

## **Agenda and Time schedule for the TC213 Meeting on Sep 18, 2023 at ICSE-11**

- 5:30 PM – 5:35 PM Meeting outline by the TC chair (S. Sassa)
- 5:35 PM – 5:45 PM Brief summary of the immediate past **ICSE-10** in 2021 by the TC vice-chair (C. Avila)
- 5:45 PM – 6:00 PM Summary and review of the TC213 Special Issue on Scour and Erosion of the International Journal of Geoengineering Case Histories (Global contributions across America, Europe, Asia and Oceania from in-land scour and erosion to river scour, coastal erosion, scour and internal erosion, and marine scour at/around offshore structures ) and the overview of the 20th ICSMGE session on Scour and Erosion (S. Sassa)
- 6:00 PM – 6:10 PM Overview of **ICSE-11** by the conference chair (T.U. Petersen)
- 6:10 PM – 6:20 PM Introduction to **ICSE-12** in 2025 in China by the host (X. Fu)
- 6:20 PM – 6:35 PM Presentation by a host candidate of **ICSE-13** in 2027 (T. Ferradosa)
- 6:35 PM – 6:40 PM Voting for the host of ICSE-13 in 2027
- 6:40 PM – 6:50 PM Discussion on a ISSMGE new initiative GeoWB in the face of geo-disasters
- 6:50 PM – 6:55 PM Introduction of an erosion research programme by the TC member (G. Hoffmans)
- 6:55 PM – 6:57 PM Information from the TC member (S. Draper)
- 6:57 PM – 7:00 PM Concluding remarks by the TC chair (S. Sassa)

## Summary of the recent major activities of TC213 during the COVID-19 period

- **First International TC213 Virtual Workshop on Scour and Erosion attended by 368 participants from 18 different countries worldwide, 2020**
- **Publication of the TC213 State-of-the Art and Practice Book from Springer, 2021**
- **First Virtual ICSE-10 Conference, 2021**
- **TC213 session in the 20th International Conference on Soil Mechanics and Geotechnical Engineering (ICSMGE 2022), 2022**
- **Contribution to ISSMGE Time Capsule Project, 2022**
- **Start of Open Access Publication of the ICSE Proceedings in the Online Library of ISSMGE (ICSE-10 Proceedings as well as ICSE-11 Proceedings), 2022-2023**
- **TC213 Journal Special Issue on Scour and Erosion: ISSMGE International Journal of Geoenvironmental Case Histories (IJGCH), 2023**

All of these are the first achievements of the TC213

## Organizing Committee

### Advisory Committee

**Dr. Shinji Sassa**, Chairman, TC 213, ISSMGE  
**Prof. P.V.G.D. Prasad Reddy**, Vice Chancellor, Andhra University  
**Prof. G.L. Sivakumar Babu**, IISc., Bangalore, President, IGS  
**Prof. J.T. Shahu**, IIT Delhi, Secretary, IGS, Delhi  
**Prof. M.R. Madhav**, AICTE-INAE Dist. Visiting Professor, IIT Hyderabad and JNTU Hyderabad  
**Prof. Peri Srinivasa Rao**, Principal, Andhra University College of Engineering  
**Prof. T.V. Praveen**, HoD, Dept. of Civil Engineering, Andhra University College of Engineering

### Coordinator:

**Prof. C.N.V. Satyanarayana Reddy**  
Member of TC 213, ISSMGE  
Andhra University, Visakhapatnam, India

### Co-coordinator:

**Dr. Jimmy Thomas**  
Member of TC 213, ISSMGE  
Consulting Engineer, Ground Engineering – Geosynthetics, Reinforced Soil structures, Pavements  
Tripunithura, Kerala, India

### For Details Contact:

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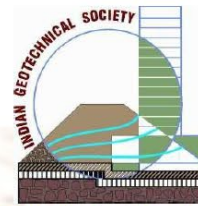


## ISSMGE TC 213 Workshop On SCOUR AND EROSION (December 16, 2020)

Organized by



International Society for Soil Mechanics and  
Geotechnical Engineering  
and



Indian Geotechnical Society, New Delhi  
in association with



ISO 9001-2015 Certified

Department of Civil Engineering  
Andhra University College of Engineering  
Andhra University, Visakhapatnam -530 003  
Andhra Pradesh, India

