹ List the reasons for advocating commercial whaling by these countries.
 - Discuss how Japan's return to commercial whaling in 2019 may be a catalyst for **China and South Korea** that have sought **commercial whaling** but were constrained by the moratorium.
 - Discuss **Australia's** response to Japan's withdrawal from the IWC in 2019.
- Killing whales is a dying industry. List evidence that supports this statement.
- **Debate for and against whale hunting**. Present research as a two table column. Summarise your findings as a short statement.

Other resources

- After 30 years, Japan prepares to resume commercial whaling <https://www.theguardian.com/world/2019/jun/28/after-30-years-japan-prepares-to-resume-commercial-whaling>
- Tell Japan - Stop Whaling! <https://www.marineconservation.org.au/actions/japan-stop-whaling/>
- Whaling in Japan <https://www.marineconservation.org.au/actions/japan-stop-whaling/>
- Japan whaling: Why commercial hunts have resumed despite outcry <https://www.bbc.com/news/world-asia-48592682>
- Whaling feeds Japan's pride. Tokyo's decision to resume commercial hunting sends a message to critics around the world, despite no appetite for whale meat at home. <https://www.theaustralian.com.au/world/the-times/whaling-feeds-japans-pride/news-story/7cbdf8abe45d58d3fc3ab258bea34026>
- Greenpeace condemns Japan government's "sneaky" withdrawal from International Whaling Commission <https://www.greenpeace.org/international/press-release/20208/greenpeace-condemns-japan-governments-sneaky-withdrawal-from-the-international-whaling-commission/>
- Japan Goes Rogue and Resumes Commercial Whaling <https://www.nrdc.org/onearth/japan-goes-rogue-and-resumes-commercial-whaling>



Whale meat on the menu in a Tokyo restaurant (Photo: Karyn Nishimura via Getty)
<http://www.lowyinterpreter.com.au/the-interpreter/japan-again-hunting-whales-what-can-be-done>

BEHIND THE VEIL

WOMEN IN JIHAD AFTER THE CALIPHATE

<http://www.lowyinterpreter.com.au/publications/behind-veil-women-jihad-after-caliphate>



<http://www.lowyinterpreter.com.au/publications/behind-veil-women-jihad-after-caliphate>

On 29 June 2014, the so-called 'caliphate' by Abu Bakr al-Baghdadi triggered the movement of hundreds of women and teenage girls from all over the world to travel to Syria and Iraq to join the Islamic State (IS).

In March 2019, the Islamic State enters its final stages in Syria. Despite poverty and hunger, defiant IS women threaten to raise their children to become jihadist fighters.

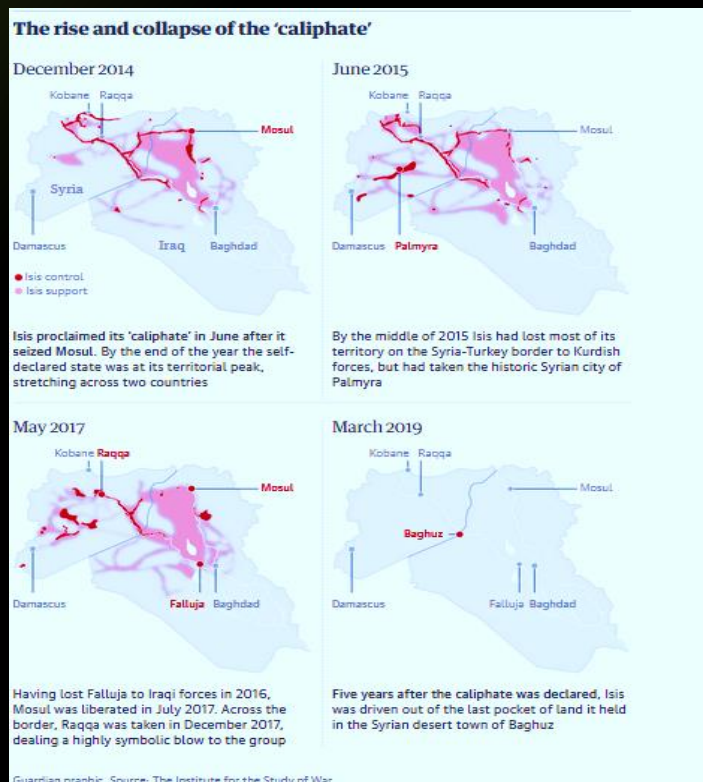
WHAT IS A CALIPHATE?

