INTERNATIONAL FUND FOR INNOVATION (IFI):
An Innovative Financing Mechanism for Medicines in the Developing World

The "International Fund for Innovation (IFI)" is a proposed financial institution, which would impose a nominal tax on patent applicants and holders in the form of a "patent assurance premium." This premium would be mobilized to finance both unimpeded access to necessary innovations, including indispensable medicines in developing nations, and needed research without economic incentive for combating, *e.g.*, neglected diseases and global warming.

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INTERNATIONAL FUND FOR INNOVATION (IFI)*, §:

An Innovative Financing Mechanism for Medicines in the Developing World

*This proposal has been recognized as the "Green Intellectual Property" by the EWG (Annex 2 in the final report), which the World Health Assembly requests the CEWG to explore (WHA63.28, Background paper, pp. 4 and 5).
§ Although I used the term, "International Bank for Innovation (IBI)" in the first meeting of the group on April 6, 2011, I rename it due to feedbacks after the presentation.

Since 2003, the **International Fund for Innovation (IFI)** has been proposed in order to create a substantive and sustainable fund both to finance unimpeded access to indispensable innovations (*e.g.*, essential medicines in developing nations, renewable energy technologies and the like) and to foster needed research (for combating, *e.g.*, the neglected diseases and global warming). IFI would have three financial sources: a "patent assurance premium" from applicants, the premium from patentees and an allocation from the revenue of patent offices (*see* Box 0.1). In the form of the premium, IFI would impose a nominal levy on patent applicants and patentees, and as well make a new allocation from the patent granting fees currently collected. Although the assurance premium serves actually as a kind of green tax on patent applicants and owners (*i.e.*, Tobin or Pigovian tax on the negative effects caused by patent protection), we always use the term "assurance premium" instead of taxation in order to stress the insuring function of the premium (*cf.* scenarios as sketched later).

Box 0.1: Possible Annual Revenue of IFI

	into US	into EU	into Japan	into Emergings
Application	225,000	66,000	61,000	250,000
Grant	85,000	24,000	22,000	150,000
Maintenance	45,000	15,000	15,000	70,000
Total	355,000	105,000	98,000	470,000
× 100 USD	36 mil USD	11 mil USD	10 mil USD	47 mil USD

Total from patent applicants: 104 mil USD

	US patentees	EU patentees	Japanese patentees
Patent income (Overseas earning)	46 bln USD	22 bln USD	18 bln USD
× 10 % premium	4.6 bln USD	2.2 bln USD	1.8 bln USD

Total from patent holders: 8.6 bln USD

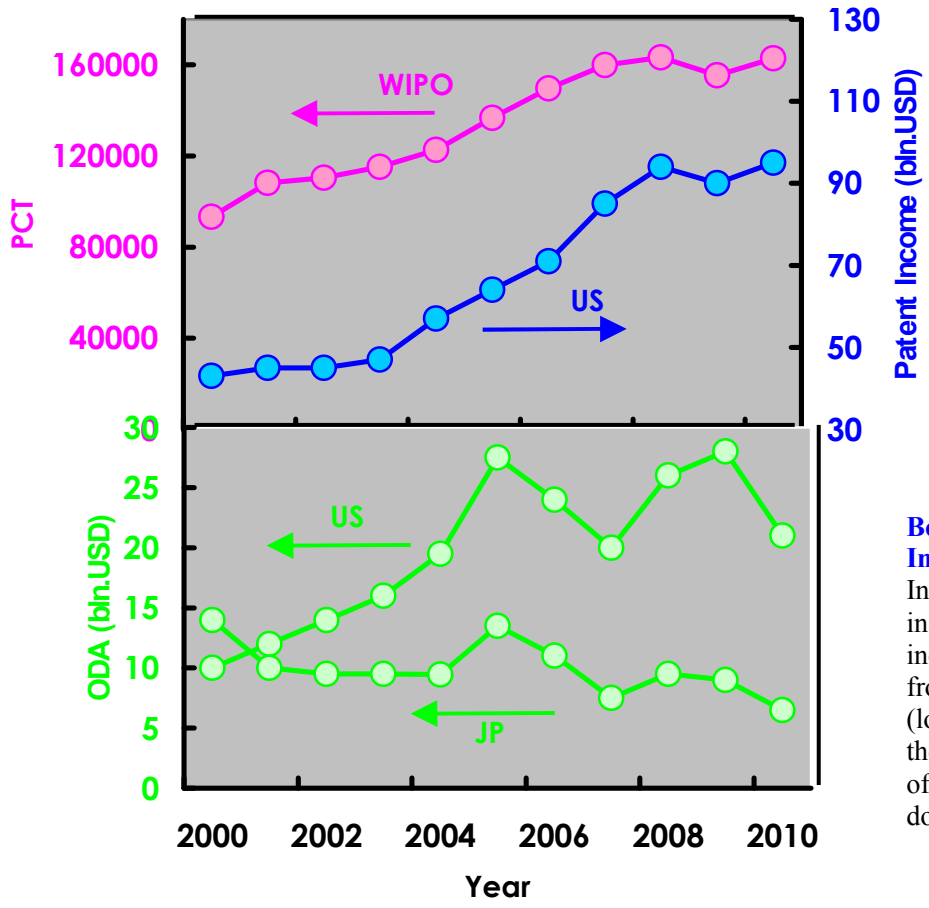
	USPTO	EPO	JPO	WIPO
Official fee income (Overseas application)	503 mil USD	425 mil EUR	37 bln JPY	444 mil CHF (from PCT)
× 10 % allocation	50 mil USD	*ca.* 61 mil USD	*ca.* 46 mil USD	*ca.* 44 mil USD

