

(1) Report on the 30th IHP Training Course
 International Hydrological Programme
 Winter School for Applying Technology to Climate Change
 Integrated Basin Management under Changing Climate
 1st December – 10th December, 2020



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Objectives of the 30th IHP Online Training Course: The 30th IHP Training Course in Kyoto provided an opportunity for participants: 1) to acquire the latest knowledge on climate change impacts on water resources, water-related disasters and ecosystem services, 2) to make a practice on rainfall-runoff-inundation analysis at river basin scale, 3) to discuss effective strategies of integrated basin management based on scientific knowledge to realize a resilient society under climate change.

Registered Trainees: In total 30 trainees from various universities, research institutes and professionals originally coming from 7 countries (China, Taiwan, Cambodia, Vietnam, Philippines, Uzbekistan, Egypt). Details regarding the affiliations and statistics of trainees are summarized in Figure 1



Fig. 1 (left) Statistics and information regarding the registered trainees (right) Picture of trainees gathered at Isabela State University in the Philippines for Online training sessions.

Pre-Training Course Orientation: We invited all trainees through zoom for an orientation session for software installations and troubleshooting before IHP official starts. Furthermore, we instructed trainees regarding exercises, target basin selection, self-introduction during opening session, and report presentation. Figure 2 shows pictures during the troubleshooting & pre-training orientation.

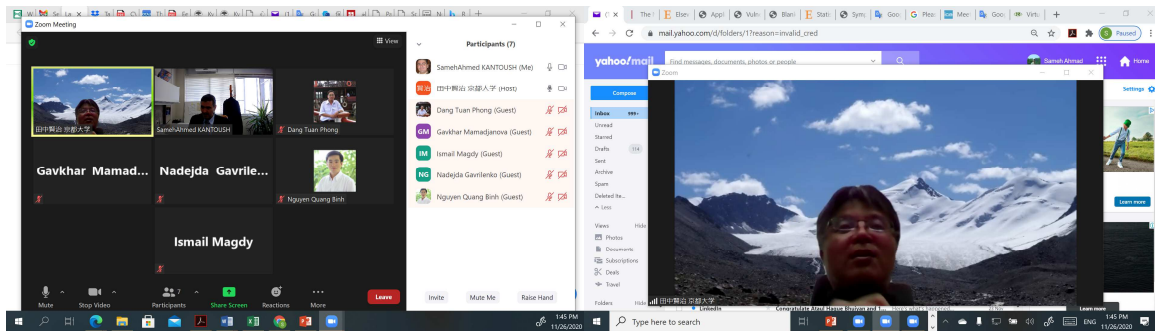


Fig. 2 Taken pictures during online sessions for software installation and instructions

Program of the 30th IHP: The IHP-TC composed of 11 lectures, 8 exercises including self-paced practicing of various software's and virtual field visit for the target river basin. I will present the daily program with some of pictures related to these activities (Figs. 3, 4, 5, 6, 7, 8)

Date	Time	Contents	Lecturer(s)
1-Dec Tue	9:00-10:30	Opening ceremony, self-introduction and country report	T. Sumi / S. A. Kantoush
	11:00-12:30	Lecture 1: Fundamentals of land surface processes	K. Tanaka
	13:30-15:00	Exercise 1: Processing method of meteorological and geographical data (parallel session for trouble shooting)	K. Tanaka & K. Yorozu
	15:30-17:30	Exercise 2: Processing method of meteorological and geographical data (parallel session for trouble shooting)	K. Tanaka & K. Yorozu

