**Memo on THAAD Radar Electromagnetic Waves and Environmental Impact Assessment**

1. Timeline

- July 8, 2016: US and ROK authorities agree on THAAD deployment

- July 13, 2016: Announcement that THAAD will be deployed at Seongju Seongsan Air Defense Artillery site.

- September 30, 2016 Deployment site is changed to Seongju Lotte Golf Course (near Soseongri Village)

- April 20, 2017: Completion of procedures for Lotte to hand over the land

- April 26, 2017: USFK bring THAAD equipment into Lotte Gulf Course

- 2017. 5. 1 May 1, 2017: Confirmation that THAAD radar is in operation

- July 17, 2017: Ministry of National Defense contacts residents to say it will measure the electromagnetic waves from the radar and asks for their cooperation.

\* The status of this sudden, unilateral measurement is unclear, making the intentions suspicious.

2. Resident’s Position

* Remove THAAD equipment, carry out environmental impact assessment and measure the electromagnetic waves in this context.

3. Main Issues

- The Ministry of Defense has allowed the deployment and activation of the THAAD radar and other equipment before carrying out an assessment of the potential impact on the natural environment, the economy and local residents’ health and living conditions.

- In the case of the THAAD deployment in Guam, the environmental impact assessment took about 2 years.

- While it is hard to know the impact without this assessment there are health concerns, outlined below. In addition residents fear about the potential impact on their oriental melon (*chamhoi*) crops, for example because of impact on the bee population needed for pollination

🞎 Ministry of Defense’s Assertion #1: Anyone more than 100 meters away from the THAAD radar is safe

⬩ Problems with this assertion

- According to a US Army handbook on THAAD operations, due to the powerful electromagnetic waves emitted by the THAAD radar, coming within 100 meters from the front of the radar can lead to severe internal injuries. 3.6 Kilometers (roughly 70 soccer fields) from the front of the radar should be designated a controlled security area, for which one must have clearance to enter. Electric equipment within 5.5km (aircraft etc.) can be affected.

- The THAAD AN/TPY-2 radar uses X-band microwaves - high-frequency (8 to 12.5 GHz) electromagnetic waves. High-frequency electromagnetic waves are classified in the list of matter that can cause cancer. (WHO International Cancer Research Center, May 31, 2011). As with radiation, the negative impacts on the body only becomes apparent over a long period of time.

- Residents in Kyoto, Japan, where THAAD is deployed, complain about noise pollution from the THAAD generator and vomiting and dizziness caused by the electromagnetic waves (Hankyoreh Interview, 2015).

- In addition, the Soseongri Village and Won Buddhists’ place of worship and retreat center are located within the 3.6 km area that would become a controlled security area. There are roughly 2000 people living in this area.

🞎 Ministry of Defense’s Assertion #2: Because the THAAD unit is deployed in an area that is higher up than the village and the electromagnetic waves emanate forward there will be no negative impact to the residents.

⬩ Problems with this assertion

- As the electromagnetic waves have both a main (frontal) lobe and side lobe, it cannot be concluded that just because the radar is above the village it will have no negative effects.

- Because the Ministry of Defense has not made public the exact output of the radar, it is hard to trust their data on electromagnetic wave measurements.

4. Position of Residents/NPA on the Environmental Impact Assessment (as of July 15)

1) Stop the operation of THAAD and site construction (remove THAAD equipment to outside of the designated site) and carry out the environmental impact assessment.

2) Establish an expert taskforce to respond to the environmental impact assessment process.

3) Concerning the environmental impact assessment:

(1) Carry out a strategic environmental impact assessment (including assessment of the validity of the location)

(2) Make public the radar output

(3) Guarantee participation of an international expert independent from the government and recommended by the residents.

\*\* A few English articles:

<http://english.hani.co.kr/arti/english_edition/e_international/754773.html>

<http://www.hani.co.kr/arti/english_edition/e_international/730404.html>