Total from patent offices: *ca.* 201 mil USD

Sources: USPTO, EPO, JPO, WIPO, UNCTAD, World Bank and Global Fund

IFI would be financed from three sources: a patent assurance premium on applicants, it on patentees and an allocation from the income of patent offices. In total, *ca.* 8.9 billion USD would be potentially mobilized, almost 300 fold in funding size of *e.g.*, the cost for licensing and developing one medicine (*cf.* the average fee for licensing a medicine is 25 million USD and the initial cost for drug research is usually 30 million USD).

- **Assurance premium on patent applicants (upper):** In 2009, 225,000 applications were filed with US from its outside, among which 85,000 patents were granted and 45,000 were maintained. Given that the patent assurance premium was 100 USD for all these applications and patents, 36 million USD would be collected and alike 104 million USD would be expected worldwide.
- **Assurance premium on patent owners (middle):** In 2009, US patentees earned 46 billion USD from patent incomes, mostly royalties and compensations for patent infringement outside their homeland. For instance, the premium in 10 % of these incomes would provide IFI with a revenue in 4.6 billion USD from US, and 8.6 billion USD would be anticipated throughout the world.
- **Allocation from patent offices (lower):** 10% allocation from the official fee incomes by overseas applications and WIPO/PCT's revenue would be *ca* 201 million USD.



Box 0.2: Patent Applications and Incomes *vs.* ODA

In contrast with the steady increase in PCT applications and patent incomes in US (upper), ODAs from both US and Japan fluctuate (lower) over years. In particular, the patent incomes and the number of patent applications have nearly doubled in the last 10 years.

Sources: OECD, WIPO, UNCTAD and World Bank

Unlike other financial solutions proposed thus far, economic downturns would not significantly affect the availability of funds from IFI because the assurance premium is coupled to the global patent system. Historical trends have shown that the level of patent applications and patentees' income from their patent do not drop significantly in times of economic contraction, but rather remain relatively constant during such periods (*see* Box 0.2). IFI would also enjoy a considerable financial scale (with a possible annual revenue: almost 10 billion USD, *i.e.*, capability of funding several hundreds of substantial projects every year) due to a large volume of both filing numbers and subject matters in patent worldwide (*see* Box 0.1).

Scenario 1: for Impoverished Patients

For example, India would file with IFI a request for financial assistance when they intended to produce a patented medicine for their patients, but the government could not afford to pay licensing fee and was forced to resort to compulsory licence, or to likely connive at compelling infringement. The request from India would be deliberated in IFI through an international quasi-judicial process like the WTO (World Trade Organization)/DSU (dispute settlement understanding) or the MIGA (Multinational Investment Guarantee Agency)/World Bank mechanism. In case of grant, India would be subsidized, which would allow the country to pay the licensing fee and to produce the needed medicine, and they no longer need compulsory licence and compelling infringement. India could also freely export the licensed drug to African countries regardless of the Paragraph 6 rule and sell it to MSF (Médecins Sans Frontières) with an affordable price because India could manufacture such drug under a consent licensing.

