



IN THE 21st CENTURY WE NEED TO
BEGIN TO SEE PAST OUR BLIND SPOTS

SUSTAINABLE DEVELOPMENT GOAL 5

Achieve gender equality and empower all women and girls



WHY IS THIS IMPORTANT?

for more on this topic, go to: <https://sustainabledevelopment.un.org/sdg5>



WHEN WE EMPOWER WOMEN BY OPENING UP ECONOMIC AND VOCATIONAL OPPORTUNITIES, EDUCATION AND FAMILY PLANNING, WE SHIFT FROM HIGH BIRTH RATES AND HIGH INFANT MORTALITY RATES TO LOW BIRTH RATES AND LOW INFANT MORTALITY RATES.





**What if we looked
at education
differently?**



NEW EDUCATIONAL MODELS FOR A CHANGING WORLD

THESE SHIFTS IN EDUCATION ARE ANOTHER EXAMPLE OF HOW THE WORLD IS CHANGING AND CAN BE CHANGED, TO OPEN UP NEW POSSIBILITIES THAT ARE MORE RELEVANT FOR LIVING IN THE 21ST CENTURY

Respositioning sustainability

Italy is to become the first country to make climate change lessons compulsory for schoolchildren.

Traditional subjects, such as geography, mathematics and physics, will also be studied from the perspective of sustainable development.

The entire ministry is being changed to make sustainability and climate the centre of the education model.

What about eliminating core subjects altogether?

Finland is in the process of radically overhauling its education system and eliminating maths and science lessons.

There are no more separate classes for literature, history, geography or any of the traditional core subjects.

The new method of “phenomenon teaching” involves teaching of broad topics, combining different skills. For example, you might learn geography, geology and languages through a lesson in which students identify different countries on a map and discuss their climates, all in French.

Vocational courses might include “energy services”, combining maths, writing and communication skills.

Others might study “climate change” through merging economics, history, geography and politics.

Abandoning the old methods sounds almost antithetical to achieving academic success, but progressive Finland consistently tops international league tables for literacy and numeracy.

Guns and Global Warming: War, Peace and the Environment

Scientists for Global
Responsibility

Main themes

- Two key environmental dimensions of war:
 - Conflict over environmental resources
 - Conflict causes environmental impacts
- The two can combine and cause a cyclical effect - conflict causing environmental impacts can damage the resource base and lead to further conflict

Conflict causes environmental impacts

- Environmental impacts of war are frequently under-reported – can have major knock effects on human population
- War can jeopardise, for example:
 - water supplies – damage to clean water and sanitation infrastructure can lead to water shortages and spread of disease
 - food supplies – agriculture can be curtailed through unexploded ordnance (UXO), eg landmines; soil pollution from ordnance; and food distribution networks can be disrupted – all can contribute to food shortages and famine
 - air quality – fires resulting from conflict can pollute air
- Military forces often target infrastructure to intentionally create the problems above
- War also causes major damage and destruction of wildlife and whole ecosystems
- Can also contribute to climate change through accelerated burning of fossil fuels by military forces

Reference: Majeed (2004)

Case study: regional environmental impacts of 1991 Gulf war

- Detailed assessments carried out by UNEP (other more recent conflicts still to be assessed in detail)
- Damage to infrastructure allowed disease and ill-health to spread - tens of thousands of Iraqi's died of the health effects of the war
- Damage to water purification facilities (and related electricity supplies) caused major shortages of clean water
- Chemical/ biological/ nuclear weapons plants bombed - toxic/ radioactive releases may be a cause of Gulf War syndrome
- Damage to sewerage plants caused serious pollution
- Oil well fires - more than 600 wells set ablaze, some burning for 9 months - smoke blocked sun - temperature fell by 10C; approx 1000 people died due to acrid smoke; 300 million tonnes CO2 released contributing to climate change
- Oil polluted groundwater - 60 million barrels leaked into ground poisoning 40% of groundwater (Kuwait has less water per head than any other country)
- Oil spills into sea - at least 6 million barrels of oil leaked into sea causing largest ever oil slick - devastated local bird, mammal, fish populations - prawn fisheries decimated
- Landmines and other UXO, eg cluster bombs - 1.6 million landmines laid by Iraqi forces in Kuwait; approx 5% of bombs do not explode on impact (higher % in desert) - many people killed/ injuries
- Depleted Uranium (DU) - super-dense metal used in armour piercing weapons - approx 290 tonnes spread across Gulf - source of low-level radioactivity and toxicity
- Damage to desert ecology - obvious bomb damage, but also movements of armoured vehicles broke up fragile soil surface - approx 50% of Kuwait's land area damaged

