Indonesian Journal of International Law

Volume 6
Number 1 *Intellectual Property Rights*

Article 2

10-31-2008

Current Trends and New Approches for IP Education Training and Research: (Indonesian Perspective)

Agus Sardjono

Current Trends and New Approaches for IP Education, Training and Research (Indonesian perspective)*

Prof. Agus Sardjono [1]

Trend in Intellectual Property Rights (IPRs) is mainly influenced by certain situation that attracts public attention. In Indonesia, Trend is more oriented on the issues regarding to the recognition and protection of genetic resources and traditional knowledge and folklore. Cases such as maize varieties, avian influenza and genetic resources have brought impact and became trend in public discussion. This article is limited to share information about Trend in IPR Education, Training and Research based on the experience in Indonesia.

Keywords: Trends in IP Education, traditional knowledge, folklore

Introduction

Trend is usually strongly influenced by a certain condition which attracts public attention or reflects the direction in which the community is trying to move. In dictionaries, trend is defined as general movement or direction, or change towards something different. For instance, a consumptive life style has become a trend among teenagers.

---

* This paper was presented at The *WIPO National Symposium on IP Education, Training, and Research*, Port Moresby, Papua New Guinea, 31 Oktober – 1 November 2007.

[1] Agus Sardjono is a Professor of law at the Faculty of Law Universitas Indonesia. He is an alumnus of WIPO Worldwide Academy (Switzerland) & Turin University (Italy) for his Post-graduate Advance IP Courses. He has published books on Intellectual Property Laws and Traditional Knowledge and Copyright in Graphic Design. He is also the author of numerous papers on Commercial Law and IP. He has been invited as an examiner of dissertation in PhD Programme of The University of Technology Sydney. He is also a song composer.

In the context of IP Education, Training, and Research, the trends in the IP society are strongly influenced by certain events which attract a great deal of public attention. For instance, in 1992, when the CBD was signed, it contained a meeting point between individualistic IP rights and communal rights in the form of the recognition of genetic resources and traditional knowledge (hereinafter briefly referred to as GRTKF). Ever since that time, there has been an ever increasing number of articles being published concerning the recognition and protection of traditional knowledge and folklore. Based on observation and research of the journal index at the legal library at the Faculty of Law, University of Washington, Seattle and University of Florida, Gainesville, USA, it has been found that the number of articles on IP & GRTKF has been growing. There was a decline only on one occasion, namely in the year 2001, when the world was shaken by the September 11, 2001 tragedy.[2] This incident shifted global attention to the issue of terrorism.

The trend in IP articles published in law journals may have shifted from the topic of GRTKF protection to other topics, but discussions on this subject are still going on in WIPO fora in Geneva. At the present time, the Intergovernmental Committee on IP & GRTKF is discussing the possibility of creating a legally binding instrument for the recognition and protection of GRTKF. In this forum there has been a tug-of-war between developing countries calling for a legally binding instrument and industrialized countries which think that it is unnecessary.

At the same time, certain events have taken place in developing countries which disturb their sense of justice related to the tension between IP protection and the protection of the rights of local communities, such as cases of new maize varieties (plant variety protection) and the patenting of the avian influenza vaccine.

[2]The author happened to conduct research at these two libraries while compiling materials for his dissertation concerning the recognition and protection of traditional knowledge and folklore.

In the case of maize varieties, several farmers in an Indonesian province have been imprisoned on the charges of having infringed on the rights of a multinational seed breeding company. Although the case itself is rather controversial from the legal aspect, some small-scale farmers have already been imposed with a punishment for attempting breed independently maize seeds for their own farming purposes. This case evoked the sense of injustice among the local farmers' community, so several NGOs called public attention to it by publishing the news about, which attracted the attention of IP academic circles and community at large.

In the avian influenza case, a corporation from an industrialized country has been granted the patent for the avian influenza vaccine. The vaccine was then sold to Indonesia at a high price, although the vaccine was developed from samples of the avian influenza virus provided by Indonesia to the industrialized country concerned. This case has been brought to the hearing of the World Health Assembly in Geneva, with Indonesia demanding protection of its genetic resources and claiming a just treatment for the utilization of Indonesian genetic resources by outside parties.

We should also mention a case in Indonesia related to trans-genetic plants produced as a result of genetic engineering by a foreign company operating in Indonesia. The company concerned used the arms of the bureaucracy in order to win their support for their plan to cultivate certain trans-genetic plants. It was after the company had failed in this cultivation effort that various attempts were made to analyze the positive and the negative sides of trans-genetic plants. The study was then expanded to the issue of plant variety protection, creating an unfavorable effect on the community, particularly to farmers in East Java.

