

UPDATE OF 29 MARCH 2011 ON POST-TSUNAMI SURVEYS IN TOHOKU

SUMMARY: Small teams of Japanese researchers have made brief surveys under difficult conditions in Fukushima, Miyagi, and Iwate prefectures. Results are being posted at <http://www.coastal.jp/tsunami2011/>. If conditions improve, international participants may begin to join with Japanese colleagues late in April 2011. Please make arrangements through UNESCO by contacting Laura Kong (L.kong@unesco.org) and Masahiro Yamamoto (m.yamamoto@unesco.org).

Surveys thus far in Fukushima, Miyagi, and Iwate prefectures

- (1) Gasoline and food, which should be preferentially provided to the disaster victims, are extremely difficult to get in these prefectures. The disaster has seriously affected populated regions including Sendai megacity. At this moment, 240,000 persons still stay in the evacuation centers. It is hoped that this situation will soon improve now that the Tohoku express highway has reopened.
- (2) Japanese tsunami-research teams that were granted priority use of gasoline began reconnaissance in Miyagi and Iwate prefectures on 25 March. Their survey results and other information will be available soon. Japanese research communities have agreed to send a few more small teams after 1 April 2011.
- (3) Some 200 Japanese researchers and engineers are coordinating their survey plans under the umbrella of the 2011 Tohoku Earthquake Tsunami Joint Survey Group. The group's Secretary-General is Tomoyuki Takahashi of Kansai University.

Guidance for international researchers

If conditions continue to improve, research groups that include international researchers may be able to start surveying in Fukushima, Miyagi, and Iwate prefectures after the middle of April 2011. Please observe the following precautions and protocols:

- (A) Expect difficult conditions. Devastated communities and their populations are suffering physically and emotionally. Japanese traditional philosophy will prolong the search for missing persons -- a search that will continue for months or years or more.
- (B) Include one or more Japanese researchers in your team. They will help you deal with these conditions, as well as helping with your own safety. Please take the initiative to identify Japanese counterparts who can accompany you. They should be researchers or engineers who have connections to earthquake and tsunami research communities.
- (C) Keep your team small. No Japanese teams will exceed 5 persons (in one team) and 6 teams will be the maximum to visit to the area in the same time until the middle of April at least. We know of no plan to organize Japanese teams of more than 10 persons at any time in April. Also, no Japanese research teams will survey for longer than a week in Fukushima, Miyagi, and Iwate prefectures in April. This is because the situation in the devastated area is still very confused, and research activities should be minimized to avoid disturbance of the relief and recovery

activities.

- (D) Coordinate with UNESCO. Dr. Laura S. L. Kong (l.kong@unesco.org) and Dr. Masahiro Yamamoto (m.yamamoto@unesco.org) of UNESCO IOC will coordinate international research teams. Any research teams who would like to conduct a survey in these prefectures are required to inform them of your schedule and team members, including Japanese counterparts. Coordinators will help your planning and your contact with affected communities.
- (E) Post your findings promptly. Japanese communities are sharing their results on the website [<http://www.coastal.jp/tsunami2011/>]. The results posted include inundation heights/depth and run-up heights with coordinates and photographs. We are doing this, even though the results are not published, to avoid duplication of effort under these difficult circumstances. Of course, the priority of the data belongs to each research team. We will ask you to post your results, through your Japanese counterparts, in the first few days after your survey ends. Your Japanese counterparts will be responsible for providing the data to the surveyed communities.
- (F) Respect private property. Fragments of houses and other material objects are private property in Japan even though they look like debris. These things legally belong to the local people.
- (G) Stay away from the Fukushima Daiichi nuclear plants. The zone within 30 km of these plants is strictly off-limits. Nobody can survey tsunami effects in this zone. Access outside this official Japanese government zone is your own responsibility. Some countries have recommended a larger radius. Please check and heed your government's recommendation.
- (H) Expect aftershocks. A large aftershock may potentially generate a tsunami. Your preparations should include multiple means of receiving earthquake and tsunami information, such as radio, cell phone, and portable TV.

29 March, 2011

**Two hundred Japanese researchers and engineers belonging to the
2011 Tohoku Earthquake Tsunami Joint Survey Group**

Secretary-General: Tomoyuki Takahashi (Kansai University)