

MEMBER REPORT
Democratic People's Republic of Korea

ESCAP/WMO Typhoon Committee
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I . Overview of tropical cyclones which affected/impacted member's area since the last Committee Session

1. Meteorological Assessment

DPRK where is located in monsoon area of East-Asia, and often impacted by typhoon-related disasters.

Our country was affected by four typhoons in 2021.

All four typhoons affected indirectly.

(1) Typhoon 'IN-FA'(2106)

Typhoon IN-FA formed over southeastern part of Okinawa Island, Japan at 1800UTC on July 17.

It moved northwestward and landed on Zhejiang Province, China at 1500UTC on July 22 with the Minimum Sea Level Pressure of 975hPa and Maximum Wind Speed of 35m/s, and continued to move northwestward, and weakened into a tropical depression in Anhui Province China, at 1800 UTC July 27.

After then, it moved northeastward, and weakened into an extra tropical cyclone around Bohai Gulf, China at 1800 UTC July 29.

During the IN-FA moved around our country, heavy rain and strong wind were not observed. But storm surge with height of 52cm were observed by typhoon IN-FA.

(2) Typhoon 'LUPIT'(2109)

Typhoon 'LUPIT' formed over southeastern part of South China Sea at 0000 UTC on August 4.

It moved northeastward and reached around eastern part of Guangdong Province and southern part of Fujian Province, China on August 6, and moved across Korean South Sea, and landed on southern part of Kyushu Island, Japan at 1800UTC August 8 with the Minimum Sea Level Pressure of 988hPa and Maximum Wind Speed of 20m/s.

It continued to move northeastward, and weakened into a tropical depression at 0000 UTC on August 9.

At the moment, its Minimum Sea Level Pressure was 982hPa and Maximum Wind Speed was 28m/s.

And then, it continued to move eastern part of Japan Sea.

Under the impact of LUPIT, average precipitation was 10mm nationwide and 49mm in KangWon Province, and accumulated rainfall over KoSong County, KangWon Province was more than 201mm.

Under the impact of LUPIT, High waves with height of more than 3 m were observed in coastal areas of PoChon County, North HamGyong Province for 2 days.

(3) Typhoon 'OMAIIS'(2112)

OMAIIS formed over eastern part of Philippine Sea at 1200UTC on August20.

It moved northwestward and reached around the southeastern part of China Sea at 18 00UTC on August22 with Minimum Sea Level Pressure of 996hPa and Maximum Wind Speed of 20m/s.

It continued to move northward and reached around Jeju Island, and weakened into a tropical depression at 0900 UTC on August 23.

Under the impact of OMAIS, it rained and showered all over the country.

And then, accumulated rainfall was 52mm in KangWon Province, 48mm in South HwangHae Province, 47mm in North HwangHae Province, and average precipitation was 27mm nationwide.

Under the impact of OMAIS, High waves with height of more than 1.5 m and gales more than 10m/s were observed in coastal areas of KaJin County, South HamGyong Province from 24th to 25th August.

(4) Typhoon 'CHANTHU'(2114)

CHANTHU formed over eastern sea of Philippine at 0000 UTC on September 7.

It moved westward, and reached on eastern sea of Philippine at 0000UTC on September 11 with Minimum Sea Level Pressure of 905hPa and Maximum Wind Speed of 58m/s.

It continued to pass through the eastern sea of Philippine and reached on eastern sea of ShangHai, China at 0900UTC September 13, and stayed on eastern sea of 350Km away from ShangHai, China until 0900UTC September 16, and continued to move northeastward, and passed through southeastern sea of JeJu Island, and landed on northern part of KyuShu Island, Japan at 0900UTC September 17.

And then, it moved eastward, and weakened into a tropical depression on southern sea of KyuShu Island, Japan at 0600UTC September 17.

Under the impact of CHANTHU, it rained and showered all over the country from 0000 UTC on 17th to 0000 UTC on 18th September.

Accumulated rainfall was 29mm in MaSik Hill, KangWon Province.

Average precipitation was 7mm in KangWon Province and 2mm nationwide.

