



Categories of Traditional Knowledge Associated with Protection and Sustainable Use of Biodiversity in Minority Areas of China

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1、 Relevant Articles of CBD

- ❖ Article 8(j) of CBD (Convention on Biological Diversity):
- ❖ “.....knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity”.

1、 Relevant Articles of CBD

❖ Article 10. Sustainable Use of Components of Biological Diversity

- ❖ Each Contracting Party shall, as far as possible and as appropriate:
- ❖ (a) Integrate consideration of the conservation and sustainable use of biological resources into national decision-making;
- ❖ (b) Adopt measures relating to the use of biological resources to avoid or minimize adverse impacts on biological diversity;
- ❖ (c) Protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements;
- ❖ (d) Support local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced; and
- ❖ (e) Encourage cooperation between its governmental authorities and its private sector in developing methods for sustainable use of biological resources.

2、 Minorities in China

China is rich in TK with **oral and documented types**, as China has a long civilized history over 5000 year and a lot of TK have been recorded literally。

- ❖ China has 56 ethnic groups (nationalities). Except Han, the other **55 ethnic groups** are called “**minorities**”, including Tibetan, Inner-Mongolian, etc.
- ❖ The minorities in China is **similar to indigenous and local communities (ILCs)** because they are basically kept their traditional lifestyles.
- ❖ 55 minorities together has less **10% of whole China's population**, but occupying 62% of China's land territory.



3、 Categories of TK in China

❖ TK's categories

❖ Based on the concept of TK in CBD, WIPO and WTO, incorporation of Chinese domestic situation, we divide the TK into **5 categories**, according to their attributes and usages.

(1) Knowledge for use of traditional genetic resources in agriculture

(simple as: traditional genetic resources)

(2) Knowledge of traditional medical and medicines for healthy

(simple as: traditional medicines knowledge)

(3) Knowledge of traditional technologies, cultivation modes and lifestyles

(simple as: traditional technology and practices)

(4) Knowledge of traditional cultures reflecting biodiversity conservation and sustainable use of bio-resources

(simple as: traditional cultures)

(5) Knowledge of geographical biological indicators

(simple as: traditional indicators)



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环境保护部公告

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关于发布《生物多样性相关传统知识分类、调查与编目技术规定(试行)》的公告

为积极履行《生物多样性公约》，推动《中国生物多样性保护战略与行动计划》(2011-2030年)的贯彻实施，我部编制了《生物多样性相关传统知识分类、调查与编目技术规定(试行)》。现予以发布。请结合实际工作，参考执行。

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3.1 Use of the genetic resources for agriculture

This kind of TK refers to

- knowledge about domesticating, cultivating and using of cultivated plants or varieties and domesticated animal species or breeding varieties, and utilization of other biological resources;
- knowledge created and cultivated by local community and its people through production and living process in long history.
- knowledge of this kind mainly based on the exploit and utilization of biological resources and genetic resources, such as the local crop varieties, indigenous animal breeds, traditional fruit trees and flowers, and their preservation.

3.1 Use of the genetic resources for agriculture

❖ It includes the following 8 classes:

- (1) Knowledge of traditional usage of crop varieties
- (2) Knowledge of traditional usage of domestic animal varieties resources
- ⑩ Knowledge of traditional usage of aquatic organisms
- ⑩ Knowledge of traditional usage of forest and trees
- ⑩ Knowledge of traditional usage of ornamentals
- ⑩ Knowledge of traditional usage of wild plants
- ⑩ Knowledge of traditional usage of wild animals
- ⑩ Knowledge of traditional usage of microorganism and others





我留的种子，我做主
农作物种子

种子名称：绿豆
特征：以中等粒型品种
数量，颗粒饱满，色
泽。

留种人：李连发
村庄名称：广西新会车湾村

我留的种子，我做主
农作物种子

种子名称：黑豆
特征：青壳仔品种，粒种有皮，时
以心包水，有自然风干种作
食品。

留种人：蔡连法
村庄名称：广西新会车湾村

我留的种子，我做主
农作物种子

种子名称：赤豆
特征：粒种以粒型和粒色
来种做心，壳为青壳仔，以
种壳做心，壳为青壳仔，以
壳壳做心。

留种人：李连发
村庄名称：广西新会车湾村

我留的种子，我做主
农作物种子

种子名称：赤豆
特征：粒种以粒型和粒色
来种做心，壳为青壳仔，以
种壳做心，壳为青壳仔，以
壳壳做心。

留种人：李连发
村庄名称：广西新会车湾村

红
菜
豆
(八月豆)