- A caliphate is an **Islamic state**.
- A caliphate is led by a **caliph**, who is a political and religious leader. He is a successor to the Islamic prophet Muhammad. His power and authority are absolute.
- There have been many caliphates over time, such as the Ottoman caliphate.
- The **Sunni** extremist group (ISIS) in 2014 announced it had established an **Islamic caliphate** under **Abu Bakr al-Baghdadi** across Syria and Iraq. The Sunnis believe that **Muhammad** had no rightful heir and that a religious leader should be elected from the Islamic community.
- The fall of the caliphate occurred during March 2019, when ISIS was driven out of the last pocket of land held in the Syrian town of Baghouz.

RISE AND FALL OF ISIS 'CALIPHATE'

<https://www.theguardian.com/world/2019/mar/23/the-rise-and-fall-of-the-isis-caliphate>

<https://www.theatlantic.com/international/archive/2014/06/what-is-an-islamic-caliphate-and-why-did-isis-make-one/373693/>



The term "*jihadism*" is a 21st-century word to describe Islamist militant movements "rooted in Islam" and "existentially threatening" to the West.

The term *jihadist* is generally used to describe **Sunni extremists**.

<https://en.wikipedia.org/wiki/Jihadism>

ISLAMIC STATE'S LAST STAND BATTLE FOR BAGHOUZ

<https://www.theguardian.com/world/gallery/2019/mar/06/islamic-states-last-stand-the-battle-for-baghouz-in-pictures>



A vehicle belonging to the US-led coalition drives down a road during shelling of the Islamic State group's last holdout of Baghouz
Photograph: Delil Souleiman/AFP/Getty Images



People who fled Baghouz are transported in an area controlled by the Kurdish-led SDF
Photograph: Bülent Kılıç/AFP/Getty Images



Civilians evacuated from Baghouz wait at a screening area in the eastern Syrian province of Deir ez-Zor
Photograph: Bülent Kılıç/AFP/Getty Images

WOMEN IN JIHAD

Women have maintained and propagated jihadist ideology, supported their jihadist husbands, raised their children according to jihadist ideology, recruited others, helped create alliances through strategic marriages, raised funds and transported messages, weapons and goods. On a smaller scale, women have taken on operational roles in the planning and execution of attacks, including as suicide bombers.

*Women's roles have been **complementary to men's**.*

*Women form an integral part of **contemporary jihadism**.*

<https://icct.nl/wp-content/uploads/2018/09/ICCT-deLeede-Women-in-Jihad-Sept2018.pdf>

AFTER ISIS CALIPHATE

Islamic State (IS) expanded the role of women in jihad

What does this mean for the future of jihad?

KEY FINDINGS

<http://www.lowyinterpreter.com.au/publications/behind-veil-women-jihad-after-caliphate>

- In 2019, the **caliphate** no longer existed. However, conditions are set for an **Islamic State (IS) resurgence**.
- Many **female foreign fighters** remain ideological adherents, recruiters, logisticians, attack planners and operatives who will form an important part of an **IS resurgence**.
- There are over **73 000 women and children** (10 000 are foreigners) in **Kurdish camps** who surrendered after the fall of **Baghouz (Eastern Syria)**. The IS considers this group as a key part of future resurgence.
- Women have long played an important role in **jihad**, however **IS has expanded their roles** such as agents, facilitators and promoters of jihad. As a consequence, in an IS resurgence, women present a powerful potential force.
- The former caliphate members-mostly women and children-held in **camps** pose a challenge for **counterterrorism** efforts around the world.
- After the defeat of the caliphate, there are thousands of female IS supporters, including **Australians**, seeking to **return** to their country of origin. Though, their countries, particularly Western ones, are reluctant to repatriate them.
- It is feared that female returnees could radicalise other people in their home country.
- **United Nations Security Council Counter-Terrorism Committee Executive Directorate Trends Report** confirms that women tend to receive **more lenient treatment in criminal justice systems**, but unfortunately receive more limited rehabilitation and reintegration support, putting them at potentially greater risk of **re-radicalisation**.
- Women and families have been viewed as positive deterrents against extremism. The opposite is also true, as they also serve to radicalise.