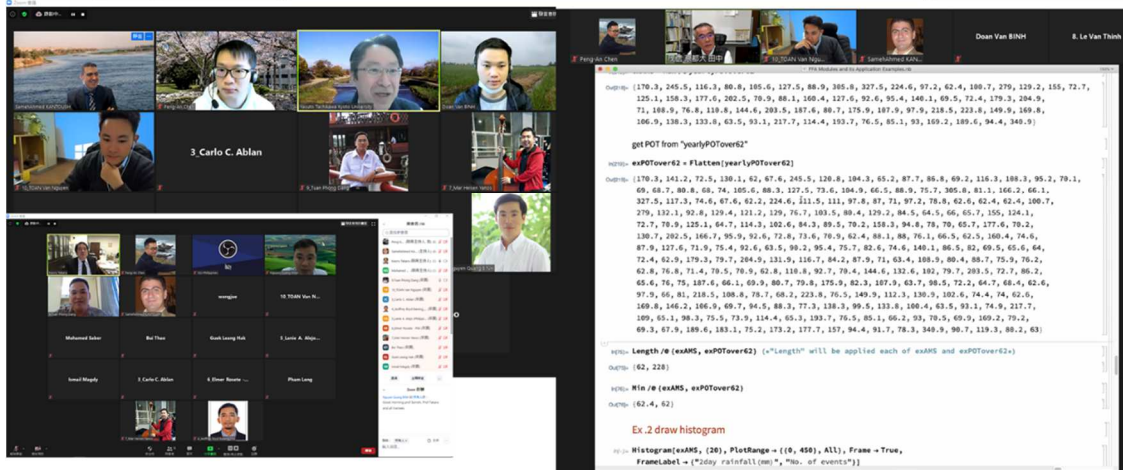
Self Introduction and Target River Basin: Live and Recorded Presentations

Fig. 3 Self-introduction and research presentation by trainees during opening ceremony

2-Dec Wed	9:00-10:30	Lecture 2: Fundamentals of basin-scale hydrological analysis	Y. Ichikawa
	11:00-12:30	Lecture 3: Climate changes impact prediction on disaster environments	E. Nakakita
	13:30-15:00	Exercise 3: Statistical downscaling of GCM output	S. Kim
	15:30-17:00		
3-Dec Thu	9:00-10:30	Lecture 4: Fundamentals of optimum reservoir operation	T. Hori
	11:00-12:30	Lecture 5: Fundamentals of rainfall-runoff-inundation modelling	T. Sayama
	13:30-15:00	Exercise 4-1: Rainfall-runoff-inundation modelling	T. Sayama
	15:30-17:00	Exercise 5-1: Self schooling and build the target basin	Trainees

Fig. 4 Two days of fundamental lectures and exercises

7-Dec	Mon	9:00-10:30	Lecture 6: UNESCO-IHP and water resources prediction under changing climate in Asia	Y. Tachikawa
		11:00-12:30	Lecture 7: Integrated sediment management for reservoir sustainability	T. Sumi
		13:30-15:00	Lecture 8: Fundamentals of hydrological extreme analysis	S. Tanaka
		15:30-17:00	Exercise 8: Hydrological extreme analysis	
8-Dec	Tue	9:00-10:30	Lecture 9: Resilient society development under changing climate	K. Takara
		11:00-12:30	Lecture 10: Hydrological measurements of large river basins	S. A. Kantoush
		13:30-15:00	Exercise 9: Optimum operation of reservoir systems	D. Nohara
		15:30-17:00		



