

SCIENCE, TECHNOLOGY AND INNOVATION FOR THE TRANSFORMATION OF AFRICAN ECONOMIES

SESSION I: ELEMENTS OF AN EFFECTIVE AND BALANCED INTELLECTUAL PROPERTY (IP) SYSTEM TO ENABLE INNOVATION

The session discussed the importance of creating the appropriate enabling national, regional and international legal and institutional frameworks to facilitate the use of the IP system for wealth creation; it also addressed the need for promoting respect for a balanced IP system that recognizes the interests of creators on one hand and the public interest on the other. Panelists also discussed challenges related to the creation of a conducive environment for innovation and its exploitation and examined the extent to which the IP system is being used in the continent by sharing of best practices.

Critical Issues

- The existing IP policies, laws and institutions are not reflective of the specific situation and needs of Africa and not responsive to the challenges of globalization and fast changing technological developments.
- A number of African countries have developed STI and IP Policies which are inadequately implemented.
- Inadequate human resources and infrastructure in IP administration and management. IP offices are limited to their traditional regulatory and registration roles without broader mandate to promote innovations and facilitate exploitation of IP
- Need to appreciate the diversity and differences in the IP systems at the national and regional levels
- Regional approaches are needed to address African Integration and the development of common African positions on IP
- The private sector is not involved in the IP management and promotion

- Inadequate political will and limited resources to build IP consciousness and culture in Africa.

Recommendations

- Existing IP Policy and Legal Frameworks and Institutional structures must be strengthened and oriented towards meaningfully contributing to the generation, development and commercialization of innovations and creative works as well as cater for protection and exploitation of traditional knowledge, expressions of folklore and genetic resources
- Africa needs IP Champions and Ambassadors to mobilize political support in fostering the use of IP as a tool for development and wealth creation
- African Governments should promote Public-Private Partnerships and encourage the involvement of the private sector in the generation, development and commercialization of innovations and creative works
- Support and Strengthen Regional IP Offices in enhancing the delivery of speedy and quality services
- Ensure the participation and involvement of stakeholders including the young inventors, innovators and creators in the development and implementation of IP policies and laws for sustainable economic growth

SESSION II: BRIDGING THE KNOWLEDGE DIVIDE: FACILITATING ACCESS TO SCIENTIFIC AND TECHNOLOGICAL INFORMATION AND ITS APPROPRIATE USE

The session discussed the role of the patent system in the promotion of innovation and in the dissemination of technological information; it also explored ways to effectively exploit access to this technological information as an invaluable source for the generation of local knowledge and innovation and address the effective provision of value-added technology

and industrial property services in support of local innovation. Panelists also shared information and experiences on existing WIPO technological information platforms and how they have been effectively utilized by IP institutions, the public and the private sectors to promote innovation, creativity and competitiveness.

Critical Issues

- Inadequate understanding and use of scientific and technological information sources including patent documents in support of R&D and innovative efforts
- Inadequate knowledge and use of services offered by WIPO such as Access to Research and Development Information (ARDI) and Access to Specialized Patent Information (ASPI)
- Absence of technical support infrastructure including Technology Innovation Support Centers and Technology Transfer Offices
- Limited role of national IP offices in disseminating scientific and technological information in support of local R&D, innovative and creative activities

Recommendations

- Increase awareness and promote use scientific and technological information by innovators and creators
- Promote and exploit opportunities and services offered by WIPO
- Establish and strengthen support institutions such as Technology Innovation Support Centers and Technology Transfer Offices in universities and R&D centers
- Ensure IP offices play a role in collecting and facilitating access to scientific and technological information sources to support local innovative and creative endeavors

SESSION III: PROMOTING RESEARCH AND DEVELOPMENT IN FOOD AND AGRICULTURE

The session discussed innovation in agriculture, considered as one of the key drivers for Africa's growth. It also discussed how IP, science,

technology and innovation can facilitate the transformation of the agricultural sector through increased productivity, improved post-harvest processing and overall value addition to the sector for increased competitiveness.

Critical Issues

- Transformation of the agriculture sector will depend on moving from raw material based system to added value products with use of IP;
- Public private partnerships are key in realizing the potential of research for development of the agriculture economy
- Inadequate linkages and partnership among the relevant institutions in the food and agricultural sector
- Absence of legal framework for protection and acquisition of new varieties of plants
- Utilization of all forms of IP to unlock the potential of meeting the needs of research and development to provide food security and enhance sustainable agricultural development

Recommendations

- Encourage value addition of agricultural products
- Promote public private partnership in research and development
- Encourage use of all forms of IP in meeting the needs of the agricultural sector
- Promote and strengthen partnerships between relevant African institutions and regional and international collaborators and development partners;
- Plant variety protection is a particularly important mechanism to promote research and transfer of technology to farmers, thereby increasing productivity and value addition in agriculture. It has been recognized that UPOV membership is a key factor in maximizing the impact of plant variety protection