AUSTRALIAN STORIES

Momena Shoma is a 24-year-old woman from Bangladesh who came to Australia on a student visa in early 2018. She was placed in a homestay with the family of Roger Singaravelu. Two days into her stay, Singaravelu was awoken from a nap with his young daughter by a sharp pain in his neck. He found Shoma standing over him with a knife in her hand incanting praises to Allah. Singaravelu narrowly escaped with his and his daughter's life. Shoma was arrested and charged with engaging in a terrorist attack and attempted murder. After her arrest, she pleaded guilty, reportedly telling detectives she attacked Singaravelu because of the "order of Islamic State [which was calling on] everyone, even the women. So I just felt obligated, and it was like a burden on me. Yeah, I just had to do it ... it could have been anyone, it's not specifically him ... I just felt like if I don't do it I will be sinful, I will be punished by Allah."

While women have been implicated in terrorist plots in Australia as supporters, financiers, influencers and enablers, Shoma is the first woman in Australia to conduct a jihadist terrorist attack as a direct violent actor. Yet Shoma is not unique and not the only woman to conspire to commit violence in Australia on behalf of Islamic State. She is among a growing number of women responding to IS calls to attack its enemies wherever they may be, but particularly in the West.

In Sydney, Alo-Bridget Namoa and Sameh Baydeh have been sentenced over their plot to rob non-Muslims on New Year's Eve 2015, and then using those funds to carry out further IS-inspired violence. They were sentenced to four years each, the shortest sentence imposed for conspiracy to commit acts of terrorism. The short sentences are partly a result of Namoa and Baydeh renouncing their beliefs and assisting authorities. But youth and gender may also have been a factor.

<https://www.lowyinstitute.org/publications/behind-veil-women-jihad-after-caliphate>

ACTIVITIES

Women have been involved in terrorist attacks around the world since the inception of the Islamic State (IS). List the expanding role of women in jihad. In pairs, complete the following table:

<https://icct.nl/wp-content/uploads/2018/09/ICCT-deLeede-Women-in-Jihad-Sept2018.pdf>
<http://www.lowyinterpreter.com.au/publications/behind-veil-women-jihad-after-caliphate>

Mothers	Wives	Propagandists	Facilitators	Enablers
Planners	Recruiters	Plotters	Attackers	

- Women have long played an important role in jihad and are vital players across the IS organisation. Describe their role indoctrinating the next generation of jihadists.
- Describe the traditional notions of jihad versus the reality of the battlefield for women.
- Explain who are referred to as 'jihadi brides'.
- How did IS give its female adherents in jihad a sense of empowerment?
- Australian Jabar's and Duman's social media accounts depicted life in IS as normal-even glamorous.
 - What were the images depicted?
 - Why did the IS attract Western women?
 - What was the reality for these women?

<http://www.lowyinterpreter.org/publications/behind-veil-women-jihad-after-caliphate>

- In January 2015, the al-Khansaa Brigade published a manifesto on the role of women, articulating a combat role for women in specific defensive circumstances. Describe this role.
- The greater role of women, and potentially their children, in jihad poses distinct challenges to policymakers and **counterterrorism** efforts around the world. Discuss the implications for counterterrorism policies and organisations.

ICT

Exclusive: Rare testimony from jihadi brides in Syria as IS group 'caliphate' crumbles

<https://www.france24.com/en/20190308-exclusive-video-reporters-plus-jihadi-brides-wives-syria-islamic-state-group>

YOUTUBE

- Yazidi women: Slaves of the caliphate <https://www.youtube.com/watch?v=bO1r0s2mw1k>
- ISIS: Women's role in The Islamic State. NBC News
<https://www.youtube.com/watch?v=LyRIAmTUOmU>
- Women of the Islamic State: The rise of the female jihadist
<https://www.youtube.com/watch?v=NSKZWupRobs>
- On the trail of women 'lured to ISIS-territory' from the UK and elsewhere
<https://www.youtube.com/watch?v=p-9tw2JAZFI>
- What it is like to be a woman in Islamic State <https://www.youtube.com/watch?v=6zeI6FSGSw8>
- The woman who 'went to fight ISIS' <https://www.youtube.com/watch?v=VBIXbz95ecs>

INDIA

WOMEN WORK AT NOKIA

<https://www.lowyinstitute.org/the-interpreter/lessons-globalisation-vulnerable-women-nokia-factory>

*In 2005, the mobile phone company **Nokia** constructed a factory in **Sriperumbudur's Special Economic Zone (SEZ)**, in the state of **Tamil Nadu**. The Nokia factory, a symbol of industrialisation, promised economic and social change, especially for **vulnerable uneducated and unskilled women**.*

Unfortunately from 2009 this optimistic picture started to fade.



