v. WTO, TRIPS, WIPO, CBD, FAO, NAGOYA Protocol

v. WTO, TRIPS, World Intellectual Property Organisation (WIPO), Convention on Biological Diversity (CBD); FAO; Nagoya Protocol on access and benefit-sharing

World Trade Organization (WTO)

Overview

1. **Formation and Scope**
   - Established in 1995 as the successor to the General Agreement on Tariffs and Trade (GATT).
   - Aims to facilitate **multilateral trade liberalization** by setting binding rules, reducing trade barriers, and managing dispute settlement.
   - IP issues fall under the WTO framework primarily through the TRIPS Agreement.
2. **Influence on IP and Biodiversity**
   - Trade policies can indirectly impact biodiversity and TKS (e.g., market access for agricultural or herbal products, regulation of technology flows).
   - Dispute resolutions sometimes engage IP rights enforcement or allegations of misappropriation.

Key Functions

1. **Forum for Negotiations**
   - Member states negotiate modifications to trade rules and push for updates in IP-related aspects (e.g., TRIPS Council discussions on TKS).
2. **Dispute Settlement**
   - The Dispute Settlement Body (DSB) enforces rulings on non-compliance with WTO agreements, including TRIPS.
3. **Monitoring**
   - Regular trade policy reviews analyze how countries implement IP laws, potentially intersecting with biodiversity goals or TKS protection.

Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)

Origins and Objectives

1. **Inclusion in WTO**
   - TRIPS is Annex 1C of the Marrakesh Agreement establishing the WTO, in force since 1995.
   - Harmonizes **minimum standards of IP protection** across WTO members, extending coverage to patents, trademarks, copyrights, geographical indications, etc.
2. **Developing and Least Developed Countries** (LDCs)
   - Transitional periods initially allowed for LDCs to delay full TRIPS implementation, acknowledging capacity constraints.
   - Ongoing debates center on flexibilities (compulsory licenses, parallel imports) and TKS or genetic resources not fully addressed by TRIPS.

Provisions Relevant to TKS

1. **Patent Requirements and Exclusions**
   - TRIPS obliges members to grant patents on inventions in all fields of technology, with some exceptions (public health, morality, or “essentially biological processes”).
   - Traditional knowledge per se is not explicitly covered or excluded, leading to controversies about “biopiracy” of herbal remedies.
2. **Geographical Indications (GIs)**
   - TRIPS Part II Section 3 outlines GI protection, valuable for branding products with unique local origin and

qualities (e.g., Darjeeling tea).
    - Extended GI protection negotiations (beyond wines and spirits) reflect developing nations' push to protect agricultural and artisanal products.
3. **Access-Benefit Sharing and Disclosure**
    - Some countries advocate amending TRIPS to require **mandatory disclosure of origin** of genetic resources used in patent applications, aligning with CBD principles.
    - Ongoing proposals—no consensus yet—illustrate tension between trade-liberal IP demands and biodiversity/ABS obligations.

World Intellectual Property Organization (WIPO)

Mandate and Structure

1. **Background**
    - WIPO, established in 1967 (Geneva-based UN agency), aims to promote the protection of IP worldwide through cooperation among member states.
    - Administers major IP treaties (Paris Convention, Berne Convention, Patent Cooperation Treaty [PCT], Madrid System for Trademarks, etc.).
2. **Role in TKS Protection**
3. **Intergovernmental Committee (IGC) on IP and Genetic Resources, Traditional Knowledge, and Folklore**
    - Established to address legal/policy gaps around TKS, genetic resources, traditional cultural expressions.
    - Ongoing negotiations explore draft texts, potential international legal instruments that might protect TKS from misappropriation.
4. **Technical Assistance and Capacity Building**
    - WIPO offers training, legislative advice to developing countries on implementing IP laws that can incorporate TKS considerations (e.g., sui generis protections, community protocols).
    - Encourages creation of digital libraries (akin to India's TKDL) and helps set best-practice guidelines for TKS documentation.
5. **Patent Classification Tools**
    - Collaboration with India's TKDL to supply patent examiners worldwide with documented prior art, mitigating the granting of erroneous patents on TKS-based innovations.