**The ISSMGE  
TC213 Workshop  
on Scour and  
Erosion in 2020  
was attended by  
368 participants  
from 18 different  
countries.**

Lecture Notes in Civil Engineering

Chirla N. V. Satyanarayana Reddy  
Shinji Sassa *Editors*

# Scour- and Erosion- Related Issues

Proceedings of ISSMGE TC 213 Workshop

 Springer

This book comprises chapters on scour and erosion related issues. It is an outcome of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) Technical Committee 213 Workshop on Scour and Erosion that was held on December 16, 2020. The ISSMGE TC213 Workshop was attended by 368 participants from 18 different countries worldwide.

The contents of this book reflect recent advances in the mechanics and countermeasures of scour and erosion, including coastal protection, erosion control, etc. Covering practical issues of geotechnical engineering with academic and research inputs, this volume will be a useful reference for academia and industry alike.

## **For the Time Capsule Project (TCP): TC213 contributions**

### **Milestone: Scour and Erosion**

- **Tenth Anniversary of International Conference on Scour and Erosion for the last twenty years**
- **Unique and distinguished standing in the ISSMGE TCs: Multi/interdisciplinarity with both geotechnical and hydraulic engineers**
- **ICSE conference series publications that involve guidelines with access from worldwide researchers and practitioners**
- **Virtual scour and erosion conference/workshop including young members: ISSMGE TC213 Workshop (2020), 10th International Conference on Scour and Erosion, ICSE-10 (2021)**
- **ICSE-11 in Denmark in 2023 and ICSE-12 in China in 2025**



1. **Expedited Review and Publication.** High quality submittals may be reviewed and published within only 3 months.
2. **Open Access Publication and Wide Circulation.** All published papers are available online for digital download at no cost.
3. **Colored figures and electronic data are included in all papers.**

## **TC213 Special Issue on Scour and Erosion published in 2023**

**The “International Journal of Geoengineering Case Histories (IJGCH)” is an official journal of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), focusing on the publication of well-documented case histories.**



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## Volume 7 Issue 4

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<a href="#">Improving Scour Estimates with NextScour for the Lafayette Avenue Bridge Replacement Project</a>	Haoyin Shan, James Pagenkopf, Chen Li, Nasi Zhang, Daniel Pastrich, Otto Wiblishauser, Chao Huang, Kornel Kerenyi
<a href="#">Emergency Bridge Scour Countermeasure in Marin County, California, United States</a>	Catherine M.C. Avila
<a href="#">Coastal Road Slope Collapses Behind a Retaining Wall Due to Scour and Erosion</a>	Ryota Tsubokawa, Yasunari Iida, Yuji Ushiwatari, Tatsuya Matsuda, Masashi Ochi, Makoto Miyatake, Shinji Sassa
<a href="#">Probabilistic Assessment and Comparison of Scour Protections at Horns Rev 3 and Egmond aan Zee Offshore Wind Farms</a>	João Chambel, Tiago Fazeres-Ferradosa, Rui Figueiredo, Paulo Rosa-Santos, Francisco Taveira Pinto
<a href="#">Scour Prediction in Cohesive Marine Soils: A Hybrid Approach</a>	John M. Harris, Nikolas S. Tavouktsoglou, Amelia Couldrey, Richard J.S. Whitehouse, Jamie Klapper

# Latest Published Case History Papers

## Probabilistic Assessment and Comparison of Scour Protections at Horns Rev 3 and Egmond aan Zee Offshore Wind Farms

— Chambel, J., Fazeres-Ferradosa, T., Figueiredo, R., Rosa-Santos, P., Pinto, F. T.



Offshore wind   scour   scour protection   probability of failure   reliability

— Offshore wind foundations have seen a remarkable growth in over the last three decades. Up to date, this growth has been mainly registered in North Sea locations, where water depths do not exceed 30 m and monopile diameters typically range between 4 to 9 m. In these cases, scour phenomena can be a m...