The above described three cases have brought impact and have created a rather intensive discourse in the field of IP, particularly related to the legal aspect of the recognition and protection of GRTKF in Indonesia. This discourse has even led to the preparation of Academic Drafts for the Draft Law on Genetic Resource Protection by the Ministry for the Environment, the Draft Law on the Protection of Traditional Knowledge by the Agency for the

Technology Research and Application (BPPT), and the Draft Law for the Protection of Traditional Cultural Expression by the Directorate General of Intellectual Property. In its turn, this discourse has created a trend for public discussion on the recognition and protection of GRTKF in the field of law in Indonesia, including academic circles.

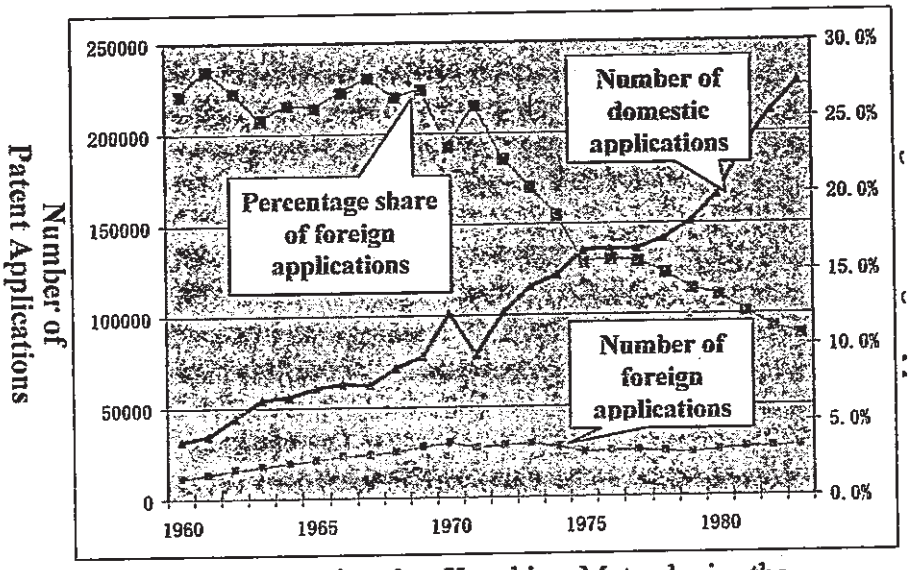
The current trend in Indonesia is not necessarily identical to the trends taking place in other countries, such as Japan or PNG. In Japan, according to Prof. Kazuhiro Matsuda from Kyoto University, the current trend is how to build, in his own words, an "IP-based Nation".[3] One of the indicators of this trend is the emergence of the idea of establishing a triangular collaboration between the industry-academia-government for accelerating the creation of such IP-based Nation. Such acceleration is going to be implemented by formulating the rules for industry-academia-government collaboration, University IP Headquarters, and the establishment of a Technology Licensing Organization (TLO).

The above described ongoing trend in Japan has a strong basis. They are a long-established technologically advanced nation. In 1885 Japan enacted its Patent Monopoly Act. However, this act provided patent protection only for domestic inventors. Consequently, there was almost no transfer of technology from outside Japan to Japanese businessmen. In consideration of this, Japanese legislators amended the said Patent Act in 1899. Based on such amendment, foreigners had the opportunity to obtain patent protection in Japan.

The policy to open up Japan for the outside world was continued with the ratification of the Paris Convention in 1899. From then on, there was a continuous inflow of overseas technology to Japan. One of the most significant technologies entering Japan was the Steam

[3]Presented in the *Workshop on Enhancement of IP Teaching in ASEAN*, Chulalongkorn University, Bangkok, September 12-14, 2007.

Turbine Technology.[4] This technology originated from The United Kingdom. Before signing a license agreement with a Japanese company, the owner of this technology had first considered whether Japan had provided protection for new technologies originating from overseas. It was only after they had been convinced that Japan had a Patent Law and that it had even ratified the Paris Convention that this British company finally granted as many as 48 types of new technology to Japan.



Source: Presentation by Kazuhiro Matsuda in the Workshop on Enhancement of IP Teaching in ASEAN, Bangkok: September 12-14, 2007.

