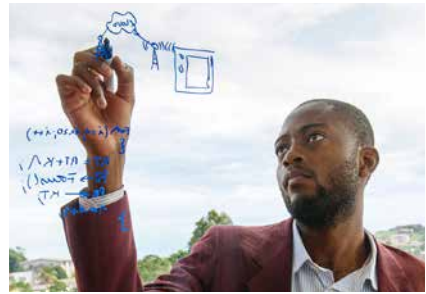


Using IP for development

Success stories from around the world



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Foreword

Innovation and creativity are fundamental human qualities. They can be found in every society in the world.

All too often, however, the ingenuity of innovators and creators in developing countries goes unrewarded, and as a result their countries miss out on many potential advantages.

That is where the intellectual property (IP) system can play a critical role. IP is a powerful tool for development. Used strategically by governments, businesses and the non-profit sector, IP can generate huge economic, social and cultural benefits.

This short publication highlights some of the most important ways in which IP can support development.

At its most straightforward, IP benefits individual innovators and creators: by leveraging their IP rights, they can secure a fair share of economic gains from their inventions and creations.

In this booklet, you can read about many enterprising people who are doing just that – a young inventor in Cameroon, a software developer in Bangladesh, furniture makers in the Philippines, and many farmers and craftspeople who are using IP to boost their brand and strengthen their bargaining position in international markets.

We celebrate these success stories, because the growth of one business also means growth in its home community, raising the income, skills and living standards of local people.

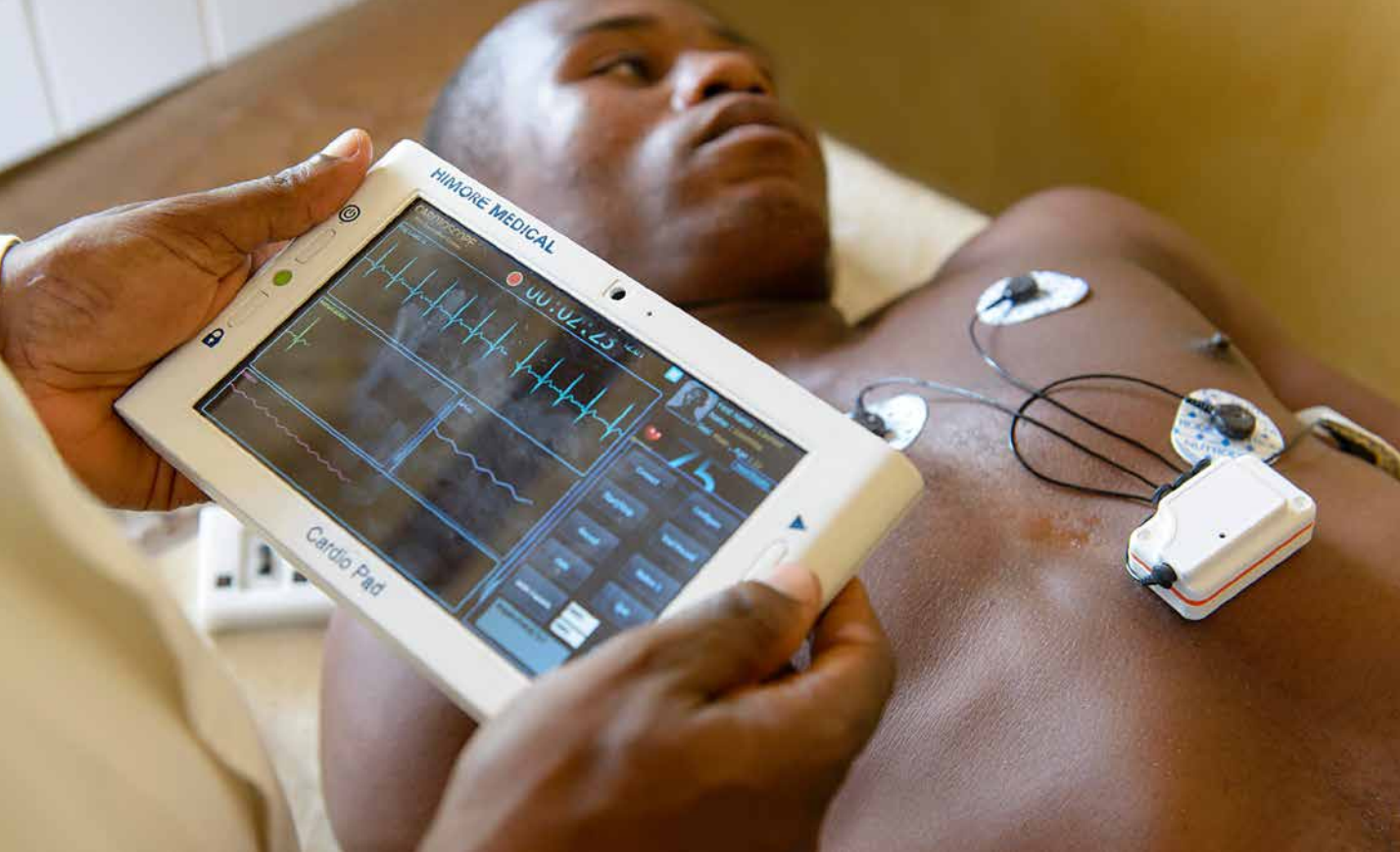
But IP rights are not necessarily just about making a profit. We also provide plenty of examples of how they can be used to support voluntary action, from the generous inventor who patented his crop-boosting innovation so that he could stop anyone from monopolizing it to a charity's astute use of trademarks and branding to raise awareness among its clients and donors.

And – as we also show – the IP system is an important source of technical information which, with the right expertise, can be exploited to produce cheap but invaluable innovations in fields such as medicine and energy.

In short, IP is a major asset for every business, community and country. You need to make the most of it.

This booklet has been prepared by the World Intellectual Property Organization (WIPO), the United Nations specialized agency for IP.

We hope it will inspire many more people to realize the benefits of IP.



