#### **WMO OMM**



World Meteorological Organization
Organisation météorologique mondiale
Organización Meteorológica Mundial
Всемирная метеорологическая организация
旧址程本語 化表

Secrétariat

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wmo@wmo.int - public.wmo.int

10 октября 2017 г.

Fax: +41 (0) 22 730 81 81

Наш исх.:

35466/2017/DRA/RAP

Приложения: 4 (имеются только на английском языке)

Вопрос:

Региональный практический семинар BMO/KMA по теме «Прогнозы

с учетом воздействий в РА-II (Азия)», Сеул, Республика Корея,

7-9 ноября 2017 г.

Предлагаемые меры:

Заполнить и вернуть форму участия местному координатору

программы практического семинара не позднее 17 октября 2017 г.

Уважаемый господин/Уважаемая госпожа!

Рада сообщить Вам о том, что Корейская метеорологическая администрация (КМА) проведет региональный практический семинар ВМО/КМА по теме «Прогнозы с учетом воздействий в Региональной ассоциации (РА) II (Азия)» в Сеуле, Республика Корея, с 7 по 9 ноября 2017 г.

Этот практический семинар будет проводиться в качестве части экспериментального проекта по прогнозированию с учетом воздействий, который был утвержден в ходе шестнадцатой сессии РА II в феврале этого года.

В ходе этого практического семинара будут затрагиваться и обсуждаться следующие основные темы:

- статус осуществления прогнозирования с учетом воздействий и использования технологий в каждом из государств-членов и территорий-членов;
- статус системы заблаговременных предупреждений о многих опасных явлениях и ее будущее;
- система взаимодействия и навыки коммуникации с соответствующими организациями;
- технология прогнозирования с учетом воздействий в частном секторе;
- технология моделирования воздействий опасных явлений;
- методы калибровки для прогнозирования с учетом воздействий и метод оценки вероятности возникновения рисков.

В приложении содержится дополнительная информация о совещании, включая предварительную программу.

Буду признательна, если бы Вы вернули заполненную должным образом форму участия местному координатору программы практического семинара (г-жа Минджун ЮН (Ms Min-JOON YOUN), адрес э-почты: ymj@korea.kr) как можно скорее, но не позднее 17 октября 2017 г.

Обратите внимание, что КМА предоставит выбранным участникам из развивающихся стран финансовую поддержку (т. е. авиабилет в оба конца и/или размещение).

Рассчитываю на участие Вашей службы в этом важном практическом семинаре.

С уважением,

(Е. Манаенкова)

за Генерального секретаря





## Guidance Book for participants to Regional Workshop on Impact-based Forecasts in RA II (Asia)

November 7 ~ November 9, 2017 Korea Meteorological Administration Seoul, Republic of Korea

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## Workshop Overview

- 1. Title: Regional Workshop on Impact-based Forecasts in RA II (Asia)
- 2. Date: November 7(Tuesday) ~ November 9(Thursday), 2017
- 3. Objectives
- a) To enhance NMHSs' capabilities in forecasting and warnings which are impact-based and in multi-hazard configuration
- b) To share experiences and good practices by NMHSs for the successful implementation of multi-hazard impact-based forecasts and risk-based warning services
- c) To establish the International Hazard Partnership among NMHSs in Asia

#### 4. Participants

Participants at this workshop will include those from RA II, WMO secretariat and other members interested in impact-based forecast, including lecturers from UK Met office and Korea.

- 5. Official Language: English
- 6. Venue: Seoul Garden Hotel (Seoul, Republic of Korea)

#### 7. Contacts

Weather Impact Forecasts Team /

KMA (Korea Meteorological Administration)

Program Coordinator: Dr. Seungbum KIM(Team Manager) / Ms. Min-Jeong YOUN

Tel: (+82) -2-2181-7147(0629)

Fax: (+82) -2-847-4419

E-mail: kmaskim@korea.kr / ymj@korea.kr

### Part 1

## WELCOME AND INTRODUCTION

With the approval of pilot project on impact-based forecast, proposed by the Korea Meteorological Administration (KMA) at the 16th session of the RA II on 10 February 2017, the KMA will hold <sup>r</sup>Regional Workshop on Impact-based Forecasts in RA II (Asia)<sub>J</sub> in Seoul, South Korea, from 7 to 9 November, 2017.