Japan has had a rather long history of patent protection. In the early stages of Patent Act implementation, the percentage of domestic patent applications was far below the number of foreign patent applications. However, in only 15 years, domestic applications

[4]Kazuhiro Matsuda, *The Role of IP in Stimulating Innovation: Experiences of Japan*, paper presented in the Workshop on Enhancement of IP Teaching in ASEAN, Bangkok: September 12-14, 2007.

started to take over the leading position over foreign patent applications. The figures in the chart below indicate the extent to which patent protection was able to provide a strong stimulus for technological growth in Japan. This also suggests that Japan possesses the appropriate tradition and resources for technological development, giving credibility to the IP-based Nation trend, a trend that reflects a realistic development in Japan.

The trend developing in Japan is certainly going to be different in other countries, for instance in Indonesia or in PNG. Indonesia obviously does not possess the kind of resources Japan has, hence the trend developing would also be different. As it was suggested earlier in this paper, the trend taking place in Indonesia tends to be oriented towards the use of local advantages in the form of products based on traditional cultural heritage. This was even initiated by the President of the Republic of Indonesia in the opening of Cultural Product Exhibition (August 2007), mandating that Indonesia should be able to develop creative economy based on traditional cultural heritage.

This has been a strategic step taken in the field of economy, which needs to be anticipated by legal circles, in order to ensure that it can be implemented in an efficient way, while supported by the appropriate legal infrastructure. This is the factor which sets the trend for IP law education, training and research, subsequently moving toward the aspect of the protection of cultural heritage in the form of traditional knowledge and folklore.

Papua New Guinea certainly has its own experience. This paper is limited to sharing information or experience in the author's country. This information may be used as information of interest for the discourse on IP education and research, particularly in discussing how academic circles appreciate or respond to certain developments in society in relation to the new strategy for developing an IP system which is more suitable for the conditions of developing countries such as Indonesia.

The approaches taken in public discussions mentioned earlier in this paper include the conventional approach by educational institutions

through a formal education system, and also the non-conventional approach taken by various NGOs and several faculty members individually and in a collaborative manner.

Public Discussion as a Trend Setter

It must be admitted that public discussion on the recognition and protection of GRTKF started with rumors about various incidents such as the patenting of *tempe* (traditional food product from Java, soybean cone), the patenting of batik, the patenting of Indonesian medicinal herbs, the patenting of Balinese handicraft in the U.S. and many more. Although these rumors still need verification, some of them do contain elements of truth, such as for example the wood carving designs from Jepara, Central Java.

The case of Jepara woodcarvings started when a foreign company printed a catalogue of woodcarvings, registered the same at the IP Office in a European country, and then it also registered it at the Indonesian IP Office. The catalogue was subsequently used by its copyright holder to sue a competitor, also a foreign company, claiming that the latter had used the woodcarving design from the catalogue. Thus, the case, which started out as a purely business competition case between foreign companies, eventually expanded to involve the handicraft artists producing the woodcarving. They lost their potential market as a result of the case. At the end of the day, handicraft circles supported by NGOs raised the issue as to why it was possible for foreign companies to monopolize the trading of traditional woodcarving designs from Jepara only by registering the copyright on the catalogue of these products at the IP Office?

From the academic point of view, this case is in fact just a simple example of the erroneous application of the copyright law which was used as a basis to claim that the holder of copyright on the catalogue was also the holder of the industrial design right on the woodcarvings from Jepara. However, this error has brought a far reaching impact on woodcarving artists. The people's sense of justice has been shaken, because the trading of traditional cultural expression in the form of woodcarvings belonging to the people of

Jepara was in fact monopolized by a foreign company by registering the copyright on the catalogue.

The above case indicates that there is a lack of understanding by various circles of copyright, industrial design right, and the communal rights of a community on their traditional cultural expression. Academic circles see this as something that needs to be corrected. Therefore, on various occasions, such as seminars or symposia, various experts have made attempts to raise this issue to the level of public discussion, expected to raise awareness of the problems related to the implementation of IP laws in developing country communities such as Indonesia. This becomes particularly important when such implementation is related to the communal rights of local communities.

In a patent case, a Japanese cosmetic company filed an application for the registration of Indonesian traditional knowledge related to traditional medicinal herbs. The case has been used as the object of research for the final paper of a Faculty Law student.

The Japanese company applied to the local patent office for the registration several inventions related to the use of medicinal herbs usually used by Indonesian local communities as raw materials for *jamu* (traditional medicine). In response to this, an NGO conducted advocacy to protect the rights of the local community, in order to avoid a negative excess as a result of granting the patent, which would result in the exclusive use of technology related to the use of these various medicinal herbs. The defense was successful. The Japanese company withdrew its application for patent registration for the invention concerned.

