



Workshop on Access To Scientific and Technical Information For Technological Capacity Building and Product Branding:

WIPO's Cooperation With LDCs In Appropriate Technology Project

Harare, Zimbabwe
October, 2014

WIPO TECHNICAL ASSISTANCE FOR LDCs

How is the socio economic situation in LDCs?

How is the state of IP in LDCs?

How is their situation in IP tools utilization
for development?

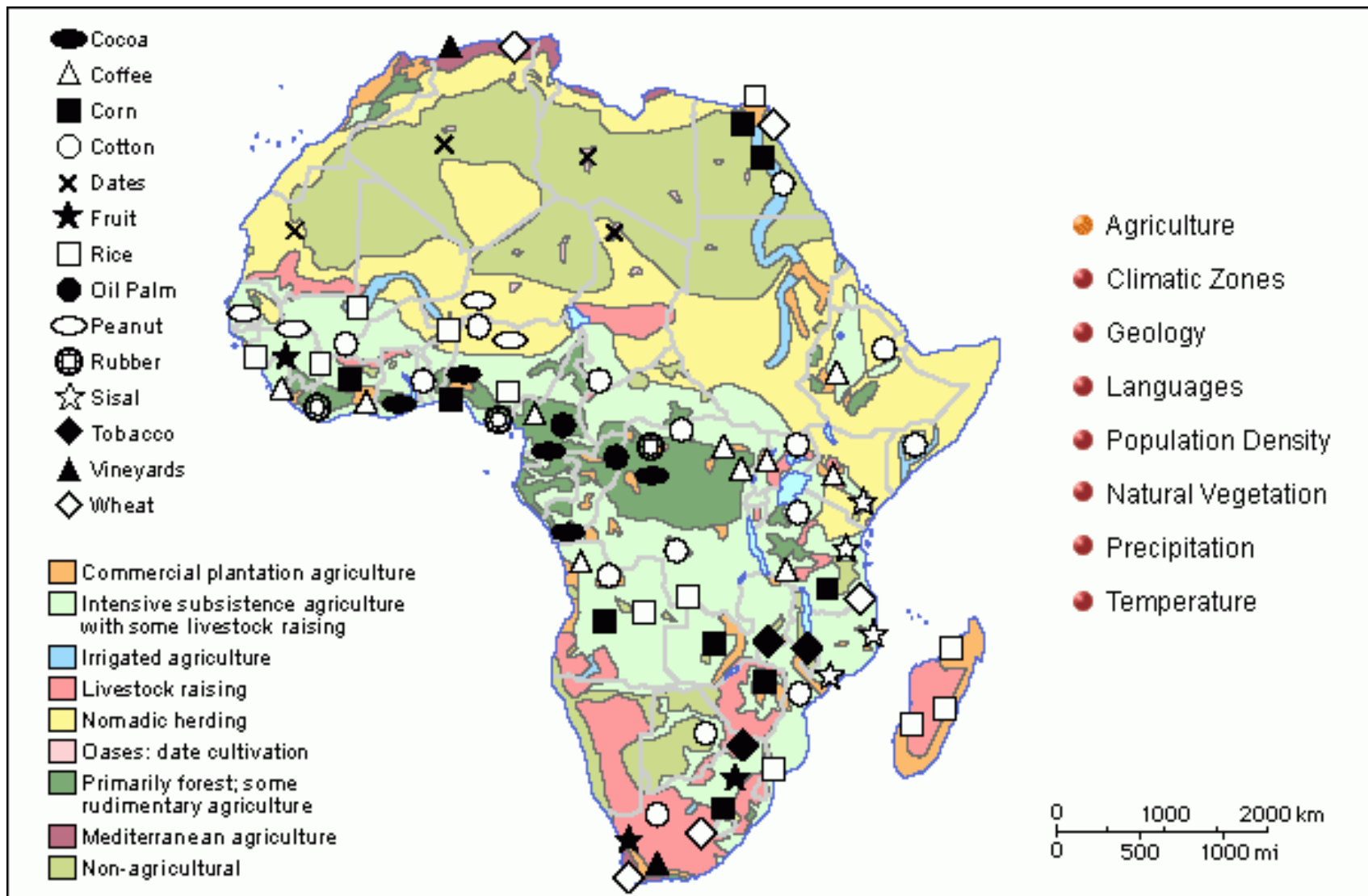
What are the types of WIPO technical assistance for
LDCs ?