Cardiopad – A patent success

Patients with a heart condition in remote rural areas are benefiting from the brain-child of a young African inventor

“The basis of innovation is often a desire to solve other people’s problems.” So says Arthur Zang, and he should know. While still a student in Yaoundé, Cameroon, he started work on what was to become the Cardiopad, an invention that he hopes will greatly improve the treatment of heart disease in Africa.

Mr. Zang was motivated by a desire to help people in remote villages who struggle to access high-quality specialist medical care.

Cameroon has just a few dozen cardiac specialists serving a population of more than 22 million. That makes it an enormous challenge for patients to get the care they need – especially if they live in rural areas. Seeing a specialist means a long, difficult and expensive journey to a big city.

“The intellectual property system can help us in Africa. It gives credibility to African products.”

Arthur Zang

Connecting doctors and patients

Cardiopad aims to make precious medical staff resources stretch further by helping cardiologists examine patients at a distance.

It consists of a purpose-built tablet with a user-friendly touchscreen interface and sophisticated software.

Using Cardiopad, a doctor or even a nurse will be able to perform heart examinations such as electrocardiograms (ECGs) on a patient at their local clinic.

Readings from electrodes on the patient's chest can be fed directly into the device, which has specially written software to screen out interference. Tests have shown it to be 97.7 percent reliable.

The results can then be transmitted wirelessly to a cardiologist many miles away for expert analysis.

It is an African solution to an African problem. Cardiopad is robust, designed to withstand heat, humidity and transport over rutted roads, and with a battery that can run at full power for six hours in case of power cuts.

Protecting and promoting inventions through the patent system

Inventions are products and processes that offer a new way of doing something or a new technical solution to a problem. Essentially, that makes them the building blocks of technological progress, so it is extremely important to promote them.

Inventions can be protected through patents, a type of intellectual property (IP) right. A patent gives the patent holder the exclusive right to control how an invention is made or used for a certain period of time within a certain territory.

Like most other IP rights, patents can be transferred. The holder of a patent can sell or give it to someone else (also known as assigning the patent), or they can retain ownership of the patent but grant someone the right to make or use it (licensing the patent). The fact that patents are transferable and tradeable helps to give them economic value – meaning that inventors like Arthur Zang can use them to attract investors.

That benefits Mr. Zang because it means he can secure a fair return if his invention is commercially successful. And by incentivizing the development of life-enhancing new technologies, it also benefits everyone else.

For more information on patents, see: www.wipo.int/patents

“Every time that I present the Cardiopad at a university or to a group of partners, I am asked if I have protected it or if I have filed a patent.”

Arthur Zang



Photo: © Robert Awareds/Marc Lutzki

It is also very cheap by the standards of medical technology – the complete kit retails at under 3,500 U.S. dollars.

Investing in intellectual property

Mr. Zang has already won many plaudits. Now he is looking for investment to roll Cardiopad out across the market.

It is still quite early days, but one element of his business plan already stands out: the importance of intellectual property protection.

Mr. Zang filed for a patent with the African Intellectual Property Organization (OAPI) to protect some aspects of both the hardware and software. Judging from the attitude of potential investors, that was a very shrewd decision.

“Every time that I present the Cardiopad at a university or to a group of partners, I am asked if I have protected it or if I have filed a patent,” he says.

And even as he looks to commercialize the Cardiopad, he is keen to develop other products. Already, he is exploring the potential of wireless tablet technology for other areas of medicine such as radiology.

There may be more patents on the way from Mr. Zang.

“If it is done right, IP is absolutely an enabler.”

Subhanu Saxena

Bringing medicine to the masses

An Indian pharmaceutical company is making healthcare affordable through clever use of the patent system

Millions of people in developing and least developed countries lack access to essential medicines. Many life-saving treatments are simply too costly for them to afford.

That’s a huge global challenge – but also an opportunity for some enterprises working to serve this burgeoning market.

A prime example is CIPLA, a producer of drugs and medical equipment based in India which is now developing an impressive international presence.

CIPLA’s stated goal is “to ensure that no patient shall be denied access to high-quality and affordable medicine and support”, and to achieve this goal, it exploits the full potential of the patent system.

Profiting from “off-patent” inventions

A core element of CIPLA’s business is the production of generic medicines. This involves identifying pharmaceuticals that are no longer protected by patents and finding ways to manufacture them cheaply to a high standard.



Photo: © CIPLA



CIPLA's commitment to affordability means that it seeks to share its own patented technologies.

CIPLA also spends a lot of time and money developing its own innovations: improving production processes, combining generics to produce complex new treatments and inventing new medical devices to help deliver treatments.

A commitment to innovation

Altogether, the company devotes up to 6 percent of its annual turnover to research and development, and it is understandably keen to protect that investment. That means protecting intellectual property (IP).

“As a company with an important R&D budget and a large set of innovations, we file patents to recognize and systematize those innovations,” says CIPLA’s Chief Executive Officer, Subhanu Saxena.

“If it is done right, IP is absolutely an enabler. We are against monopolies that lead to abuse. Affordable access has to be central to pharmaceutical business strategies.”

Sharing technology through patent licensing

CIPLA’s commitment to affordability means that it seeks to share its own patented technologies by licensing them to other companies on reasonable terms.

It also strikes license deals with other patent holders to use their technology. An impressive distribution infrastructure – 70,000 marketing and sales associates in India alone – means that CIPLA can reach markets that other companies cannot, making it a potentially valuable partner.

A strategy for success

All in all, CIPLA's strategy looks to be paying off for the company. Already, it does a quarter of its business in Africa, and it is planning ambitious expansion. "Five years ago, 70 percent of CIPLA's business came from India", says Mr. Saxena. "In five years 70 percent will come from outside India."

And CIPLA's success is also benefiting patients. As the first generic producer of antiretroviral products, it has played a pivotal role in expanding access to HIV/AIDS therapies in the past two decades.