赤
豆

自
制
饲
料



我留的种子，我做主
农作物种子

种子名称：菜豆(八月豆)
特征：粒种以粒型和粒色
来种做心，壳为青壳仔，以
种壳做心，壳为青壳仔，以
壳壳做心。

留种人：李连发
村庄名称：广西新会车湾村

我留的种子，我做主
农作物种子

种子名称：赤豆
特征：非制粒的食用豆类，颜色红，
品质佳。另外，豆种与猪作食品
类食品。

留种人：李连发
村庄名称：广西新会车湾村

我留的种子，我做主
农作物种子

种子名称：自制饲料
特征：为用青壳仔种，于种壳中
饲料多，青壳仔种，于种壳中
饲料多，青壳仔种，于种壳中
饲料多。

留种人：蔡连法
村庄名称：广西新会车湾村

我留的种子，我做主
农作物种子

种子名称：本地大糯
特征：粒种以粒型和粒色
来种做心，壳为青壳仔，以
种壳做心，壳为青壳仔，以
壳壳做心。

留种人：李连发
村庄名称：广西新会车湾村

农民的种子及传统文化展示交流会
Farmers' Seed & Traditional Culture Exchange Fair
宝山石头城 Stone Village
2013年12月8日 8, Dec, 2013



3.2 Use of medicinal species

This kind of TK refers to

- knowledge of creative, inherited, cumulative medical knowledge, technology and innovation of using medical biological resources.
- knowledge created and cultivated by local community and its people in the long-term to fight against nature and diseases.

3.2 Use of medicinal species

❖ It includes the following 7 classes:

- (1) Traditional medicinal herbs and other organisms
- (2) Traditional medical theory
- (3) Traditional therapy and treatment
- (4) Traditional pharmaceutical technology
- (5) Traditional prescriptions
- ⑩ Traditional knowledge for health care
- ⑩ Others



四部医典

ཨ་མ་བུ་རྩི་སྤྲོད་པོ་ཡན་ལག་བརྒྱུད་པ་

གསལ་བམན་ངག་གི་རྒྱུད་ ཅེས་བྲུབ་བཞུགས་སོ།།

宇妥·元丹贡布著

上海科学技术出版社

一治南蛇症

宜用泡不药尖三粒炮去毒更是对雄黄吃下又方雄黄煎灰大
算把板断入碗中将青神蒙碗中对酒麻下即效

宜用川山甲吃下即效

一治蜈蚣症

又方米草烧山烟子服如痢症即效

一治飞鼠症

宜用三却吃下即止

一治蜈蚣症

宜用杉櫟尖宜用老公雞乙隻将带至毛
壹皮放如肉透山絵水用珠法对掃上即效

一治老鼠症

宜用苗毛信土煨烧灰吃下即效

一治蝮蝎症

宜用蝮蝎采吃下即止

一治羊天症

宜用羊天雲用天炮也烟三味合为吃下即效

一治馬邪症

宜用也烟冲天炮把搗又方宜用虎子乙拿在
手中此虎不是虎比虎比虎化為神虎到白馬



白牡丹

西

地

中

马卡

地道.中药材
马卡

地

3.3 Technical innovations for use of biological resources and traditional farming and lifestyle practices

This kind of TK means practical technologies created by ethnic people and communities in long-term agriculture production and life practices. These technologies, which have positive effects on biodiversity protection and sustainable utilization of biological resources and which are valuable for improving food quality and ensuring food safety, are comprised by traditional ecological agricultural technology and biological resources process technology.