This book provides relevant workshop information, as well as details on possible requirements for all participants.

## Part 2 PROGRAM

DATE	ТІМЕ		CONTEMTS			
	09:30 ~ 10:00		[ Registration ]			
	10:00 ~ 10:20	'20	[ Opening ] Introduction of the Workshop (KMA) Welcome Address (KMA Administrator)			
	10:20 ~ 10:30	′10	【 Group photo 】			
	10:30 ~ 10:40	'10	Coffee Break			
	10:40 ~ 12:00	′80	Keynote Speech ] WMO RA II President [TBD] WMO Director [TBD]			
	12:00 ~ 13:30	′90	【 Lunch 】			
Day 1	13:30 ~ 15:00	′90	【 Session I】 Implementation and Utilization of Impact based forecasting (UK - NSWWS, HIM)			
	15:00 ~ 15:15	'15	Coffee Break			
	15:15 ~ 16:45	'90	[ Session II-A ] Current National Warning System, Strengthening regional cooperation and partnership (KMA)			
	16:45 ~ 17:00	'15	Coffee Break			
	17:00 ~ 18:00	'60	[ Session II-B ] Current National Warning System, Strengthening regional cooperation and partnership (continued)			
	18:30 ~ 20:00		[ Dinner ]			
	08:30 ~ 09:00		Registration			
	09:00 ~ 10:20	'80	[ Session II-C ] Current National Warning System, Strengthening regional cooperation and partnership (continued)			
	10:20 ~ 10:40	'20	Coffee Break			
	10:40 ~ 12:00	'80	Special Session - WMO			
	12:00 ~ 13:30	'90	Lunch			
Day 2	13:30 ~ 15:00	'90	【 Session III-A 】 Technology and Utilization of Hazard Impact Modelling - Flooding and Heat Wave etc			
	15:00 ~ 15:15	′15	Coffee Break ]			
	15:15 ~ 16:45	′90	【 Session III-B 】 Technology and Utilization of Hazard Impact Modelling - Wild Fire etc			
	16:45 ~ 17:00	'15	【 Coffee Break 】			
	17:00 ~ 18:00	'60	【 Session III-C 】 Technology and Utilization of Hazard Impact Modelling - Weather Impact Observation or forecast based on AI and Big Data etc			
	18:20 ~ 20:20		[ Dinner ]			
	08:30 ~ 09:00		【 Registration 】			
	09:00 ~ 10:20	'80	<ul> <li>Session IV ] Discussion</li> <li>Implementation strategies of Impact based forecasts</li> <li>Future cooperation on Impact based forecasts at Regional Level</li> </ul>			
Day 3	10:20 ~ 10:40	'20	Coffee Break ]			
	10:40 ~ 12:00	'80	[ Special Session – WMO ]			
	12:00 ~ 13:30		【 Lunch 】			
	13:30 ~ 18:00		【 Technical Tour 】			
- T			principants may be subject to change depending on the event promotion			

<sup>\*</sup> The above schedule and participants may be subject to change depending on the event promotion

## Part 3 APPLICATION FOR ATTENDANCE

If you participate or make a presentation at the Workshop, please fill in the form of [appendix A] and send it to the Program Coordinator (Ms. Min-Jeong YOUN (ymj@korea.kr) by e-mail no later than 10 October 2017.

Participants at this workshop will include those from RA II, WMO secretariat and other members interested in impact-based forecast, including lecturers from UK Met office and Korea.