Once, HIV therapies in Africa cost 12,000 U.S. dollars per person per year, and only 8,000 patients received them. Now, thanks to providers such as CIPLA, more than 12 million Africans can be treated for a dollar or less each a day.

Ensuring global access to healthcare is a truly daunting task, but through innovation companies like CIPLA are meeting the challenge.

Now, thanks to providers such as CIPLA, more than 12 million Africans can be treated for a dollar or less each a day.

How patents help technology spread

As the case of Cardiopad shows, patents encourage innovation by rewarding inventors. This may involve restricting access to technology for a limited period of time, because a patent owner has the right to prevent other people or companies from using their invention commercially.

But the patent system ultimately ensures that knowledge and information are made widely available. To obtain a patent, the patent applicant must provide a detailed explanation of what their invention does and how it works. This information is published so that anyone can study it and learn from it.

Patent protection only lasts for a limited period. Once that period has expired, the invention is "off-patent" and anyone is free to make and use it. Furthermore, each patent is only effective within the territory of the country or region that granted it. Since it costs money to obtain patents, inventors often seek patent protection only in certain target markets, leaving it open to others to exploit the invention outside those markets.



A trusted brand that saves lives

A South African healthcare support network is expanding across the continent, helped by its strong image

Living with HIV/AIDS is more than just a serious health challenge. Patients also suffer stigma and alienation and may withdraw from society, making it even harder for overstretched medical services to reach them.

But one non-governmental organization (NGO) has found an ingenious way to help.

mothers2mothers (m2m) recruits mothers who have been diagnosed with HIV or AIDS and trains them to provide support to others in the same situation.

The main aim is to prevent mother-to-child transmission of the virus, by encouraging women to get tested for HIV and to take medication, and advising them about healthy infant feeding practices.

Trademarks are a powerful – and very affordable – way to help build a brand

Reaching out

m2m's Mentor Mothers are a particularly accessible source of health advice. The network is enormous and widely dispersed throughout communities, so Mentor Mothers are conveniently close and can sometimes even visit women in their own homes.

And they are also uniquely well placed to “reach” other mothers psychologically as well as geographically: they can speak as equals and friends, drawing on their own experience to build up a rapport and win crucial trust and acceptance.

Mentor Mothers are not trained to undertake medical tasks such as HIV testing or administering treatment, but by advising mothers, they can support the uptake of professional healthcare.

A trusted identity

To help support its activities, m2m has built up its brand by developing and using a consistent and distinctive corporate identity, and protecting it through intellectual property (IP) law.

The names “mothers2mothers” and “m2m” are protected as trademarks in several countries, and m2m has also obtained trademark protection for its logo – a colorful image symbolizing warmth, caring and interconnectedness.

Promoting your identity through trademarks

Trademarks are signs used to distinguish the products or services of one organization from those of another. They are most often used by businesses, but as the story of m2m shows, they can also be used by other organizations – NGOs, international organizations, government agencies – to reinforce and protect their identities.

Many types of signs can be protected as trademarks: a word or a combination of words, letters or numerals, drawings, symbols, colors, three-dimensional features such as the shape and packaging of goods – even non-visible signs such as sounds or fragrances. The key thing is that a mark must not be the same or confusingly similar to another mark for the same kinds of goods or services.

Trademark protection is one of the most affordable and accessible types of intellectual property protection to obtain and can be a very cost-effective way of helping to build the reputation of an organization or business.

For more information, see: www.wipo.int/trademarks

*m2m has already reached
nearly 1.5 million
HIV-positive mothers*



Photo: © Photographer Karin Scherbrucker, courtesy of mothers2mothers

The logo features prominently on staff uniforms, organizational paraphernalia and corporate communications, helping to promote the organization to everyone who sees it.

And no less importantly, it also features in m2m's vital fundraising work, building awareness among current and potential supporters.

Visible success

The m2m approach is proving successful and very scalable. Founded in South Africa in 2001, it is now active in seven African countries, and also has bases for fundraising and policy advocacy in the United States of America and Europe.

In its first 15 years of operation, it has reached nearly 1.5 million HIV-positive mothers. Evaluations have shown that interventions by Mentor Mothers are highly effective, encouraging mothers to get the treatment and help they need and so radically reducing the number of babies being infected by their mothers.

What's more, the Mentor Mothers also benefit, as their work is properly paid. m2m employs more than 1,000 of them.

mothers2mothers is working for everyone.



Patent information – A great power source

*Patent data can
help you develop
technology to meet your
development needs*

Projects to produce clean energy technologies in Nepal and Guatemala show how IP data can drive development

The intellectual property system does not just benefit the people and companies whose innovations it protects. It also creates a pool of information which other people can access and exploit.

Two initiatives from Nepal and Guatemala provide excellent examples of how countries can use IP information strategically to help achieve specific development objectives.

Accessing and using patent data

When they apply for patent protection, each patent applicant has to provide information about their invention. The information has to be detailed enough to allow someone with a reasonable level of skill in the relevant technical field to make and operate the invention.

All of this information is published, and you can access a lot of it through public databases – including WIPO’s free online search engine, PATENTSCOPE (*patentscope.wipo.int*).

Patent information can be used in lots of ways. Companies such as CIPLA (pages 7-9) search for useful inventions that are “off-patent” because there is no patent in a certain territory or it has expired. Off-patent inventions can be freely used by anyone. As the examples from Guatemala and Nepal show, that includes governments looking for technological solutions to specific development challenges.

*An initiative in Guatemala
also utilized patent
information to help reduce
household pollution*

A common problem: household pollution

Nepal and Guatemala are very different countries, thousands of kilometers apart, but they face some similar challenges. One big common problem is pollution in the home.

In both countries, wood is widely used as a household fuel. Firewood accounts for more than 60 percent of total annual energy consumption in Guatemala, while in Nepal the figure is a whopping 78 percent.

That is bad for the environment and for people.

Guatemala is losing an estimated 1 percent of its forest each year, and deforestation is also a major concern in Nepal. Furthermore, smoke from wood-burning stoves can cause serious health problems in homes that are often poorly ventilated. Women and children are particularly at risk because of the time they spend cooking.