The paddy-field-fish-culture



Dongba paper-making

3.3 Technical innovations for use of biological resources and traditional farming and lifestyle practices

❖ It includes the following 5 classes:

- (1) Traditional eco-farming system
- (2) Traditional handicraft industrial technology (tie dye, spinning, etc)
- (3) Traditional food processing technology
- (4) Traditional eco-planning and designing technology
- ⑩ Traditional craftsmanship and others





forest

village

terrace

river

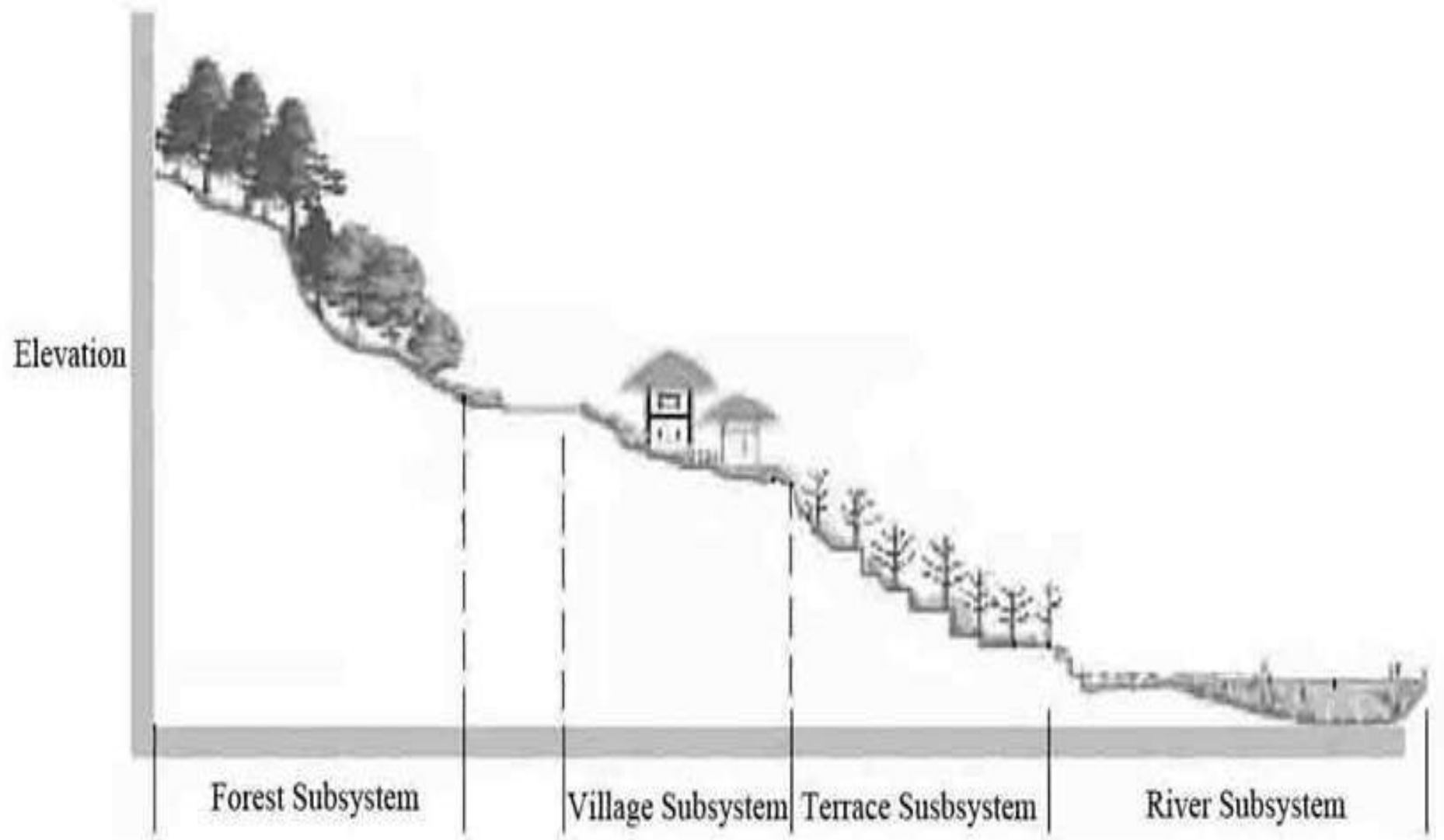


Fig.1. Structure of Hani Terraced Fields Complex Ecosystem





桐粮间作

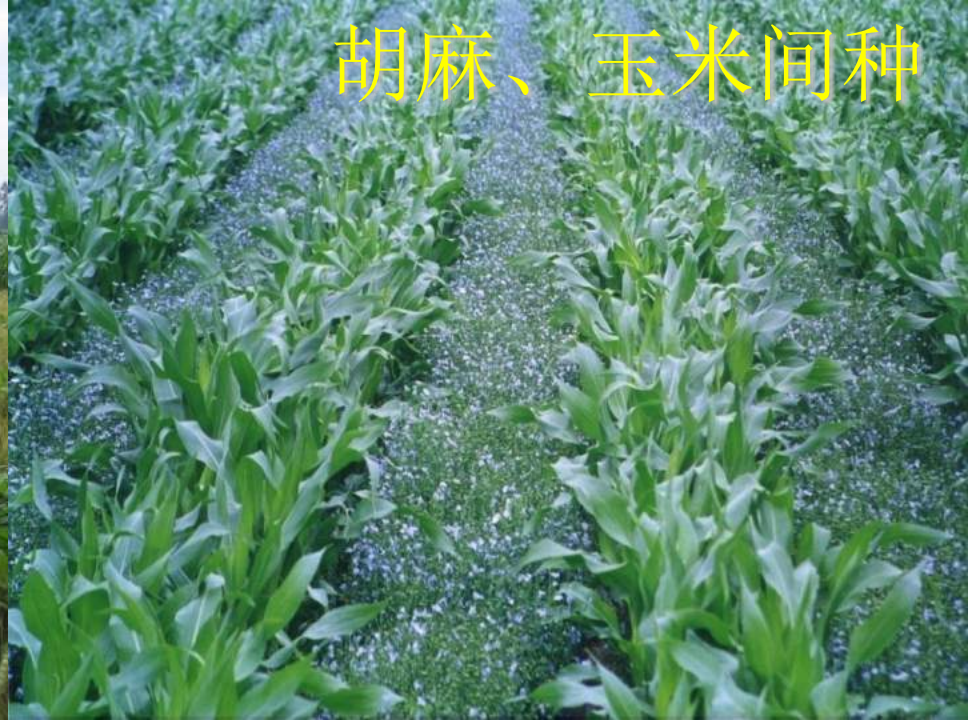
Agro-forestry

Inter-cropping

小麦、大豆间种



胡麻、玉米间种



3.4 Traditional cultures and customary laws related to conservation and sustainable use of biological resources

Knowledge of this kind includes folk art, literature, artificial, and painting that embody biodiversity protection and sustaining use; traditional religion culture, such as totem, religion practices (rituals), and sacred mountains, sacred forest and geomantic omen (Fengshui) with environmental protection awareness in the religion; customary law, village protocol, including biological resources protection and utilization practice of township regulations, clan system, and ethnic customs.