<https://www.lowyinstitute.org/the-interpreter/lessons-globalisation-vulnerable-women-nokia-factory>

*Nokia established the **world's largest mobile phone plant**, promising to produce 650,000 phones a day, engender large domestic and foreign investments, and entice supplier companies to create thousands of jobs in Sriperumbudur.*

*Initially, Nokia exceeded expectations. At its peak, Nokia's Sriperumbudur factory had 8,000 permanent employees working three shifts a day, producing more than **15 million phones a month**, and exporting them to over **80 countries**. Within five years, the factory had produced 500 million mobile phones.*

However, eight years after creating excitement in Sriperumbudur, everything fell silent. Gone were the jobs, the workers, and the promised investments. The Nokia mobile phone factory was shut down, lock, stock and barrel.

https://www.researchgate.net/publication/319206235_The_Nokia_SEZ_Story_Economy_of_Disappearances
<https://www.businesstoday.in/magazine/features/nokia-chenmai-plant-nokia-tax-dispute-vrs/story/208580.html>

SRIPERUMBUDUR SEZ

The Sripערumbudur SEZ is a **geographical region** possessing more **liberal economic laws** than the remainder of the country (e.g. reduced taxes and tariffs), plus offering additional business incentives (e.g. minimum red tape, no licence for imports) to attract foreign investment and companies, such as Nokia.

ADVANTAGES OF LOCATION

- Located 40 km from capital city of Chennai
- Close to Chennai port
- On Chennai-Bangalore highway
- Infrastructure development (water, electricity)
- Establishment of Software Technology Parks
- Abundant workforce
- Apartment complexes catering for employees along the industrial corridor between Sripערumbudur and Oragadam
- Companies established operations in SEZ includes BMW, Dell, Ford, Motorola, Samsung and Mitsubishi

POSITIVE IMPACTS

- **National-India:** Increase in exports and economic growth.
- **Local-Sripערumbudur:**
 - Provided skilled and unskilled employment
 - Emergence of cluster growth (industrial estate growth nodes) and ancillary activities (suppliers)
 - Changed consumption patterns and lifestyles (e.g. Korean supermarkets, Japanese restaurants)
 - Developed facilities (schools, hospitals) and infrastructure (water, electricity, road and rail) that contributed to improved human wellbeing (poverty reduction).

NEGATIVE IMPACTS

- Loss of government revenue (duty free imports, exemptions from customs and excise duties, 100% income tax exemption on export income from SEZ)
- Decline in agricultural land
- Uneven regional development across India-enclaved zones

NOKIA TELECOM SEZ

*The Indian government claims that the **Special Economic Zone (SEZ)** will increase investments, exports, economic activity and employment. The **Nokia Telecom SEZ** near **Chennai** was held up as a success of such claims.*

*A closer look at the figures indicates that Nokia's investment is almost entirely paid by **public subsidies**, most of production is sold domestically, employment generation is below projections and workers are short-changed.*

For the benefits given to Nokia, very little reciprocity exist in benefits for India.

*Nokia received an amazing host of **concessions** and **freebies**. Its profitability is significant although actual data on the mobile phone business is not available.*

What use is increased economic activity (objective), if the benefits of this activity only goes to one company? This re-iterates the fundamental flaws in SEZ legislation. It demonstrates that the success of a SEZ comes at an enormous public price.

<http://www.indiaenvironmentportal.org.in/files/Nokia%20SEZ.pdf>

EMPLOYMENT OPPORTUNITIES GENDERED LABOUR RECRUITMENT

A senior manager from the factory said: “while we couldn’t discriminate, we were hoping boys don’t apply ... we want girls.”

This preference was driven by an expectation of a disciplined worker, who was young, preferably female, and whose “docility” and “finger dexterity” made her an “ideal” candidate for hyper efficient, flexible, lean, just-in-time production.

Gendered Skill Tests were taken which the Nokia managers were convinced women had a “special” ability to perform.

https://www.researchgate.net/publication/319206235_The_Nokia_SEZ_Story_Economy_of_Disappearances

About 8000 workers were hired by Nokia and its seven supplier companies, 70% were young women aged between 19 and 22 years. Aimed to attract women, Nokia buses ferried women to and from home and work daily. The company also provided resting areas for pregnant women and nurseries for children.

