

TRADE POLICY REPORT NO. 23

Intellectual Property Rights and South Africa's Innovation Future

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Development through Trade



SOUTH AFRICAN INSTITUTE OF INTERNATIONAL AFFAIRS

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ABBREVIATIONS

ARIPO	African Regional Intellectual Property Organisation
BBBEE	broad-based black economic empowerment
BLNS	Botswana, Lesotho, Namibia and Swaziland
CBD	Convention on Biological Diversity
DST	Department of Science and Technology
DTI	Department of Trade and Industry
FTA	free trade agreement
GDP	gross domestic product
IGC-GRTKF	Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore
IPMO	Intellectual Property Management Office
IPR	intellectual property rights
IPRI	International Property Rights Index
NIPF	National Industrial Policy Framework
NIPMO	National Intellectual Property Management Office
PCT	Patent Co-operation Treaty
R&D	research and development
SACU	Southern African Customs Union
SADC	Southern African Development Community
SMME	small, medium and micro enterprises
TRIPS	Agreement on Trade Related Aspects of Intellectual Property Rights
WTO	World Trade Organisation

1. BACKGROUND AND INTRODUCTION

Intellectual property rights (IPR) are rights that protect the creations of an author's or inventor's mind. The state grants the creator a monopoly in and to these rights or works as a reward for the innovative activity. This monopoly incentivises the creator to continue creating, while the broader society benefits through the disclosure of the creative or innovative material to the public. A well-balanced IPR regime is important for development, as it encourages both foreign and domestic investment for the overall benefit of a country.

IPR and the legislation that manage them are not without problems and controversy. Access to medicines and the protection of traditional knowledge are constantly on the World Trade Organisation (WTO) agenda and are of particular interest and relevance to developing countries and LDCs. Bilateral trade negotiations between developing and developed countries have magnified the differences in the needs and wants of the negotiating parties with regard to IPR. However, the IPR debate internationally is fraught, particularly in the trade arena. This has also found expression in various bilateral negotiations the Southern African Customs Union (SACU) has been involved in. The bilateral negotiations, in particular, have seen SACU, largely owing to South Africa's insistence, wishing to exclude IPR from the agenda. In some cases, particularly in negotiations with the United States (US), such caution is warranted. However, it has raised concerns in certain sections of the South African business community that the South African government is not doing enough to upgrade IPR law, enforce existing laws and promote uptake of IPR in key markets, especially Southern Africa.

In South Africa, the Department of Trade and Industry (DTI) has overall responsibility for policy formulation with regard to patents, trademarks, designs and copyright. It provides the framework for registration of IPR and their examination and adjudication. However, due to the cross-cutting nature of IPR, other government agencies such as the Departments of Agriculture, Environmental Affairs and Tourism, and Science and Technology (DST), as well as the Council for Scientific and Industrial Research, are intimately involved in policy making. The DST has been particularly active, having invested substantial resources in promoting innovations in science and technology development. Public expenditure in research and development (R&D) has risen in

recent years, and is expected to reach 1% of gross domestic product (GDP) by 2008.

This report will investigate the level of IPR protection and enforcement in South Africa in relation to efforts to boost the country's technological capacities in manufacturing. This will be conducted with specific reference to the DTI's emerging industrial policy framework and the DST's advanced manufacturing strategy. It will also examine the desirability or otherwise of IPR harmonisation within SACU in the context of future free trade negotiations between this regional organisation and external trade partners.

The South African government has, with the aim of achieving a 6% GDP growth rate from 2010 onwards, acknowledged that essential changes must be made to the traditional economic portfolio. The proposed road forward, as captured in the National Industrial Policy Framework (NIPF), includes, among other things, diversification beyond our current reliance on traditional commodities and non-tradeable services, the intensification of South Africa's industrialisation process and the movement towards a knowledge-based economy.

Significantly, R&D is addressed as comprising one of the 13 strategic programmes of the NIPF, and the specific programme strategy aims to increase investment in innovation and technology capabilities, leverage technology and capabilities, track global technology trends, develop R&D and strengthen intellectual property (IP) systems.

The South African National Research and Development Strategy, a DST initiative, is indicator based and rests on three pillars:

- innovation;
- science, engineering and technology human resources and transformation; and
- creating an effective government science and technology system.

The innovation 'pillar' involves the establishment and funding of a range of technology missions that are critical to promoting economic and social development. These include the two key technology platforms of the modern age, namely biotechnology and information technology. A discussion of other IPR such as copyright, trade marks and registered designs does therefore not form part of this report, and the focus will be on biotechnology.

Biotechnology may be defined as 'the branch of technology concerned with modern forms of industrial production utilizing living organisms, especially micro-organisms, and their biological processes', or 'the application of indigenous and/or scientific knowledge to the management of (parts of) microorganisms, or of cells and tissues of higher organisms, so that these supply goods and services of use to human beings'.

Research suggests that IP forms one of the six key areas that must be addressed if a country aims to increase its capabilities in biotechnological innovation, the other areas being R&D in the public and private sectors; the ability to manufacture to high standards new health technology products; national distribution systems in both the public and private sectors; international distribution systems, including supply through international organisations; the operation of global funds and trade between countries; systems to manage IP; and systems for drug and vaccine regulation to achieve safety and efficacy.

The International Property Rights Index (IPRI) 2007 report ranked South Africa 21st out of 70 countries. The study evaluated the legal and political environment, physical property rights and IPR of a country. It is interesting to note that the IPRI ranking has a direct relationship with the GDP of a country: the study found a trend that better-performing countries in the first quartile enjoy, on average, a GDP per person income of more than eight times their counterparts at the lower end of the Index in the fourth quartile.

IPRI quartiles, average GDP per person

First quartile \$32,994

Second quartile \$15,679

Third quartile \$7,665

Fourth quartile \$4,294

Source: IPRI, op. cit., <http://internationalpropertyrightsindex.org/UserFiles/File/PRA_Interior_LowRes.pdf>

The highest rankings were found in countries located in northern Europe and the lowest were African and Latin American countries. South Africa currently enjoys an acceptable third position on the second quartile.

While it is to be appreciated that IPR alone cannot guarantee or predict the economic wellness of a country, it is noteworthy that few countries, if any, have protected and enforced territorial IPR and not benefitted from subsequent economic growth. Furthermore, it is well documented that developing countries such as Botswana have benefitted from the recognition and subsequent protection of IPR.

South Africa has, in the past, actively participated, and has developed traditional biotechnologies that have found application in the food and beverage industry. R&D in the more recent biotechnological trends is not being fully exploited, and the vast application potential of this new technology remains largely unrealised.

The report will also examine the desirability or otherwise of IPR harmonisation within SACU in the context of future free trade negotiations between this region and its external trading partners.