How are they implemented?

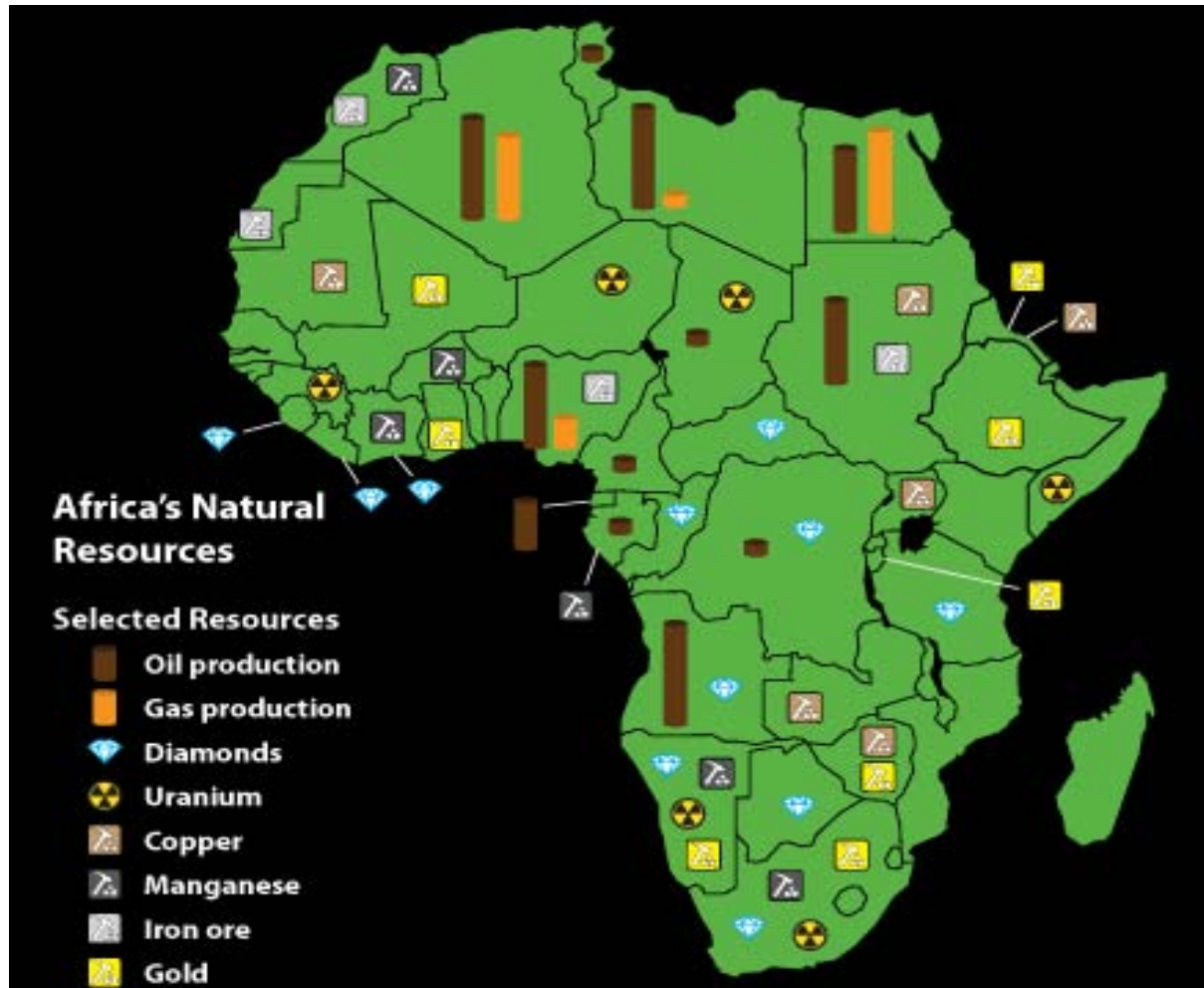
African LDCs 1971-2013

- The original list African LDCs:
- 1971-Benin, Botswana, Burundi, Chad, Ethiopia, Guinea, Lesotho, Malawi, Mali, Niger, Rwanda, Somalia, Sudan, Uganda, Tanzania, Upper Volta (Burkina Faso) Total=16
- 1975- Central African Republic, Gambia (18)
- 1977-Cape Verde, Comoros (20)
- 1981-Guinea-Bissau (21)
- 1982-Djibouti, Equatorial Guinea, Sao Tome and Principe, Sierra Leone, Togo (26)
- 1986-Mauritania (27)
- 1988-Mozambique (28)
- 1990-Liberia (29)
- 1991-Madagascar, CDR, Zambia (32)
- 1994-Eritrea, Angola (34)
- (1994-Botswana Graduated)
- 2001 Senegal
- 2008-Cape Verde-graduated,
- 2012-South Sudan
- Total Africa= 34





NATURAL RESOURCES



Economic Structure

- Agriculture, hunting, forestry and fisheries account for **24.6%** of GDP
- Compared with the World Average of **4.4%** (**20.2%** more)
- Farming Productivity is **1.2 tons of cereals per hectare**, corresponding to only **37 per cent** of the productivity level of other developing countries.
- The share of manufacturing is **10%** of GDP compared to **21%** in other developing countries (**11% less**)
- Total Industry, value added (% of GDP) is **23.3%** in LDCs compared to **26.7%** of the World Average (**3.7% less**).

Trade

- Exports from LDCs in Total World exports is **1.2%**.
- International Trade accounts for **74.3%** of average LDCs' GDP compared with **62.4 %** of the World Average (**11.9%** more trade dependent)
- Imports of goods and services (% of GDP) is **39.7%** in LDCs compared to World Average of **30.4%** (**9.3% higher**)
- Exports of goods and services (% of GDP) is **23.4%** in LDCs compared to World Average of **30.3%** (**6.9% less**)

Foreign Direct Investment Flows

- The FDI Flow to LDCs in 2012
- 25,703** (millions of dollars) on average
- compared to **677,122.6** in other developing countries
- Less by **651,419.6** millions dollars

Education

- Average LDCs' Expenditure 3.7% of GDP