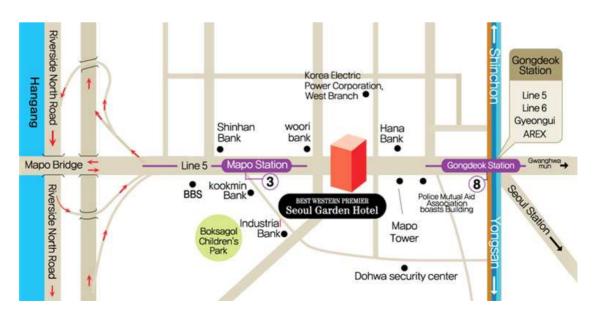
If funding support is necessary, please fill in the required field at the form of [appendix A] . For your information, round-trip airfare or accommodation and meals will be selectively provided to participants from developing countries.

For your information, special food including halal food will be served during the workshop period by the requests. If the service is necessary, please fill in the required (No.9) at the form of <code>[appendix A]</code>.

## Part 4 VENUE

#### 1. Venue

「Regional Workshop on Impact Based Forecasts in RA II (Asia)」 will be held at the Seoul Garden Hotel( 58 Mapo dae-ro, Mapo-gu, Seoul, Korea / <a href="www.seoulgarden.co.kr">www.seoulgarden.co.kr</a>)
Wireless Internet connection will be available anyplace in the venue.



### 2. Conference Room (2F)

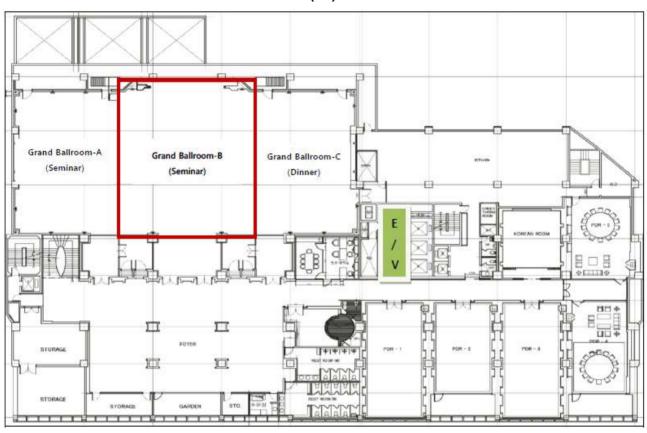
DATE : 2017.11.7(Thu) -9(Thu)

Seminar Venue : 11.7(Thu)- 8(Wed) : Grand Ballroom-B

11.9(Thu) : Grand Ballroom-A

■ Dinner Venue : 11.7(Thu)- 8(Wed) : Grand Ballroom-C

## < Location (2F) >

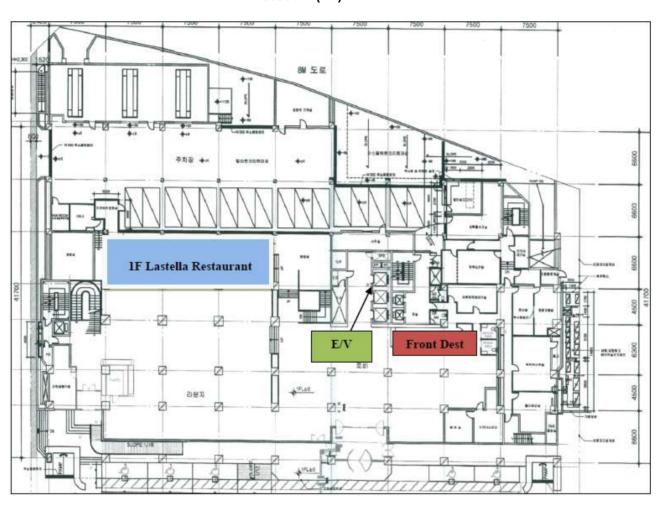




## 3. Restaurant (1F)

• Lunch: 11.7(Thu)-8(Wed): Ready at 11:30 with buffet lunch at Lastella Restaurant 1F

