The Evaluation of DPRI

Some comments from *Jiemin Wang*, 2004/02/26

1. General evaluation

DPRI has made remarkable progress in last 5-10 years, particularly since last evaluation in 1998. It is now one of the World Center of Excellence in the study of natural disasters.

- There are so many research divisions and centers devoted to the study of almost all aspects of natural disasters and their sociological aspects.
- DPRI has excellent scientists of different levels. I am also impressed by the students who are dedicated and have significant contribution in many works.
- DPRI has participated in many important international and domestic cooperative programs, and played leading or important roles.

2. Orientation

A clear orientation of an institute and each division (center) is vital in moving to an 'Independent University Cooperation'.

From Global Warming to a small land slide, natural hazard and disaster occur in all aspects of our environment, and most of them related to human sociological activities. A research institute with limited size would be better to concentrate on just several favorite areas, based on own advantage and external condition. In my impression, in addition to integrated disaster management and some basic studies, DPRI has long been famous in the study of geo-disasters especially Earthquake, including its prevention engineering and prediction science, and the study of meteorological (sever storm) and coastal hazards. These are still definitely needed in the future. Of course, because of personal alternation or external changes, the focal point may shift somewhat, while the orientation for the institute should be fixed within a period of 5 or more years.

3. Diversity

I have an impression that there might be some looseness in the institute organization or a little too much diversity of the institute divisions and centers.

I do not mean it is a fault of anybody. The diversity of research is possibly a normal trend in national institutions, because

- Diversification of disasters and social concerning aspects, and its variation with time;
- Project or funding availability;

- Random opportunity and individual interests.

However, diversity makes a pre-set mission ambiguous. Less coordination weakens an institute as a whole. Too many working projects make deeper research difficult, which would have more impact on young scientists. 'Do lees but better' is a rule of gold, same for an institute as well as a single scientist.

The difference between 'research division' and 'research center' in DPRI is still confusing. I thought that the 'division' would be mainly on 'research' while the 'center' would be mainly on 'application'. But it is not. For example, the Center for Earthquake Prediction seems doing more theoretical study than the relevant earthquake 'division'.
Some 'center' may have been established by the decision of DPRI itself, in the old university system, so as to have more flexibility of management. This is naturally to be adjusted in the new system of independent university cooperation.

I also have a feeling that some division keeps the old name but actually do something new. One example is the research group of 'Sever Storm'. Many works of this group have been shifted to more general area such as environment or larger scale international programs. Also, the 'Water resources research center' seems mainly focused on global and regional hydrology, which is surely a very basic study. Many international programs, such as GEWEX, work in this aspect. However, some urgent disasters related to water, such as sever shortage of water resources in East Asia and the world, is less relevant concerning in DPRI. There is a saying that 21st century is the century of water. I hope there would be a research group that works on disaster of water shortage in near future.

It would be better to reduce greatly the number of research divisions (centers), according to the three major areas of geo-disasters: solid earth (earthquake, landslide and other mass movement, volcano, etc), atmosphere (sever storm, coastal hazard, wind resistant, draught, global warming, etc), and hydrology (water resources, flood and draught, global cycle, Asian monsoon, etc). Besides, a specific division for integrated management for disaster risk is needed. In addition to other studies (including sociological aspects), it would have the function of coordination of other divisions. Furthermore, a division (center) mainly on development (based on research achievements) and technology (disaster prevention) would be necessary too.

The coordination inside an institute, no matter it is important as everybody knows, is always a difficult task. It should be done constantly, not only by institute directors, but also by the effort of all professors and stuff members.

There might be a professor, who has very high reputation but may have no much concern to other researches already. In this sense, the promotion of younger scientists is indispensable. An institute of full of vitality is essential to have creative and innovative research products. I feel that because of the tradition of this country, DPRI might be a little conservative in this side. (Of course, I do not think it is good as in some research institute in China in recent years that almost all elder scientists were left the positions to very young scientists.)

4. Education and scientist with ability

Good scientists are always the kernel of a good institute.

I think that it is an advantage for an institute as DPRI to be part, or cooperation, of a university. The participation of some education activities is also beneficial to scientists; at least, it helps to strengthen their theoretical basis. Besides, you could have the priority to choose talent students who could contribute to many aspects of your research.

DPRI's education program is obviously a success. The further step is to choose more young scientist with ability to research groups, some might be only Post Doctor or visiting scholar. A little longer co-working period, 1-2 years, is necessary. To choose young students and scientists from other countries should also be encouraged.

DPRI has invited many short-time visitors (mainly through international cooperation). This is necessary for some projects, but not always effective.

It is also necessary to establish a mechanism of exchange of staff members. If a staff member who has been in the same position for 5-10 years but no obvious achievement, then a change would be better for both sides. On the other hand, a reward system for researchers who have remarkable contribution should also be strengthened.

5. Continuing to pay more attention to laboratory experiments and field observations

Laboratory experiments and field observations are comparatively more important for geo-disaster studies. Some processes (as those at land surface), even it has been investigated for many years, the essence may be still not clear yet. A 'Better Understanding' relies still on more observation, including under some very rough conditions and a very long period.

These works are comparatively hard, and always face to a limited support, including short of fund. Scientists and technicians in this area do hard and long time works, but may have less obvious achievements (e.g. less research papers) in a same period.

However, it is more fundamental, exciting and challenging task for geoscientist. Theoretical model is based on existing knowledge; it helps in process understanding and future prediction. However, it is only laboratory experiment and field observation that can have new findings. This is most essential for an institute that wishes to have original innovation.

DPRI has many specific, excellent laboratories and stations. I hope the institute will continue to pay sufficient attention to them in the next stage.

6. Not a Conclusion

Above is only some personal comments based on insufficient investigation and knowledge. Surely it is only for reference. I believe DPRI will be more prosperous and successful in the natural disaster study, and keep a leading institute in this area in the world. I am looking forward to it, and wish to learn more from you.

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