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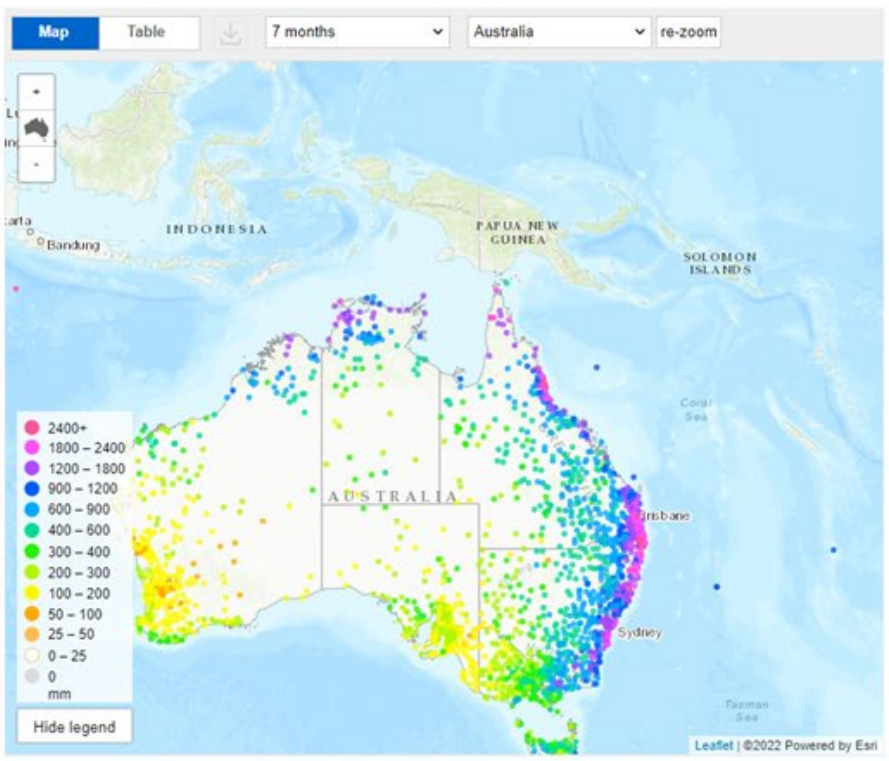
## Bridge Abutment Remediation – A Case Study

— Sundaram, M., Sugawara, J., Sivakumar, S.

### Recent rainfall station totals

[Alternative mobile version](#)

Issued 7 months: 1 November 2021 – 31 May 2022



Transport and Main Roads   rainfall   failures   remediation   temporary works   permanent works

— Record-breaking rainfall events in parts of eastern Australia—particularly, most recently, in Queensland—resulted in severe flooding and property damage. Transport and Main Roads assets were not spared from destruction caused by these events. The severe rainfall and flooding resulted in ...

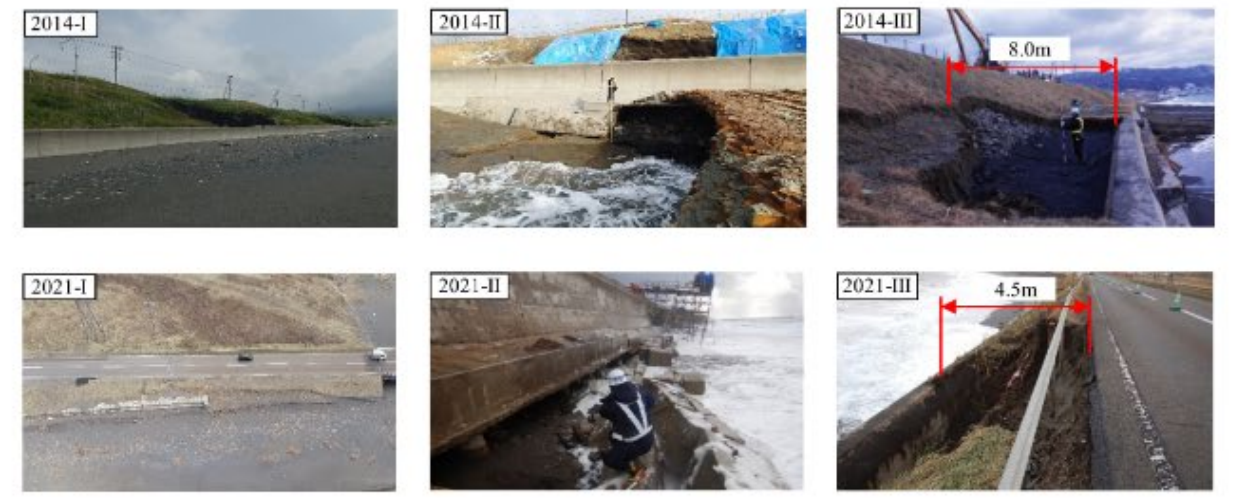
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# Latest Published Case History Papers