## < Location (1F) >





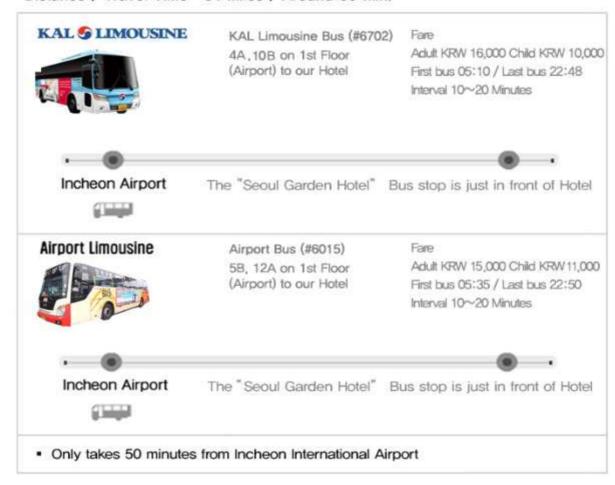
## Part 5

## **TRANSPORTATION**

- 1. Transportation from Incheon Airport to Seoul Garden Hotel
- < BUS >

## From Incheon International Airport

Distance / Travel Time: 34 miles / Around 50 min.



#### < BUS stop at Seoul Garden Hotel>



#### < KAL Limousine schedule >

conditio	rised that actual ons.	unico may vary	acpenanty on	Tr	avel T	ime : 60~7
		Depart	ure time			
05:10	06:00	06:47	07:20	07:51	· ·	08:20
08:52	09:27	09:54	10:28	10:54	- 1	11:24
11:54	12:23	12:55	13:21	13:54	10	14;24
14:53	15:21	15:55	16:25	16:55		17:19
17:48	18:16	18:44	19:15	19:41	0	20:12
20:44	21:15	21:44	22:13	22:44	71	

### < Airport Limousine(#6015) schedule >

## 6015 (Incheon Airport ↔ Myeong-dong Station)

	Incheon Airport → N	Nyeong-dong Station
	Weekday	Saturday/Holidays
)5	35, 50	40
06	02, 20, 35, 46, 57	05, 17, 35, 55
07	08, 19, 30, 43, 56	05, 15, 26, 38, 50
08	09, 23, 36, 48	00, 10, 20, 30, 40, 50
09	00, 10, 20, 30, 40, 50	00, 10, 20, 30, 40, 50
10	00, 10, 20, 30, 40, 50	00, 10, 20, 30, 40, 50
11	00, 10, 20, 30, 40, 49	00, 10, 20, 30, 40, 49
12	00, 09, 18, 27, 36, 45, 55	00, 09, 18, 27, 36, 45, 55
13	05, 15, 25, 35, 45, 55	05, 15 25, 35, 45, 55
14	05, 15, 25, 35, 45, 55	05, 15, 25, 35, 45, 55
15	05, 15, 25, 35, 45, 55	05, 15, 25, 35, 45, 55
16	05, 15, 25, 35, 45, 55	05, 15, 25, 35, 45, 55
17	05, 15, 25, 35, 45, 55	05, 15, 25, 35, 45, 55
18	05, 15, 25, 35, 45, 55	05, 15, 25, 35, 45, 55
19	05, 15, 25, 35, 45, 55	05, 15, 25, 35, 45, 55
20	05, 15, 27, 39, 52	05, 15, 27, 39, 52
21	05, 18, 32, 44, 57	05, 18, 32, 44, 57
22	11, 23, 36, 50	11, 23, 36, 50