A source of solutions

Both Nepal and Guatemala searched for an answer to this problem, and they looked in the same place: patent data.

Patents are a rich source of technical information because in order to gain patent protection, a patent applicant has to provide full details of their invention explaining how to make it and how it works.

That information is published so that anyone can study it and learn from it. Through careful analysis of patent data, you may well be able to develop technology to meet an identified need.

Better fuel for Nepal

Tackling firewood pollution in Nepal was the target of a special development project undertaken with WIPO.

A National Expert Group (NEG) formed for the project identified it as a specific development challenge for which a technical solution might be found. A scientific expert was then commissioned to search patent data to try to find potentially useful technologies that were not protected by patent in Nepal.

The technology selected by the NEG aims to make better use of an abundant resource in Nepal: agricultural waste. Using biochemical conversion, raw waste is now turned into compact and sturdy briquettes. Not only are these higher-grade fuel than wood or raw biomass, providing more energy with much less pollution, they are also smaller than traditional fuel sources, making them convenient to store and transport.

And they can be produced locally, so Nepal has the potential to develop a new industry to help it meet its energy demands through its own resources.

Cleaner cooking in Guatemala

An initiative in Guatemala also utilized patent information to help reduce household pollution.

Here, the project partners came from South Korea, a country that has achieved great economic and social development in just a few decades thanks in part to its own astute use of intellectual property.



Photo © Himalayan Natural/myclimate

Trade secrets

As an alternative to patent protection, companies may seek to keep key knowledge and information confidential as trade secrets. Essentially, this involves controlling who has access to the information and imposing a legal duty on them, as far as possible, not to reveal it.

Using trade secrecy law can be relatively cheap, and there is no time limit on trade secret protection as such. However, it entails significant risks. A trade secret may be discovered or disclosed by someone legitimately in certain circumstances and if that happens, the business will have no protection. So patenting key inventions offers businesses some security and value as well as ensuring that everyone else has access to valuable information in due course.



Through expert research into published patent documents supplemented with on-site studies, the team were able to develop a better cooking stove

Representatives from the Korean Intellectual Property Organization (KIPO), the Korea Invention Promotion Association (KIPA), an NGO called Good Neighbors and a technology partner collaborated on the challenge.

They focused on a different solution from the Nepal project: rather than changing the energy source, they sought to improve energy consumption.

Through expert research into published patent documents supplemented with on-site studies, the team were able to develop a better cooking stove – cheaper to buy, easier to install and more fuel-efficient than other models available locally.

Like the biomass briquettes, it is also a technology that can be manufactured locally using available resources and know-how.

In Guatemala as in Nepal, people can draw on a global stock of patent information to create inventions that meet their local needs.

New life for an ancient crop



Photo: © Felix Awards

The fonio threshing machine can do hours of work in a few minutes

An African engineer has boosted production of one of Africa's most hardy cereal grains

Fonio has been grown in Western Africa for millennia.

In many ways, this cereal grain is the ideal crop for the region. Rich in nutrients, it is also fast growing, tough and capable of surviving in a range of challenging environments.

It can be cultivated in semi-arid and sub-tropical zones, in sandy plains, steppes, grassland, mountains and hills, and can reach maturity in just six to eight weeks.

Small wonder, then, that it formed a significant part of traditional agriculture in countries such as Senegal, Guinea and Mali.

A tradition in danger

But that tradition had waned in more recent decades. While fonio was relatively quick and easy to grow, it is hard to process. The grain has to be extracted from small and fragile kernels.

Traditionally, that was done by hand – a laborious, expensive and unappealing procedure.

Increasingly, farmers had turned to other, less hardy cereals such as maize, potentially reducing labor costs but leaving them and their countries more vulnerable to crop failure and food shortages.

Fonio was easy to grow but hard to process

A new solution

Sanoussi Diakité spotted the problem – and an opportunity.

Having grown up in Senegal, where fonio was widely cultivated, he remembered only too well from personal experience the hours of work required to process the grain for family meals.

He determined to come up with a solution, drawing on his training as a mechanical engineer. While working as a teacher in the early 1990s, he spent his spare time developing a solution, and after three years his efforts paid off.

Mr. Diakité invented a fonio husking machine which uses flexible plastic plates to remove the husk without damaging the fragile grain inside it.

His invention transforms the work and costs involved in fonio production. It can process five kilograms of grain in around eight minutes – output that would previously have taken hours. And mechanical husking uses far less water than traditional, manual processing.

Patent protection and commercialization

Keen to improve fonio cultivation throughout Western Africa, Mr. Diakit  sought patent protection for his invention in several countries and filed an application with the African Intellectual Property Organization (OAPI).

As with Cardiopad (see pages 4-6), patenting his invention helped to establish his profile and credibility among potential backers. Mr. Diakit  received valuable support from the African Development Foundation to further develop his machine, and won a prestigious Rolex Award for Enterprise.

Now, the emphasis is on commercializing and spreading the technology. Retailing at around 1,000 U.S. dollars or more, the husking machine is beyond the pocket of most individual farmers, but governments, non-governmental organizations and international agencies can see that it is a valuable investment.

Hundreds of machines are now in use throughout the region, but there is scope for much more.

Modern research has demonstrated the health benefits of fonio. Several countries now have an annual Fonio Day celebration to try to encourage its cultivation. And there are even plans to promote it as a trendy new “superfood” in the United States of America.

By making fonio production more profitable, Sanoussi Diakit  has transformed the prospects of this traditional crop – a rich harvest indeed.



Photo   Rolex Awards/Fatoumata Diabate

*Patenting the invention
has boosted its credibility*

A very fruitful venture



Photos © poetriwi/Stock/Getty Images Plus

Dr. Barba uses his patent to stop anyone from monopolizing the new method

Mango yield in the Philippines has tripled thanks to the work of one local scientist

How do you encourage mango plants to flower? That was the challenge facing Dr. Ramon Barba, a horticulturalist, back in the 1970s.