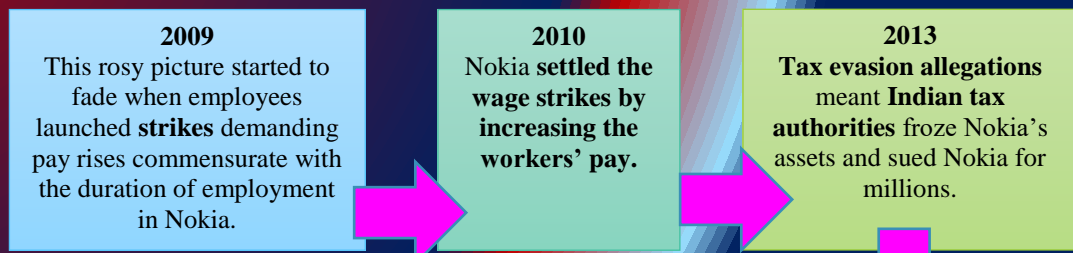
PREFERRED EMPLOYMENT		
Women	Girls Educational Qualifications	Castes
Preferred women due to an assumption of their “ docility ” as well as being patient and nimble .	Preferred girls who did not excel in school or were from government schools because they were assumed to have limited opportunities to switch jobs	Preferred women and girls from backward castes, scheduled castes or scheduled tribes because they were more willing, than the upper or middle-caste women, to work night shifts.
IMPROVEMENTS		
Human wellbeing		
<ul style="list-style-type: none">• The salary was alluring, in comparison to what women would earn in other industries.• Gave women the potential for independence, emancipation and empowerment.• Within a year, having someone in the family work at Nokia became a status symbol.• Led to higher literacy rates in the village, compared with state average.• Village containing 6318 houses supplied with basic amenities- water and sewage.		

At its peak Nokia:

- Employed 13,115 people at its Sriperumbudur plant.
- Nine manufacturers linked to Nokia employed 33,200 people.

<https://timesofindia.indiatimes.com/city/chennai/Nokia-workers-try-to-rebound-with-a-little-help-from-friends/articleshow/45053242.cms>

DOWNWARD SPIRAL: DEATH OF A DREAM



2014
NOKIA SRIPERUMBUDUR SUSPENDED WORK
As a result there was a 'ripple effect' to other industries such as Microsoft and Foxconn

- **Microsoft:** Terminated a mobile purchase agreement with Nokia.
- **Foxconn:** About 70% of the goods manufactured by Foxconn were sold to Nokia India. Foxconn's sales and profits decreased drastically.
- **Nokia** shifted production to a new factory in **Vietnam**. Decreased exports from India. The loss of a vital industry **impacted negatively** on the town and residents wellbeing. India's reputation as a manufacturing alternative to China had been severely dented.

As compensation for the closure of Nokia, a **voluntary retirement scheme (VRS)** was offered to unemployed workers. About 5,000 opted for the scheme.

Of those women who did accept the VRS scheme many:

- Were **unemployed for a long time**.
- **Expected similar working conditions** as Nokia in other factories. This was unrealistic.
- Were **unemployable**, as Nokia employees also conveyed a **reputation**, as overpaid, unskilful, spoilt and demanding workers.
- Skills that women obtained at the Nokia factory were often **not transferable** to other assembly plants. Appreciating skill disparity as a key problem preventing re-employment, Nokia offered a "**Bridge Programme**" and 30 training courses were offered across Tamil Nadu, covering areas such as Microsoft Office and garment making. It resulted in a 60% uptake.

*The Nokia incident became a lesson on the fluctuations of the **global economy** and the **vulnerability of women** when exposed to big businesses in search of profit.*

The pursuit of work in a globalised economy brought women temporary opportunities. For many the allure of such a job interrupted their schooling and denied some of them the chance to do more in their life.

WOMEN WORKERS UNCERTAIN FUTURE

<https://www.businesstoday.in/magazine/features/nokia-chennai-plant-nokia-tax-dispute-vrs/story/208580.html>



At 17 years old, **S. Priya** married an auto driver in Thiruthani, a temple town 91km from Chennai. He did little work and drank a lot. After Priya gave birth to a boy, she was forced to find a job.

- **2011:** Nokia was hiring workers. Priya applied at the company's factory in Sriperumbudur. She passed hand-eye coordination tests and her nimble fingers were able to assemble phones. She was employed as a trainee. The monthly pay of Rs 5,800 enabled her to purchase quality rice.
- **2013:** Her husband died of jaundice.
- **2014:** After Priya had finished her regular shift at work, her access card was taken away by a supervisor. "You needn't come back," he said.

Priya has since moved in with her parents. All live in two tiny rooms with thatched roofs. From assembling phones, her nimble fingers now stitch flower garlands which earn her around Rs 50 a day. "I was hoping I could settle down with my Nokia job," she says. "Now I'm waiting for some reskilling." Her five-year-old son, Gokul, playfully climbs on to her lap. "I only dream of my son's education," she adds.