- World Average of 5% of GDP (LDCs less by 1.3%)
- Primary School Completion Rate is 63.7%
- Developing countries 93.6% (LDCs less by 29.9%)
- Secondary School Enrollment is 42 %
- World Average of 74% (32% less)
- Tertiary Level Enrollment is 8.4 %,
- 23.5 % in in other developing countries (15.1% less)
- Youth Literacy Rate* is 72.4%
- 90.7% in other developing countries (18.3% less)

*% of people aged 15-24

Health

- World Average expenditure is 10.1% of GDP
- Average LDCs' Expenditure is 5.6% of GDP (4.5% less)
- Infant Mortality Rate (per 1000 Live Births) is 57
- World Average 35 (22 deaths more).
- Antenatal Coverage is 69.1%
- World Average of 84 % (14.9% less).
- Primary Healthcare: 1.7 Physicians per 10,00 people
- World Average of 13.4 (11.7 Physicians less).

Culture

- Cultural and creative industries represent one of the most rapidly expanding sectors in the global economy with a growth rate of 17.6 % in the Middle East, **13.9 % in Africa**, 11.9 % in South America, 9.7 % in Asia, 6.9 % in Oceania, and 4.3 % in North and Central America.
- The total export of creative goods in LDCs in 2008 was **1,579** (millions of \$) **0.9% of the total share of** developing countries (**176,211 millions of \$**) .
- Only **0.5%** of the world's researchers live in LDCs, in comparison to the **62.1%** who live in developed Countries
- **0.4%** of the world's scientific publications originate in the LDCs, whereas **75.3%** of them originate in the developed countries.

Technology

- ICT goods exports (% of total goods exports) is **0.5%** in LDCs compared with the World Average of **10.4%** (**9.9% less**).
- ICT goods imports (% total goods imports) is **4.8%** compared with the World Average of **11.2%** (**6.4% less**)
- Research and development expenditure as a percentage of GDP stood nearly at **nil** in 2011 in the majority of LDCs
- According to available UNESCO data, only in Uganda, **60.1%** of manufacturing firms engaged in innovation activities.

