

HATHI  
THE 4<sup>TH</sup> INTERNATIONAL  
SEMINAR 2013  
YOGYA, SEPTEMBER 6<sup>TH</sup> - 8<sup>TH</sup>, 2013



*Proceedings*

Volume 1

INTERNATIONAL SEMINAR ON

# “Water Related Disaster Solutions”

SHERATON MUSTIKA YOGYAKARTA, INDONESIA  
SEPTEMBER 6<sup>TH</sup> - 8<sup>TH</sup>, 2013



Indonesian Association  
of Hydraulic Engineers

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## PREFACE



The International Seminar with special focus on “Water Related Disaster Solutions” was implemented successfully from 6<sup>th</sup> to 8<sup>th</sup> September 2013 in Yogyakarta attended by experts and professionals from many countries including Indonesian as the host.

The discussions of the Seminar had covered the entire aspects of the water related disaster solutions including its risk management, the innovation in disaster mitigation and adaptation, as well capacity building and community participation aspects, involving highly notified professionals with numerous technical models, state of the arts as well as scientific and empirical deliberations.

The overall presentations, discussions and debates during the Seminar concluded that the outputs will undoubtedly contribute to remarkable concepts, strategies, lessons learned, and sharing of experiences on the water related disaster solutions, particularly on the environmentally sound technologies and sustainable practices on the years to come. Based on this fact, I believe that the proceeding of this Seminar will be valuable document for the implementation of the adaptation and mitigation to the climate change.

I would like to thank the organizing committee, peers and writers, seniors and all members of HATHI for enormous supports to the Seminar. May God bless you all.

**Dr. Ir. Moch. Amron, M.Sc., PU-SDA**

A handwritten signature in blue ink, appearing to read 'Moch. Amron', written over a faint, larger version of the same signature.

*Chairman of HATHI,  
September, 2013*



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INTERNATIONAL SEMINAR ON

# “Water Related Disaster Solutions”

**Sub Theme 1**

## **Risk Management in Water-Related Disaster**

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