IPR in South Africa are recognised and protected by the common law and are legislated through the Patents Act 57 of 1978, Trade Marks Act 194 of 1993, Designs Act 195 of 1993, Copyright Act 98 of 1978, Plant Breeders' Rights Act 15 of 1976 and various other pieces of legislation, such as the Merchandise Marks and Counterfeit Goods Act. The relevant law has its roots in both the country's Roman Dutch common law heritage and English law. Prior to 1979, South African legislation followed the corresponding British legislation, but with the development of indigenous law, this trend is steadily decreasing. South Africa is also a signatory to various treaties and conventions that have a bearing on IPR, one of the most important being the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS). TRIPS is administered by the WTO, and it is mandatory for members of the WTO to be party to the TRIPS agreement. The agreement regulates the minimum IP standards and requirements to which member countries must subscribe. Provisions are in place that aim to accommodate developing countries and LDCs in their quest to become signatories to and maintain membership of TRIPS. Furthermore, flexibilities have been introduced to address the public health needs in developing countries and LDCs. These provisions are discussed in detail in this report.

2. LEGISLATIVE FRAMEWORK AROUND SOUTH AFRICA'S IPR

2.1 Statutory provisions

The Patents Act 57 of 1978 provides that a patent may be obtained in South Africa for an invention that is new; involves an inventive step; and is capable of being used or applied in trade, industry or agriculture. An invention is new if it does not form part of the state of the art immediately before the priority date of the invention, and the state of the art includes all matter that has been made available to the public (whether in South Africa or elsewhere) by written or oral description, by use or in any other way. In other words, South African patent legislation subscribes to an absolute novelty requirement.

Prior knowledge or publication of an invention is excused where the disclosure was acquired without the patentee's knowledge, and, once discovered, protection for the invention was sought with reasonable diligence. Prior disclosure may also be excused where the working of the invention in South Africa was for reasonable technical trial or experiment.

Inventions that are disclosed at exhibitions and the like, before filing, run the risk of being revoked on the grounds of novelty. The secret use of an invention on a commercial scale within South Africa will also destroy the novelty of the invention for patenting purposes.

An invention is deemed to involve an inventive step if it is not obvious to a person skilled in the art at the priority date (the date of filing) of the invention.

Section 25 of the Patent Act provides, among other things, for the following exceptions to patentable subject matter, namely:

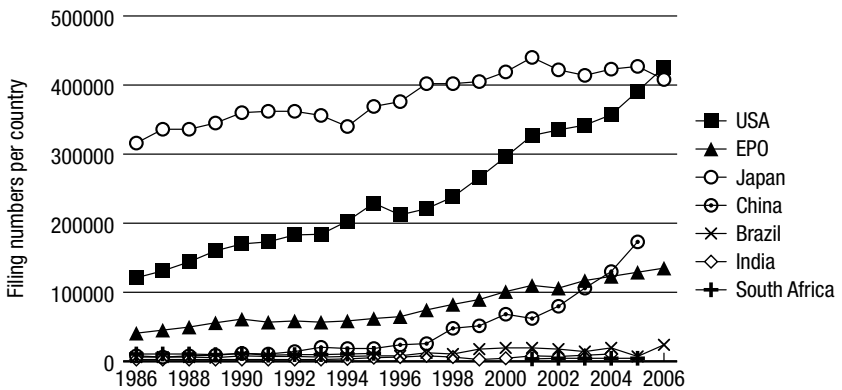
- discoveries;
- scientific theories;
- mathematical methods;
- literary, dramatic, musical or artistic work or any other aesthetic creation;
- schemes, rules or methods for performing mental acts, playing games or doing business;
- computer programs;
- the presentation of information;

- varieties of animals or plants or any essentially biological process for the production of animals or plants; and
- methods of treatment (surgical or therapeutical) of the human or animal body. Actual medical devices and pharmaceutical products are therefore patentable, but the method of using the device or pharmaceutical product is not patentable.

Microbiological processes or the product of such processes are patentable inventions in terms of the Patents Act.

South Africa is a non-examining patent country; any complete patent application that is filed and meets with the formal requirements (fees and correct forms) of the Patents Act will therefore be granted. The practice of non-examination gives rise to the potential of abuse, as patentees flaunt their ‘rights’, safe in the knowledge that the general public does not understand the concept of non-examination and that IP litigation is expensive and time consuming and therefore often beyond the scope of small to medium-sized enterprises. The non-examination status of the South African Patents Office is on the one hand contrary to innovation and healthy competition policies; but, on the other hand, the relatively few patents applications filed annually at the Patents Office are unlikely to justify the cost of establishing a competent examination system that is able to address all fields of technology.

Figure 1: Patent filing numbers in selected countries, 1986–2006



Adapted from WIPO (World Intellectual Property Organisation), *Statistics on Worldwide Patent Activity, 2007*, <<http://www.wipo.int/ipstats/en/statistics/patents/>>

The presence of invalid patents (lack of novelty, obviousness or any other Patents Act section 25 exclusion) on the Patent Register makes infringement and validity searches time consuming and expensive and places them well beyond the financial abilities of the smaller entity or individual. This is compounded by the limited and incomplete electronic data base offered by the Companies and Intellectual Property Registration Office and the general state of disrepair of the paper records. A potential applicant is faced with the dilemma of whether or not to file an application, incurring the associated expenses, or to adopt a wait and see attitude in the hope that there are no existing patents covering the same inventive features. A patentee is often forced to abandon his/her R&D under the threat of patent infringement that cannot be defended without incurring significant search expense.

The situation is further compromised by the absence of opposition period provisions. Opposition periods are time periods following advertisement of the acceptance of a patent application that allow an interested person to oppose the grant of a patent. The grounds of opposition generally pertain to novelty, inventive step requirements and the exclusions as provided for in the patent legislation. In order for opposition provisions to function adequately, an efficient tribunal with competent examiners or adjudicators is required to evaluate grounds and review the decision to grant or refuse a patent application. Opposition proceedings following traditional court procedure are likely to be counter-productive, as the same result may be achieved with existing revocation proceedings under the South African Patents Act. Rather, a system that is efficient, effective, presided over by qualified individuals and bypasses the already stressed South African judicial system is what is needed to provide the required relief for an interested party seeking to remove an invalid patent from the Register.

Further alternatives must be explored. Outsourcing of examination has not been adequately investigated and alternative dispute resolution mechanisms should surely be considered. Numerous officials from the DTI have been interviewed as part of the research conducted for this report, and the question regarding examination has been raised where appropriate. Unfortunately, we have been unable to obtain clarification on the DTI's position regarding examination, and senior role players have been generally unavailable for comment.

Applicants having the benefit of examination under the Patent Co-operation Treaty (PCT) or other foreign application may amend their South African applications to bring them in line with the results of foreign examination results. Those who do not have the benefit of these examinations operate in a void of uncertainty, although the void has proven to be more than beneficial for some.

South African patent law determines that it shall not be an act of infringement to use patented technology for the purposes of obtaining regulatory approval. This is, however, restricted to non-commercial use and does not permit stockpiling prior to expiry, in compliance with TRIPS. These provisions (also known as Bolar-type provisions) typically find favour in the pharmaceutical industry, where an entity in the business of manufacturing generic pharmaceuticals proceeds to obtain regulatory approval for a generic drug, prior to the expiration of the innovator drug's patent term. The generic drug may then be marketed to the health industry as soon as the innovator drug comes off patent. The use of Bolar-type provisions is, however, not limited to the pharmaceutical industry.

