

## Creating a Business Plan to Generate Knowledge-based Income

Puvaneswarri Nanjappan\*

### INTRODUCTION

During the launch of the National Seminar on Palm Oil Milling, Refining, Environment and Quality on 27 September 2010, Tan Sri Bernard Dompok, Minister of Plantation Industries and Commodities mentioned that the palm oil industry experienced an increase in production and export in 2010. He also noted that the total oil palm planted area increased to 4.76 million hectares as of July 2010 and that the total production of crude palm oil for the first seven months increased by 0.9% to 9.50 million tonnes. Additionally, Vision 35:25 had been introduced to increase productivity to 8 t of palm oil per hectare per year by producing 35 t of fresh fruit bunches (FFB) per hectare per year with an oil extraction rate (OER) of 25%.

### BUSINESS PLAN

The Malaysian palm oil industry is transforming into a knowledge-based industry. But does the industry fully exploit

the results of its R&D efforts and protect its innovations via intellectual property rights. Technologies and innovations are easily adopted and copied. Therefore, there is an urgent need to create a business routine which, amongst others, includes the steps of identifying, protecting and managing the results of these R&D activities.

The palm oil milling process involves major steps of sterilisation and digestion of FFB, oil extraction, oil clarification, sludge separation and kernel separation. Various methods of oil extraction have been used in the palm oil industry. Currently, most palm oil mills use mechanical screw presses to squeeze out the oil from the mesocarp fibre. However, mechanical methods have their limitations as some oil will still remain in the mesocarp fibre, ranging from about 5.0% to 8.0% oil as a ratio to dry matter. The residual oil in the pressed mesocarp fibre can be recovered by solvent extraction method. With the rising palm oil price, there is a great demand for oil extraction from FFB, mesocarp fibre and empty fruit bunches.

MG EcoTech Group of Companies, for example, has been using their technical know-how in biotechnology and process engineering to provide effective solutions in treating all sorts of organic waste

\* KASS International Sdn Bhd,  
Suite 8-7-2, Menara Mutiara Bangsar,  
Jalan Liku, Off Jalan Riong, Bangsar,  
59100 Kuala Lumpur, Malaysia.  
E-mail: kass@kass.com.my



generated by various industries. They have a unique business value chain which has created a winning formula of generating knowledge-based income streams on a sustainable basis. The business value chain includes a sequence of processes, *i.e.* R&D and technical know-how, IPR, branding, licensing and sale of technology and know-how, manufacturing, and sales and marketing of products. A company which has its own R&D and technical know-how should have a business plan which can provide a successful path from developing a technology to the commercialisation of the said technology. The technology to be commercialised must be recognised as property (in the form of patents, designs or trademarks).

### CLONES OF OIL PALM TREES

Malaysia's economy is significantly driven by two main crops – oil palm and rubber. New clones of oil palm and rubber are regularly created. These need to be protected not only in Malaysia, but also in other countries that are recognised for growing such crops (*e.g.* Indonesia). In recent times, new varieties of other cash crops (especially commercially viable vegetable varieties, orchid varieties *etc.*) are being developed. With the horticulture industry in Malaysia developing so rapidly, protection of the new varieties will definitely become important and play a significant role in Malaysia's economy. Additionally, further research is being conducted to increase the productivity of oil palm and rubber trees.

### INTELLECTUAL PROPERTY RIGHTS

**What are Intellectual Property Rights Good for?**

Intellectual property rights (IPR) are a protection of moral and material interests resulting from the authorship of any scientific, literary or artistic production. Like other property rights, IPR allow the creator or owner of a patent, trademark, industrial design, and so forth to benefit

from his or her own work. IPR can also be used as legal artillery in the battle for a place in the market, whether in attacking competitors or as a defence when attacked. Therefore, these weapons of yours must be strong, relevant and sustainable.

IPR give the owners exclusive rights to manufacture a product and use their technology, industrial design, trademark, geographical indication or copyright, grant IPR licences to third parties, obtain cross licenses, and strengthen their negotiating position against third parties. The IPR are granted by the governments of each country. There are no rights to stop others from using the technology, invention, innovation or industrial design unless the said invention and innovation is protected according to law. Anyone can exploit the technology without consent if it is not protected. If you do not acquire protection for your invention, all the risks and costs borne by you will be taken advantage of by other parties. The costs involved are those related to the years of R&D costs, initial market introduction costs and costs incurred in obtaining regulatory approvals.

Long considered a business tool, IPR are akin to insurance against destruction by competitors once a product is successful in the market. It gives you exclusive rights in all aspects of commercial exploitation of the product – to manufacture, sell and offer and to import. These exclusive rights are similar to monopoly rights granted by the government. Besides that, using IPR effectively enables small and medium industries to maintain premium pricing, gain brand awareness and develop new products.