#### < Traffic information >

Destination	Distance	Duration	Transportation
Incheon Intenational Airport	55km	50min	Car
Kimpo Intenational Airport	12km	30min	Car
Seoul Station	6km	10min	Car
Yeouido Marina	2km	5min	Car
Namdaemun	7km	15min	Car
KINTEX	27km	30min	Car
Hongik Univ.	4km	5min	Subway
Dongdaemun	8km	15min	Subway
Myeong-dong	5km	15min	Subway
Gangnam	13km	35min	Subway
Mapo Station(Line5, Gate No.3)	0.3km	3min	Walking
Gongdeok Station(Line6, Gate No.8)	0.5km	5min	Walking
Gongdeok Station(Airport Railroad, Gate No.9)	0.5km	5min	Walking

#### Taxi

#### A. Regular Taxi (White, Silver, Orange)

1. Fare: ₩55,000 ~ ₩60,000 (Toll Gate Fee Included)

2. Passengers: Max 4 ppl

3. Estimated time en route: 50min

#### B. Luxury Taxi (Black)

1. Fare: ₩80,000 (Toll Gate Fee Included)

2. Passengers: Max 4 ppl

3. Estimated time en route: 50min

#### C. Jumbo Taxi (Black Van)

1. Fare: ₩80,000 (Toll Gate Fee Included)

2. Passengers: Max 7 ppl

3. Estimated time en route: 50min

#### Airport Train

1. Fare: About ₩3,950

2. Service Time: 05:23~23:42 (Timetable referenced)

3. Estimated time en route: About 55min, Take off at the Gongdeuk Station, 8 min Walking Distance from Exit 8.

#### < Airport train schedule >

		-	•	<b></b>	M	Ο.	•
Timo	Table						

Hour	To Seoul Station (minute)					
	Express	All stop	KTX			
05	20	23, 31, 38, 46, 55				
06	10,50	03, 14, 27, 37, 45, 58	55(Busan)			
07	30	06, 12, 19, 32, 46, 58				
08	10,50	03, 17, 27, 39, 54				
09	23,50	09, 16, 25, 40, 52	07(Busan), 38(Gwangiu)			
10	30	03, 15, 23, 36, 46				
11	00, 30, 52	03, 15, 23, 36, 46				
12	30	09, 16, 23, 37, 52	07(Busan), 50(Jinju)			
13	00,30	02, 08, 15, 23, 38, 53				
14	00,30	03, 15, 23, 38, 53				
15	00,30	02, 14, 23, 37, 52	50 (Mokpo, Expo yeosu)			
16	00,40	03, 16, 32, 42, 50, 56	30(Busan)			
17	10.50	03, 12, 25, 39, 52				
18	30	04, 14, 20, 37, 50	35(Busan)			
19	10,50	03, 15, 25, 39, 52				
20	30	04, 14, 20, 37, 50	35(Busan)			
21	10,50	03, 16, 27, 39, 52				
22		07, 20, 33, 45, 57				
23		12, 27, 42, 57 (D)				

## Part 6

## **HOTEL RESERVATION**

Participants are strongly recommended to stay at the **Seoul Garden Hotel** where the workshop will be held. A block reservation has been made with very special rates during this event.

To secure the special rates at this hotel, participants are requested to fill in the hotel reservation form in [ Appendix B ] and return it to the hotel contact, with a copy to the Program Coordinator (ymj@korea.kr) by e-mail no later than 20 October 2017.

For any further information please contact the Program Coordinator at the following address:

Ms. Min-Jeong, YOUN

Korea Meteorological Administration

E-mail: ymj@korea.kr

**Tel:** Tel: (+82) -2-2181-7147(0629)





Appendix A

## Regional Workshop on Impact-based Forecasts in RA II (Asia) 7-9, November, 2017, Seoul, Republic of Korea

### ATTENDANCE FORM

2. Present Official Position	Fi <u>rst Name</u>	Middle Name	Last Name
3. Country	-		
4. Agency/Organization			
5. Mailing address:			
Fax Number:		 Email	
Tel. number : Office		Homo/mobile	
6 . Will Attend the workshop	as		
-			
( ) ADVISER		ERS	
application purpose, please	check the option b ttendance Form to	n-Arrival or to issue the invi- velow and provide the pass us. The same information i	
application purpose, please requested and return the A	check the option b ttendance Form to a	elow and provide the pass	port information
application purpose, please requested and return the A accompanying person, if any	check the option b ttendance Form to	elow and provide the pass	port information
application purpose, please requested and return the A accompanying person, if any Full name as shown on Pass	check the option b ttendance Form to 	elow and provide the pass us. The same information i	port information
application purpose, please requested and return the A accompanying person, if any  Full name as shown on Pass  Date of birth	check the option b ttendance Form to	relow and provide the pass us. The same information i	port information
application purpose, please requested and return the A accompanying person, if any  Full name as shown on Pass  Date of birth  Nationality  Passport number	check the option b ttendance Form to 7.	Place of birth Gender Profession Pate of iggue	port information (
application purpose, please requested and return the A accompanying person, if any  Full name as shown on Pass  Date of birth  Nationality  Passport number	check the option b ttendance Form to	Place of birth Gender Profession Pate of iggue	port information ( s required from t
application purpose, please requested and return the Accompanying person, if any Full name as shown on Pass Date of birth Nationality Passport number Place of issue Place to apply for visa Please check if you need to e selectively provided to part	be check the option be ttendance Form to it.  port  be provided Funding ticipants from development	Place of birth Gender Profession Date of issue Expiry Date  GSupport. (For your informoping country)  Accommodation support	port information s required from t
application purpose, please requested and return the Accompanying person, if any Full name as shown on Pass Date of birth Nationality Passport number Place of issue Place to apply for visa  Please check if you need to e selectively provided to para	be provided Funding ticipants from development	Place of birth Gender Profession Date of issue Expiry Date  GSupport. (For your informoping country)  Accommodation support	port information s required from t

- (i) Ms. Min-Jeong YOUN
- (+82) 2 2181 0629



## [ Korea Meteorological Administration ]

**Regional Workshop on Impact Forecasts in RA II(Asia)** 

## **Seoul Garden Hotel Reservation Form**

Guest Details						
First name			Last name			
Nationality			Contact no.			
E-mail address						
!		Hotel 1	Reservation			
Check-in date			Check-out date			
No. of guests			No. of rooms			
Arrival flight No.	Arrival flight No.		Departure flight No.			
Room t	ype		Special Room ra	ite(10%	V.A.T is included)	
Standard Double(Queen Bed 1ea) Breakfast Buffet(1pax)  KRV			RW 12	1,000		
	Special Request					
Ear Ear	ly check-ir	1		Late che	eck-out	
Ear	ly check-in	1	Late check-out			
Before 09:00		09:00 ~ 12:00	13:00 ~ 16:00		After 16:00	
100% charge of one nig	ht	KWR 80,000	KWR 80,000		100% charge of one night	
* Check in - 14:00pm	/ Check ou	t - 12:00pm				
☐ Non-	Smoking.			moking	5.	
Credit Card Information						
Type						
Credit card no.						
Card holder's name						
Expiry date (Year/Mor	nth)					

#### Cancellation policy

If the event of any cancellation or change, please notify our reservation team at least 72hours prior to the arrival date. One night charge will be applied for no-show or failure of advance cancellation.

None guaranteed reservation(s) will be held 72hours prior to the guest's expected arrival time (Seoul time). If you wish to hold your reservation(s) without any restrictions, please do guarantee your reservation by providing us with your credit card information.

www.seoulgarden.co.kr

## Regional Workshop on Impact-based Forceasts in RA II (Asia)

Seoul, Republic of Korea, 7-9, November, 2017





#### INFORMATION NOTE

「Regional Workshop on Impact-based Forecasts in RA II (Asia)」 aim to share experiences and good practices by NMHSs for the successful implementation of multi-hazard impact-based forecasts and risk-based warning services. The Workshop will be held from 7 to 9 November in Seoul, Republic of Korea, hosted by the KMA(Korea Meteorological Administration) and the WMO(World Meteorological Organization).