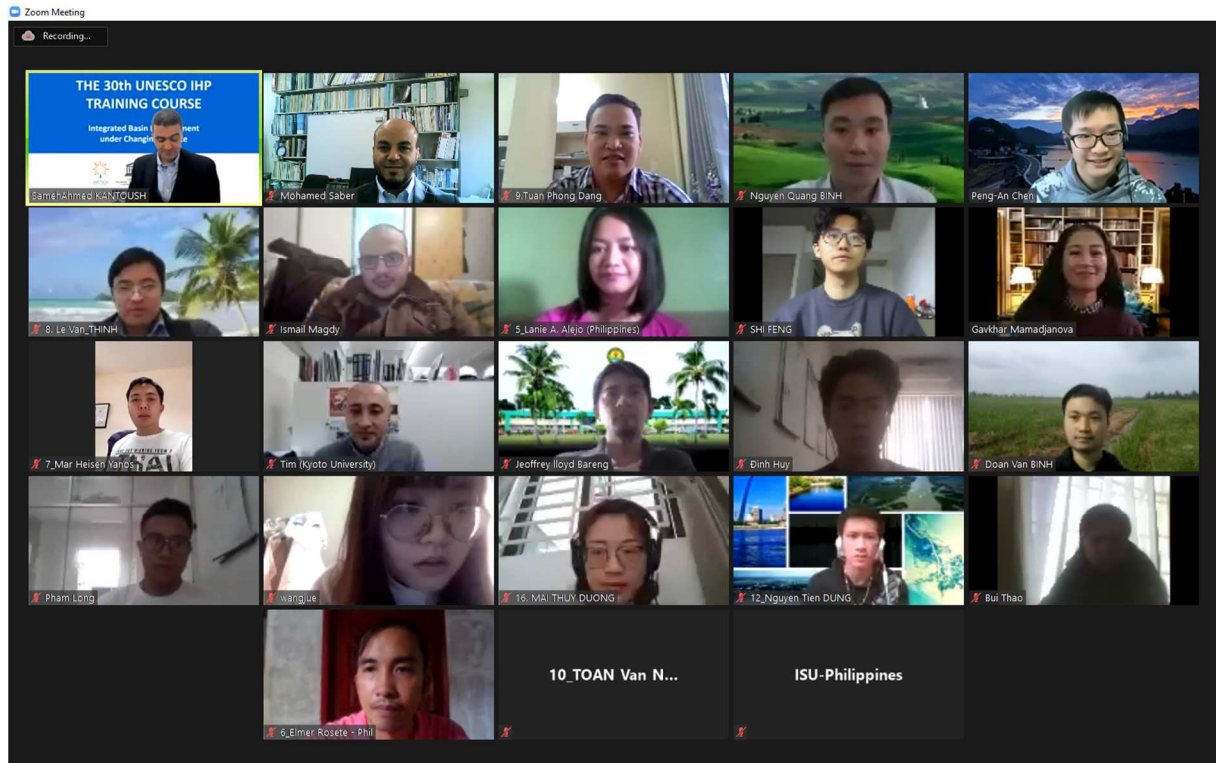


Fig. 7 Report presentations and closing ceremony

Impressions by Trainees

私が知ることができる最高のものは

Watashi ga shiru koto ga dekiru saikō no mono wa, **IHP**

“One stop shop as i say, fresh “Items” (Ideas) was on sale, Shopping OVERLOAD. This event truly hits the bulls-eye in my part, there are proposals to revisit our protocols on dam discharge, now here are the tools in front of us waving to be sharpened, to be used in proper way. A productive IHP, fruitful we can be. Thank you so much Sensei’s”

I was glad that i participated in this training course and learned with different professionals from other countries. This has been a good opportunity for me to be able to apply my knowledge and to be able to gain more. Thank you!

“I learned a lot. We can use the knowledge gained from the IHP training in our present and future researches”

“New knowledge and skills learned and the new different Apps to be used is very useful. Thanks a lot”

“The training was great, energizing and bringing lots of ideas. All Activities and exercises were fun and challenging. It is well-balanced composition of participants, which contributed to interesting and focus discussions and exchanges”

The IHP Training Course have completely satisfied my thirst in learning computer softwares related to hydrology. The Experts who that taught us during the period have successfully shared their knowledge fluently. Having been showered by this kind of knowledge is a blessing to me.

Certificates After accomplishing the IHP-OTC

Fig. 8 Impressions by trainees and selfie-pictures with IHP-certificates

The Way-Forward: IHP – TC (Hybrid System) will continue for Integrated Basin Management under Changing Climate. Facilitating sustainable development in ASEAN through education. Common Challenges in ASEAN Countries: for instance, in the River Basin Management (Flood and Sediment) in The Philippines and Vietnam, JASTIP, SIP, and APN project.