References: UNEP (2003); Additional info from: New Scientist (2003); Friends of the Earth (2003); Medact (2002)

Case study: the military contribution to climate change

- Oil consumption by military forces
 - USA - 133 million barrels in 2005 (2% of total USA oil consumption; similar to Sweden's total consumption; only 2 out of 56 African countries consume more oil than US military; true figure could be as much as double due to accounting errors overseas)

- Emissions of CO2 from military forces
 - USA - ~60Mt in 2005 (1% of total USA emissions; similar to Finland's total emissions)

- Climate change could increase the risk of conflict, especially in developing countries:
 - Water shortages will increase with rising temperatures (and with population increases) - number of people living in 'water-stressed' areas expected to rise from 1.7 billion in 2000 to 5 billion in 2025
 - Sea-level rise and increased storminess will increase risk of flood damage, especially to heavily populated coastal areas - tens of millions more people are likely to be affected
 - Disruption to agriculture
 - Together these factors could lead to a large increase in numbers of 'environmental refugees'
- Large military forces are making a significant contribution to the depletion of oil resources and to climate change - both are likely to increase the risk of conflict which military forces are claimed to be there to prevent!

References: Military consumption/ CO2 emissions figures estimated by SGR based data from DESC (2006) & MoD (2006). Additional info from: IPCC (2001), Karbuz (2006), UNEP (2007)

Key changes needed

- Urgent need to stem the global flow of weapons, especially small arms in poorer countries whose environmental resources are under stress and conflict may occur
 - need strengthening of UN programme of action on eradicating illegal small arms
 - need countries to agree a UN arms trade treaty
 - USA, which has highest levels of small arms in private hands and is world's largest arms exporter, is resisting these efforts
- Urgent need to support post-conflict reconstruction and conflict prevention activities
 - Only receives a small amount of funding
- In 2005, the world spent over \$1.1 trillion (\$1,100,000,000,000) on its military forces - continuing a rising trend. Diverting at least some of this spending could help achieve the aims above, reducing the likelihood of conflict.
- Reducing dependence on military forces as a way of dealing with international problems will also help reduce their carbon emissions!
- The power of corporations, especially military corporations, with their ability to lobby for favourable policies needs to be curbed.

References: United Nations (2006, 2007); Control Arms Campaign (2007); SIPRI (2006)

Firing a \$70,000 missile from a \$28,000,000 drone flying at a cost of \$3,624 per hour to kill people in the Middle East living on less than \$1 per day.



We live in a country where if you want to go bomb somebody, there's remarkably little discussion about how much it might cost. But then you have a discussion about whether or not we can assist people who are suffering, then suddenly we become very cost-conscious.