Mango fruit are packed with vitamins and minerals, making them as healthy as they are tasty. But while the mango tree, *Mangifera indica*, is cultivated in many tropical countries, it can be a difficult crop.

Each crop is now two to three times bigger than before



Mango trees are highly seasonal, bearing fruit just one month a year. And they are also erratic – a plant may produce a bumper crop one year but nothing the year after. In consequence, mango production could be a commercially risky business.

The puzzle of the smoke

So what could farmers do to be sure of a good harvest?

Already, producers in the Philippines had hit upon a method that seemed to help: using smoke. They found that by burning leaves and grass under trees, a process known as “smoking out” or “smudging”, they could promote flowering.

However, it required two weeks of continuous smoke to produce flowering, making it expensive and tedious.

Dr. Barba was intrigued by the phenomenon, and wanted to study it in detail to find a scientific shortcut. When local mango producers hired him as a consultant, he seized the opportunity to experiment with different chemicals to stimulate the plants.

His research at the University of the Philippines Los Baños had revealed that ethylene in the smoke was the magic ingredient responsible for provoking the flowering, but as a gas it could not easily be applied to the trees, so he wanted to find an alternative chemical.

After identifying and trying a range of possible chemicals, Dr. Barba discovered that potassium nitrate, also known as saltpeter, was remarkably effective.

Simply spraying trees with potassium nitrate dissolved in water would cause them to flower within a week. Farmers could produce several crops a year, each two or three times bigger than the conventional yield.

*The impact of the
new method has been
revolutionary*



Photo: Shutterstock © FORAMATEFLAY

Sharing the benefits

The impact of Dr. Barba's new method has been nothing short of revolutionary. Mangos have become one of the Philippines' top exports, with annual production hitting around 900,000 tons, Dr. Barba was honored through the presidential award of National Scientist of the Philippines in 2014.

He has also encouraged the adoption of his method abroad, and mango production in many developing countries has benefited from it.

But there was one more challenge to surmount to ensure that the method could be widely adopted: patent protection.

Dr. Barba was not aiming to exploit his research commercially, and so did not see the point of patenting it initially.

All that changed when he learned that someone else had applied to patent potassium nitrate spraying for mango propagation.

He contested their application and was able to show that he was the real inventor of the method. As such, he secured a patent over it in the Philippines and several other countries.

True to his beliefs, Dr. Barba does not enforce his patents, meaning anyone can benefit from his work. But by protecting his rights in it, he has been able to stop anyone else from monopolizing it.

The patent system has helped him to share his discovery with the world.

Location means reputation

The geographical origin of products can add huge value to them

From Cameroon to Mexico, Sri Lanka to Panama, enterprises all over the world are turning the origin of their products into a unique selling point using a variety of IP mechanisms

Geographical origins are big business. Where a product came from can have a huge bearing on its market price, when its origin has a reputation for that product.

Agricultural products provide the most obvious examples. Particular climactic conditions, flora and fauna give certain food and drinks qualities that are highly prized.

But ultimately, it is the interaction between the human environment and the natural environment that is crucial.

Many communities have developed skills that are intimately linked to the world around them, making them an essential ingredient of their local products – whether those products are food, drink, handicrafts or something else.

Protecting geographical brands

So place names or other marks of origin can be very marketable brands – valuable intellectual property, in other words. How can they be protected and promoted?

Photo: iStockphoto© bernia_photo



Now that Penja pepper is protected through IP laws, wholesale prices have increased fivefold

Special laws to protect geographical indications

Broadly speaking, a **geographical indication (GI)** is a sign used on products that have a specific geographical origin and possess qualities, a reputation or characteristics that are essentially attributable to that place. Many countries have special laws to protect geographical indications. In legal jargon, these are known as *sui generis* regimes of protection.

There are variations in laws protecting GIs. One noteworthy category of GIs are **appellations of origin**. For a product to be protected as an appellation of origin, its quality or characteristics must be due *exclusively or essentially* to its geographical origin. This generally means that the raw materials should be sourced in the place of origin and that the processing of the product should also take place there. In other words, an appellation of origin is a type of geographical indication that requires an especially strong link between a product and the place it comes from.

For more information, see:
www.wipo.int/geo_indications

In fact, there are several different ways in which the IP system can be used for products of a particular geographical origin. The options will depend on local laws as well as producers' business strategies and resources and the products themselves.

But there are lots of people and businesses in many different regions and countries who are cleverly exploiting the distinctive reputation of their home territory.

Let us look at just a few of these success stories.

Penja – an exceptional pepper

The white pepper that grows in the Penja Valley of Cameroon is a classic illustration of the relationship between place and product quality.

The volcanic local soil is rich in minerals, producing a distinctive white peppercorn which has become an internationally renowned, premium ingredient.

But unfortunately where there is money to be made, there will often be unscrupulous people looking to cash in, and until recently Penja was a victim of widespread counterfeiting.

Producers of inferior goods were mislabeling them as Penja pepper, undercutting bona fide producers and undermining their precious reputation.

That changed when the producers sought to protect the Penja name. They formed an association to create a set of product standards, and they registered Penja Pepper with the African Intellectual Property Organization (OAPI) as a protected geographical

indication – the first example of such IP protection in sub-Saharan Africa.

The results have been dramatic. Between 2013 and 2015, the wholesale price of Penja soared, and it is now selling for around five times as much as it used to.

Unsurprisingly, the number of producers and the volume of annual production have also risen, meaning many more people are now gaining a good livelihood from the thriving local industry.

By working together to protect their shared interests, the pepper producers of Penja have greatly strengthened their position.

Protecting Olinalá crafts

It is not only foodstuffs where geographical origin can be key to product quality. A wide range of other products gain prestige through their association with a certain locality.

In the Olinalá region of Mexico, people have been making *maque* goods – lacquered wood products – for centuries. That living tradition is visible today in a strong local arts and craft industry.