Drung's totemism



Sacred forest

3.4 Traditional cultures and customary laws related to conservation and sustainable use of biological resources

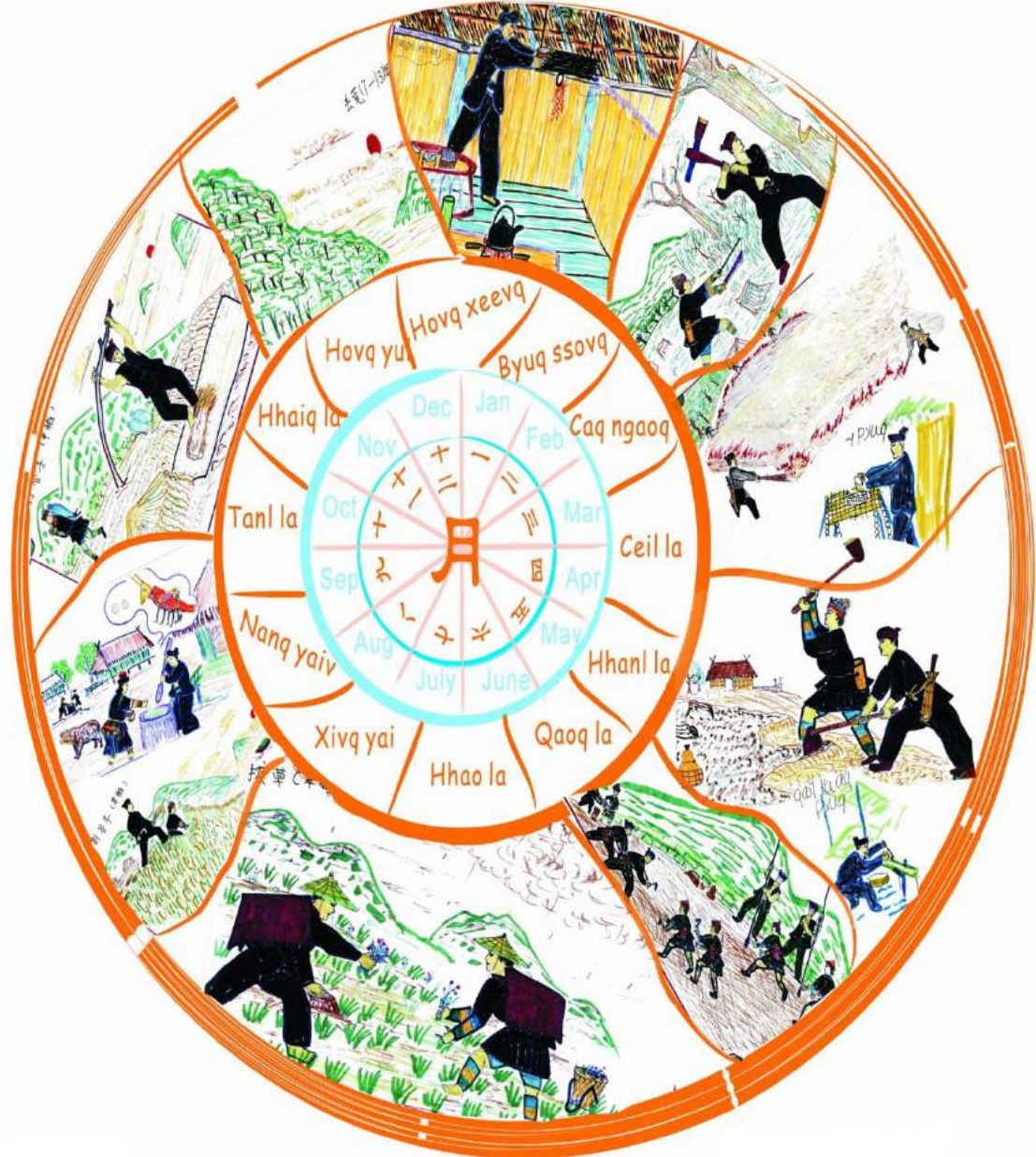
❖ It includes the following 6 classes:

- (1) Traditional religious beliefs and ecological ethics
- (2) Traditional festivals and rituals (sacrificial offerings)
- (3) Customary laws (village protocol)
- (4) Folk arts
- (5) Traditional food and drink culture
- (6) Others



每年定期举办中国芦笙斗马节，提升融水旅游的吸引力

Calendar of
Hani ethnic
people
(Rice cultivation
calendar)



3.5 Traditional geographical indicators (GI) for biological products

Biodiversity-related GI mainly refers to biological resources products in specific areas with excellent reputation and a long history, embodying the special biological resources, environment, social economic and ethnic culture characteristics, blended with traditional variety resources, traditional cultivate technology, traditional sale and diet culture and other traditional knowledge.



Pu'er Tea



3.5 Traditional geographical indicators (GI) for biological products

❖ It includes the following 4 classes:

- (1) Traditional geographic indicators for food products
- (2) Traditional geographic Indicators for medicinal products
- (3) Traditional geographic indicators for art crafts
- ⑩ Others