In fact, there have been several other similar cases in which the implementation of the IP regime intersects with the intellectual property rights of local communities on their traditional knowledge. Such cases have not occurred only in Indonesia, but in other countries as well. The case of the *azadirachtin* patent (Neem Patent), the Turmeric Patent, the Basmati Rice Patent, the Milpurrurru Case, the Bulun-bulun Case (Morning Pole Case), the T-Cell patent (Guaymi Patent), and others are examples of IP

implementation conflicting with the rights of local communities, causing a sense of injustice in the communities concerned.

All of the above incidents have triggered the creation of trend in IP discourse, particularly in Indonesia which is well known for its diverse cultures and abundant genetic resources. Various circles, academic, the bureaucracy, Government institutions as well as NGOs have raised this issue to the level of public discussion, each of them offering their own perspectives. However, all of them seem to point in the same direction, namely the conclusion that issue of GRTKF needs to be resolved in the form of recognition and protection. The protection regime is still subject to differing opinions and debate. However, all of this is creating a new trend in the IP discourse in Indonesia. The IP discourse is no longer limited conventional IP such as patent, trade mark, copyright, but it also includes the rights of local communities to their own traditional knowledge, which is not individualistic.

Conventional & Non-conventional IP Education and Research as a New Trend and Approach

In the context of IP related issues described above, various attempts have been made by various circles to seek alternative solutions for the dissemination of the idea to the public about the importance of awareness of the recognition, protection and use of GRTKF in a sustainable manner. Various approaches have been taken. In the conventional educational system at formal educational institutions at universities, lectures on the property rights of local communities have been included in conventional IP subjects by adding one or two sessions within a subject in the IP syllabus. As comparison, in the *Courses Arrangement* for WIPO/Turin University, Italy, there is a special module (module IX) concerning *"Emerging and Global IP Issues"* which contains materials on *"Attempts to Use IP Laws for the Protection of Traditional Knowledge, Biodiversity, Biotechnology and Expressions of Folklore"*.[5]

[5]Michael Blakeney, *Handbook on IP Curricula and Teaching Materials*, (EU-ECAP II, no year indicated), p. 60.

In the design of the IP Masters Program curriculum at Universitas Indonesia, too, there is a certain subject on the aspects of the legal protection of property rights of local communities in the form of GRTKF. Similarly, the curriculum for the training of IP consultant candidates contains a subject on "traditional creations with unknown owner". This is related to one of the articles of the Copyright Law which sets forth as follows:[6]

1. The State holds the Copyright on works of historical heritage and other national cultural artifacts.
2. The State holds the Copyright on folklore and traditional culture which is common property.

Furthermore, there are the following provisions:[7]

> If the Author of a creation is unknown, and if such creation has not yet been published, the State is the holder of the Copyright on such creation for the interest of its Author.

It is evident from the above quoted examples that universities do appreciate the need for further understanding of GRTKF. Moreover, several faculty members who possess knowledge and interest in this subject matter have taken a step far beyond that, by initiating individual research in cooperation with both domestic and foreign NGOs. They have also been involved in a movement initiated by several NGOs in the form of *Diskusi Kampung* (Village Discussion Forum).

The Village Discussion Forum is an awareness raising movement, where the communicants are rural communities possessing high GRTKF potentials. This movement has been monitored by the Indonesian Traditional Knowledge Network (JKTI),[8] an NGO concerned with issues arising from frictions between the

---

[6] Article 10 Law of the Republic of Indonesia No. 19 Year 2002 concerning Copyright.

[7] Article 11 Law of the Republic of Indonesia No. 19 Year 2007 concerning Copyright.

[8] This NGO has been accredited by WIPO to attend the Intergovernmental Committee session on IP and GRTKF.

implementation of IP system on the one hand, and the demand for just treatment by GRTKF custodian communities on the other. One of the issues is Access and Benefit Sharing in the use of GRTKF. This movement has been supported by several staff members of the Ministry for the Environment, because they also realize that the use of biodiversity in technology based industry (such as the pharmaceutical industry) can potentially endanger its preservation, and it therefore requires attention.

