Patent and its application in Nepal: State of play, concerns and way forward

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Presentation outline

- Genesis and background
- Patent provisions in the TRIPS Agreement
- Nepalese perspective
  - Legislative framework for patent protection
  - Commitment under the WTO
  - Status of patent registration
- Applicability to sectors of interest to WTO/EIF-SP and challenges
- Way forward

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Genesis and background

- The Florentine architect Filippo Brunelleschi received the first patent for a barge with hoisting gear, that carried marble along the Arno River in 1421
- First patent law was enacted in Republic of Venice in 1474
- At the global level select industrialized countries signed Convention for the Protection of Industrial Property on 20 March 1883
- A specialized UN agency called World Intellectual Property Organization (WIPO) was established in 1961 to deal with matters relating to IPR, including patent, at the global level
- WIPO was considered ineffectual in discharging its duties
- Developed countries then decided to bring patent within the ambit of WTO TRIPS Agreement

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Patent provisions within TRIPS – I

- Providing rights to the holder of scientific and technological invention which are:
  - Novel (new);
  - Non-obvious (some form of inventive step required); and
  - Capable of commercial/industrial application
- To be provided for any inventions, whether products or processes, in all fields of technology without discrimination
- For 20 years from the date of first filing of application
- Intended objectives:
  - To encourage research and development
  - To reward inventors
  - Encourage inventor to disclose invention

Patent provisions within TRIPS – II

- Exceptions to patentability
  - Inventions harmful to human, animal or plant life
  - Diagnostic, therapeutic and surgical methods for the treatment and humans and animals
  - Plants, animals other than micro-organisms and essentially biological processes for the production of plants or animals
  - If plant varieties are excluded from patent protection, then the country doing so must provide an effective *sui generis* (i.e. of its own kind) system of protection

Nepalese perspective

Legislative framework

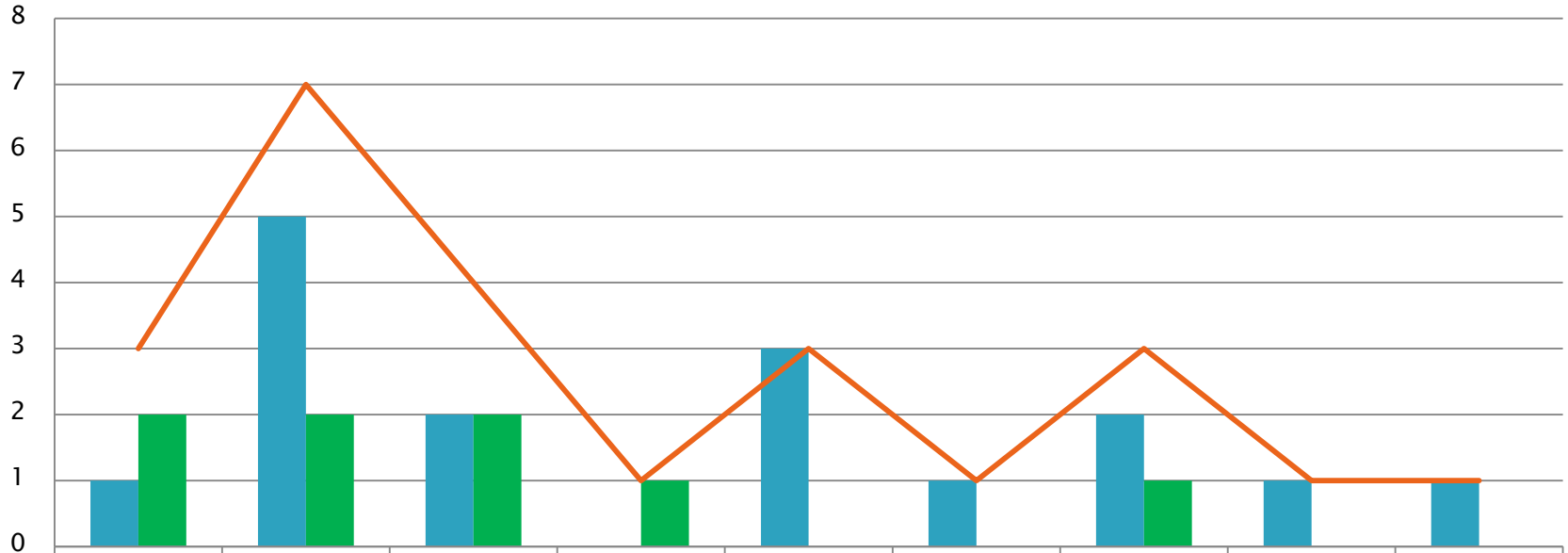
- Patent, Design and Trademark Act enacted way back in 1936 (repealed later)
- Patent, Design and Trademark Act, enacted on 30 August 1965 and amended on 18 October 1987, salient feature of which include:
  - Protection for 7 years [Section 8(1)], can be renewed twice for the same duration (Section 23B)
  - Foreign patent not valid in Nepal until registered (Section 21B), but automatically registered after the payment of double the fee (Section 21C)
  - Patent of goods produced in Nepal cannot be registered in foreign countries without registering in Nepal