Patents

Total Applications by filing office (2012)

- Worldwide: 234,7700
- **LDCs: 10431 (0.5% of total)**

Technology Patents Granted by Origin (2012)

- Worldwide: 1053408
- Lower Middle Income: 3612 (0.34 % of total)

LDC Nationals: 52 (0.005% of total)

Medical technology and pharmaceutical patents (2012)

Worldwide: 98409

Lower Middle income : 593 (0.6% of total)

LDC Nationals: 3 (0.003% of total)

Trademarks

- Total Applications by filing office (2012)
- Worldwide:4486738
- Lower Middle Income:375464 (8.4% of total)
- **LDCs: 46470 (1.03% of total)**
- Total Applications by Origin (2012)
- Lower Middle Income: 316633 (7% of total)
- **LDC Nationals: 23154 (0.5% of total)**
- Total Registrations by filing office (2011)
- Worldwide:3007017
- Lower Middle Income:261577 (8.69% of total)
- **LDCs:27595 (0.9 %of total)**
- Total Registrations by Origin (2011)
- Lower Middle Income:199460 (6.63% of total)
- **LDC Nationals :7332 (0.24%of total)**

Industrial Designs

Total Applications by filing office (2012)

Worldwide:921313

Lower Middle Income:18622 (5.79% of total)

LDCs: 2605 (0.3% of total)

Total Applications by Origin (2012)

Lower Middle Income: 16550 (1.8 % of total)

LDC Nationals: 1935 (0.2% of total)

Total Registrations by filing office (2012)

Worldwide:672937

Lower Middle Income:13601 (2.02 % of total)

LDCs: 2167 (0.32 %of total)

Total Registrations by Origin (2012)

Lower Middle Income:8546 (1.3% of total)

LDC Nationals : 1354 (0.2% of total)

Pharmaceutical Industry

- Number of people with regular access to essential medicines increased from **2.1 billion to about 4 billion between 1997 and 2002.**
- There remains, however, a significant gap in access for nearly 2 billion of the world's population, many of whom live in LDCs.
- North America, Europe and Japan still account for well over **80 per cent of global sales** in the pharmaceutical industry
- LDCs like **Ethiopia, Tanzania and Uganda** - have already made significant gains in the local production of pharmaceuticals.
- LDCs currently do not have to provide protection for patents and undisclosed information for pharmaceutical products according to the 2001 WTO Doha Ministerial Declaration on TRIPS and Public Health.

Environment

- LDCs produce on average **0.3 tonnes** of Carbon Dioxide compared to the World Average of **4.6 tonnes (4.3 tonnes less)**
- Deaths of children under age 5 due to Unsafe water, unimproved sanitation or poor hygiene is **590** (per 100,000 children under 5) compared to **258** of World Average (**332 more**)
- Natural Resource Depletion is **8.7%** of GNI in LDCs compared to **5.3%** World Average (**3.4% higher**)
- Impact of Natural Disasters causes **51** deaths per million per year compared to World Average of **12 (39 deaths more)**.

Sub-Saharan Africa: A region of innovation learners

- Five African economies: **Burkina Faso, Gambia, Malawi, Mozambique, and Rwanda** became part of the group of economies defined as 'innovation learners.'
- The **Sub-Saharan African region** makes up nearly 50% of the innovation learner economies.

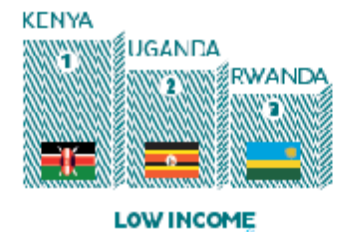
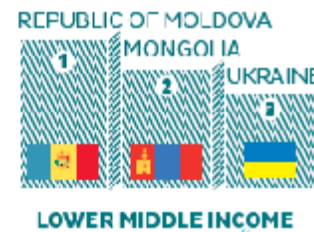
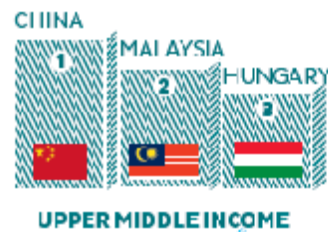


GII 2014 rankings – Top 3 per region and per income group

Top 3 Per Region



Top 3 Per Income Group



Narrowing the Gap

- So far we have seen the gap between the developed countries and LDCs?
- In the innovation Index of this year we are innovation learners?
- How do we learn fast to narrow the Gap?