But again, local producers were threatened by competitors free riding on their reputation.

The Olinalá craft workers fought back. They formed an association to represent them, *Unión de Artesanos Olinca AC* (UAO).

Working with several other organizations, including representatives of indigenous people, they were able to register Olinalá as an appellation of origin, a special type of protection

for products with a particularly strong link to their place of origin.

Only products made from locally sourced materials and that meet strict craft standards can bear the Olinalá label.

A broader development policy for the region has seen significant improvements in transport infrastructure, meaning local people now have better access to national and international markets.

And concerted promotional efforts have turned Olinalá craft products into the region's most valuable industry.

Strategic use of IP has generated new value from venerable traditions.



Photo © Didier Descouens – Own work, CC BY-SA 4.0

*Strategic use of IP has
generated new value from
venerable traditions*

**Protecting geographical indications
through trademarks**

As the case studies from Sri Lanka and Panama show, in some countries geographical indications can be protected through the trademark system. There are different ways of doing this.

A collective mark is owned by an association or entity on behalf of a group of businesses or people, and used by the members of that group on products or services that share certain characteristics or standards.

A certification mark can also be used for all products and services that share certain characteristics or standards. But whereas collective marks are usually owned by an association representing a group and can only be used by members of that group, a certification mark is owned by a certifying body responsible for ensuring compliance with the relevant standards, and anyone can use the mark provided they meet those standards.

**Collective success with
Café de Palmira**

Like the Penja Valley in Cameroon, Palmira in the province of Chiriquí in Panama boasts rich volcanic soil.

Many products grow there, but the coffee is particularly notable. Along with the soil nutrients, the high altitude and local micro-climate produce a coffee with a special, intense flavor. That made it a potential premium product. But until recently, small producers were not enjoying the benefits of that added value. They did not process or prepare coffee from the beans they harvested, but instead sold it to intermediaries.

With help from WIPO, the Palmira Coffee Farmers' Association (ACCOR) has been working to improve the situation. In 2014, they established "Café de Palmira" as a collective mark, protected through the trademark system. Controlling the brand means they have more bargaining power, and already their earnings have rocketed – from an average of just one U.S. dollar per pound to 7 dollars. Once again, investment in IP is paying off.

Making Ceylon tea a symbol of quality

Local producers in Sri Lanka, meanwhile, have used their trademark system in a slightly different way to support the quality and reputation of their product.

Ceylon tea has been known for its quality for centuries, and government and businesses in Sri Lanka have invested to promote it as a brand.

To crack down on counterfeiting, Ceylon Tea was registered as a certification mark in 2010, and the Sri Lanka Tea Board was given responsibility for administering it and seven related regional tea varieties.

The Board ensures that only businesses selling 100 percent Ceylon tea can use the prestigious brand name and distinctive lion mark on their packaging. They also have to report their sales figures each month, so the Board can keep a close eye on the market.

The Board has also registered the mark in many foreign territories to help protect its most valuable export markets. That can be expensive, but for one of the world's top tea exporters it is essential.

Sri Lanka's earnings from tea can reach more than 1.5 billion U.S. dollars a year.

Ceylon – like Penja, Olinalá, Palmira and many others – is definitely a name to treasure.



Photo: Shutterstock© hardiyath

Only businesses selling 100 percent Ceylon tea can use the prestigious brand name

*As Nature's Legacy's
business results
show, IP is a very
wise investment*

Innovation set in stone

A Philippines company has achieved major export gains through a combination of technical invention and high-end design

By any measure, Nature's Legacy is a success.

From its headquarters in the Philippines province of Cebu, the company exports home furnishings and garden accessories all over the world.

Its products are made from sustainable materials and have an elegant, modern but natural look which has proved a hit with consumers in many countries. Nature's Legacy has earned the equivalent of millions of U.S. dollars of revenue and won many awards.

Underpinning all this achievement is an unwavering commitment to innovation, backed up by a comprehensive intellectual property strategy.



Photo © Nature's Legacy

The right stuff

It all began in 1996. Husband and wife Pete and Cathy Delantar had been manufacturing hand-carved products in Cebu using stone from the nearby island of Mactan. While the look and feel of the stone made it a popular choice for household wares, crafting it by hand was slow, difficult work, and the Delantars were frustrated; their output was limited and it was challenging to ensure consistent product quality.

They founded Nature's Legacy with the aim of discovering a way to scale up production. Crucially, that meant research and development (R&D) into new materials.

The Delantars wanted to create a cast stone material that simulated the distinctive color and texture of Mactan stone but which could be mass produced. They tried traditional cast stone manufacture using sand, cement and water, but the product was too heavy and brittle.

So they had to innovate. After much experimentation, they hit upon a method using calcium carbonate and a resin binding to produce a simulated stone that was both light and durable.

They had found a winning formula. Now, they could make furniture and ornaments that had the solidity and appeal of natural stone while also being cost-effective to produce and transport.

But the innovation did not stop there. Investing heavily in R&D, Nature's Legacy also developed processes to create cast marble and a versatile biodegradable material from recycled forest waste called Naturescast®.

Industrial designs

In the crowded modern marketplace, there may be lots of products offering the same basic functionality. So the aesthetic appeal of one product – its look and feel – will often determine whether consumers prefer it to another. That can make designs valuable intellectual property.

IP rights in industrial designs can be protected by law in many jurisdictions, but the methods of protection vary. In some countries there are special systems to register industrial designs; in others designs may be covered by copyright laws; and in others designs can be protected under patent law as “design patents”.

For more information, see: www.wipo.int/designs



Photo: © Nature's Legacy

More recently, it has developed a material that looks like limestone and another environmentally friendly product made from recycled paper waste.

Utility models

A utility model is an IP right available in some jurisdictions. It protects inventions and is similar to a patent. However, the requirements that an invention must meet to qualify for protection as a utility model are less onerous than the criteria for patent protection, and the period of protection for utility models is usually shorter than for patents. Utility models are sometimes known by other names such as “petty patents” or “short-term patents”.