<https://www.businesstoday.in/magazine/features/nokia-chennai-plant-nokia-tax-dispute-vrs/story/208580.html>

Video: Nokia plant employees speak out

<https://www.businesstoday.in/magazine/features/nokia-chennai-plant-nokia-tax-dispute-vrs/story/208580.html>

ECONOMY OF DISAPPEARANCE

The closure of Nokia's mobile phone assembly plant in Sriperumbudur, illustrates how corporations quit operations when it is no longer profitable, while the impact of such closures on workers is profound.

*The **Special Economic Zones (SEZ)** policy promoted corporate-led industrialisation promising employment, and creating aspirations among young workers. There was **no accountability or labour-centred exit policies factored into the state's industrial policies.***

*With the closure of Nokia, not only have promises been broken, but its **workers and supply companies have lost their livelihoods.***

<https://www.epw.in/journal/2016/51/special-articles/nokia-sez-story.html>

JOBS BACK AT SRIPERUMBUDU POST NOKIA SHUTDOWN

Tax dispute between the Indian government and Nokia was resolved in 2018, allowing plant to be sold.

Aimed to revive Nokia's massive tech facility at Sriperumbudur, the Tamil Nadu government held talks with the Taiwanese electronic manufacturer **Foxconn** to set up a manufacturing unit at the premises. Foxconn, the world's largest electronics contract manufacturer, is anticipated to invest \$356 billion to expand the plant in Sriperumbudur by adding assembly lines for the production of **'high quality, pricier' Apple products**. Making more phones locally will help Apple reduce expensive duties and boost the Indian Prime Minister Narendra Modi's drive to develop India as a **manufacturing hub** and support the **'Make in India' programme**.

Taiwan's Foxconn, Finland's Salcomp and US-based Flex aim to create **25,000 jobs**. This employment statistic is huge compared to **nine manufacturers** that employed 33,200 workers before a tax claim stopped manufacturing at Nokia's facility at Sriperumbudur in 2014.

<https://economictimes.indiatimes.com/jobs/jobs-back-at-tns-sriperumbudur-cluster-post-nokia-shutdown/articleshow/64010596.cms>

Photograph <https://www.youtube.com/watch?v=86obWdmM7yE>

APPLE

Foxconn plans to assemble Apple Phones in India, to assist the company and limit the impact of a **trade war between US and China**.

However, Apple has had little success in terms of growth in India, as more than 75% of smartphones are priced below \$250. To counteract this problem Apple has revamped its Indian strategy to address the smartphone market by introducing:

- Improved and longer-lasting retail agreements
- Specialised Apple retail stores
- Apps and services for local users, such as Apple Maps aimed at Indian users to be launched by 2020.

<https://www.macrumors.com/2018/12/27/apple-high-end-iphone-india/>

ICT

- Jobs back at Tamil Nadu's Sriperumbudur cluster-post Nokia shutdown
https://economictimes.indiatimes.com/articleshow/64010596.cms?from=mdr&utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
- Foxconn India eyes space in Nokia's SEZ to boost production
http://economictimes.indiatimes.com/articleshow/61537474.cms?from=mdr&utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
- Foxconn to begin assembling top-end Apple iPhones in India in 2019 <https://www.reuters.com/article/us-apple-india-exclusive/exclusive-foxconn-to-begin-assembling-top-end-apple-iphones-in-india-in-2019-source-idUSKCN1OQ0M6>
- 'Apple' of Chennai's Eye: Foxconn's plant to start manufacturing iPhones
<https://swarajyamag.com/insta/apple-of-chennais-eye-foxconns-plant-in-the-city-to-start-manufacturing-iphones-from-next-year>

BUSINESS STUDIES

NOKIA RISE AND FALL

*The global mobile technology industry continues to grow and is a major source of **employment generation**. When mobile operators purchase inputs and services from their providers in the **supply chain**, they generate sales in other industries, creating a **multiplier effect** on the rest of the economy. In 2014, it was estimated that the mobile technology industry directly employed approximately **12.8 million people globally** and **11.8 million people indirectly**, bringing the total impact to just under **25 million jobs**.*

*Mobile technologies have spurred **economic growth** and **innovation**. Consumer demands are constantly evolving and expanding, and will inspire new industries in the future.*

<https://www.weforum.org/agenda/2015/05/the-mobile-industrys-multiplier-effect-on-the-global-economy/>

