## CHAPTER II THE DYNAMICS OF NORTH KOREA'S NUCLEAR DEVELOPMENT

This chapter explained comprehensively about the historical background of how nuclear program firstly initiated in North Korea followed by the journey in its development. In this chapter, the writer will provide data analysis based on the timeline of measurements.

## A. The Emergence of Nuclear Power Ambition

North Korea has been through a long and complex journey in the development of its nuclear program. In understanding the history of North Korea's nuclear program there are a lots of factors and series-of-events that need to be analyze. In order to understand it more comprehensively the writer will breakdown and analyzed the factors and series-of-events that explain the process of North Korea's development on Nuclear Program.(Hildreth, 2009)

The journey of North Korea's development on nuclear program was started at 1956-1980. During this time the scientists and engineers of North Korea studied about the basic things that need to be acquired in developing Nuclear Program for the very first time. A nuclear cooperation agreement was signed by the Pyongyang and Moscow to support North Korea with basic nuclear training, information and technology. The progress continued, specifically in terms of the infrastructure such as the establishment of Yongbyon Nuclear Research Centre and Radiochemical laboratory, together with the beginning of geological surveys that mapping out large deposits of uranium ore and graphite which would later be mined by the North Korea. This progress indicating that North Korea's ambition on nuclear program started to escalate.

The USSR has played a major role in supporting North Korea's nuclear program. North Korea relies on the USSR for the basic things that they need in the development of their nuclear program.

This phenomenon caused a strong bond between two countries and also a dependence situation for North Korea and USSR. A country that already relies on other country and depending on them in particular matters would get easily affected by the country that they rely on if something happen. This situation occurred when the USSR lost in the cold war.

A dramatic change occurred when all of the support and backup that used to be provided by USSR is suddenly gone as the decline of USSR power. The USSR defeat caused a great impact to North Korea in several aspects. North Korea lost its security guarantee because the country that used to be protect them are not even able to protect themselves and should focus on its own country first to recover from war(Habib, 2009). The stability of economy sector in North Korea also affected because of this incident.

As a respond of this incident, North Korea was forced to take a careful and strategic move so it could survive in that hard times. North Korea signed the Treaty on the Non-Proliferation of Nuclear Weapons. Treaty on the Non-Proliferation of Nuclear Weapons or Non-Proliferation Treaty (NPT) is a landmark international treaty that the goal is to prevent the spread of nuclear weapons and weapons technology as well as to promote cooperation in the peaceful uses of nuclear energy that eventually will lead to complete nuclear disarmament. This treaty is followed by some kind of safeguards system under the International Atomic Energy Agency (IAEA). IAEA works to verify compliance with the Treaty through inspections. It is the duty and obligation of IAEA to make sure that the values in the NPT were really implemented and executed.

This treaty together along with its safeguards system has a goal to reduce any further development of nuclear weapon and instead focusing on the good use of nuclear energy (Davis, 2009)

During the beginning of NPT, North Korea refused to allow the inspectors to do their investigation on North Korea's nuclear facilities. This shown that North Korea still tried to do a maneuver move to secure its interest in keep developing its nuclear program. However because of the high tension at that time, North Korea finally gave the access to the inspectors to do their job. It was founded by the inspectors then that North Korea is not taking serious in revealing its plutonium production.

North Korea intention in keep developing its nuclear program remained strong. Even the signing of NPT doesn't make North Korea run out of way to securing their main interest. A series of action was being done in order to keep their nuclear program running, including the North Korea threat to withdrawn from NPT. North Korea wanted to send the strong message that they still have a strong will in developing their nuclear program and urge the world to taking seriously this threat. The United States responded to North Korea threat by proposing an offer through a framework. At this point North Korea had successfully positioning itself in the global world, making it position taken in count. Nevertheless, North Korea was still suffered from the economy breakdown during that time. A significant action should be take and a sacrifice should be made. In 1994 United States and North Korea signed the "Agreed Framework". This content of this framework is mainly focus on North Korea commitment to freeze its plutonium production program.

As for the exchange for that, North Korea would get the aid support in the form of fuel oil, economic partnership, and the building of some infrastructure such as two modern light-water nuclear power plants. This aid is very crucial for North Korea to save this country from economic breakdown.

Basically this framework is about the commitment of North Korea in discontinued its nuclear program in exchange for economical aid and support. North Korea was forced to sign this framework because they need to recover from the economical breakdown first. (Davis, 2009) Thus, by getting the economical support first, North Korea can map out their long term plan to keep continuing its nuclear program in the future by taking some various strategic steps.