— Prof. Andrew Bacevich



COSTS OF WAR

ECONOMIC COSTS

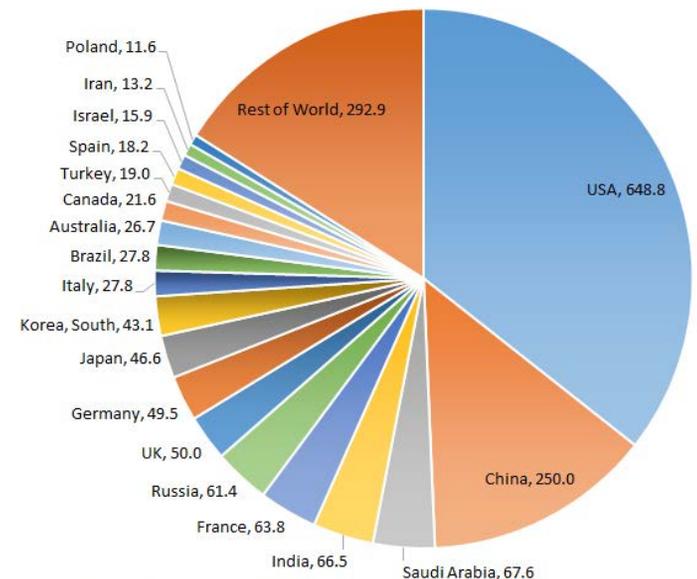
Through Fiscal Year 2019, the United States federal government has spent or obligated \$5.9 trillion dollars on the wars in Afghanistan, Pakistan, and Iraq. This figure includes: direct Congressional war appropriations; war-related increases to the Pentagon base budget; veterans care and disability; increases in the homeland security budget; interest payments on direct war borrowing; foreign assistance spending; and estimated future obligations for veterans' care.

This total omits many other expenses, such as the macroeconomic costs to the US economy; the opportunity costs of not investing war dollars in alternative sectors; future interest on war borrowing; and local government and private war costs.

The current wars have been paid for almost entirely by borrowing. This borrowing has raised the US budget deficit, increased the national debt, and had other macroeconomic effects, such as raising consumer interest rates.

Unless the US immediately repays the money borrowed for war, there will also be future interest payments. We estimate that interest payments could total over \$8 trillion by the 2050s.

Military Expenditures by Country
(in US\$ billions) 2018



Source: Stockholm International Peace Research Institute

Choosing Between Guns and the Environment



Guns and the environment are among today's most controversial political issues. What happens when they are pitted against each another?



In Florida, guns win out.

Florida law that protects firing ranges from certain environmental legal actions. Firing ranges are self-regulating, therefore they can prioritize the right to use guns over environmental protection.

This threatens both natural resources and human welfare.

Firing ranges pose significant environmental risks due to contamination from the materials associated with gun use. These contaminants include lead, copper, zinc, antimony, and even mercury, all of which can sink into the soil and sometimes leach into groundwater and surface water. Exposure to these contaminants through the soil or water can lead to illness and possibly death for those who spend significant amounts of time in contaminated areas, such as workers and visitors.

Regulators are well aware of these risks. The US EPA notes that much of the 80,000 tons of lead involved in the production of bullets annually, ends up in firing ranges. Meanwhile, EPA's Florida counterpart, the DEP, warns that "proper management" of shooting ranges is essential for avoiding lead contamination in water supplies.

Despite widespread acknowledgement of the dangers of improperly managed shooting ranges, the Florida legislature has preferred to protect the right to use guns over environmental protection. In 2004, Florida codified a proposal from the NRA and the National Shooting Sports Foundation to preempt regulation of "the environmental effects of projectile deposition at sport shooting and training ranges."

This exemption protects gun range owners from lawsuits, provided that they "implement situation appropriate environmental management practices." However, the statute omits any definition or examples of what constitutes "situation appropriate" practices, and that it instead requires the state's environmental agency to circulate a guide to firing range owners in Florida.

The protections for firing range owners do not stop there. As long as firing range owners make a "good faith effort" to comply with the guidelines from the state environmental agency, they cannot be held liable for contamination stemming from the gun projectiles.

In actuality, this provision releases firing range owners from liability and has the effect of making the state of Florida responsible for their pollution, placing the burden on taxpayers.

In addition, the law provides that any government official who attempts to hold firing range owners responsible for pollution could face a misdemeanor charge and up to \$1,000 in fines.