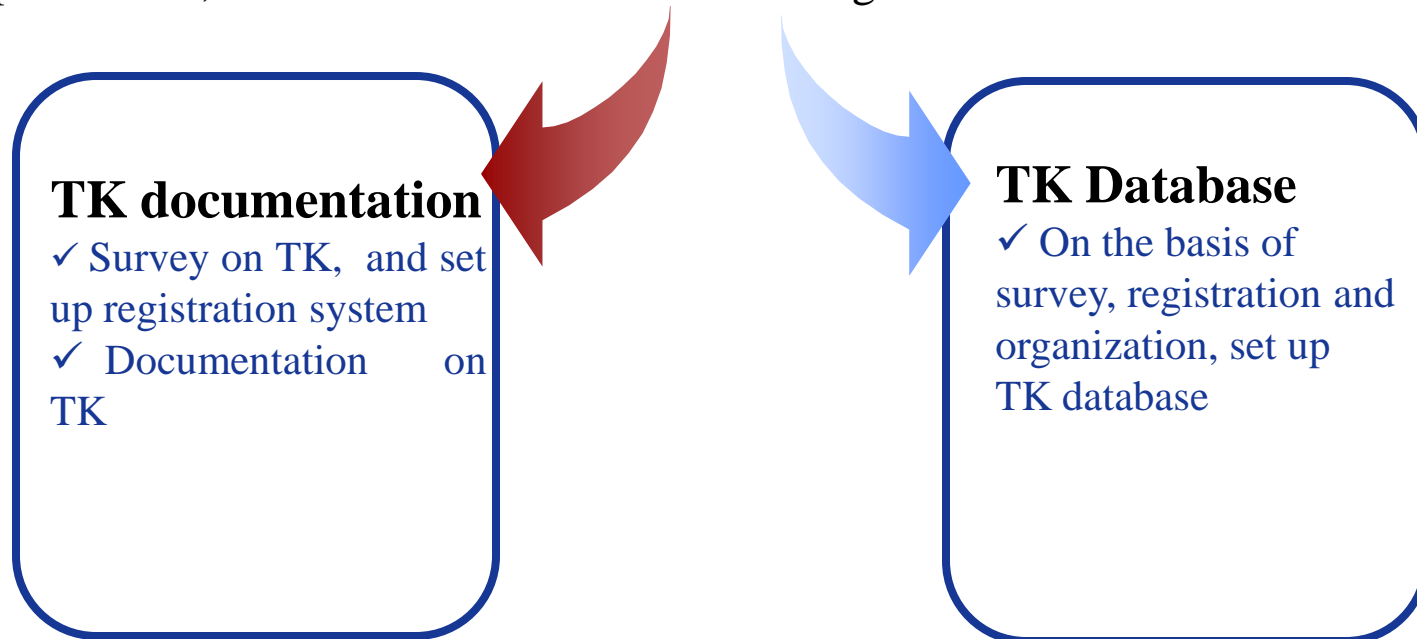


4、 Database of TK in China

TK is facing a lot problems, such as:

- 1) The complicated right-belonging relationship of TK sets back to formulate relevant laws;
- 2) The actual patent system neglects the protection on TK;
- 3) Bio-piracy events occur so frequently that TK are accessed overseas illegally;
- 4) TK also faces the threaten of lose by introducing alien cultures.

To protect TK, we need to consider the following actions.



4、 Database of TK in China

Classification system of TK

- ❖ TK has 5 categories.
- ❖ Each category of TK can be classified into different sub-categories, total is 30 classes.
- ❖ Each class contains a series of vocabulary entries.
- ❖ Entry is the basic unit of TK, described by a series of data

4.1 Contents of Documentation

The basic unit of TK is vocabulary entry (lemma)
 Each entry contains information as follows:

Title	Specification of TK	Owners	ABS	Conservation & utilization	Evaluation	Proof materials
<ul style="list-style-type: none"> ✓TK name ✓Code ✓Attribute ✓Privilege 	<ul style="list-style-type: none"> ✓Background ✓Description ✓Characteristics of TK ✓Spatial and temporal distribution ✓Others 	<ul style="list-style-type: none"> ✓Family or personal ✓Community or group ✓Unit ✓Nation 	<ul style="list-style-type: none"> ✓Internationally recognized certificate ✓Access progressing ✓Common agreed conditions..... 	<ul style="list-style-type: none"> ✓Status of Utilization ✓Threatened Status and factor analysis ✓Protecting measures ✓Case 	<ul style="list-style-type: none"> ✓Economic sense ✓Cultural sense ✓Ecological sense ✓Threatened level ✓Total 	<ul style="list-style-type: none"> ✓Specimen ✓Images ✓Related database ✓Multimedia ✓References ✓Others

