



COMMITTEE ON SUSTAINABLE DEVELOPMENT (CSD)

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The United Nations Commission on Sustainable Development (CSD) was established by the UN General Assembly in December 1992 to ensure effective follow-up of United Nations Conference on Environment and Development (UNCED), also known as the Earth Summit. At the United Nations Conference on Sustainable Development (Rio+20), Member States agreed to establish a high level political forum that will subsequently replace the Commission on Sustainable Development in 2018. <https://sustainabledevelopment.un.org/index.html>

REPORT: Role of nuclear technology in sustainable development

In the past two decades an upsurge of nuclear technology proponents has been seen. Following the Chernobyl and Three Mile Island incidents in 1989 and 1979 respectively, public approval of nuclear energy hit all time lows. Concerns regarding the safety of nuclear technology throttled increasing nuclear reactor construction. According to the World Nuclear Industry Status Report, the number of ongoing reactor construction projects peaked in 1979 at 186, before sharply dropping to 35 in 1995.

However, the increased pressure put on the fossil fuel industry as well as the rising need to reduce carbon footprint and take better care of the planet has given new life to the justifications for using nuclear power as a clean, renewable, and cheap source of energy. In 2005, the world saw an increased focus on reactor construction. According to the International Atomic Energy Agency, as of 2015 there are 441 operational reactors around the world with another 67 under construction for a combined net capacity of 382, 855 megawatts of electricity. Nuclear power undoubtedly has a future as a vital source of energy, but with increased proliferation of nuclear technologies come questions regarding the weaponization of such technologies, and the possible dangers these weapons pose to the international community.

Nuclear technology has become an increasingly prominent and controversial topic since the advent of the atom bomb dropped by the United States created by the Manhattan Project at the close of World War Two. The bombings of Hiroshima and Nagasaki propelled the world into the Nuclear Age. Since then, the world has been overcast by the threat of nuclear escalation. The Cold War between the United States and the USSR only served to heighten tensions in a world coming to copes with the threat of nuclear weapons. This threat has given rise to many international security organizations and treaties, many of them facilitated through the United Nations. The North Atlantic Treaty Organization (NATO) and the Warsaw Pact, headed by the United States and the USSR respectively, helped spread nuclear technology into areas of the world that may not have had the capabilities to produce them. Currently there are nine countries that claim to have nuclear programs with an estimated combined total of 16'300 warheads according to the Independent. These countries are: The United States, Russia, the United Kingdom, China, North Korea, India, Pakistan, and Israel. Out of these nine, only the United States, Russia, France, China and the United Kingdom are legally allowed to have nuclear programs under the United Nations. It is

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estimated that Russia and the United States own 93% of all nuclear weapons. However, there is an important differentiation to be made between military nuclear programs and nuclear power programs. A total of 31 countries operate nuclear power plants, with France producing around 3/4 of their power from nuclear reactors.

The line between nuclear weapons and nuclear power is blurry at best. For example, the United States utilizes nuclear reactors to power its military submarines and aircraft carriers. Furthermore, there is great fear that civilian reactors could be converted to produce military grade material. The recently signed Iran Nuclear Deal has come under much scrutiny for supposedly allowing Iran to convert its nuclear power program into a nuclear weapons program under a lack of supervision.

The positives of nuclear power, especially when it comes to development, could be astronomical. In comparison to other energy sources, nuclear power is vastly better for the environment than fossil fuels and eliminates the need for drilling. However, there are still environmental questions regarding the mining of nuclear material and the proper disposal of nuclear waste.

The International Atomic Energy Agency (IAEA) is a subset of the United Nations with 168 member states that promotes the use of nuclear power while prohibiting its weaponization. The IAEA was established in 1957 and promotes the scientific cooperation among countries, and safeguards against the misuse of such technology. While the IAEA primarily works with governments, the World Nuclear Association (WNA) supports the specific companies that are involved with producing nuclear power. WNA members produce 70% of the world's nuclear power and was founded in 2001. Not everyone is in favour of proliferating nuclear technology. The Non-governmental Organization Greenpeace is fundamentally opposed to the use of nuclear power on an environmental basis. They voice concern over nuclear waste, mining and radiation.

Research into the possibility of abstracting energy from breaking down atoms first started in 1938. The Manhattan Project successfully created the first man-made nuclear reactor in 1942 and created and dropped the first atom bomb in 1945. Electricity was first generated by a nuclear reactor in 1951. The IAEA was created shortly after in 1957. The accident at Three Mile Island, a partial reactor meltdown in Pennsylvania, occurred in 1979 and significantly dented public perception of the benefits of nuclear power. A similar but much worse disaster took place in Chernobyl in 1986. Most recently, the disaster at Fukushima Daiichi as a result of the 2011 tsunami and earthquake in Japan resulted in many countries cementing their opposing stance to nuclear power. The Iran Nuclear Deal was agreed to in 2015, reached by the five permanent members of the Security Council plus the European Union.