Therefore, county and state governments are effectively powerless to protect the health, safety, and welfare of their citizens against firing range owners' environmental impacts.

Do you think this law is justifiable?

Supporters argue that it is justified. They argue that it is important to protect firing ranges—many of which are small businesses—from facing crushing liability that would almost undoubtedly force them to close if they are required to pay for environmental cleanup costs.

Industry groups and the NRA also point to constitutional law for support, in particular the oft-cited 2nd Amendment (which reads: reads: "A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.")

They also cite an analogous provision (Article I Section 8) in the Florida Constitution (which reads: *The right of the people to keep and bear arms in defense of themselves...*) The state constitution also protects the right to bear arms for hunting, sporting, and collectibles.

The Florida legislature claims that protecting firing ranges from burdensome regulation is necessary to promote the state's interest in promoting training in the safe use of guns.

How does this sit against, for example, the increase in accidental gun-related deaths in recent years, particularly in Florida, which has a non-fatal gunshot wound average that is twice the national average?

What about in the face of the Florida Supreme Court, which has ruled that the right to bear arms is "not absolute." The Florida senate also concluded that the state may regulate firing ranges to protect people.

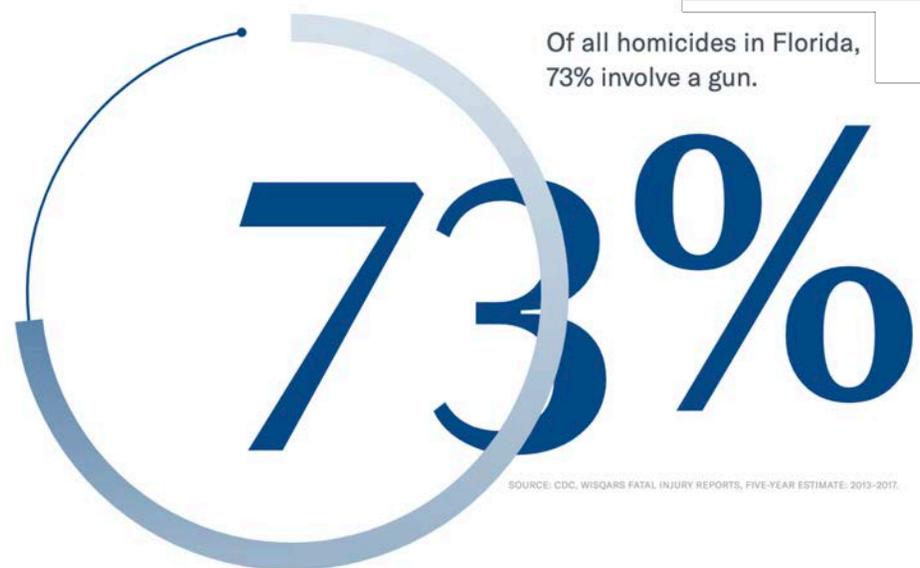


<https://www.flsenate.gov/Session/Bill/2018/196/BillText/Filed/PDF>

Rachel Deming, *The Second Amendment v. The Environment: Florida's Transformation of Gun Range Environmental Liability*, 29 *Colo. Nat. Resources, Energy & Env'tl. L. Rev.* 81 (2018)

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3146375

America's Gun Business Is \$28B. The Gun Violence Business Is Bigger.



Every day, **100 Americans** are shot and killed in the United States.



WHAT ABOUT HEALTH COSTS?

The amount spent on health care is estimated at 2.8 billion annually for hospitals alone.

Suicides account for roughly two out of every three gun deaths. The same number of people die in car crashes and by guns in the United States.

Suicide rates are strongly linked with rates of gun ownership; that's because people succeed if they have easy access to a gun.

Gun control could reduce suicide more than mental health staffing.