The TRIPS minimum patent term requirement is 20 years and is complied with by the South African Patent Act. A minimum patent term requirement opened the door for countries to allow for an extended patent term on pharmaceuticals where prolonged regulatory approval is required. The patentee is therefore able to enjoy and benefit from the full 20-year patent term. These provisions are not found in South African patent legislation and continue to be a thorn in the side of pharmaceutical companies. The average time for regulatory approval by the Medicines Control Council is between nine months and five years. Were the registration process shorter, it could then have been argued that the non-extension of the patent term is offset by the non-examination of South African patent applications and the fact that the patentee has a potentially enforceable right in hand at an earlier date.

Legislation permits compulsory licensing for dependent patents and in the case of abuse of patent rights. Dependent patents are patents whose working results in the infringement of a prior patent. If agreement cannot be reached between the parties, application may be made to the Commissioner of Patents for a licence. The granting of the licence is subject to the dependent patent involving an important technical advance of considerable economic significance and the granting of a cross-licence to the patentee of the prior patent.

Use of the prior patented matter is only assignable with the dependent patent. The scenario requiring compulsory licensing would typically be found in the pharmacology/biotechnology sectors, where new applications of an invention may infringe existing patented subject matter.

An application for a compulsory license pertaining to the abuse of patent rights may be brought by any interested person if the patented invention is not being worked in South Africa; the demand for the product is not being met; there is a resultant prejudice to trade, industry, agriculture or person; and it is in the public interest; or the demand is being met, but the imported price charged for the product is excessive. Furthermore, the applicant must show that he/she has approached the patentee and that the grant of a licence, on reasonable terms, was refused.

In terms of recent amendments to the TRIPS agreement, compulsory licensing provisions may be used by a developing country or LDC to import pharmaceuticals where the country lacks production capacity. Rwanda is, as of 19 July 2007, the only country that has informed the WTO of its intention to make use of this TRIPS allowance.

Parallel importation is allowable through the recognition of exhaustion of rights. A patentee's rights are exhausted once he/she or his/her assignee or licensee has disposed of the patented product. Furthermore, section 15C of the Medicines and Related Substances Control Amendment Act 101 of 1965 makes provision for the automatic exhaustion of rights on patented pharmaceuticals, regardless of where the medicines are sold. These provisions aim to give access to affordable medicines.

South Africa is a signatory to the Budapest Treaty on the International Recognition of the Deposit of Micro-Organisms for the Purposes of Patent Procedure. Deposit of micro-organisms in terms of the treaty serves a dual purpose, in that the patent applicant fulfils the requirement of sufficient disclosure of the invention and one deposit suffices for applications in all member countries.

The Patents Act provides for the disclosure of the use of an indigenous biological resource, genetic resource or traditional knowledge in the claimed invention. The aim of these provisions is to protect against bio-piracy, the abuse of traditional knowledge, and the patenting of known or existing biological resources and traditional knowledge. Furthermore, the provisions require the lodgment of documents in support of co-ownership and benefit sharing, where

applicable. It is important to note that a patent aiming to protect an invention in a field envisaged by section 30(3A) of the Patents Act remains subject to the basic patenting requirements of novelty and non-obviousness, and the mere existence of an agreement on co-ownership and benefit sharing will not necessarily result in enforceable patent rights. At the time of writing, the legislation pertaining to the amendment of the Patents Act with regard to the inclusion of section 30(3A) has not been enacted, although the regulations pertaining thereto have. It is uncertain if the regulations have any effect in the absence of enabling legislation.

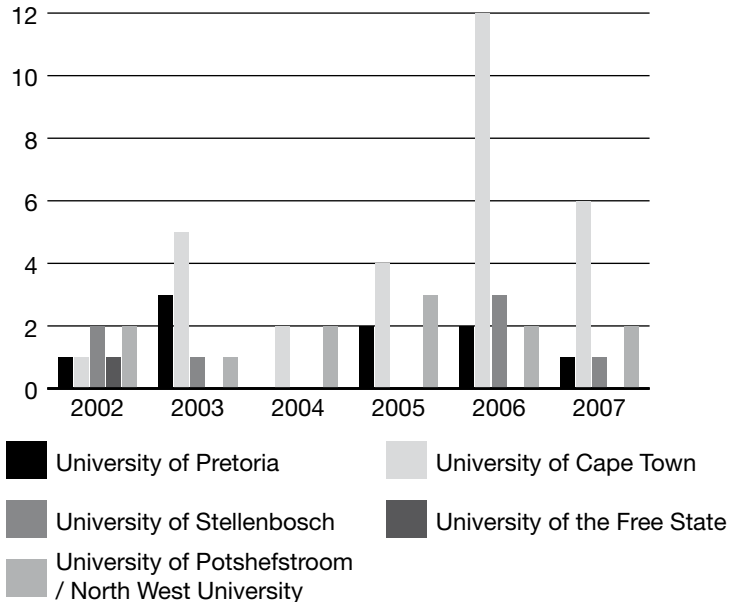
Further government initiatives and legislative developments on the subject of traditional knowledge are expected shortly. Southern African Development Community (SADC) member states are also currently exploring common policies with regard to indigenous knowledge systems and IPR.

2.2 Draft statutory provisions

The Intellectual Property Rights from Publicly Financed Research Bill, a DST initiative, is an attempt to address the issues surrounding IP that is generated from publicly financed research at higher education institutions.

It is common cause that South African universities and tertiary education facilities have not been the most prolific producers of IP, and where IP has been produced, these rights have not always been adequately protected. Contributing factors to the low IP output may include the years of unaudited subsidy, political and economic isolation, and a protected work environment. Many of the universities are now addressing the problem, and sterling efforts have been made to set up technology transfer offices at various institutions. The lack of IP production may be illustrated through a simple analysis of the results of an espacenet database search, citing the applicant in each search as a South African tertiary institution. The search was further limited to patent applications that have been published under the PCT system.

Figure 2: Patent filings from South African tertiary institutions, 2002–07



The abovementioned results are subject to the accuracy of the data base searched.

The draft legislation makes provision for the establishment of a National Intellectual Property Management Office (NIPMO) and intellectual property management offices (IPMOs) at the institutions. It is envisaged that IPMOs will take over the functions of technology transfer offices that already exist at certain of the institutions. It is uncertain how these offices will be equipped and sufficiently manned to deal with the responsibility incurred once the legislation has been passed. The Bill's current requirements with regard to the personnel staffing the IPMO are that these persons must have interdisciplinary knowledge, qualifications and expertise in at least two of the disciplines from a group that includes law, natural science, engineering, economics and business. No mention is made of a requirement of previous experience or training in technology transfer and management. Furthermore, the Bill requires the IPMO to receive and analyse the disclosure and notifications of IP and to develop policies for IP identification, protection, development and commercialisation within the insti-

tution. It is unlikely that any combination of interdisciplinary knowledge will provide the required qualifications to deal with this highly specialised field.