The Treaty on the Nonproliferation of Nuclear Weapons (NPT) has been signed by 190 countries (all UN member states aside from India, Israel, North Korea, Pakistan). This treaty has the ultimate goal of complete nuclear disarmament at the same time as promoting the use of nuclear power. This treaty explicitly prohibits the repurposing of civilian reactors for military purpose. A key resolution prohibiting the use of nuclear weapons was resolution 1653 in 1961. There have been a series of treaties between the United States and the USSR/Russia condemning the use of nuclear

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weapons between the two parties and put a focus on disarmament. The treaty currently in effect since 2010 is the New Strategic Arms Reduction Treaty (New START).

Further Reading:

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

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

<http://www.greenpeace.org/international/en/campaigns/nuclear/>

<https://www.state.gov/t/avc/newstart/>

<http://news.bbc.co.uk/2/shared/spl/hi/guides/456900/456957/html/nn1page1.stm>

<http://www.bbc.com/news/world-asia-18718486>

REPORT: Addressing economic effects of income inequality

Income inequality is an unavoidable factor of a market economy. Theoretically, there is no economic problem with select members of society owning more wealth than others. Income inequality becomes problematic when there is an extreme divide between the top members of society and the rest of the population. Socially and politically, such a divide can cause unrest, leading to the limitation of freedom in a country and the deprivation of human rights. In economic terms, income inequality hinders economic growth. There is a confirmed negative correlation between income inequality and economic growth. According to professor William Baumol, this correlation exists because as income inequality grows, so does poverty, and poverty reduces the productivity of the workforce. Furthermore, income inequality increases unemployment. The International Monetary Fund reported in 2011 that, whereas short periods of economic growth may be achieved at the same time as high levels of income inequality, long-term economic growth occurs when there is more equality. It is important to note that levels of income inequality differs from country to country, and is not an indicator of how developed or mature a country's economy is.

Income inequality can be traced back through history to the beginning of the city state. The majority of pre-capitalist societies relied upon a tribute between the working majority and the ruling minority. These tribute systems evolved into the more official feudal systems seen in Europe and Japan. The peasants gave the local lord a portion of their harvest in return for protection. The inequality of these systems was vast, with very few members of society owning wealth or property. As trading empires were established and prospered in the Modern Era, the commercial success of sugar and cotton brought about a problem of labour. These products required large amounts of unskilled labour to mass produce the goods at a low cost. In the majority of the world (exception given to the Americas), wages were the answer to the problem of labour. The advent of waged labour gave rise to the middle class as seen in places such as France and Britain. It wasn't until the decade following the end of World War Two that the middle class would become truly prosperous and lower income inequality in the West. In Eastern Europe, due to a lack of a wage revolution, the long term extortion of peasants under

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serfdom gave way to communist revolution; an economic and political ideology with the ultimate goal of eliminating wealth inequality completely. Yugoslavia, the USSR, East Germany, China, and Vietnam, to name a few, all attempted to implement communism with varying degrees of failure. In all of these countries there remained, and continues to remain, an oligarchic class that owned a vast amount of the wealth within the nation, doing very little to close the wealth gap between the working majority and the ruling minority.

The United Nations has named "Reducing Inequality" as the tenth sustainable development goal to be achieved by 2030. They acknowledge the fact that income inequality has been reduced considerably, they recognize that inequality among social class still persists and poverty is still present throughout the world. The UN stresses the need for priority to be placed on helping those that are disadvantaged and marginalized. In recent years, micro-loans have become successful and efficient ways to lift small communities out of poverty, reducing the economic inequality within a nation. Non-governmental institutions such as the Grameen Bank,

BRAC, and the Association for Social Advancement facilitate these opportunities. The Land Enclosure Acts beginning in 1604 marked the birth of the middle class, moving Britain, and subsequently the rest of the world, towards modern capitalism. In Russia, the Bolshevik Revolution of 1914 and the founding of the Soviet Union in 1922 marked the beginning of countries incorporating communist ideals into policy. The Soviet Union persisted until 1991, when it collapsed, creating a variety of market economies in Eastern Europe and Asia Minor. Currently only China, Laos, Cuba, North Korea, and Vietnam employ communist economies. The Sustainable Development Goals, Reducing Inequality being one, was adopted by the UN General Assembly in 2015. The 2016 Presidential Campaign in the United States saw an increased focus on income inequality by the way of multiple populist candidates highlighting the issue within the United States.

Since economic and income inequality is such a localized phenomenon it is difficult to address the issue as a whole. The United Nations has taken no more action than naming Reducing Income Inequality as one of the 2030 goals. There has been a greater emphasis placed on philanthropism in attempts to aid those who need it in poverty stricken areas, leading to the emergence of many large NGOs.

Further Reading:

<http://www.un.org/sustainabledevelopment/inequality/>

<http://www.cnn.com/2013/10/29/opinion/sutter-explainer-income-inequality/>

<http://www.cbpp.org/research/poverty-and-inequality/a-guide-to-statistics-on-historical-trends-in-income-inequality>

<http://people.howstuffworks.com/communism.htm>

<https://fee.org/articles/why-communism-failed/>

<http://www.grameen.com/>

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