**SESSION IV: IP FOR COMPETITIVENESS AND WEALTH CREATION
– PRODUCT AND SERVICE BRANDING**

Considered as a major source of competitive advantage, brands and designs are critical to the commercialization of new products and services; increasingly, their contribution as sources of innovation and drivers of economic growth in the world economy is gaining recognition and therefore it is important for policy makers to adopt appropriate legal frameworks that protect brands and designs in order to foster innovation and enhance competitiveness. The session discussed and showcased with concrete examples, how through the IP system, an innovative idea is given shape and value, transforming the intangible into tangibles with a monetary value.

Critical Issues

- Inadequate legal framework for the effective protection of origin based products in many African countries using appellations of origin, geographical indications, collective and certification marks.
- Nonexistence of well-organized associations of producers of unique products in Africa that may benefit from business strategies such as collective marketing, protection, management and promotion of brands.
- Inadequate understanding and use of IP and branding tools in enhancing competitiveness by African producers and businesses
- Lack of protection and misappropriation of economic assets and inadequate appreciation of local brands and use of products in African countries
- Inadequate support of government in promoting and strengthening the use of IP and branding tools in enhancing competitiveness

Recommendations

- Enact new and revise existing laws to strengthen the national legal framework to enhance competitiveness of African unique products and services
- Establish and strengthen producers associations to effectively use IP and branding tools in improving their marketing position and increase income from their products and services

- Promote awareness on the significance of IP and branding and encourage their use in improving marketing position and trade income
- Devise and implement government support schemes in using geographical indications by farmers and micro, small and medium enterprises taking into account the experiences of countries such as Thailand

SESSION V: THE CONTRIBUTION OF IP AND INNOVATION TO THE PROMOTION OF INDUSTRIALIZATION FOR SUSTAINABLE GROWTH IN AFRICA

The session discussed how IP, Science, Technology and Innovation could promote industrialization for Africa's sustainable growth; it highlighted the importance of adopting institutional IP policies and also discussed the contribution of national, regional and international IP rights management systems to economic development.

Critical Issues

- Lack of national and institutional IP policies and strategies and infrastructure on the strategic use of the IP system for social, cultural, economic and technological development in a number of African countries
- Non-implementation of National IP policies and strategies in countries that have them due to inadequate resource and lack of execution plans and road maps
- Lack of champion to promote innovation and meaningful use of IP in supporting the goals of industrialization of countries
- Inadequate value addition and continuing export of raw materials which does not enable to capture value and have secure and sustainable income

Recommendations

- Develop holistic and implementable national and institutional IP policies as well as institutional infrastructure such as innovation

building blocks as a basis for promoting innovation and supporting industrialization

- Allocate enough fund, build the requisite capacity, setup and strengthen institutions to effectively implement national and institutional IP policies
- Sensitize national, institutional and influential leaders to champion the cause of innovation and IP as tools of development and build a social consensus
- Design and implement complementary strategies to encourage value capture and addition to ensure sustainable income, maximize profitability, improve the lives of producers and enhance national trade revenue

SESSION VI: CONNECTING RESEARCH AND DEVELOPMENT (R&D) AND IP WITH INDUSTRIES FOR VALUE CREATION

This session examined one of the important sources of IP which is the results of Research and Development. In every industrialized nation, one of the engines of economic development is the cooperation between R&D institutions and the industries. This cooperation leads to shared risk, a risk sharing process that minimizes the high cost of research to the industry while the public funded R&D institutions are built to take such risks without erosion of shareholders investment.

Critical Issues

- Weak linkages between R&D institutions and industry for the uptake of creation and exploitation of research outputs and sharing of risks
- In appropriate educational system to nurture innovative culture and entrepreneurship
- Inadequate funding , human resource and facilities for R&D
- Inadequate inter and intra research collaboration and networking
- Lack of mechanisms to empower young generation to sustain the innovative culture and achievements
- Lack of mechanisms to tap innovation from the informal sector

Recommendations

- Foster effective linkages between industry and R&D institutions to identify and address research needs as well as meet common objectives
- Reform the existing educational system to nurture innovation cultures and address the challenges and needs of the national innovation system
- Set up a robust mechanism to finance research for development
- Build human resource and infrastructural capacities for strengthening Innovation
- Support and strengthen collaborative research in priority and flagship programs by establishing competitive grants and development fund
- Develop mentorship programs to identify potential young innovators and build their capacities
- Identify key economic sectors and players in the informal sector and provide support and incentives in order to facilitate transition to the formal sector