The draft Bill was not well received and many interested parties are of the opinion that it is more likely to harm IP development and growth in sectors such as biotechnology where access to high-tech facilities is a real need. Furthermore, the Bill in its present form is prescriptive with regard to royalty payments, the form of licence agreements, the duration of exclusive licence periods ('must have a limited duration of 5 years') and broad-based black economic empowerment (BBBEE) and small, medium and micro enterprise (SMME) partnerships. This rigidity may very well discourage investment and development in areas that desperately require advancement.

Although one of the underlying aims of the bill is to ensure that South Africans benefit from locally developed technologies, it is not difficult to realise that in certain circumstances an enforced BBBEE or SMME licence preference may be shortsighted, and that even an indirect benefit to South Africa is acceptable and preferable to no investment at all. It appears as if the drafters of the legislation have failed to take into account the enormous cost of acquiring enforceable rights in foreign jurisdictions, and that where these costs cannot be shared or passed on to an assignee or exclusive licensee, the patent applications may very well lapse, with the technology becoming part of the public domain. It goes without saying that there will be no benefit to South Africans, BBBEE, SMMEs or otherwise, if the provisions of the Bill do not align themselves with sound economic and IP law principles.

The onus imposed by the Bill on the person seeking an exclusive licence is extreme in that it requires this person to prove the economic non-viability of a non-exclusive licence agreement. Investment in new technology is often high-risk, as the potential outcome is an unknown — asking for proof of economic non-viability may very well require a gaze into the crystal ball. Exclusive licence holders must also undertake, where feasible, to manufacture, process and otherwise utilise the invention within the geographic area of South Africa. Further difficulties are likely to occur when visiting students and professors, who have their own contractual obligations to their employers, are obliged to assign rights to the local institution.

One wonders if it would not have been preferable to first address the insufficiencies and shortcomings of the Patents Office and academic institutions

through education and training and thereafter address complex ownership and royalty-sharing issues. At the very least, technology transfer offices should be established at all tertiary institutions and developed to a fully functional status prior to the implementation of onerous legislative prescription. A good barometer of the functionality of the technology transfer offices would be to monitor the number of PCT filings that originate from the respective offices.

The implementation of the provisions is likely to be nothing short of an administrative nightmare — royalty-sharing, licence agreement, corruption and ownership disputes will make for sensational reporting.

During the course of writing this report, the DST announced the withdrawal of the Intellectual Property Rights from Publicly Financed Research Bill. Republication will take place at a future date for a further round of comments by stakeholders.

2.3 Treaty and regional patent system membership

South Africa is a member of the WTO, Paris Convention and Budapest Treaty Convention on Biological Diversity (CBD), and is a signatory to the TRIPS Agreement. Local IP legislation is largely TRIPS compliant.

The Paris Convention deals with the availability of patent systems to the nationals of other contracting states and, importantly, the recognition of the so-called 'priority filing date'. Through this recognition, a national of a member state may file an application in another member state within 12 months of an original filing in his/her own country and receive recognition of the original priority date. Certain articles (1–12 and 19) of the Paris Convention are automatically included as part of the text of the TRIPS Agreement.

South Africa is a PCT member state and observer to the African Regional Industrial Property Organisation (ARIPO) patent filing system.

Although geographically desirable, membership of ARIPO was never acceded to by South Africa, one of the reasons being that the initial protocol was not TRIPS compliant. Amendments have been made to the protocol to address these problems. It has been suggested that the location of the offices of ARIPO were problematic for the South African government. Current member states of the ARIPO system and agreement are Botswana, Gambia, Ghana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Sierra Leone, Somalia, Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

3. CURRENT STATUTORY PROVISIONS, CONVENTIONS AND REGIONAL SYSTEMS PERTAINING TO THE SACU MEMBER STATES

3.1 TRIPS

Legislation/treaty document

TRIPS, administered by the WTO.

Member states/signatories

Ratification of TRIPS is a compulsory requirement of WTO membership.

Patentable subject matter

Any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application.

Exclusions

Members may exclude patents that are necessary to protect public order; morality; and human, animal or plant life or health; or to avoid serious prejudice to the environment. Members may also exclude from patentability, diagnostic, therapeutic and surgical methods for the treatment of humans or animals, and plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. Members must, however, provide for the protection of new plant varieties. Members may adopt measures necessary to protect public health and nutrition, and promote the public interest in sectors of vital importance to their socioeconomic and technological development, provided that such measures are consistent with the provisions of the TRIPS Agreement.

It is noteworthy that the TRIPS Agreement specifies in its objective that the protection and enforcement of IPR should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

Patent term

Twenty years.

Microbiological processes

These processes are patentable. Member states may not exclude microbiological and non-biological processes.

Recognition of priority date

Member states shall accord to the nationals of other members treatment no less favourable than they accord to their own nationals with regard to the protection of IP. The principle of most favoured nation treatment must be subscribed to. TRIPS member states are also required to comply with articles 1–12 and 19 of the Paris Convention.

The Paris Convention applies to patents, marks, industrial designs, utility models names, geographical indications and the repression of unfair competition. The abovementioned articles deal with the following subject matter:

- article 1: defines the scope of IPR for the purposes of the Agreement;
- article 2: national treatment for nationals of member countries;
- article 3: treatment of persons domiciled in or having a business interest in a member country;
- article 4: right of priority, division of patent applications, inventors rights, independence of patents in different countries, restrictions of sale by law;
- article 5: importation; insufficient functionality or not working; compulsory licences; maintenance fees; restoration; patented devices forming part of vessels, aircraft or land vehicles; importation of products involving a patented process;
- article 6–9: trade mark matters;
- article 10: trade mark matters and unfair competition;
- article 11: temporary protection at certain international exhibitions;
- article 12: national IP offices and publication of patent and trade mark application details; and
- article 19: members of the Paris Convention may make further agreements between themselves if they do not contravene the provisions of the Convention.

Examination

None.

Bolar-type provisions

Bolar provisions are deemed to be TRIPS compliant. The TRIPS Agreement states that members may provide limited exceptions to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, while taking account of the legitimate interests of third parties. These provisions allow for research regarding patented inventions and also for the obtaining of regulatory approval of generic drugs before the expiry of the originator drugs patent term.

Extension of patent term

The patent term may be extended, as TRIPS only prescribes a minimum period of 20 years.

Compulsory licensing

TRIPS allows for use without authorisation, but with certain conditions. The authorisation of such use shall be considered on its individual merits, according to Article 31, and is conditional on the following:

- The user has made efforts to obtain authorisation from the rights holder on reasonable commercial terms and conditions and that such efforts have not been successful within a reasonable period of time. (This may be waived by a member in the case of a national emergency or other circumstances of extreme urgency or in cases of public non-commercial use or in anti-competitive situations.)
- The scope and duration of such use shall be limited to the purpose for which it was authorised.
- Use shall be non-exclusive (i.e. the patentee cannot be excluded from benefiting from the patented rights).
- Use shall be non-assignable, except with that part of the enterprise or goodwill that enjoys such use.
- Use shall be authorised predominantly for the supply of the domestic market of the member authorising such use (this may, however, be waived in an anti-competitive situation). This provision caused problems for developing countries that were in desperate need of generic medicines, but did not have manufacturing capacity. On 30 August 2003 the following waivers to the existing Agreement were introduced:
 - Any member country can export generic pharmaceutical products made under compulsory licenses to meet the needs of importing countries.

