

Doctor course education and carrier pass on the water field

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Water is essential for human being, so that research works relevant to water have been continued for a long time. Therefore fundamentals of water research are in a mature state. Nowadays disaster prevention and aquatic environment which are parts of the fields of water research are focused as a government policy. This policy is supposed to continue at least five years as a program, but nothing is clear after that. This procedure does not give psychological stability to young researchers.

In Japan, Japanese candidates for admission to the doctor course in graduate schools have been decreasing. Since due to this movement, most of colleges in Japan have not reached the quota, they have already started to reduce the quota to fulfill the regulation by MEXT. This action seems to solve the vacancy problem in the graduate schools, but it does never solve the essential problem on this subject in Japan. There are many spectral elements relevant to this subject; the government, MEXT, colleges, enterprises, candidates, and the society. Problems in each relevant sector are considered;

Japanese science policy: Japanese Government is to hold a management plan on the intellectual property regarding not only cutting edge ones but traditional ones based on many experiences like biological taxonomy which do not develop new scientific horizons. When national universities were privatized, the Government had to hold a policy on how to keep intellectual properties like this one. The national universities cannot keep these properties as they used to be.

Research program by Japanese Government:

Japanese Government has a basic plan for systematically and comprehensively promoting Japanese science and technology policies. Now the 4th Basic Plan is positioned as a national strategy under MEXT. This plan consists of five year projects in significant regions of science and technology. The major targets are as follows:

1)A nation that realizes a safe, secure and high-quality society and lifestyles for its people; 2)A nation that achieves sustained growth and development while maintaining global superiority; 3)A nation that will take the lead in resolving global issues in cooperation with other countries, etc. In 1) and 3), research topics relevant to water are included. The topic 1) (ii) is that a nation realizing a safe, full and high-quality life for citizens, and (iii) a nation leading in the resolution of global problems such as large-scale natural disasters. Other ministries such as the Ministry of Environment and Ministry of LIT have their own research projects for their own purposes on administration. These projects target for obtaining useful research results on administration, not for accumulating intellectual assets. This means they would not necessary work for capacity building of young researchers regarding a finite term and slight light on basic science.

Research policy in graduate school: MEXT has a variety of funding programs for research in graduate schools, which have a function on making graduate schools face into the same direction. Each university has a difficulty to have its own policy without enough finance. The government would like to get fruits on research through its program. On the other hand, universities have to spread seeds, water and manure. The actions universities have to take could work for capacity building of young researchers.

Education in graduate school:

Education in doctor course in Japan is not attractive and does not give any incentive to study hard to most of the candidates. They also do not have motivation to establish their own research foundation. Systematic learning on their target field should be available.

Countermeasures for carrier ladder: In order to make postdoctoral fellows work stably the program leader always pays attention to capacity building as researchers. Taking a balance between driving the research project and fulfilling strong desire for basic study and research is of importance.

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