The result of North Korea's long term strategy plan can be effectively seen by the audacity that shown when North Korea did a shocking move by removing the monitoring devices in Yongbyon Plant that used to be tools of IAEA inspectors to oversee the North Korea nuclear program development. This incident marked out the beginning of resumption of activity in Yongbyon reactorThe series of North Korea maneuver action reached its highest point when North Korea finally withdrawn from the Non-proliferation Treaty (NPT) in 2003. After repeatedly showing a gesture of rejection in taking part of NPT, North Korea conduct a brave move by becoming the very first country who ever conduct such thing(Bardzell, 2002)

Countries in the world immediately take various actions in responding the North Korea decision to withdrawal from NPT. The South Korea – North Korea held a cabinet talk that represented by each of their delegation but there were no significant outcome. The US president, George W. Bush delivered his speech to criticize the North Korea leader in conducting his move and responded quickly by North Korean leader causing the high tension.

A various action is made because the decision of North Korea in reopening and restarting its nuclear program is considered as a threat by the global world. A fast and serious respond was made in the form of meeting that gathered leaders of involving countries to discuss about this specific matters.(Morgan P., 2009)

This meeting known as Six Party Talk, which is a kind multilateral negotiations talks forum or meeting that focus on dismantlement of North Korea's nuclear program attended by Japan, China, Russia, United States of America, South Korea and North Korea. The six-party talks chaired by China and hosted in Beijing. Six-Party Talk was expected to be the solution to end the complex situation regarding the North Korea's nuclear program. However after series of rounds conducted from 2003-2007, North Korea finally declared it withdrawal from the Six-Party talk. This talk failed to create significant result and substantial progress due to North Korean series missile test that shown inconsistency in its commitment.

In 2006 North Korea conducted 7 missiles launch in total. At this point North Korea began to showing its aggressiveness in demonstrating the capability to develop weapon. From the series of missile tests the one that actually success is the short and medium range missile. While the Intercontinental Ballistic Missile (ICBM) still not showing a significant result. North Korea really made a huge progress when they finally conduct its first-ever-nuclear weapon test. This incident marked out the North Korea seriousness in developing its nuclear program. North Korea has consistently showed its capability to the world by the series of missile lunch until the first nuclear weapon test(Radchenko, 2006)

The series of controversial actions made by North Korea drag the world attention. North Korea already considered as a country that could possibly caused a serious threat and need to be warned immediately.

As a response for North Korea action, the United Nations Security Council passed U.N. Resolution 1718. This resolution is about financial sanction that would affect North Korea stability. In 2007, as a respond back the U.N. resolution, North Korea decided to destroy its cooling tower at Yongbyon's main atomic reactor.

This move is not a new thing for North Korea because North Korea used to be conducting such a strategic maneuver to secure its interest. Considered as the North Korea good intention, the United Stated removed North Korea from its State Sponsors of Terrorism list. This is a crucial move because United States has its own indicator in determining the countries that they considered as a threat and the removal from that list means a good progress in recovering the relation among both countries(Lin, 2006)

Just after the world think that North Korea finally become cooperative and showing its commitment in discontinuing its development of nuclear program, in 2009 North Korea declared that it has reactivated its nuclear facilities. Doesn't stop there, North Korea also conduct its second nuclear test. The controversial move and the same pattern that use by North Korea is not a new thing because whenever there are situation that not making North Korea in good position, the North Korea will quickly adapt and positioning themselves in the best way, and one of it is shown by continuing its nuclear program. In 2013 North Korea conduct its third nuclear device, showing to the world about the consistency in developing nuclear weapon.

North Korea kept making a significant progress. It can be seen in 2016 when North Korea conducted its fourth nuclear test that they claimed as the hydrogen bomb. This statement really shocked the global world. Thinking about the potential of risk that actually could be creates from North Korea.

However there are no scientific prove about this claim of able to create a hydrogen bomb. The fifth nuclear test is the biggest so far, indicating that the more North Korea developing its nuclear program the more significant progress resulted from it. The progress of the nuclear program is not stop there, on the contrary it getting bigger and better through times (Gibson, 2017).

## B. The Escalation of Nuclear Power Demonstration

Kim Jong Un become the North Korean supreme leader that conducted the highest number of missile and nuclear test in the history.

From the very beginning of his leadership, Kim Jong Un indicate his strong willingness to strategically positioning North Korea as a strong country. This marked by the year of 2017 when the North Korea has successfully brought its nuclear program to the next level. Kim Jong Un started the year with the new and fresh ambition towards the continuing development of nuclear program that shown by the statement of Kim Jong Un in a televised address on New Year's Day: "Research and development of the cutting-edge tech weapons are actively progressing and strengthening our defense capabilities, including last stage preparation of tests for intercontinental ballistic rocket launch have been continuously succeeding" (Rights, 2017)

Kim Jong Un prove his ambition towards the development of nuclear program remain strong by keep making a statement that indicate the ability of his country nuclear weapon are getting better. In this context, he said that North Korea now is ready to take this nuclear program to the next level by preparing to ICBM test that eventually will able to carry nuclear warhead.