## Coastal Road Slope Collapses Behind a Retaining Wall Due to Scour and Erosion

— Tsubokawa, R., Iida, Y., Ushiwatari, Y., Matsuda, T., Ochi, M., Miyatake, M., Sassa, S.



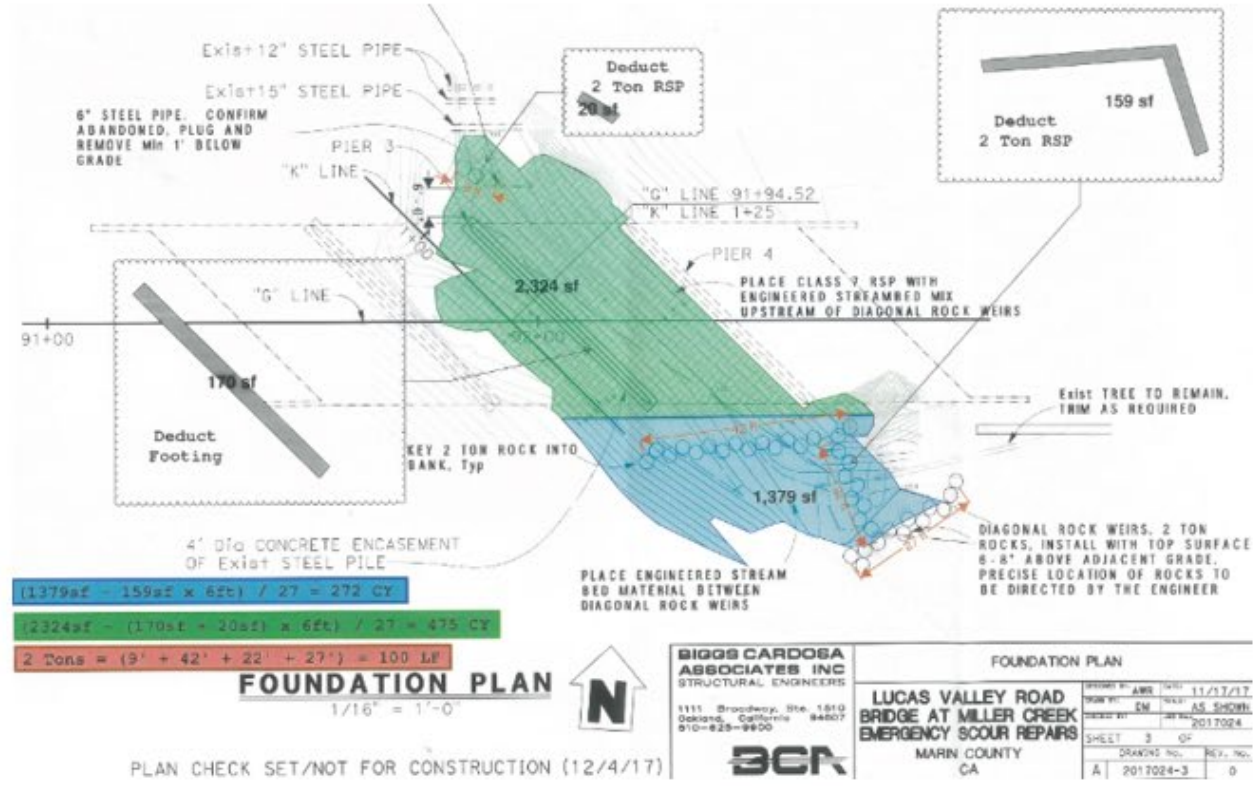
coastal road    scour    erosion    internal erosion    cavity    collapse    retaining wall

— The present study investigates the coastal road slope disasters that took place in December 2014 and in November 2021 in Hokkaido, Japan. The coastal disasters represent collapses behind the retaining walls under high wave conditions. The results of the field investigations demonstrate that the exte...