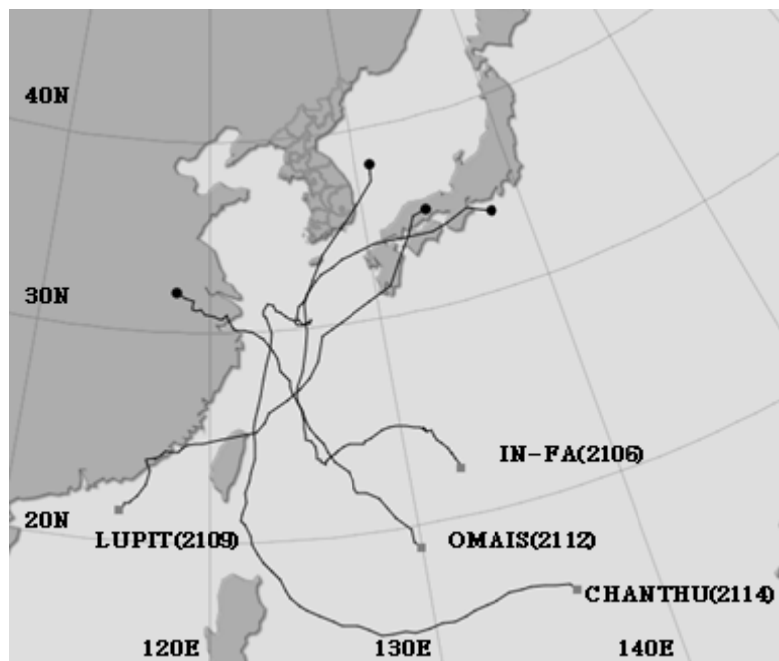


Figure 1. Tracks of typhoons affected in Korean Peninsula

2. Hydrological Assessment

Our country was indirectly affected by four typhoons including IN-FA, LUPIT, OMAIS and CHANTHU in 2021.

These typhoons caused gales, heavy rain, torrential rain and storm surge, but there was no great damage in several sectors in our country.

3. Socio-Economic Assessment

Recent years, our country has been affected by typhoon-related disasters.

But, our country had not been directly affected by typhoons this year.

4. Regional Cooperation Assessment

During the last period, we used typhoon bulletin from Tokyo, NWP products of ECMWF, CMA, JMA and NCEP for monitoring and forecasting typhoons.

Also, observed data from surrounding countries were received every 3 hours and efficiently used for typhoon monitoring and early warning.

It is still important that typhoon information issued from typhoon centers should be improved and developed for the typhoon monitoring and forecasting.

Typhoon Committee plays an important role in reducing typhoon-related disasters in DPRK.

Under the active efforts of Typhoon Committee, typhoon information issued from several forecasting centers have been used for forecasting typhoon-related disasters and reducing damages in our country.

II. Summary of Progress in Priorities supporting Key Result Areas

1. Improvement of Typhoon Forecasting

We have introduced Super Ensemble Sub-setting Technique into typhoon track forecasting in order to improve accuracy of typhoon track forecast this year.

In the future, we will continue to improve the method on typhoon track forecast.

2. Development of New Version of “TOPS”

We have already developed Typhoon Operational Prediction System (TOPS) and used efficiently for typhoon monitoring and forecasting.

This year, we have developed new version of TOPS, and it enables to do typhoon monitoring, analyzing, forecasting and informing automatically.

3. Improvement of Typhoon Information Service

State Hydro-Meteorological Administration (SHMA) has continuously paid a great attention to the improvement of typhoon information.

SHMA has disseminated common sense on typhoon via TV and computer network, and it enabled many people to be fully prepared to cope with typhoon.

SHMA will make greater efforts to improve typhoon information service in the future.

4. Effort for Reducing Typhoon-related Disasters

All activities for reducing typhoon damage have been coordinated by the government in our country.

The government of DPRK had previously organized the work to minimize typhoon-related disasters at national level based on the detailed information analysis on upcoming typhoon.

The government of DPRK had predetermined that our country has been affected by typhoon every year, and took far-sighted measures for reduction of typhoon disaster risk.

Far-sighted measures of the government became a great contribution to prevent typhoon -related disasters.

5. Strengthening Regional Cooperation

Typhoon Committee plays an important role in strengthening regional cooperation

between members.

Under the active efforts of Typhoon Committee and members, regional cooperation for forecasting typhoon-related disasters and reducing damages should be strengthened in the future.