GROWTH OF NOKIA POSITIVE MULTIPLIER	DECLINE OF NOKIA NEGATIVE MULTIPLIER
<p><i>In the early 2000s, Nokia supplied 40% of the world's mobile phones.</i></p> <p><i>From 1998 to 2007 Nokia:</i></p> <ul style="list-style-type: none"> • Contributed to 25% of Finland's growth • Spent 30% of Finland's research and development • Generated nearly 20% of Finland's exports • Paid 25% of Finland's corporation tax. <p><i>At its peak Nokia employed 4,000 highly skilled workers on the Finnish site at Tampere. The impact on the local economy was huge. Many employees spent their wages on new houses, which gave the construction business a boost. The builders spent their wages in the local economy (e.g. food, white goods).</i></p> <p><i>This is an example of the positive multiplier at work.</i></p>	<p><i>From 2007 the rise of the iPhone had a negative effect on Nokia. It caused cuts in jobs and eventually the smartphone business was sold to Microsoft in 2014.</i></p> <p><i>In Tampere the effects of the negative multiplier were obvious:</i></p> <ul style="list-style-type: none"> • Universities who relied on collaboration with Nokia cut back on employees • Subcontractors who depended on Nokia went out of business • Many local people employed by Nokia lost their jobs. <p><i>Future growth may depend on small innovative and creative start-ups.</i></p>

<https://www.ebsglobal.net/content-hub/april-2016/nokia-and-the-multiplier>

<https://medium.com/multiplier-magazine/why-did-nokia-fail-81110d981787>

But as quickly as it emerged, Nokia's dominance of the mobile phone market came crashing down, hitting Finland's economy hard and coinciding with the longest recession in the country's history.

Finland has a wealth of talent in the technology field that is the legacy of Nokia. It means innovative start-ups are rising, helping to regenerate the country and make them a world leader again. Finland is buzzing with high-tech skills and start-ups.

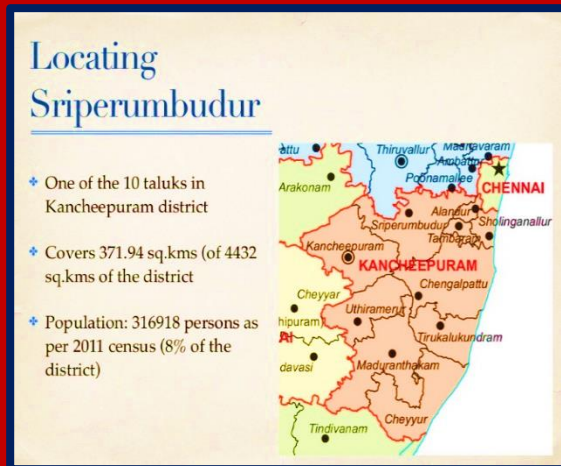
<https://www.bbc.com/news/business-35807556>

ICT

- Read-Nokia: Life after the fall of a mobile phone giant <https://www.bbc.com/news/business-35807556>
- How do you solve a problem like Nokia? <https://gigaom.com/2012/07/20/how-do-you-solve-a-problem-like-nokia/>
- Case Study: The Collapse of Nokia's Mobile Phone Business: Wisdom and Stupidity in Strategic Decision-making https://www.researchgate.net/publication/326691715_Case_Study_4_The_Collapse_of_Nokia's_Mobile_Phone_Business_Wisdom_and_Stupidity_in_Strategic_Decision-making
- Slideshare: Case Study on Nokia in India – successes, weaknesses, threats, failures, 'Make in India', timeline of the situation in Sripumbudur <https://www.slideshare.net/mnsambit/nokia-case-study-52866723>
- Project Report on Nokia: A Leading Mobile Company <http://www.yourarticlelibrary.com/project-reports/project-report-on-nokia-a-leading-mobile-company/84100>

ACTIVITIES

- Refer to **Google Earth** for the **location** of Sriperumbudur in India
https://satellites.pro/Sriperumbudur_map. Where is Sriperumbudur **located**?
- Explain why Sriperumbudur is a suitable **location** for domestic and foreign investments and the manufacturing site for overseas companies like Nokia and Foxconn.
<https://www.advertgallery.com/wp-content/uploads/2017/09/guhan-estates-sai-garden-presents-at-sriperumbudur-ad-chennai-times-24-9-17.jpg>



<https://www.slideshare.net/IGCS/understanding-sriperumbudur>

<http://epaperbeta.timesofindia.com/article.aspx?eid=31807&articlexml=how-chennai-fell-off-apples-map-15102014001104>