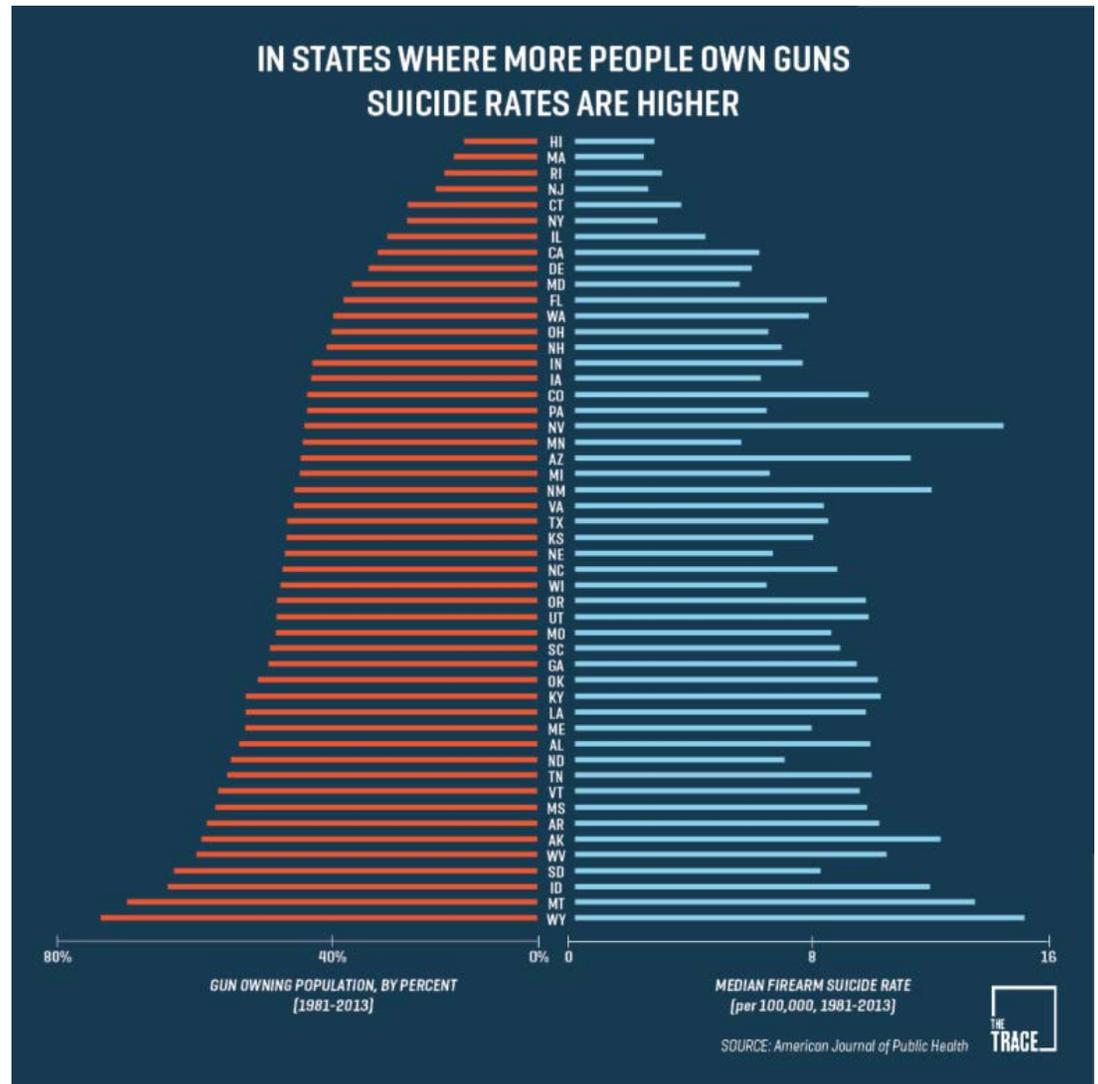
A group of doctors and medical societies sued the state of Florida over an NRA-supported law that forbade pediatricians from discussing guns in the home with their patients. The suit was successful and the law was eventually struck down.