As a method for the informal education of the public, this Village Discussion Forum involves various stakeholders, including several local NGOs cooperating with the JKTI as organizers, several sponsors or funding institutions such as the Biodiversity Foundation (*Yayasan KEHATI*), the Ministry for the Environment, academicians from various disciplines with a good understanding of the issue, as well as the Local Governments which provide access to local communities. The methodology developed by this Village Discussion Forum involves visits to local communities with high GRTKF potentials, talking to them about the importance of an appropriate and responsible use of GRTKF. IP concepts are also explained to them using a language that they are able to comprehend, giving them an overview of the positive and the negative aspects of this system, etc.

In addition to Village Discussion Forum, there is also an NGO (Institute Global Justice) which produces documentaries on various incidents related to farmers' rights, such as the case of the farmers from East Java who encountered a problem with the seed breeding company mentioned above. These documentaries are rather important instruments, both in educating the public about their rights, as well as in giving a signal to Central or Local Governments officials that impediments do still exist in the implementation of the IP regime.

In connection with issues related to trans-genetic technology and patent on life, an NGO (Konphalindo) has conducted dissemination to mass media companies about the use of trans-genetic technology. They have done this by visiting the Editors' Offices of the Mass Media, explaining to chief editors and journalists about various

issues related to trans-genetic technology and the contribution of the patent regime to its development.

The information conveyed by Konphalindo is actually a result of research of various aspects of trans-genetic plant utilization. In addition to the above, Konphalindo also invited lecturers from the Bogor Agricultural Institute (IPB) who have conducted research in the use of trans-genetic cotton in Bulukumba, South Sulawesi, to speak about the results of their research in the forum at the Mass Media offices.

Following are some interesting features of the results of Konphalindo's research, among other things:[9]

a. Plants are pest resistant.
b. Plants contain certain medicinal components needed by humans.
c. A decrease in the use of pesticides.
d. Plants are herbicide resistant.
e. Plants are resilient under extreme environmental conditions (for instance drought).

Following are some figures related to the use of trans-genetic plants, among other things:

a. The commercial value of genetically engineered plants over a period of 9 years (1996 – 2004) is :24 billion US Dollars.
b. The growth of genetically engineered plant areas in: 20% (35% in developing countries; 13% in industrialized countries).
c. Main trans-genetic plants: soy beans: 60%, maize: 23%, cotton: 11%, *Kanola*: 6%.
d. The total area of the above mentioned 4 genetically engineered plants has reached 29% of the total conventional plant area.
e. Syngenta, DuPont & Monsanto control 2/3 of the pesticide market, 1/4 of the seed market, and almost 100% of the trans-genetic seed market.
f. 10 pesticide companies control 80% of the global market -- US$28 billion

[9]Presented by the Executive Director of Konphalindo in the meeting with the Chief Editors of several mass media in Jakarta in September 2007

g. 10 biotechnology companies control 54% of the global market -- US$42 billion
h. 10 cattle-feed companies control 62% of the world market -- US$13 billion
i. 10 seed producing companies control one third of the seed market -- US$23 billion
j. The main actors or producers of transgenetic plant seeds are as follows:

Company	Plant	Transgenetic Cultivar
Monsanto	Maize	YieldGard MON 810 (IR), YieldGard MON 802 (IR, HR), Roundup Ready GA21 (HR)
	Soy beans	Roundup Ready GTS40-3-2 (HR)
	Cotton	Bollgard MON 531, 757, 1076 (IR), Roundup Ready MON 1445, 1698 (HR)
	Kanola	Roundup Ready GT73, RT 63 (HR), Roundup Ready ZSR500/502 (HR)
Aventis Crop Science	Maize	T14 Liberty Link (IR, HR), T25 LibertyLink (IR, HR), CBH 351 StarLink (IR, HR) ditarik pada 2000
	Soy beans	LibertyLink (HR), W62 (HR), W98 (HR)
	Kanola	Restorer MS1xRF1 (MS, HR), Restorer MS1xRF2 (MS, HR), LibertyLink HCN 92 (HR), LibertyLink HCN 10 (HR), Restorer MS8xRF3 (MS, HR), HCN 28, T45 (HR), Westar OXY-235
Syngenta Seed	Maize	Bt176 NaturGard (IR), Bt11 NothrupKing (IR)
Pioneer Hi-Bre	Maize	MON 809 (HR, IR), 676, 678, 680 (MS, HR)
	Kanola	PHY36 (MF)
DuPont	Soy beans	G94-1 (MF), G94-19 (MF), G 168 (MF)
	Cotton	19-51A (HR)
DeKalb	Cotton	B16 (HR), DBT 418 (IR, HR)