In addition, impoverished nations without capability of producing medicines, *e.g.*, Guinea and Uganda, and as well MSF and other eligible users would alike request a financial assistance from IFI, and they would be able to purchase a patented medicine directly from its patentee producer by means of IFI's subsidies.

Since the availability of these funds would minimize the likelihood that developing countries would enforce compulsory licence or compelling infringement, the assurance premium would serve as insurance over the risk of those injuries against patent right, resulting in more precise implementation of an international agreement such as TRIPS (Trade-Related Aspects of Intellectual Property Rights). This function would allow for readily building consensus by industries on their burden of paying the extra levy. Actually, the premium on patent applicants (100 USD in Box 0.1) would be almost negligible relative to the entire cost to create a patent, including not only the granting fees but also attorney and translation fares (usually *ca*. 9,000 USD per patent in total). In addition, the premium on patent owners (10 % of patent incomes in Box 0.1) would be much lower compared to other high taxes like estate tax (normally 40 to 50 %) and less than half the rate of ordinary income tax (20 to 30 %).

It is, however, still important to ensure an opportunity for developing nations to issue compulsory licensing if they preferred it rather than IFI because the Fund is a new option not mandated in addition to the flexibilities currently recognized in the global patent legitimacy.

Scenario 2: for Innovators

For instance, DNDi (Drugs for Neglected Diseases initiative) would submit with IFI a request for financial assistance when they needed to develop a new drug for malaria, but they could not afford to invest and there is no chance of collecting their investments because malaria patients are mostly in poor countries. After reviewing the request, IFI would finance the research and development in DNDi, which, in turn, would insure the patent regime against the growing global criticism and thus result in industries' willingness to pay the premium.

Moreover, the scope of IFI would not be limited within medicines but also any innovations society needs, but patent does not facilitate enough due to lack of sufficient economic incentive, typically including green technologies.

Operation and Structure of IFI

As opposed to the conventional funding mechanisms, IFI in its own has no priority for targets to be financed in a certain technical field and the target should be stated in a request for funding. Such request would be open to any essential innovations (but, it should be within patentable subject matter) because IFI would have a substantial scale of revenue, which would enable IFI to encompass a wide range of technologies.

However, evaluation and decision over a request should obey a strict rule with definite criteria like WTO/DSU, which would involve "pulling" scheme for users and "pushing" scheme for innovators. The pulling scheme, *e.g.*, subsidy for procuring products with a high price owing to patent protection, would intend to remedy a harmful condition surrounding users that patent protection has caused or adversely affected. On the other hand, the pushing scheme, *e.g.,* research grant for necessary technologies without economic motivation, would award true innovators who drive demanded technologies on that patent has not exerted any effect at all or even to a satisfied extent. These schemes should enrich not private profits but the largest public benefit possible.

To maximize the efficiency of those operations in IFI, its institutional structure must be designed carefully, including possible forms below:

- an entity affiliated with at least one of relevant organizations established, *e.g.*, WTO, WIPO (World Intellectual Property Organization) and World Bank,
- an assembled institution with these organizations, and
- a separated institution like Global Fund, Geneva.

For an elaborate model depicting operation and structure of IFI, interested readers would find more details in our comprehensive report recently *available at* http://www.greenip.org/files/_60_IBI.doc.

Second-Coming-of-Doha Initiative

Here in Geneva, several leading secretariats and delegates already show their great interest in IFI. With their support, IHEID (Institut de hautes études internationales et du développement, Genève) is planning to launch the Second-Coming-of-Doha Initiative this September, intending to provide interested governments with professional consultations for IFI. An example of possible forms for creating IFI not on paper but in reality would be adoption of an international agreement, *e.g.*, an amendment of the TRIPS Agreement for establishing IFI. To this end, the first step might be creation of an investigatory commission for IFI as a subsidiary body under the TRIPS Council.