- Remuneration is only required on the export side.
- Exporting constraints are waived for developing and least-developed countries so that they can export within a regional trade agreement.
- The authorisation must terminate if and when the circumstances that led to it cease to exist and are unlikely to recur.
- The authorisation must be reviewable by the domestic authority.
- The rights holder shall be paid adequate remuneration, and this must be subject to judicial review.
- The legal validity of any decision relating to the authorisation of such use shall be subject to judicial review or other independent review.
- There must be compulsory licensing of a first patent for the working of a second dependent patent, subject to the invention claimed in the second patent involving an important technical advance of considerable economic significance in relation to the invention claimed in the first patent, cross-licensing, and the use authorised in respect of the first patent being non-assignable except with the assignment of the second patent.

Parallel importation

TRIPS is silent with regard to the exhaustion of rights, and the Agreement may not be used to address any issue regarding the exhaustion of rights.

Protection of traditional knowledge and biological diversity

The CBD signed in 1992 was the first international agreement that dealt with the use and sustainability of traditional knowledge and biodiversity. South Africa and the BLNS states (Botswana, Lesotho, Namibia and Swaziland) have signed and ratified the agreement. Member states are obliged to implement its provisions.

Inconsistencies have become evident between the TRIPS and CBD agreements; specifically, article 27 of TRIPS (which defines patentable subject matter) has led to WIPO establishing the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC-GRTKF).

The IGC-GRTKF addresses all relevant issues such as biodiversity, traditional knowledge, traditional designs, music, songs and stories. Draft objectives and principles of the IGC-GRTKF are available for review and commentary.

It remains to be seen if future IPR surrounding biodiversity, traditional knowledge and the like are to be managed on an international or national level.

Release/disclosure before filing

There are no specific provisions that dictate how member states must deal with prior disclosure, but the provisions of the Paris Convention that deal with prior disclosure are automatically included.

Opposition provisions

All proceedings must be fair and equitable. There are no further provisions relating to opposition to the grant of a patent.

Applicant

TRIPS recognises the right of an inventor to assign, transfer or license his/her rights in invention.

Treaties/conventions applicable

The Paris Convention (1967), the Berne Convention (1971), the Rome Convention and the Treaty on Intellectual Property in Respect of Integrated Circuits.

Rights of employer

No specific provisions are made, but the right to assign rights to an invention are recognised by the TRIPS Agreement.

3.2 ARIPO (African Regional Industrial Property Organisation)

Legislation

Protocol on Patents and Industrial Designs within the Framework of the African Regional Industrial Property Organisation.

Member states

ARIPO is a regional filing system that allows member states to file one application that is recognised by the states designated in the application. The system also allows for the payment of one renewal fee; and, provided it is maintained, a patent granted by the ARIPO Office shall in each designated state have the same effect as a patent granted under the applicable national law.

The member states are Botswana, Gambia, Ghana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Sierra Leone, Somalia, Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. South Africa is an observer state.

Patentable subject matter

A patentable item must be new, and must involve an inventive step and be industrially applicable.

Exclusions

Specific exclusions are given that are provided for in the legislation of a designated state. The relevant state must make a written submission to the ARIPO Office to that effect.

Patent term

Twenty years.

Microbiological processes

ARIPO requires the deposit of micro-organisms in terms of the Budapest Agreement.

Recognition of priority date

Yes. There may also be a regional designation through the PCT system.

Examination

Yes — formal and substantive.

Bolar-type provisions

None.

Extension of patent term

None.

Compulsory licensing

The ARIPO Agreement recognises the applicable national law on compulsory licences, forfeiture or the use of patented inventions in the public interest.

Parallel importation

There are no provisions dealing with the exhaustion of rights.

Protection of traditional knowledge and biological diversity

The ARIPO Traditional Knowledge Legal Instrument is currently under draft.

Release/disclosure before filing

This is permitted in relation to an official or officially recognised exhibition if not more than six months before the date of filing of the application or, if priority is claimed, before the date of filing the priority document.

Opposition provisions

These are recognised by ARIPO if provided for in member state legislation.

Applicant

Inventors and assignees.

Treaties/conventions
PCT and Paris Convention.
Rights of employer
No provisions.

3.3 Namibia

Legislation

Patent, Designs, Trade Marks and Copyright Act, 1916 (Act 9 of 1916 of the Union of South Africa), as amended. New legislation is expected shortly.

Patentable subject matter

The legislation covers:

- any new and useful art, process, machine, manufacture or composition of material, or any new and useful improvement thereof;
- capable of being used or applied in trade or industry; and
- not known or used by others in Namibia, and not on sale for more than two years in any country outside the territory prior to the filing of the patent application.

Exclusions

None.

Patent term

Fourteen years.

Microbiological processes

There are no specific provisions. Namibia is not a member of the Budapest Treaty, but membership of the Treaty is open to Namibia through ARIPO.

Recognition of priority date

Yes, through membership of the Paris Convention and ARIPO.

Examination

Yes — on formal requirements and the basis of claiming relative to a provisional application, if any were made.

Bolar-type provisions

None.

Extension of patent term

The patent term is extendable for a further term of seven years or, in exceptional cases, 14 years.

Compulsory licensing

Yes — if there is no working of the patented invention within two years of grant of patent.

Parallel importation

There are no provisions dealing with the exhaustion of rights.

Protection of traditional knowledge and biological diversity

There are no provisions in the Namibian national IP legislation, but a new bill is currently being drafted to address the issues around genetic resources and traditional knowledge.

Release/disclosure before filing

This is permitted in relation to an exhibition if done with prior approval and followed by a patent application not more than six months after the opening of the exhibition. It is also permissible if prior publication was made without the patentee's consent. The item may not be for sale for more than two years in any country outside the territory prior to the filing of the patent application.

Opposition provisions

Opposition is permitted up to three months after advertisement of acceptance on the grounds of fraudulently obtained rights, novelty, or if the item is not a patentable subject matter.

Applicant

Inventors and assignees. This is not limited to nationals of Namibia.

Treaties

PCT, Paris Convention and ARIPO. PCT and ARIPO implementing legislation have not yet been passed.

Rights of employer

No provisions.

3.4 Swaziland

Legislation

Patent, Design and Trade Marks Act, 1963, as amended.

Patentable subject matter

A patent granted in the United Kingdom (UK) automatically extends to Swaziland. A granted South African patent may be registered in Swaziland anytime during the life of the South African patent.

Exclusions

As per South African and UK law.

Patent term

Twenty years. The term runs with the equivalent South African patent and is subject to the South African patent being kept in force.

Microbiological processes

Applied as per the South African or UK equivalent patent.