4.2 Documentation of TK in China

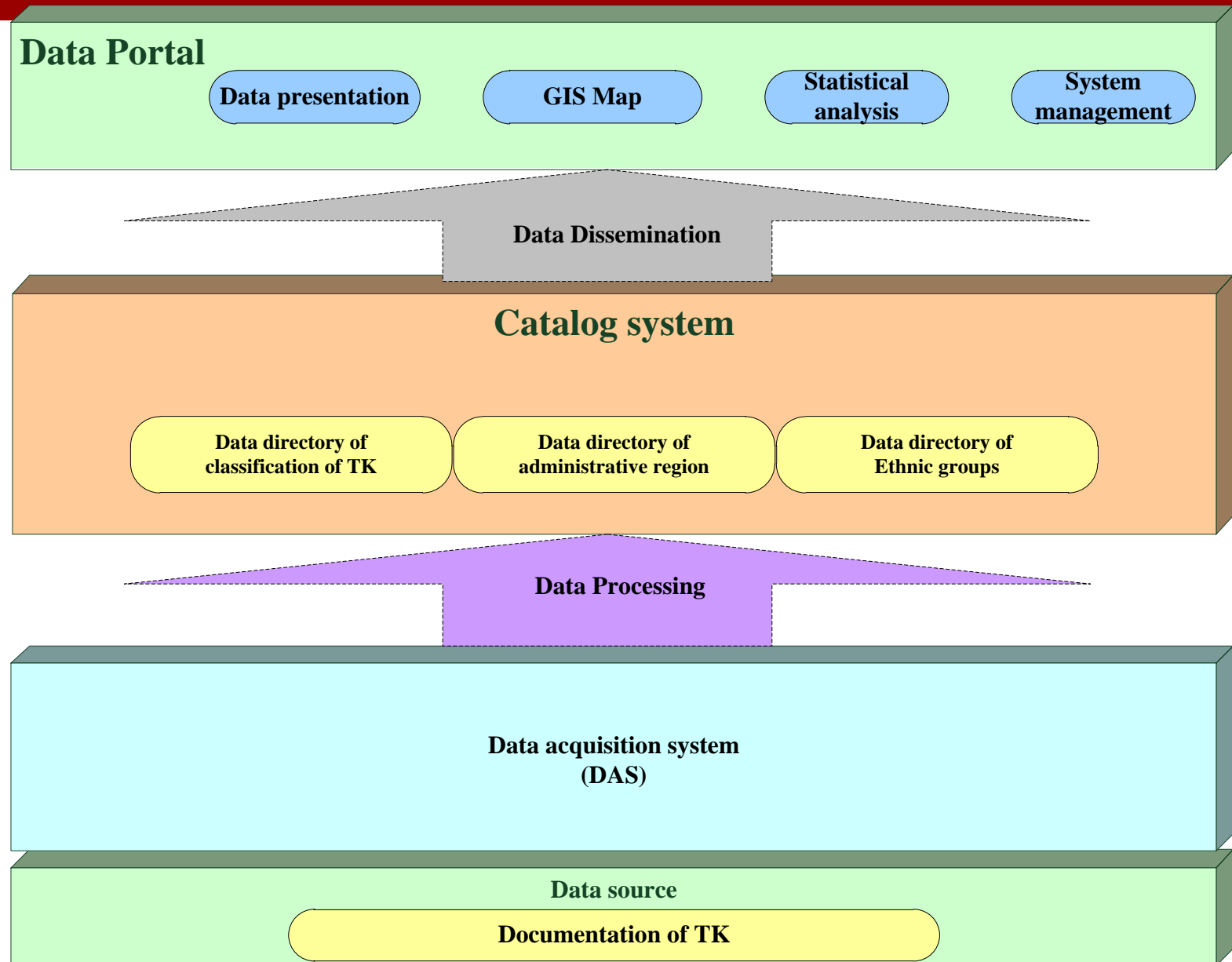
➤ Objectives

- ◆ Management and protect TK in China
- ◆ Promote the sustainable use of TK widely
- ◆ Link TK to modern scientific and patent literature
- ◆ Use database for defensive and positive legal protection
- ◆ Increase International recognition of TK in China