Narrowing the Knowledge Gap

Using innovation and creativity for development ?

What are the contributions of WIPO to narrow the knowledge gap to use innovation and creativity for development?

Building IP Institutions and System in LDCs

Strategic Goal III – Facilitating the use of IP for Development

1. Modernization of IP Legislations for LDCs

2. WIPO Deliverables for the LDCs*:

- ✓ Intellectual Property and Innovation Policies and Strategies
- ✓ Skills Development Programs
- ✓ Improved Access to Knowledge and strengthened Knowledge Infrastructure
- ✓ Establishment of Technology and Innovation Support Centers (TISCs)
- ✓ Strategic use of IP for Product Branding
- ✓ Enhanced Support for Documentation, Digitization, Protection and Commercialization of Intellectual Property Assets including Traditional knowledge, Traditional Cultural Expressions and Genetic resources

3. Appropriate Technology Projects for the LDCs

Intellectual Property and Innovation Policy and Strategies

Establishment of national IP Policy and strategies for promoting innovation, creativity, technological capacity building and social and economic development

(2011-Pilot projects for Formulation of IP strategies –Mali, Tanzania - Methodology Developed)

2012/13- Bangladesh, Burkina Faso, Ethiopia and Madagascar Nepal and Uganda (different stages of preparation of their National IP Policies)

Est. – Liberia, Mozambique, Rwanda, Sierra Leone and Zambia,

Skills Development & Capacity Building

Partnerships- Governments, IGOs, Regional, Inter-regional Orgs.

Beneficiaries:

- **Policy makers,**
- **Government officials,**
- **Academia, researchers and professionals engaged in science and technology (e.g. agriculture, energy, environment, health, manufacturing etc.),**
- **IP lawyers and practitioners,**
- **Entrepreneurs, business and industry representatives.**

Systematic Training Program with the Government of Sweden

Skills Development & Capacity Building

WIPO ACADEMY Programs

Distance Learning Programs (in 7 langs)

- **Professional Training**(The program is carried out in cooperation with governments and specialized institutions.)
- **WIPO Summer Schools in IP** (2012-Croatia, Korea, Switzerland, Russia, Ukraine, USA, Mexico, South Africa)
- **Start up Academies**(DA Project :Objectives WIPO, through the WIPO Academy, to assist beneficiary Member States in the establishment of national IP Academies during an initial period of two years)

Access to Commercial Databases

- Access to Research for Development and Innovation (ARDI)
- Access to Specialized Patent Information (ASPI) program –

Traditional Knowledge, Genetic Resources and Expressions of folklore,(TK)

WIPO assistes LDCs in:

- Identify TKs
- Record
- Examine the Economic importance and
- IP protection viability of the TK & folklore for the LDCs as well as;
- Documentation and digitization

Appropriate technology

**Building LDCs' knowledge base on how to
Make use of the IP system to facilitate transfer ,
adaptation and use of appropriate technology.**

In 2014 WIPO successfully completed the Transfer of Technology in three pilot LDCs namely:

- Bangladesh,
- Nepal, and
- Zambia.

Appropriate technology

- Application by the Country
- Review of Application
- Participation Agreement to clarifying the obligations of each Party.
- Establishing a National Expert Group (NEG)
- Chairman of NEG
- National and International Experts.

Appropriate technology

- Needs Areas WIPO will support NEG to identify several needs areas
- Prioritize one or two need areas.
- Prepare Search Request:
- Prepare Search Report: to prepare the finding of Patent Information Search undertaken for the identified project.
- Formulate TOR Technology Landscape

Appropriate technology

- Prepare Technology Landscape .
- Approve the Landscape Report:
- Business Plan:
- Outreach Program:.
- External Evaluation:

Thank you

The End