<https://health.wusf.usf.edu/post/fl-pediatricians-win-notice-taking-nra#stream/0>

<https://www.npr.org/sections/thetwo-way/2017/02/17/515764335/court-strikes-down-florida-law-barring-doctors-from-discussing-guns-with-patient>

<https://www.newsweek.com/gun-violence-shootings-costs-billions-healthcare-spending-treat-wounds-676180>

<https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2019.00753?journalCode=hlthaff>



Ultimately, the idea of a gun as a tool of self-defense is an idea based on the image of a law-abiding citizen confronting a criminal, when, in reality, most gun uses in the context of a crime are likely the result of an escalating argument between two people.



JERKS WEIRD WEAPONS

Florida Man Shoots Woman with Water Gun Filled with His Own Urine

[TAMPA] - A Florida Man is facing battery charges after he shot a woman with a water gun - filled with his own urine. **MORE**

April 15, 2019, 6:31 pm

▲ ▼ +59

DRUNKS VEHICLES

Drunken Florida man fires gun in air while driving

A Florida man was arrested on Sunday after police said he was swerving between lanes while intoxicated and firing a gun in the air. Christopher ... **MORE**

August 18, 2016, 9:53 pm

▲ ▼ +8



GUNS

Family Comes Home to Find Drunken Florida Man Sleeping on Porch with Loaded Shotgun

[HAINES CITY] - A Florida Man faces a slew of charges after a Haines City family came home to find him passed out drunk on their porch with a loaded, modified shotgun in his hands. **MORE**

April 8, 2019, 8:50 am

▲ ▼ +44

DRUNKS

Florida man arrested after drunken attempt to learn how to use a shotgun

Drunken Florida man fires newly purchased shotgun into neighbors' home while attempting to "learn how to use it on the Internet." (NBC News). **MORE**

July 12, 2016, 7:46 pm

▲ ▼ +5



GUNS

Florida Man Fires Gun inside Home, Shatters Toilet

[ST. PETERSBURG] - A Florida Man shattered a toilet after playing with a gun inside his home which discharged, nearly hitting his roommate, according to an affidavit... **MORE**

April 8, 2019, 8:42 am

▲ ▼ +43

UNCATEGORIZED

Florida Man points loaded shotgun at IRS worker who knocked at his door

Bruce Hacker, 61, of Fort Lauderdale, is accused of pointing a shotgun at an IRS revenue officer who knocked at the door of his home. Bruce Hacker ... **MORE**

May 22, 2016, 2:18 am

▲ ▼ +4



DUMB CRIMINALS GUNS WEIRD WEAPONS

Florida Man Robs 7 Eleven by Pointing Finger Like a Gun at Clerk

[BONITA SPRINGS] - A Florida Man who pointed his finger in lieu of a firearm at a convenience store clerk in an attempted robbery had to leave empty-handed when the employee refused to comply Wednesday morning. **MORE**

February 28, 2018, 11:26 am

▲ ▼ +50

WEIRD WEAPONS

Florida Man points spear gun at boaters in Keys, cops say

Randy Sharp was agitated. So the Florida Keys man paddled his camouflaged kayak next to another vessel at Boot Key Harbor in Marathon. Then ... **MORE**

March 28, 2016, 10:55 pm

▲ ▼ +2



DUMB CRIMINALS GUNS JERKS

Florida Man With Shotgun Demands Store Fix His Phone

[BRONSON] - A Florida Man wielding a shotgun demanded a MetroPCS store fix his phone... **MORE**

October 24, 2016, 1:08 pm

▲ ▼ +4

FIGHTS WEIRD WEAPONS

Florida Man Brings sword to gun fight

SANTA ROSA COUNTY, FL (WKRG) - A suspect was hospitalized after he attacked a victim with a sword and the victim, in turn, shot him with a ... **MORE**

May 2, 2016, 5:35 pm

▲ ▼ +14

What are some of our other blind spots?



<https://bifrostonline.org/category/sdg-trackers/>