Photo: © Nature's Legacy

Investing in IP

To safeguard its investments, Nature's Legacy has a comprehensive strategy to protect and exploit its intellectual property.

Its main processes and products are protected by patents and utility models (see box) not only in its home country, the Philippines, but also in its key export markets.

That can be an expensive process because generally one needs to pay separate fees for each country in which protection is sought, but for a company such as Nature's Legacy, looking to sell high-end products overseas, the competitive advantage it gains from protecting its unique inventions outweighs the costs.

It recoups some of the investment by licensing some of its patents for companies and products that do not threaten its commercial interests.

And it also protects other aspects of its IP. The company name and the names of key materials such as Naturescast® are protected through trademarks, and product designs are also protected.

Last but not least, Nature's Legacy invests in IP enforcement, rigorously pursuing unethical competitors that try to use its protected processes, products or terminology without authorization.

Again, enforcement actions can be expensive, but they are necessary to ensure that the company retains control of its innovative creations.

As Nature's Legacy's business results show, that is a very wise investment.

A step ahead



Photo: © soleRebels

An Ethiopian company is making hand-crafted footwear with international appeal

Traditional craft skills can be a sound basis for business in the modern global economy.

That is the lesson of soleRebels, a family-owned manufacturer of hand-crafted footwear from Ethiopia that is enjoying great success at home and abroad.

The company draws on Ethiopia's long history of artisanal production, but fuses it with a very contemporary fashion sense to make trendy, eye-catching handmade shoes and sandals.

It also makes liberal use of locally sourced and recycled raw materials, including used car tires, and demonstrates a very strong ethical commitment to its community and environment.

soleRebels's export success means higher wages for local craftworkers

The upshot is affordable, durable products and a strong brand identity that appeals to socially aware consumers in developed countries as well as domestically.

Local crafts for global consumers

soleRebels was co-founded in 2005 by Bethlehem Tilahun Alemu with the aim of bringing Ethiopia's handcrafted goods to a global market.

“Our model maximizes local development by creating a vibrant local supply chain while creating world-class footwear.”

Bethlehem Tilahun Alemu

Craftworkers in the country have been making a range of goods by hand for many centuries, and soleRebels draws on that tradition. Articles are cut, stitched and sewn by hand.

But whereas traditionally craftwork was a cottage industry of micro-businesses catering to local demand, Ms. Alemu set out to create a brand that could sell worldwide.

“Our model maximizes local development by creating a vibrant local supply chain while creating world-class footwear loaded with style, comfort and appeal,” she explains.

The company emphasizes its development credentials. It has publicly committed to meeting a range of principles in terms of workers' pay and conditions, among other things. That entails some cost, but it has also proved to be a smart business strategy, helping to ensure a contented workforce while also attracting certain customers.

Protecting their good name

soleRebels' managers are well aware of the value of intellectual property (IP). Having worked hard to build a successful brand, they are keen to protect it.

They have registered “soleRebels” as a trademark in key target export markets, including the United States of America and the European Union, and also protect their logos and slogans.

And they have sought to protect the company's Internet presence by registering the domain names solerebels.com and solerebelsjapan.com – a wise move for anyone looking to market online.

Brand values for a connected world

soleRebels has a strong online presence. Social media platforms such as Facebook are a key part of its marketing strategy, and it sells through websites like Amazon as well as an international network of retail outlets.

Indeed, the brand seems tailor-made for the Internet generation, carefully calculated to appeal to a lucrative niche of socially and environmentally conscious shoppers around the world.

soleRebels sandals, shoes and boots are now worn and enjoyed by customers in Asia, Europe and North America. The company has created hundreds of jobs at home and abroad to service its growing export base, and is earning millions of U.S. dollars a year.

Success like that attracts competition as well as admiration, and like any enterprise, soleRebels will need to keep innovating to survive.

But its adroit brand positioning leaves it well placed for further growth.

As Ms. Alemu says, "Saving the environment plus concern for workers never goes out of style."


Registering domain names to protect your online presence

Business and brand names can be valuable intellectual property. The law has recognized this for years, through national and international laws to protect trademarks and prevent one business from using another's identity. But what about the new world of digital commerce?

Domain names such as solerebels.com are the human-friendly forms of Internet addresses, and are commonly used to find websites. It is very important for a company to have a domain name that reflects its business or brand. There are systems in place that allow domain names to be registered, and registration can be a key part of an effective IP strategy.



Photo: © soleRebels



Finding the keys to success

How a Bangladeshi entrepreneur transformed the possibilities for publishing and communications in his country

Bangla is the seventh most widely spoken language in the world. Altogether, it has more than 210 million native speakers in Bangladesh and India.

But until relatively recently there was no user-friendly way to type Bangla, making it difficult to print and publish in the language.

That was a terrible barrier to knowledge transmission among Bangla-speaking people, but it also meant there was a huge opportunity for development.

In the late 1980s, Bangladeshi journalist Mustafa Jabbar spotted the opportunity and came up with a solution.

In the vanguard of a technology revolution

Realizing the potential of computer technology to transform publishing, Mr. Jabbar aimed to construct a new Bangla typing interface.

He wanted to create an easy way to type in Bangla using a standard “qwerty” keyboard layout, but that was a difficult task. The Bangla alphabet has 50 letters as well as conjoined characters and extra vowels.

*Its IP rights helped
Ananda Computers
secure value from
its investment in
innovation*

Protecting creative works through copyright

However, after a year-and-a-half of diligent work, he succeeded. Bijoy was born – a combination of a keyboard layout and fonts designed by Mr. Jabbar with software developed by a local programmer.

That was way back in 1988, a time when few people had grasped the full scope of the personal computer revolution. But Mr. Jabbar was one of the far-sighted few, and the company he founded, Ananda Computers, was well placed to profit from the PC revolution.

Bijoy, which means “victory” in Bangla, proved an apt choice of name. As computer use grew among Bangla speakers, so did use of the interface. The original software, which only ran on Apple Macintosh, was joined by a Microsoft Windows-compatible package in 2003, and the company has issued many updated and improved versions since then.