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## Emergency Bridge Scour Countermeasure in Marin County, California, United States

— Avila, C. M.



Scour Countermeasure    Scour Critical Bridges

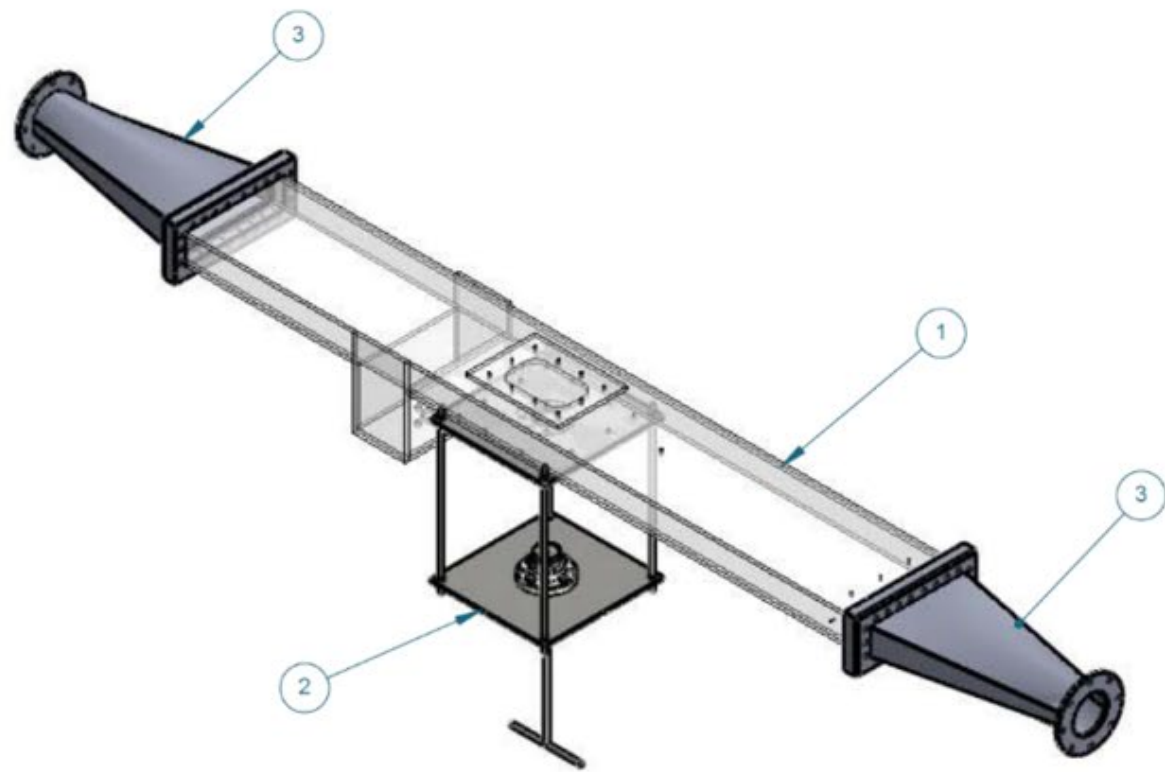
— The Lucas Valley Road Bridge over Miller Creek in Marin County, California was identified as scour critical in August 2017. Within four months (just before the rainy season in California), structural, hydraulic, and monitoring countermeasures were installed at the bridge. Structural countermeasures ...

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# Latest Published Case History Papers

## Scour Prediction in Cohesive Marine Soils: A Hybrid Approach

— Harris, J. M., Tavouktsoglou, N. S., Couldrey, A., Whitehouse, R. J., Klapper, J.