Company	Plant	Transgenetic Cultivar
Calgene	Cotton	BXN (HR), 31807, 31808 (IR, HR)
	Kanola	Laurate Canola 23-18-17, 23-198 (with Monsanto)
	Tomatoes	FlavrSavr has failed to attract the market

The development of trans-genetic plants has received support from the patent protection regime or in some countries they are protected under the plant variety protection regime. Indonesia applies the plant variety protection system for genetically engineered plant seeds. The patent protection or the plant variety protection system are totally unrelated to the issues of ethics or morality, although there has been some criticism that patent on life is bound to bring some negative impacts on social life. Some of the following matters expressed by Konphalindo seem to indicate that this criticism is justified.[10]

a. Hundreds of people picking and handling trans-genetic cotton in India became ill
b. Massive death of lambs (1800 lambs) grazing in trans-genetic cotton post-harvest areas
c. Female rats fed with trans-genetic soy beans bred several young rats which experienced slow growth and several others died three weeks later (research in Russia; three repeated experiments with the same results)
d. Researcher Arpad Putzai showed that trans-genetic potatoes weaken the immune system in experimental rats and cause tumor
e. Trans-genetic soy beans influence cells in the pancreas, in the liver and the testicles of young rats (research in Italy)
f. Study conducted by Monsanto indicates that genetically engineered maize causes serious kidney problems and causes abnormal blood in experimental animals
g. Villagers in the southern Philippines suffered from a mysterious illness at the time Monsanto's trans-genetic hybrid maize

[10]Konphalindo's source of data is *ISIS Report February, April, & May 2006, BBC Farming January 2004, European Journal of Histochemistry 2005, & GM Watch April 2004.*

product blossomed; an antibody against By protein in the maize was found in the blood of villagers, and at least five people died for an unidentified cause

h. Several cows perished after having been fed the trans-genetic maize products of Syngenta in Hesse, Germany, and some others had to be slaughtered as the cause of their illness could not be identified
i. Egyptian scientists found similar effects in rats fed with other types of trans-genetic potatoes (the same effects as those found in the research conducted by Arpad Putzai)
j. USDA has data since the 1990s indicating that rats fed with trans-genetic tomatoes develop ulcers.
k. The study conducted by Aventis indicates that poultry fed with glufosinate herbicide resistant trans-genetic maize face the risk of perishing which is twice as high as that faced by a controlled rat.
l. When a protein harmless in beans is moved to string beans, it causes inflammation in a rat's lungs and triggers a reaction to other proteins in food.
m. Complaints of allergies as a result of consuming food made of trans-genetic crops.
n. Complaints due to effects on the hormonal system.
o. Other than allergies, the effects of trans-genetic plants on human health, both in the short term (acute) and in the long term (chronic).

Konphalindo's actual message is that there is a loophole in the IP, particularly the patent protection system, that this protection system is totally unrelated to the moral responsibility of the holder of the patent on such trans-genetic plants. Even though the above quoted research results indicate that the use of trans-genetic plants has not been entirely proven to be safe, the granting of patent has nothing to do whatsoever with health related issues. Patent is only related to novelty, inventive step, and industrial applicability of the invention.

The educational approach taken by Konphalindo to the public through the mass media is only one of the many public awareness raising activities related to the positive and negative aspects the IP system, particularly patent and Plant Variety Protection.

Konphalindo's educational approach implies the following, among other things:

a. As only a little is known about trans-genetic plants, the Prudential or Early Prevention Principles must be applied. Trans-genetic plants must not be released to the field before they pass scrutiny testing, and the public must be informed in a transparent way about the negative impacts of using such plants.
b. Advance safety testing is required related to the impacts on health and the environment.
c. There is a need for Regional as well as International Regulation and Policy, including human health and environmental protection, not only IP protection.
d. There is a need for social-cultural and social-religious approach concerning the ethical aspect of the cultivation and consumption of trans-genetic plants.

Conclusion

The above described endeavors made by several stakeholders are indicative of the development and the appreciation of the IP protection system in the Indonesian society. Namely that IP should be addressed in a balanced manner, by not giving exclusive attention to IP protection in investment, but also taking into consideration the social impact of IP implementation. Industrialized countries, particularly in Europe and the United States, probably find it difficult to understand this idea. However, in eastern countries such as Indonesia, the issue of balance between individual rights (a reflected in the IP system) and the community's rights reflected in the recognition and protection of traditional knowledge is a must.

The trend in IP education and research in Indonesia is moving towards the creation of such balance.