Defending its position

Bijoy software is now widely used, and Ananda Computers has benefited not only by selling that, but also through licensing deals with manufacturers of keyboards bearing the Bijoy font which earn it royalty fees.

All this was possible only because it protected and exploited its IP rights. The Bijoy software is protected by copyright, and copyright protection for the original keyboard layout was supplemented by patent protection for a subsequent edition.

In addition, Mr. Jabbar is careful to protect his brand through trademark protection of product names and logos.

Copyright is one of the most widely used types of intellectual property rights. It protects an enormous range of literary, artistic and scientific works. Artistic creations such as novels, poems, paintings and films are covered, but so are much more functional works; potentially, product labelling, packaging and user instructions may all be protected by copyright. In many countries, it can also be used to protect computer software, as in the case of Bijoy.

For more information, see: www.wipo.int/copyright

Protecting its IP has meant that Ananda Computers was able to secure a fair return on its investment in innovation – which in turn meant that it had a solid financial basis for further innovation and development.

Protection has also on occasion meant taking action against infringement.

Unfortunately, software piracy is widespread, but Ananda Computers achieved a notable victory in 2010 when it persuaded a rival company to stop distributing a free-of-charge application (“freeware”) that was an almost exact copy of Bijoy.

It has also had to tackle unscrupulous competitors importing Bijoy-layout keyboards without permission, but successfully lobbied the customs authorities to combat the problem.

Another victory for Bijoy.



Nollywood – The next episode

*If Nollywood is to
keep growing, new
IP arrangements
are crucial*

After 25 years of rapid growth, Nigeria's giant movie industry is set to change

Success can bring its own challenges. That is the case with Nigeria's film industry.

In the 1990s, "Nollywood" grew to become the third-biggest movie center on the planet, after Hollywood in the United States of America and India's Bollywood.

That staggering growth was based on unique arrangements for the financing, production and distribution of films which allowed the industry to develop at a dizzying rate.

But now, change is on the agenda. The Nollywood model of filmmaking that was such a recipe for early success needs to adapt if the industry is to mature.

Above all, new arrangements with regard to intellectual property (IP) are essential.



Proving ownership of copyright

Copyright is an unusual form of intellectual property right in that generally it arises automatically when a creative work is created or published. There is no need for the creator of the work to go through a formal registration process in order to acquire rights in their work.

That is advantageous in that creators can avoid the initial expense and effort involved, for example, in patenting an invention. But it also has a potential downside in that it is not always obvious who owns a copyright work, especially in the case of works such as films that involve multiple creative contributions. For that reason, it can be very important for creators to establish clear evidence of their rights in a work, and it may be worthwhile seeking legal advice on this at an early stage.

The hit formula: quick and cheap

The key to Nollywood's success in the 1990s was local filmmakers' enthusiastic and imaginative adoption of digital technology.

There had been a vibrant filmmaking tradition in Nigeria for many decades, in many of the country's indigenous languages, but the availability of digital cameras enabled a new approach.

Digital movies could be shot and edited at much lower cost than traditional celluloid films. In Nigeria, many independent directors seized the opportunity to produce their own films, often financing them through personal savings or loans. Actors proved willing to work flexibly, fast and for relatively low wages, maximizing the advantages of the new technology.

The upshot was that a film could be completed within a couple of months and on a budget that was a tiny fraction of what Hollywood would spend.

Meanwhile, digital technologies also offered a highly effective form of distribution. Instead

of being shown in cinemas, films were sold on DVDs for home consumption.

Economic wealth and cultural richness

The new era is generally held to have begun with the release of *Living in Bondage* by Chris Obi-Rapu in 1992, a smash hit that spawned numerous imitators.

The growth of the digital industry was vertiginous. Barely a decade later, Nollywood was thought to be producing around 150 feature films a year and generating annual earnings of between 200 million and 300 million U.S. dollars.

And its cultural impact was as important as its economic clout. Distribution was dominated by home video sales to the huge domestic market, but the DVDs also became increasingly popular across Africa and among its emigrant diaspora. These were films by Africans for Africans.



Photo © Jacob Silberg/Panos

For Nollywood to evolve, its approach to IP needs to develop

Barriers to further growth

But 25 years on from *Living in Bondage*, many people believe the Nigerian film industry needs to change in order to realize its potential. The same informal and flexible system of filmmaking and distribution that allowed it to grow so quickly may now pose a challenge to its further development.

For one thing, the fast and cheap way that Nollywood films are made can sometimes lead to low-quality products with limited appeal to international audiences.

And the straight-to-DVD distribution system has weaknesses as well as strengths. Little of the profits from sales go to the filmmakers, especially since piracy is widespread.

Moving to the next level

For Nollywood to evolve, its approach to IP needs to develop. Film production needs to become more businesslike, with formal contracts making it clear who owns rights in each movie.

That will give investors the confidence and security they need to commit to larger-scale financing, which in turn should drive up the technical quality and market reach of the films.

And distribution needs to move beyond a reliance on DVDs to other channels such as streaming on demand. More competition among different distribution channels should strengthen filmmakers' bargaining position so that more money flows back into the industry.

Already there are encouraging signs of change. The Nigerian Copyright Commission (NCC) is trying to clamp down on piracy, spurred on by the film industry. Government agencies are investing in training and film promotion. And companies such as the video streaming platform iROKOTv are opening up distribution.

Nollywood's astonishing growth in recent decades may well be just the start of its success.

About WIPO

The World Intellectual Property Organization (WIPO) is the global forum for intellectual property services, policy, information and cooperation. Our goal is to make IP work for everyone. A commitment to development runs through everything we do, and we have an extensive range of programs and initiatives to help developing and least developed countries and their people realize the benefits of the international IP system for society.

You can find lots more information about WIPO's work and intellectual property on the WIPO website: www.wipo.int.

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Using IP for development

Success stories from around the world