Recognition of priority date

Yes, through membership of the Paris Convention and ARIPO and the equivalent UK/South Africa patent.

Examination

On formal requirements only. An unfavourable examination of a UK patent may be raised in Swaziland.

Bolar-type provisions

None.

Extension of patent term

None.

Compulsory licensing

None.

Parallel importation

There are no provisions dealing with the exhaustion of rights.

Protection of traditional knowledge and biological diversity

None.

Release/disclosure before filing

Regarding a UK-based application, use and publication in Swaziland before the priority date is not allowed.

Opposition provisions

None.

Applicant

Inventors and assignees. Assignment must correspond to the South African assignment.

Treaties/conventions

PCT, Paris Convention and ARIPO.

Rights of employer

None.

3.5 Botswana

Legislation

Industrial Property Act, 1996.

Patentable subject matter

The subject matter must be a new, inventive step and industrially applicable. The invention is industrially applicable if it can be used in trade, or in any kind of industry, including handicrafts, agriculture, the fishing industry and services.

Exclusions

Excluded are discoveries; scientific theories; mathematical methods; literary, dramatic, musical or artistic works; aesthetic creations; schemes, rules or methods for doing business, performing a mental act or playing a game; a program for a computer; methods of treatment of the human or animal body by surgery (the assumption then being that non-surgical methods of treatment are patentable); and diagnostic methods practised on the human or animal body.

Medical products and devices are patentable.

Patent term

Twenty years.

Microbiological processes

There are no specific provisions. Botswana is not a member of the Budapest Treaty, but membership to the Treaty is open to Botswana through ARIPO.

Recognition of priority date

Yes, through membership of the Paris Convention and ARIPO.

Examination

Examination is on formal requirements, novelty and whether it is an inventive step. Categories of inventions may be excluded from examination on grounds of obviousness and novelty by the minister. Substantive examination may be carried out by ARIPO.

Bolar-type provisions

None.

Extension of patent term

None.

Compulsory licensing

Yes; and there are provisions that allow for the exploitation of a patented invention by the Government of Botswana or persons thereby authorised. The latter must be predominantly for the domestic market in Botswana.

Parallel importation

There are no provisions dealing with the exhaustion of rights.

Protection of traditional knowledge and biological diversity

None.

Release/disclosure before filing

No provisions.

Opposition provisions

No provisions.

Applicant

Inventors and assignees.

Treaties

PCT, Paris Convention and ARIPO.

Rights of employer

Inventions made in the execution of a contract of employment shall, in the absence of a contrary agreement, belong to the employer.

3.6 Lesotho

Legislation

Industrial Property Order, 1989.

Patentable subject matter

An invention is an idea of an inventor that permits in practice the solution to a specific problem in a field of technology. It must be new, involve an inventive step and be industrially applicable.

Products and processes are patentable.

Exclusions

Excluded are discoveries; scientific theories; mathematical methods; plant or animal varieties or essentially biological process for the production of animals or plants, other than microbiological process and the products of such processes; methods of treatment of the human or animal body by surgery or therapy and diagnostic methods performed on the human body; and schemes, rules or methods of doing business, performing purely mental acts or playing games.

Medical products and devices and pharmaceuticals are patentable.

Patent term

Fifteen years.

Microbiological processes

There are no specific provisions. Lesotho is not a member of the Budapest Treaty, but membership to the Treaty is open to it through ARIPO.

Recognition of priority date

Yes, through membership of the Paris Convention and ARIPO.

Examination

Examination is on formal requirements, novelty, whether it is an inventive step and exclusions. Categories of inventions may be excluded from examination on grounds of obviousness and novelty by the minister.

Bolar-type provisions

None.

Extension of patent term

Five years, subject to sufficient working of the patent in Lesotho.

Compulsory licensing

This is required when it is in the public interest, i.e. in the interests of national security, nutrition, health or the development of other vital sectors of the national economy. It also applies if the patent is not being worked or is insufficiently worked in Lesotho.

Parallel importation

There are no provisions dealing with the exhaustion of rights.

Protection of traditional knowledge and biological diversity

None.

Release/disclosure before filing

No disclosure in tangible form worldwide or in Lesotho orally is allowed prior to filing or the priority date.

Prior disclosure is permitted by the applicant or if abuse is committed by a third party not more than six months before the filing date.

Opposition provisions

No provisions.

Applicant

Inventors and assignees.

Treaties

PCT, Paris Convention and ARIPO. The law has not yet been amended to recognise PCT.

Rights of employer

Invention made in the execution of a contract of employment shall, in the absence of a contrary agreement, belong to the employer. Patents that become very valuable may be subject to a remuneration claim by the inventor.

4. CONCLUSION

At the recent US–SACU free trade agreement (FTA) negotiations, it would have been highly beneficial for SACU to have a regional patent organisation that was able to negotiate with a united voice and a clear mandate. The US was insistent on entering into an agreement that included TRIPS-plus provisions. TRIPS-plus provisions go above and beyond the minimum TRIPS requirements. In this report’s analysis of the BLNS countries’ legislation, it is noted that there is a lack of TRIPS compliancy in certain states. It is therefore unlikely, if not impossible, that successful negotiations can be concluded when there exists not only a chasm between the wants of the negotiating parties, but within the member states of one of the negotiating parties.

If we assume for the purposes of this investigation that the existing ARIPO system is not the way forward, be it for political or mere geographical reasons, a number of questions need answering:

- Will it benefit the region to institute yet another patent filing system? The mere harmonisation of a patent filing system without an authority vested with the duty of presiding over a harmonised enforcement system that has jurisdiction in all its member states is not worth the paper it is written on. Patent filing and prosecution are only a small aspect of IPR recognition and enforcement. A regional system must address enforcement on a national basis, as well as within the system. Enforcement is only possible once the necessary institutions are in place. The existence and functioning of the institutions are dependent on a favourable political climate and stable government systems that recognise the value of IPR.

The BLNS states may, of course, continue to be members of the ARIPO system while participating in a new regional system, in much the same way that European countries are member states of the PCT system and the Euro-

pean Patent Convention. The alternative is to not institute another patent filing system, but to provide for a regional enforcement system within SACU. This will, of course, require a regional harmonisation of IPR legislation, at the very least.