- Refer to the Prezi on Nokia and **globalisation**
<https://prezi.com/emggxfybtllh/nokia-and-globalization/>
 - What is **economic globalisation**?
 - What is the **Nokia effect**?
<https://www.economist.com/finance-and-economics/2012/08/25/the-nokia-effect>
- **Special Economic Zones (SEZ)**
 - What is an SEZ?
 - Itemise the incentives that attract overseas companies to an Indian SEZ.
 - List the advantages and disadvantages of an SEZ in a two column graph
https://en.wikipedia.org/wiki/List_of_special_economic_zones_in_India; <http://sezindia.nic.in/cms/approved-sez-in-india.php>
- Sriperumbudur is showing the signs of developing an **industrial cluster**. Who were the past big players in Sriperumbudur? What companies are the large players today?
<http://epaperbeta.timesofindia.com/article.aspx?eid=31807&articlexml=how-chennai-fell-off-apples-map-15102014001104>
- Retell the story of how Nokia empowered **vulnerable women and girls** by selling a dream of a secured employed future and the possibilities of economic prosperity but left them stranded after the shutdown of the factory in 2014.
- After the closure of Nokia, many **unemployed women** were ill equipped with **transferable skills** to perform jobs in other industries and as a result struggled to be re-employed. Explain how Nokia addressed this problem.
- In groups summarise how Nokia **transformed a village** in India-economically and socially.
- Fluctuations in the global market, are reported as headline statistics, trends and stock prices but rarely in terms of **human vulnerability** as the consequence of economic decisions. Comment on this statement with reference to the article.

ACTIVITIES

- *Economic dominance lies with **companies** (Nokia) and **governments** (India) seeking to attract domestic and foreign investments, rather than considering the **wellbeing** of the workers.* In pairs, express your thoughts on whether **economic performance** (e.g. SEZ) outweighed **social responsibility** or vice versa, by referring to Nokia in Sriperumbudur, India. Justify your reasons.
- Describe the **multiplier effect** when Nokia transformed a village called Sriperumbudur by establishing a factory (**positive multiplier**) and then bolting (**negative multiplier**). Present the two way multiplier effect as an annotated diagram.
<https://www.channelnewsasia.com/news/commentary/nokia-india-factory-closed-down-impact-workers-tamil-nadu-11700878>
- Explain the ‘Economy of Disappearance’ with reference to Nokia in Sriperumbudur, India.
<https://www.epw.in/journal/2016/51/special-articles/nokia-sez-story.html>.
<https://ler.la.psu.edu/gwr/documents/Dutta2016EPWNokiaStoryEconomyofDisappearances.pdf>
- Imagine you are the CEO of Nokia. Expound the reasons why the company suspended manufacturing in Sriperumbudur, India. Present reasons as an oral TV report.
<https://www.rediff.com/money/special/special-why-did-nokia-suspend-manufacturing-in-india/20141009.htm>
- List how Nokia went off the track. Explain the lessons learnt.
<https://tnlabour.in/electronics-industry/2782>; <https://www.thehindubusinessline.com/specials/india-file/sriperumbudur-a-reminder-of-what-can-go-wrong/article9315843.ece>
- Discuss how Foxconn aims to revive Sriperumbudur manufacturing hub in Tamil Nadu.
<https://economictimes.indiatimes.com/tech/hardware/Foxconn-to-revive-Sriperumbudur-manufacturing-hub-in-Tamil-Nadu/articleshow/48538779.cms>
- The Women of Sriperumbudur, India. Retell the story of some of the women effected by the shutdown of Nokia.
<https://medium.com/ini-aequalis/the-women-of-sriperumbudur-683abb7522b1>

Gender

- Refer to the **Global Gender Gap Report 2018**. India is ranked 108 out of 149 countries with a 33% gender gap to be bridged. Investigate the reasons for gender based disparities. http://www3.weforum.org/docs/WEF_GGGR_2018.pdf

YouTube

- 2014 Nokia ceases operations at Sriperumbudur plant, India.
<https://www.youtube.com/watch?v=qyIyKwsLBYg>
- How & Why Nokia Failed. Case Study. Dr Vivek Bindra. Video has 2 parts. 1st part- rise and fall of Nokia. 2nd part - re-birth of Nokia
https://www.youtube.com/watch?v=e-Cpg_KR_z4



<https://www.slideshare.net/mnsambit/nokia-case-study-52866723>