Convention on Biological Diversity (CBD)

Principles and Scope

1. **Adoption and Significance**
    - Signed at the 1992 Earth Summit (Rio de Janeiro), entered into force in 1993.
    - Comprehensive treaty with three key objectives: **biodiversity conservation**, **sustainable use** of its components, and **fair and equitable sharing** of benefits from the use of genetic resources.
2. **Recognition of Sovereignty**
    - A key shift: states have **sovereign rights** over natural resources within their territories and can regulate access to them.
    - Encourages **prior informed consent** (PIC) from provider countries (and local communities) for research or commercial utilization of genetic resources, linking to TKS.

Relevance to TKS

1. **Article 8(j)**
    - Specifically addresses the knowledge, innovations, and practices of indigenous/local communities relevant to biodiversity conservation and sustainable use.
    - Parties urged to respect, preserve, and maintain TKS, promote its wider application with prior approval, and encourage fair benefit-sharing.
2. **Mutually Agreed Terms (MAT)**
    - Mechanism for negotiating how benefits (royalties, technology transfer, capacity building) are allocated when external parties utilize TKS or associated genetic materials.

Food and Agriculture Organization (FAO)

Overview and Mandate

1. **FAO's Role**
   - A UN specialized agency focusing on **food security**, sustainable agriculture, fisheries, forestry.
   - Encourages the conservation of plant and animal genetic resources critical for global food supply and rural livelihoods.
2. **Key Agreements**
3. **International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)**
   - Also known as the **Seed Treaty**; ensures **farmers' rights**, **multilateral system** of access and benefit-sharing for major food crops.
   - Recognizes the vital role of local communities and farmers in developing and maintaining diverse crop varieties.
4. **Global Plans of Action**
   - For example, the Global Plan of Action on Animal Genetic Resources addresses livestock diversity, often grounded in indigenous breeding knowledge.

TKS in Agriculture

1. **Traditional Farming Methods**
   - Soil fertility management, local seed selection, pest control (botanical pesticides), and water management.
   - FAO's initiatives underscore the synergy between local knowledge and global agro-biodiversity conservation efforts.
2. **Benefit Sharing Mechanisms**
   - The **Multilateral System** of ITPGRFA fosters equitable benefit-sharing (e.g., funding projects that support smallholder farmers, in situ conservation, etc.).
   - Encourages recognition and reward for community-level stewardship of landraces.

Nagoya Protocol on Access and Benefit-Sharing

Background and Core Elements

1. **Adoption and Entry into Force**
   - Supplementary agreement to the CBD, adopted in 2010 (Nagoya, Japan), effective from 2014.
   - Operationalizes the CBD's third objective (fair and equitable sharing of benefits).
   - Establishes frameworks for obtaining **prior informed consent (PIC)** and negotiating **mutually agreed terms (MAT)**.
2. **Scope and Goals**
   - Covers **genetic resources** (microorganisms, plants, animals) and **traditional knowledge** associated with them, used for R&D or commercial exploitation.
   - Aims to ensure that communities/countries providing resources are adequately compensated or recognized.

Key Provisions

1. **Compliance Mechanisms**
   - Parties must ensure users within their jurisdiction comply with foreign countries' ABS laws.
   - **Checkpoints** (patent offices, research funders, product approval agencies) can require proof of legal access or PIC documentation.
2. **Relationship with TKS**
   - Emphasizes the role of **indigenous/local communities** who hold TKS linked to genetic resources.
   - Encourages measures to document or protect TKS, mandates equity in any commercial or academic usage.
3. **Challenges and Implementation**
   - Variation in domestic implementing laws, capacity constraints for monitoring compliance, and controversies about digital sequence information (DSI).
   - Resource providers worry about insufficient transparency from multinational users; users are concerned

about legal uncertainties and administrative burdens.

Concluding Remarks

WTO (through TRIPS), **WIPO**, **CBD**, **FAO**-related treaties, and the **Nagoya Protocol** collectively shape the **global governance** of intellectual property, biodiversity, and the rights of local/indigenous communities. Their interplay strongly influences:

- **How TKS is recognized** (avoid biopiracy, ensure prior art documentation, defensive or positive protection).
- **How benefits accrue** to custodians of biological and cultural resources (Access and Benefit-Sharing under CBD/Nagoya, Farmers' Rights in ITPGRFA).
- **The potential for synergy** in sustainable development, from agricultural innovation to new medical leads derived from TKS.

Nevertheless, **legal fragmentation** and **capacity disparities** among nations continue to complicate the uniform adoption of these frameworks. Harmonizing diverse stakeholder interests—pharmaceutical R&D, national economies, indigenous rights, and ecological integrity—remains a dynamic challenge requiring collaborative, inclusive policy making and robust, transparent enforcement mechanisms.