### PUBLIC DISCLOSURE

The disclosure of inventions is always an issue for R&D institutes and universities, since they are required to publish their inventions in journals and articles. Disclosure to the public is a critical issue in determining whether an invention is

patentable, because novelty of an invention is one of the three criteria for an invention to be patentable. An invention is novel if it is not anticipated by prior art, and under the Malaysian Patents Act 1983, prior art includes everything disclosed to the public, anywhere in the world, by written publication, oral disclosure, use or in any other way, prior to the date of the patent application claiming the invention. The written disclosure can comprise manuscripts, journal articles, proceedings, and different forms of publication. As for the oral disclosures, whether the oral presentation is a disclosure or not is still a grey area. If, for example, you speak at a seminar and the participants are given a copy of the presentation where details of your invention are revealed, then it is clearly disclosed. In a situation where copies of the presentation or hand-outs were not provided but the participant takes detailed notes or records your presentation, it would also be considered as disclosure. Therefore, you have to carefully plan your presentation in order to prevent such disclosures.

Besides written and oral disclosure, distribution of research materials and prototypes may be considered as disclosure under certain conditions. If the research material clearly states this for testing and/or evaluation for research purposes under written agreements, *i.e.* non-disclosure agreement, then it would not be considered as a disclosure. If the research material is distributed without any restrictions and made available to the public, then it may be considered as a disclosure.

Not all disclosures result in the loss of potential patent rights. In order to bar an invention from being patented, the disclosure of the invention has to be an enabling disclosure. In such a case, the disclosure has to include sufficient details of the invention for a person skilled in the art to understand and practice the invention. However, in Malaysia, there is a provision

in the Patents Act which provides a grace period of 12 months from the date of the disclosure to file for a patent application. The best solution for such a scenario is to try not to disclose anything before filing the patent application for your invention.

### SEEKING PATENT RIGHTS OVERSEAS

Patent rights are territorial rights, meaning they are effective only in the particular country that issues the patent. Patent rights are critical for enhancing the value of commercialisable inventions and as such, foreign protection is a business decision on the part of applicants and inventors that requires careful consideration. Let us take the example of the Malaysian Palm Oil Board (MPOB). As all are aware, MPOB is the premier oil palm research institute in Malaysia and has invested a substantial amount of funds – something which will certainly continue in the future – in its research and development. MPOB does research on seedling, planting, harvesting, producing palm oil and much more, and in order to reap the rewards of their research results, they have been taking steps to find ways and means to protect their rights locally and in foreign countries.

There are several factors that need to be considered for filing patent applications in foreign countries.

- The demand and market for the invention in those countries – depends on whether the invention is a vendible product, *i.e.* something that can be sold, or an intermediate product, *i.e.* method of extracting oil from the oil palm fruit.
- Whether resources are available to produce the invention – for example, it is not feasible to file an oil palm related patent application in a country that does not have oil palm plantations. Additionally, you will need to consider whether there is sufficient manufacturing capability for the existing invention in the foreign country.





- Whether there are any competitive advantages that exist in manufacturing the invention in that country.
- The nature and effectiveness of patent enforcement in the country – this relates to the ability to monitor and enforce the patent once it is issued, where necessary action ought to be taken if there is an infringement.
- Cost associated with the filing of the patent applications in foreign countries. Filing patent applications in foreign countries is an expensive affair. Therefore, the applicant would need to seriously consider all costs related to the filing of the application.

A company related to the oil palm industry, CHD IP Technology Sdn Bhd, protected their invention on *Method and Apparatus for Sterilising Oil Palm Fruit* by filing patent applications in 25 countries. The patent applications in Malaysia and United Kingdom have been granted under patent No. MY-134916-A and patent No. GB2421169 respectively.

### **BENEFITS OF PATENT COOPERATION TREATY**

The Patent Cooperation Treaty (PCT) is an international law treaty, and an application filed under the PCT – called an international application or PCT application – provides

the opportunity to amend the specification and claims as well as to delay national filing, giving the applicant enough time to prepare budgets, look for licenses and decide on the countries in which to file the national phase applications. Only one application is filed in one language at the Receiving Office (RO). In Malaysia, the RO is the Intellectual Property Corporation of Malaysia (MyIPO). The PCT application also provides an International Search Report and written opinion, which will give an overall view on the novelty, inventive step and industrial applicability of an invention. PCT applications give Malaysians another window of opportunity to exploit their inventions/technology overseas. Seeing that manufacturing industries are moving towards lower cost countries, Malaysians will be able to obtain patent rights in those countries strategically via the PCT route and this gives greater prospects in terms of licensing the technology for royalty income.

### **CONCLUSION**

All the three points mentioned above, *i.e.* business plan, seeking patent rights overseas and PCT benefits, will lead to generating knowledge-based income, which in turn is hoped to bring about growth to the nation. Will the palm oil industry protect and manage their advantages in generating the knowledge-based income?