#### **BACKGROUND**

- With the approval of pilot project on impactbased forecast, proposed by the KMA at the 16<sup>th</sup> session of the RA II on 10 February 2017, the KMA will hold the first Regional Workshop on Impact-based Forecasts in RA II (Asia).
- Even with accurate and timely weather forecasts, many people around the world still lose their lives due to the lack of understanding of the consequences of severe weather events.
- WMO is calling for the establishment and promotion of an impact-based forecasting implementation strategy accordingly.
- and information on the impact-based forecasts of countries in the region.

  (To promote the concept of multi-hazard impact-based forecasts, with the aim of sharing relevant information on such services provided or planned to be provided by NMHSs, including the role of future forecasters to identity associated training needs in the Region)

To do this, we would like to share experiences

#### TARGET GROUP

- All countries in Asia, but in particular, those who stand to benefit the most from further development of Multi-Hazard Early Warning Systems(MHEWSs) such as the least developed countries (LDCs), the small island developing states (SIDS) and landlocked developing countries (LLDCs)
- National disaster risk management/civil protection agencies
- National meteorological and hydrological services, geological surveys and institutes, health organizations and related scientific and academic institutions from nations that are interested to share good practice examples
- Government representatives from different sectors-including health, transport, environment, agriculture, finance, development cooperationrequiring hazard information for better planning
- Private sector entities that play a major role in the Impact-based forecasts and the Impact Weather Data Base
- Regional organizations supporting the development and provision of early warnings



#### **MAIN TOPICS**

#### **SUBTHEME 1**

The status of impact-based forecasting implementation and technology utilization in each country

#### **SUBTHEME 2**

The status of multi-hazard early warning system and its future

#### **SUBTHEME 3**

Collaboration system and communication skills with relevant organizations

#### **SUBTHEME 4**

Impact-based forecast technology in the private sector

#### **SUBTHEME 5**

Hazard impact modelling

#### **SUBTHEME 6**

Calibration techniques for impact-based forecast and risk probability estimation method

#### **NOTIFICATION**

Round-trip air fare or accommodations and meals will be selectively provided to participants from developing countries.

Participants wishing to make a presentation at the Workshop should contact the Program Coordinator, Ms. Min-Jeong YOUN(ymj@korea.kr) by e-mail not later than 10 Oct. 2017.

#### DRAFT PROGRAMS

DRAFT PROGRAMS					
	09:30–10:00	Registration			
DAY1	10:00-10:20	Opening Introduction of the Workshop (KMA) Welcoming Address (KMA Administrator)			
	10:40-12:00	Keynote speech WMO RA II President [TBD] WMO Director [TBD]			
	13:30-15:00	Session1 Implementation and Utilization of Impact based forecasting (UK , etc)			
	15:15-18:00	Session2 Current National Warning System, Strengthening regional cooperation and partnerships (KMA , etc)			
	08:30-09:00	Registration			
	09:00-10:20	Session2 Current National Warning System, Strengthening regional cooperation and partnerships			
DAY2	10:40-12:00	Special session – WMO [TBD]			
DATZ	13:30-18:00	Session3 Technology and Utilization of High Impact Modelling - Flooding, Heat Wave, Wild Fire - Weather Impact Observation or forecasts based on AI and BIG Data etc			
	08:30–9:00	Registration			
DAY3	9:00-10:20	Session4 - Discussion - Implementation strategies of Impact based forecasts - Future Cooperation on Impact based forecasts at regional level			
	10:40-12:00	Special session – WMO [TBD]			
	13:30–18:00	Technical Tour			

#### **CONTACT INFORMATION**

Weather Impact Forecasts Team Korea Meteorological Administration

Program Coordinator: Dr. Seungbum KIM (Team Manager) / Ms. Min-Jeong YOUN

Tel: +82 - 2 - 2181 - 7147 (0629) Email: kmaskim@korea.kr / ymj@korea.kr