Although there is no significant prove towards the progress in putting the nuclear warhead inside the missile but still, seeing the current situation it seems like Kim Jong Un are on his way towards that point. As the North Korean leader, Kim Jong Un emphasize that all of his effort in increasing the nuclear power capability is being done for self-defense from the external threat (Pollack, 2013)

Figure 2. 1 Data of North Korea Missile Test

## North Korea's high altitude tests 29 Nov Hwasong 15: Landing position not known 4.500km alt 1.000km distance 28 Jul-Hwasong-14 3.000km alt 900km distance travelled NORTH KOREA CHINA KOREA Pacific Ocean BBC

(Source:retrived from bbc.com)

The rising tension and escalation of threat between North Korea and United States in this year are also affected due to the United States of America's new president, Donald Trump. This year is full of high tension judging from the conflict that caused by these two countries. The controversial move was being done by Donald Trump by making statements in his twitter expressing his rejection towards North Korea nuclear program. He even said Kim Jong UN with the word of "madman" and repeatedly "Little Rocket man". In the international relations matters, the word that came out from a leader represents the interest of their country.

In this context, President Trump indicated his interest to play a dominant role in dealing with North Korea's nuclear program that seems to be keep increasing. (Murooka, 2017)

The United States really played a big role in countering the Kim Jong Un ambition in keep developing his nuclear program this year. Several actions was being made by United States in respond of Pyongyang's claim of the ability to launch an intercontinental ballistic missile, including the deployment of sea-based radar equipment to track long-range missile launches by North Korea. It doesn't need a long time until Kim Jong Un finally prove his country's claim. In 4 July 2017 North Korea conducted its first successful test of a intercontinental ballistic missile (ICBM), which would be the highest altitude a North Korean missile had ever reached. Kim Jong Un did a perfect timing in launching his first ICBM because it was being done on the independence day of United States of America just after its president spoke about how they could manage the Kim Jong Un's threat with Japanese and Chinese leaders and close to time where G20 meeting will be held. This incident give Kim Jong UN maximum political effect because it shocking the whole International Community. Another respond were given by the President Vladmir Putin. saying that Russia would work cooperatively with China to help resolve this undergoing crisis.(NORTH, 2015)

To counter Kim Jong Un's nuclear threat, United States tried any possible way to bring him down from the chair of leadership. It can be denied that despite the amazing progress of North Korea's nuclear program, this country still suffer from the economy instability and breakdown. Therefore there is a possible gap that could be use by United States to remove Kim Jong Un as a supreme leader from within.

In respond to that, Kim Jong Un remain to his stance and in fact give a bigger threat to United States saying that he would launch a nuclear strike to the heart of the US. Judging from the previous incident that showing North Korea ability to launch ICBM, United States could not take this statement easy.

The United Nations Security Council stepped in into this escalating tension of North Korea's nuclear program. This is being done by the act of adopted new sanctions to North Korea. The sanction really hit North Korea so bad. Kim Jong Un was forced to dealing with a hard times during this period of time. The sanctions aim to make North Korea suffer from the economy breakdown, by block out the economy activities. Specifically, the sanction is targeting the North Korea major exports such as iron, coal and seafood. It is also aiming for the banks and joint ventures with other countries companies. This sanction is not a new thing for North Korea. Kim Jong Un have learn from history of his country survive from sanctions and external pressure. Moreover, Kim Jong Un also known as his hard willing and stubborn. Moreover in dealing with the person that indicated has similarity in possessing such behavior, President Donald Trump.

Based on the writer analyzes, the rising tension of North Korea nuclear program also affected by the involving actors. It happens to be President Donald Trump and Supreme Leader Kim Jong Un, both the leader from each country which has "unique" personality. These leaders remain securing their national interest with their own way that consider less diplomatic because it showed the emotion more rather than the wisdom of a leader. The statement of President Donald Trump that saying North Korea would face "fire and fury like the world has never seen" make the situation worse. The Kim Jong un respond in such way that he don't want to be seen weak by the International Community (Jong Kun Choi, 2016)

North Korea's military forces under the instruction of Kim Jong Un planned the operational plan to strike the US territory of Guam. The US territory of Guam is located in the pacific and it is the nearest US military base from North Korea. Therefore it is not an impossible thing to be done judging from the recent situation of North Korea ability to demonstrate its power.

The North Korea keeps insisting to defend their nuclear program despite the pressure and sanctions given by the International Community. It is shown by the Sixth Nuclear test that was being done in 3 September 2017. Kim Jong Un claimed that he was successfully conducted a test of a hydrogen bomb in the last nuclear test. The impact of the nuclear test caused a magnitude-6.3 tremor and considered as the most powerful weapon that ever tested by North Korea. The year of 2017 marked the highest number of missile and nuclear test. Kim Jong Un as the North Korea supreme leader really have a great ambition to keep developing and increasing his nuclear capability.

Short range Medium range Intermediate range Intercontinental Underground nuclear test conducted

JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC

Source: CNS North Korea Missile Test Database

THE WASHINGTON POST

Figure 2.2 Timeline of North Korea Missile Test in 2017

(Source: CNS North Korea Missile Test Database, https://www.nti.org/analysis/articles/cns-north-korea-missiletest-database/)