Table 1: Commitments under the WTO and current status

Action	Implementation date proposed	Status as of July 2011
Approval of Industrial Property (Protection) Act and Plant Variety Protection Act	No later than 1 January 2006	Draft prepared (in process)
• Training of personnel involved in protection of patents, customs officials and police • Orientation of judges and lawyers • Computerization and networking of Patent Office • Reorganization and establishment of Intellectual Property Offices • Developing rules, regulations and work manuals • Enhancing public awareness on the protection of IPRS	No later than 1 January 2007	Partially completed
Establishment of Trademark Information Centre; Industrial Design Information Centre; Industrial Patent Information Centre and Layout-Designs Information Centre	No later than 1 July 2005	Status not known

Source: Adhikari (2011)

Figure1: Status of patent registration



	2058/59	2059/60	2060/61	2062/63	2063/64	2064/65	2065/66	2066/67	2067/68
National	1	5	2	0	3	1	2	1	1
Foreign	2	2	2	1	0	0	1	0	0
Total	3	7	4	1	3	1	3	1	1

Source: Department of Industry (2011)

Applicability to sectors of interest to WTO/EIF-SP and challenges

MAPs, essential oils and silver jewelry

- MAPs in its original form cannot be patented, because, they do not fulfill two criteria (novelty and non-obviousness) for patentability
- Some properties of MAPs and processes for converting MAPs into useful products can be patented. Examples include:
  - A process for preparation of anti-inflammatory and analgesic oil/ointment from the a combination of various plants including Aloe Vera (Indian patent No. 187,724)
  - A process for the isolation of anti cancer compound (crotepoxide) from the berries of Piper attenuatum (Indian patent No. 175,610)
- Essential oils may be patented provided a new type of oil is created (novel) and through an entirely different (non-obvious) technique and provided it can be commercially exploited
- Silver jewelry cannot be patented, but if a new process of making jewelry or a machine is invented that can be patented

Concerns regarding bio-piracy

- Patent provision under TRIPS aims at harmonizing global standard for patent protection
- It also allows for patenting of "life forms"
- It provides legal cover to bio-piracy, which entails:
  - Obtaining genetic resources and traditional knowledge of indigenous plants without any compensation
  - Making minor modification to them
  - Patenting them and selling them back to communities at a premium
- Examples of such piracy is provided in Table 2
- This process conflicts with the provisions of Convention on Biological Diversity (CBD)

Table 2: Bio-piracy of our heritage!

Name	Prior art/use	Main patent provided to/for	Patent No.
Basmati Rice	Premium food	RiceTec, for long grain, aromatic variety of rice	US 5,663,484
Karela	Anti-infection, anti-tumor	National Institutes of Health and New York University; the use of Karela's protein for treating tumors and HIV	US 5,484,889 US 5,900.240 EP 552,257, JP 6,501,689
Neem	Pesticide, contraceptive, tooth paste, etc.	WR Grace, Native Plant Institute, Japanese Terumo Corporation, for pesticide and toothpaste, etc	US 5,411,736 US 5,409,708 US 436,257
Turmeric	Wound healing	University of Mississippi Medical Centre, for wound healing property	US 5,401,504

Source: Adhikari and Adhikari (2007)

CBD's in-built safeguard against bio-piracy

- CBD, signed in 1992, is a global convention with the following objectives:
  - Conservation of biological resources
  - Sustainable use of biological resources
  - Benefit sharing to the communities involved in conserving such resources
- CBD also recognises:

  Patents …..may have an influence on its implementation. Parties need to ensure that such rights are supportive of and do not run counter to the objectives of the CBD [Article 16(5)]
- Countries which are members of both CBD and WTO, have to balance these conflicting obligations

Nepal's efforts to balance these obligations

- Draft Access to Genetic Resources and Benefit Bill Prepared in 2002, but yet to be adopted. Salient features included:
  - Creation of biodiversity register and National Genetic Resources Conservation Authority
  - License to be obtained for access (to use and export)
  - Application to be made for sample collection and research
  - Empowerment of local bodies
  - Prior informed consent - a must
- To implement TRIPS Agreement, prepared, among others, a Draft Industrial Property Act, but yet to be adopted. Salient features included:
  - Restrictions on patenting of life forms
  - Mere discoveries not patentable
  - A method of agriculture and horticulture not patentable

Nepal's positions at the WTO

- Doha Declaration (Para 19)
  - Linkage between TRIPS and CBD
- Discussion in TRIPS council – four positions
  - US/Japan/Singapore – No change
  - EU/Switzerland/Norway – disclosure requirement (except that EU wants any violation compliant to be dealt outside the WTO)
  - Brazil/India+ – disclosure requirement
  - Africa group – no patent on life forms
- Nepal's position is in line with the position of Brazil/India+ as reflected in the speech made at the 7th Ministerial Conference of the WTO

Way forward

- Enact laws including Industrial property and Access to genetic resources and benefit sharing
- Put in place robust enforcement mechanism including police, customs officials and judiciary
- Strengthen institutions
  - Necessary infrastructure
  - Financial, technical and human resources
- Create awareness among private sector and local communities of both opportunities and challenges
- Document and register biological resources and traditional knowledge
- Encourage R&D in public as well as private sector

Thank you