- Will regional harmonisation benefit the member states and the nationals of those states? Given that the SACU member states have relatively low patent filing numbers and that a pooling of resources and manpower is likely to result in increased efficiency and decreased expenditure, the benefit is self-evident. Furthermore, it is probable that a more efficient regional system will aid in increasing the acknowledgement and enforcement of IPR, and that this will, in turn, lead to an increase in investment and economic growth. As harmonisation efforts tend to strengthen IPR, member states that harmonise their legislation will tend towards TRIPS compliancy and will benefit from the all important TRIPS allowances.
- Are there disadvantages to harmonising IPR in SACU? In light of the existing legislation in the SACU member states that finds a common historical basis and origin, the long history of economic co-operation and the ideal geographic situation, it is unlikely that there are any direct or indirect contra-indications to the harmonisation of IPR in the region. There are issues around TRIPS compliancy in certain of the SACU member states, and these will have to be addressed at some stage. Harmonisation will be a relatively painless way for these countries to address TRIPS compliancy.
- Is SACU a vehicle that can be used to address IPR issues and possible regional harmonisation? Contrary to popular belief, the scope of SACU is not limited to trade in goods and revenue distribution issues. It is notable that IPR do not fall outside the scope of the objectives of the agreement. An analysis of the objectives of the agreement provide, in my opinion, a clear mandate for the SACU Secretariat to address IPR matters. These aims are as follows:
 - (a) to facilitate the cross-border movement of goods between the territories of the Member States;
 - (b) to create effective, transparent and democratic institutions which will ensure equitable trade benefits to Member States;
 - (c) to promote conditions of fair competition in the Common Customs Area;

- (d) to substantially increase investment opportunities in the Common Customs Area;
- (e) to enhance the economic development, diversification, industrialization and competitiveness of Member States;
- (f) to promote the integration of Member States into the global economy through enhanced trade and investment;
- (g) to facilitate the equitable sharing of revenue arising from customs, excise and additional duties levied by Member States; and
- (h) to facilitate the development of common policies and strategies.

Arguably, a regional harmonisation of legislation, if not a filing system, would certainly facilitate future FTA negotiations. The global move towards a knowledge-based economy must be recognised by customs unions if they are to remain focused and relevant to the economies they serve. IPR can no longer be seen as a category separate from trade matters, and an existing customs union may be inherently more prepared than a new regional organisation to deal with the implementation, harmonisation and enforcement of IPR.

From the investor's perspective, the harmonisation of IPR legislation will provide familiarity and legal certainty that will boost investor confidence in the region. The EU position on the duration of copyright protection is a good case study showing that harmonisation initiatives tend to strengthen IPRs. The Berne Convention on copyright, which dates back to 1886, provides for a term of protection for the life of the author and 50 years after the author's death. Before harmonisation, many EU members used the Berne Convention minimum, but some offered more protection. Germany was the highest, and used life plus 70 years. The EU members wanted to harmonise their laws. The debate on harmonisation settled on the strongest regime, 70 years, rather than on the Berne model.

- Should South Africa be leading SACU along the harmonisation pathway? South Africa is often the state in the customs union that leads negotiations with organisations such as WTO and WIPO. It is South Africa that forms strategic alliances with other developing countries that are necessary for addressing matters relevant to the health and welfare of its inhabitants. But these matters of public health and welfare are not specific to South Africa alone — they are common to all members of SACU. The region experiences

a high incidence of poverty and poverty-related diseases, but TRIPS allowances continue to remain underutilised in certain of the BLNS states.

A well-organised, efficient regional system that has as its members all economically active jurisdictions in the region may go a far way to encouraging innovation and investment. An authority that has the power to investigate, adjudicate on and enforce its provisions within the member states should create an IP awakening and provide resultant economic benefit to the region, member states and the patentee that is currently unknown in sub-Saharan Africa. Indeed, it would be appropriate for South Africa, as the regional economic power, to initialise such a project within the framework of SACU.

- The discussion of the harmonisation of IPR across SACU raises the broader question of whether harmonisation across SADC is perhaps a more desirable alternative. The SADC vision is

one of a common future, a future in a regional community that will ensure economic well-being, improvement of the standards of living and quality of life, freedom and social justice and peace and security for the peoples of Southern Africa. This shared vision is anchored on the common values and principles and the historical and cultural affinities that exist between the peoples of Southern Africa.

SACU, on the other hand, is viewed by many commentators as a mere vehicle for the collection and redistribution of customs revenue, even though the scope of SACU is not limited to trade in goods and revenue distribution issues, and that IPR matters do not fall outside the scope of the objectives of the agreement.

The SADC vision and mandate is much broader than that of SACU and, on a theoretical level, does not share the historical political authoritarian role South Africa has held in SACU. The reality is, however, that South Africa continues to dominate the region economically, as it accounts for 70% of the region's GDP and is by far its most structurally diversified economy.

Time will tell if the region, on a SACU or SADC level, has any ambitions to direct policy towards the harmonising regional of IPR and whether implementation will follow the policy.

Time is up on the debate around the necessity of protecting IPR in the region. Not only have IPR issues been raised and stumbled over time and time again in

multilateral and bilateral agreements, but if knowledge is not incorporated into and protected in the relevant economies, it is unlikely that the region will stand any chance of competing in the global economy on an equal footing.

Appendix: Summary of the SACU member states, TRIPS and ARIPO statutory provisions

	TRIPS	ARIPO	Swaziland	Botswana	South Africa	Lesotho	Namibia
Legislation/ treaty document	TRIPS administered by WTO	Protocol on Patents and Industrial Designs within the Framework of the African Regional Industrial Property Organisation	Patent, Design and Trade Marks Act, 1963, as amended	Patent, Design and Trade Marks Act, 1963, as amended	Patents Act 57, 1978	Industrial Property Order, 1989	Patent, Designs, Trade Marks and Copyright Act, 1916 (Act 9 of 16 of the Union of South Africa), as amended
Patentable subject matter	Any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application	New, involve an inventive step and must be industrially applicable	A patent granted in UK automatically extends to Swaziland A granted South African patent may be registered in Swaziland, anytime during the life of the South African patent	New, inventive step and industrially applicable	New, involves an inventive step and is capable of being used or applied in trade, industry or agriculture	New, involves an inventive step and must be industrially applicable	New and useful art, process, machine, manufacture or composition of material, or any new and useful improvement thereof Capable of being used or applied in trade or industry

