

Biodiplomacy is the key to utilize the modern plant biotechnology with the sustainable use of biodiversity

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ABSTRACT:

Science and Technology (S&T) are considered to be public goods. While they could be owned by a proprietary ownership, they should be allowed to use with diverse options in order to cope with global common problems such on food security, environmental remediation, renewable energy and human health safety. In the last five decades starting from 1960's, however, paradigm has been shifting in international diplomacy on natural resources and environments. This change has been impacted on environmental sustainability, economy and overall global development. The eminent change has been leading to create many international regimes with the increasing complexity of relevant subject matters.

The advancement of S&T has been helping the trans-world economic progresses. But S&T also have been creating more and more complex situation by broadening their innovative applications as they need more ethical consideration, policy, regulation and public perception for the global application possibility. Life science areas represented by biotechnology, have very fast and effective development for human needs. But they are required to furnish the comprehensive governance in ethics, safety, ownership and overall public acceptance as well as the increasing level of the specialized knowledge itself.

Biotechnology might have been advancing and growing faster than the public capacity over the comprehensive digestion of the contexts. Furthermore, there are uprising concerns on the ownerships of natural resources, including biodiversity: it was regarded as the shared entity as human heritage, but now it is considered to be under an ownership. The governance of bio-prospecting is essential to allow a fair and equitable access and benefit-sharing of the biodiversity. Time and stewardship, are needed for overall comprehension by public.

While globalization takes places on open-market commercial products and information thereof, national sovereignty right on biodiversity is strongly recognized in the international forums with substantial influences over ownerships and commercialization possibilities. So far biotechnology and genetic resources ownerships should be amalgamated into global use application together with such consideration on the safety and IPR aspects.

Biodiplomacy aims at developing common grounds on the ethics, policy, regulatory matters, industrial consideration, and social implication on biotechnology and biodiversity. It emphasizes the international & interdisciplinary aspects to draw attentions by a diverse range of stakeholders. Having the base line on Biodiplomacy consideration, the current topics of plant biotechnology is provided in this presentation. Lesson topics are given on the New Breeding Techniques (NBT) with genomics progresses in crops. Highlights are given in emerging industrial possibilities on Japanese examples as well as global successes. Feasibility and practicality of the new technology are discussed on Biodiplomacy aspects.