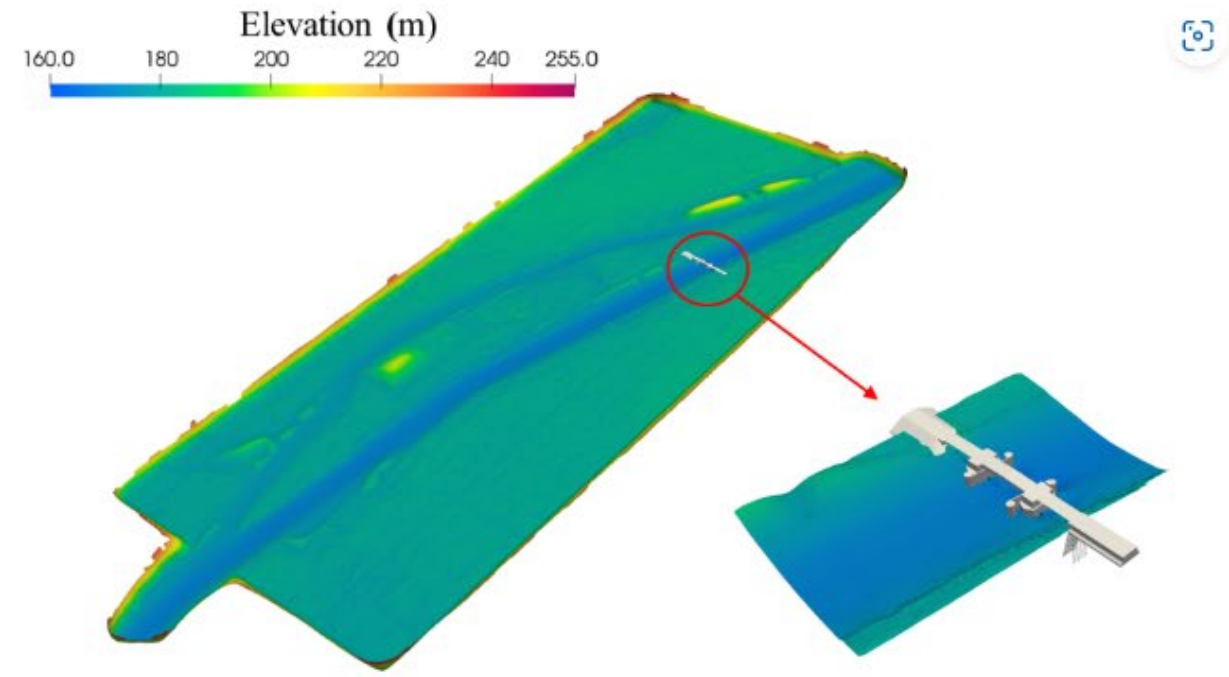
Scour Cohesive Baltic Monopile Erodibility Probabilistic

— Regardless of the advancement in scour research in the last three decades, scour prediction at offshore foundations in cohesive and non-uniform soils still involves great uncertainty and remains a challenge for designing structurally efficient and effective foundations offshore. One approach to scou...

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## Improving Scour Estimates with NextScour for the Lafayette Avenue Bridge Replacement Project

— Shan, H., Pagenkopf, J., Li, C., Zhang, N., Pastrich, D., Wiblishauser, O., Huang, C., Kerenyi, K.



NextScour clay erosion resistance critical shear stress erosion testing decay function

— The Michigan Department of Transportation (MDOT) is investigating replacing the existing Lafayette Avenue Bridge in Bay City, MI. The geotechnical site investigation classified a layer of medium-to-hard clay at depths of 4.6 to 6.1 m (15–20 ft) below the channel that potentially and signi...

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## ISSMGE new initiative GeoWB in the face of geo-disasters

**A ISSMGE new initiative called Geo-engineers without barriers (GeoWB).**

The essence is to propose to countries affected by geo-disasters to rapidly send some volunteers experts in charge of rapidly providing a short report (3 pages or more) describing the observations and conclusions drawn on the ground. Geo-disasters may be earthquakes, landslides, floods, failure of dykes, dam and tailing dams, collapse of geotechnical structures, foundations, tunnels, involving **Scour and Erosion**.

The issues to be discussed are:

- whether the TC members would agree to act as volunteers experts to be sent in the disaster area (travel expenses covered by ISSMGE)
- whether the TC members would agree to support a GeoWB expert team in case of geo-disaster in their country
- whether our TC provides support to the GeoWB activities