Exclusions		<p>TRIPS</p> <p>Member states exclude patents that are necessary to protect public order; morality; human, animal or plant life or health; or to avoid serious prejudice to the environment. Also diagnostic, therapeutic and surgical methods for the treatment of humans or animals and plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes</p>	<p>ARIPO</p> <p>Specific exclusions that are provided for in the legislation of a designated state</p>	<p>Swaziland</p> <p>As per South African and UK law</p>	<p>Botswana</p> <p>Discoveries; scientific theories; mathematical methods; literary, dramatic, musical or artistic work; musical or artistic works; aesthetic creations; schemes, rules or methods for doing business, performing a mental act or playing a game; a program for a computer; methods of treatment of the human or animal body by surgery (the assumption then being that non-surgical methods of treatment are patentable); diagnostic methods practised on the human or animal body (Medical products and devices are patentable)</p>	<p>South Africa</p> <p>Discoveries; scientific theories; mathematical methods; literary, dramatic, musical or artistic work or any other aesthetic creation; schemes, rules or methods for performing mental acts, playing games or doing business; computer programs; the presentation of information; varieties of animals or plants or any essentially biological process for the production of animals or plants; methods of treatment (surgical or therapeutic) of the human or animal body (Actual medical devices and pharmaceutical products are therefore patentable, but the method of using the device or pharmaceutical product is not patentable)</p>	<p>Lesotho</p> <p>Medical products and devices and pharmaceuticals are patentable</p>	<p>Namibia</p> <p>No provisions</p>
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Patent term	20 years	ARIPO	20 years — runs with the equivalent South African patent, subject to the South African patent being kept in force	20 years	20 years	20 years	20 years	20 years	15 years	14 years
Microbiological processes	These processes are patentable Member states may not exclude microbiological and non-biological processes	Requires the deposit of micro-organisms in terms of the Budapest Agreement	Applied as per the South African or UK equivalent patent	No specific provisions Not a member of the Budapest Treaty, but membership of the Treaty is open through ARIPO	Microbiological processes or the products of such processes are patentable inventions Signatory to the Budapest Treaty	No specific provisions Not a member of the Budapest Treaty, but membership of the Treaty is open through ARIPO	No specific provisions Not a member of the Budapest Treaty, but membership of the Treaty is open through ARIPO	No specific provisions Not a member of the Budapest Treaty, but membership of the Treaty is open through ARIPO	No specific provisions Not a member of the Budapest Treaty, but membership of the Treaty is open through ARIPO	No specific provisions Not a member of the Budapest Treaty, but membership of the Treaty is open through ARIPO
Recognition of priority date	Member states shall accord to the nationals of other members treatment no less favourable than they accord to their own nationals with regard to the protection of IP The principle of most favoured nation treatment and arts. 1-12 & 19 of the Paris Convention must be subscribed to	Yes, and there may also be a regional designation through the PCT system	Through membership of the Paris Convention and ARIPO and the equivalent UK/South African patent	Through membership of the Paris Convention and ARIPO	Through membership of the Paris Convention and ARIPO	Through membership of the Paris Convention and ARIPO	Through membership of the Paris Convention and ARIPO	Through membership of the Paris Convention and ARIPO	Through membership of the Paris Convention and ARIPO	Through membership of the Paris Convention and ARIPO

	TRIPS	ARIPO	Swaziland	Botswana	South Africa	Lesotho	Namibia
Examination	No provisions	Formal and substantive	On formal requirements only	On formal requirements, novelty and inventive step Substantive examination may be carried out by ARIPO	On formal grounds only	On formal requirements, novelty, inventive step and exclusions	On formal requirements and basis of claiming relative to provisional application, if any
Bolar-type provisions	Bolar provisions are deemed to be TRIPS compliant	None	None	None	May use patented technology for the purposes of obtaining regulatory approval Restricted to non-commercial use and does not permit stockpiling prior to expiry	None	None
Extension of patent term	Only prescribes a minimum period of 20 years	Not permitted	Not permitted	Not permitted	Not permitted	5 years, subject to sufficient working of the patent	Extendable for a further term of 7 years or, in exceptional cases, 14 years

Compulsory licensing	TRIPS Allowed, subject to certain prescribed requirements being met	ARIPO Recognises the applicable national law on compulsory licences Forfeiture or the use of patented inventions in the public interest	Swaziland No provisions	Botswana Permitted	South Africa Compulsory licensing for dependent patents and in the case of abuse of patent rights	Lesotho When in public interest, and in interests of national security, nutrition, health or the development of other vital sectors of the national economy Also if patent is not being worked or is insufficiently worked in Lesotho	Namibia Yes, if no working of patented invention within 2 years of grant of patent
Parallel importation	TRIPS is silent with regard to the exhaustion of rights and the Agreement may not be used to address any issue regarding the exhaustion of rights	No provisions dealing with the exhaustion of rights	No provisions dealing with the exhaustion of rights	No provisions dealing with the exhaustion of rights	Parallel importation is allowable through the recognition of exhaustion of rights	No provisions dealing with the exhaustion of rights	No provisions dealing with the exhaustion of rights
Protection of traditional knowledge and biological diversity	Member states of TRIPS and signatories of CBD are obliged to implement the respective provisions of these two agreements, but inconsistencies exist between TRIPS and CBD agreements	Traditional knowledge legal instrument currently under draft	No provisions	No provisions	Disclosure of the use of indigenous biological resource, genetic resource, or traditional knowledge in the claimed invention Co-ownership and benefit sharing	No provisions	No provisions Access to Genetic Resources Bill and associated Traditional Knowledge Bill is currently being drafted

	TRIPS	No specific provisions, but the Paris Convention dealing with prior disclosure are automatically included	ARIPO	Permitted in relation to an official or officially recognised exhibition if not more than 6 months before the date of filing of the application or; if priority is claimed, before the date of filing of the priority	Swaziland	UK-based applications: use and publication in Swaziland before priority date is not	Botswana	No provisions	South Africa	Allowed when disclosure was acquired without the patentee's knowledge and, once discovered, protection for the invention was sought with reasonable diligence; also where the working of the invention in South Africa was for the purposes of a reasonable technical trial or experiment	Lesotho	No disclosure in tangible form worldwide or in Lesotho orally allowed prior to filing or priority date Prior disclosure is permitted if by applicant or as a result of abuse committed by third party if not more than 6 months before the filing date	Namibia	Permitted in relation to an exhibition if done with prior approval and followed by patent application not more than 6 months after opening of the exhibition Permitted if prior publication was made without patentee's consent May not be for sale for more than 2 years in any country outside the territory prior to the filing of the patent application
Release/disclosure before filing														
Opposition provisions		All proceedings must be fair and equitable; no further provisions relating to opposition to the grant of a patent		If provided for in member state legislation		No provisions		No provisions		No provisions		No provisions	Up to 3 months after advertisement of acceptance on grounds of fraudulently obtained rights, novelty or not patentable subject matter	
Applicant		Recognises the right of an inventor to assign, transfer or license his/her rights in the invention		Inventors and assignees		Inventors and assignees must correspond to South African assignment		Inventors and assignees		Inventors and assignees		Inventors and assignees	Inventors and assignees Not limited to nationals of Namibia	

	TRIPS	ARIPO	Swaziland	Botswana	South Africa	Lesotho	Namibia
Treaties/ conventions	Paris Convention (1967), Berne Convention (1971), Rome Convention and Treaty on Intellectual Property in Respect of Integrated Circuits	PCT, Paris Convention	PCT, Paris Convention, ARIPO	PCT, Paris Convention, ARIPO	PCT, Paris Convention	PCT, Paris Convention, ARIPO	Paris Convention, ARIPO, PCT
Rights of employer	No specific provisions, but the right to assign rights to an invention are recognised by the TRIPS Agreement	No specific provisions	No specific provisions	Invention made in the execution of a contract of employment shall, in the absence of a contrary agreement, belong to the employer	Invention may be assignable to employer if made within course and scope of employment	Invention made in the execution of a contract of employment shall, in the absence of a contrary agreement, belong to the employer Patents that become very valuable may be subject to a remuneration claim by the inventor	No specific provisions

	TRIPS	ARIPO	Swaziland	Botswana	South Africa	Lesotho	Namibia
Member states/ signatories	Ratification of TRIPS is a compulsory requirement of WTO membership	Botswana, Gambia, Ghana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Sierra Leone, Somalia, Sudan, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe South Africa is an observer state	N/A	N/A	N/A	N/A	N/A