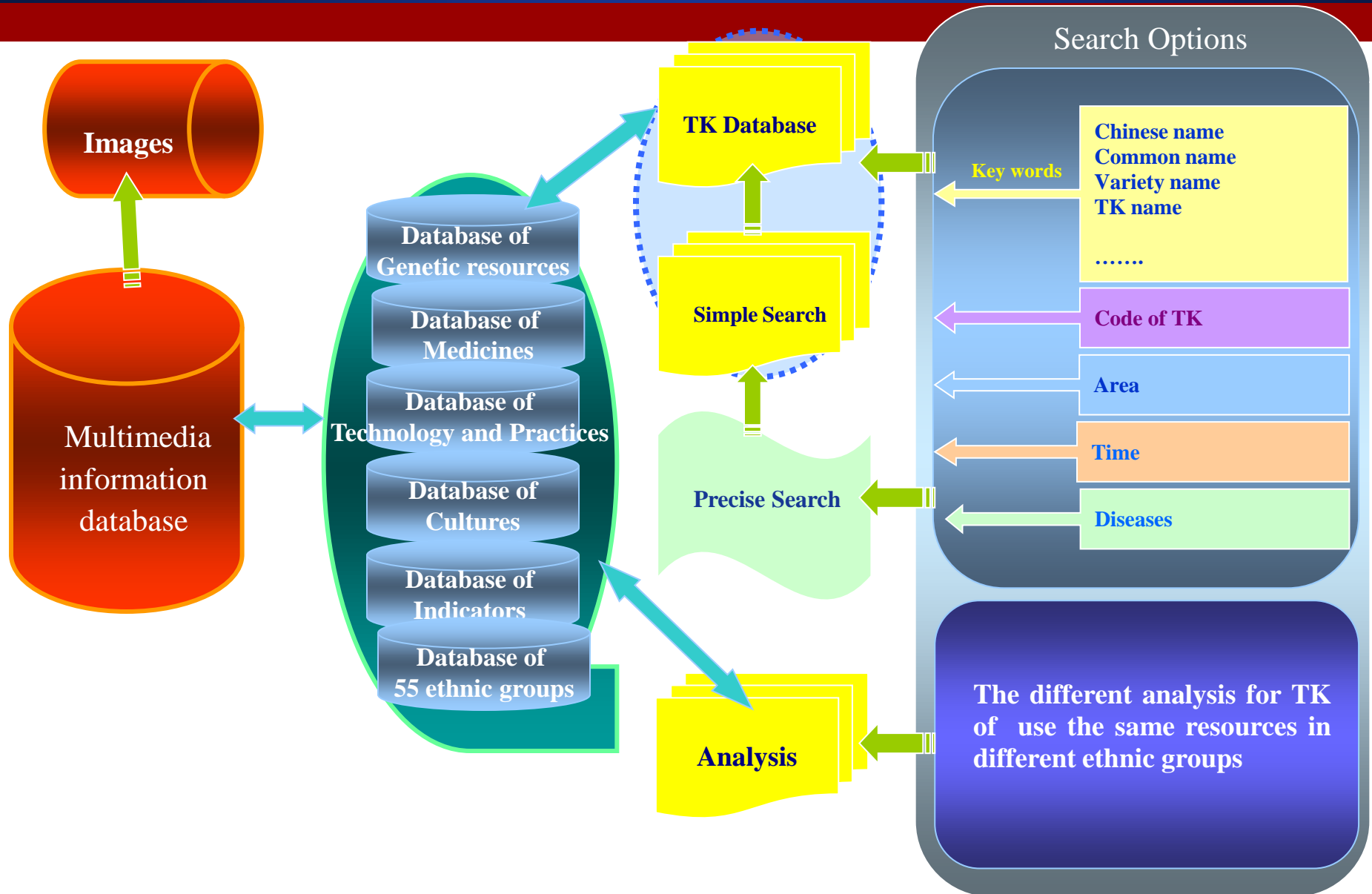
➤ Target Audience

- ◆ International Patent Offices
- ◆ Public
- ◆ Professional Research Experts

4.3 Framework of TKDL of China



Design of TKDL in China



4.4 The index of TKDL in China

According to the classification and documentation system above, the TKDL of China is underway for development.

中国少数民族生物多样性相关传统知识数字图书馆
National Digital Library for the Traditional Knowledge Associated Biodiversity in the Ethnic Areas of China

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薛氏分类查询 民族分类查询 地区分类查询 时间分类查询

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傣族	德昂族	侗族	东乡族	独龙族	鄂伦春族	俄罗斯族
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4.5 Area Search Based on GIS

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Conclusion

- ❖ Conservation and inheritance of TK is beneficial for whole human beings, while loss of TK would lead damage to the human civilization.
- ❖ TKs' sustainable use will technically support ILCs to get benefits from the use of their TK and associated genetic resources
- ❖ It is important to promote the capacity building of ILCs to protect TK and their sustainable use.
- ❖ TKDL is an efficient tool to promote TK's protection and sustainable use, resulting in more benefits to ILCs.
- ❖ There is a trends to develop legislation on TK protection and benefit sharing both in international and national level, but face to a lot of challenges.



Thank You !