1. You talked about strengthening capacities on an institutional level. Could you shortly explain what you mean by an institution?
ICIMOD: We consider institution as partner agencies from regional member countries such as government ministries, departments, universities, INGO/NGO and local communities, who will be required for operationalizing the application of EO&GIT products and services. Capacity building of institution will be necessary with provision of opportunities for professional development, such as the participation in specialized training courses and relevant technical workshops and conferences, to enable them to expand and update skills, which at the same time helps retaining a high quality, motivated team. Training on ICT infrastructure (hardware/software) installation, development of platform for data/applications sharing, training on emerging EO&GIT application products and services, partnership, and leadership will be very useful. In addition, collaboration/exchange programs, data policies workshops, modeling and analysis workshops etc. are also useful to build institutional capacity.

2. When it comes to the co-design of CD activities, how do you select the (number of) stakeholders to ensure an acceptable target group representation?
ICIMOD: In HKH, we co-design of CD activities based on the outcomes from country consultation workshops. Sometime workshops will be in multiple times. The workshops provide us detailed requirements of services and the way forward notes which defines what kind of services are required and the modality of executing activities. Then we select target stakeholders, key resource persons for co-design of activity, training curriculum development, and teaching.

RCMRD:
a. The role played by the participant at their institutions, i.e. if it relates directly to their line of work and there’s a high possibility of application of the trained skills and knowledge; this sometimes requires that an initial survey is carried out by the participants.
b. Based on available resources, e.g. available funds and the number that can be supported, the number of trainers especially if the training requires hands on exercises;
c. For follow-up trainings, a post survey on initial training to determine if the previous training is being applied is a good determinant of who is ideal for the follow-up.

Blue Planet:
In GEO Blue Planet, we do not have a set number of stakeholders to partner with and keep the process open for additional stakeholders that are interested in participating. We have found
that it is helpful to find user representatives that can serve as trusted intermediaries between
the product development teams and the users.

3. Noting we welcomed our first Pacific Island member to GEO last Nov, what thought
has been given to help promote CD especially in this region?
GEO Blue Planet is making efforts to engage with the Pacific Islands, particularly with
organisations such as the Secretariat of the Pacific Community (SPC). Of particular relevance,
the GEO Blue Planet Working Group on “Understanding Flooding on Reef-lined Island
Coasts (UFORIC)” is working on the development of a Wave-driven Flood-forecasting On
Reef-lined Coasts Early warning system (WaveFORCE). A workshop was held in 2018,
organised by NOAA, USGS, CSIRO and Deltares, to discuss key issues related to the
vulnerability of island states to wave-driven flooding due to climate change and sea level rise.
During the workshop a number of quite sophisticated efforts to develop wave-driven flood
forecasts were identified. Some of these models have been implemented on a small number of
locations, e.g. one in the Marshall Islands covering the eastern end of Majuro, one in Fiji and
a number of models that have been implemented around the Hawaiian Islands. However,
these models are very costly to implement and do not lend themselves to being easily
implemented more broadly. There are other models either planned or under development,
however all of these models are very site specific and only provide forecasts for a small strip
of coastline. Following the workshop, it was clear that the science and knowledge already
existed to develop a simplified, less computationally expensive, Early Warning System for
forecasting wave-driven flood events along coral reef-lined coasts, that is capable of being
implemented worldwide. The WG members (NOAA STAR, USGS Pacific Coastal and
Marine Science Centre and Deltares) jointly have the tools and knowledge to develop such a
simplified EWS, and have combined their capabilities to form a team to develop and deliver a
simplified EWS for flood forecasting. This model is not as complex and possibly not as
accurate as the sophisticated site-specific flood models mentioned above, however, it will be
possible to provide global coverage for all reef-lined islands and coasts.

4. How central is training and building capacity of GEOSS in the flagships/projects?
How much is the use of Earth observation in general?
RCMRD: In the case of GEOGLAM, without building capacity of national and sub-national
institutions, crop monitor development is too involving a task. The capacity built in these
institutions enables the creation of a wide network of technical people whose efforts are
gear towards a similar goal of generating a national/regional monitor that would otherwise
be difficult to realize. The information required includes field data and those collecting it need
to understand it to ensure its usefulness and application. The crop monitor’s input data
includes earth observation data therefore the training also has the EO data application.

5. Is it too early to address skills development, facilitating local development of services,
as a follow-up to capacity development? If not, are there any initiatives specifically
addressing skills transfers and how we can make this sustainable?
ICIMOD: We use “Training of Trainers (ToT)” approach for transferring skills for making
CD sustainable in the region. We closely work with national universities, provide focused
training, resource materials and backend support when necessary. Detailed elaboration can be
read @ https://doi.org/10.3389/fenvs.2019.00165
6. To Joost: Is the CD Wg planning to address or provide guidance on issues related to lack of infrastructure or cloud access for example?
CD-WG: Yes, when this is essential for the strengthening the capacities of staff and the capabilities of the organization to be able to apply the acquired knowledge and skills.

7: Can others join the GEO working group on capacity development?
CD-WG: Yes, we are always open for new members to join the CD-WG.