



**Lao National Framework on the Access to
Genetic Resources and the Fair and
Equitable Sharing of Benefit Arising
from their Utilization**

**Ministry of Science and Technology
Biotechnology and Ecology Institute**

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Lao National Framework on the Access to Genetic Resources and the Fair and Equitable Sharing of Benefit Arising from their Utilization

Developed by:



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United Nations Environment Programme



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Association of Southeast Asian Nations



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Ministry of Natural Resources and Environment



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INTRODUCTION

Lao National Framework on the Access to Genetic Resources and the Fair and Equitable Sharing of Benefit Arising from their Utilization (ABS) is the combination of policy, legal, administrative and technical instruments that are set in place to insure the fair and equitable sharing of benefits, transparency and verification, contains following components:

- Chapter I: The Government Policy on ABS
- Chapter II: The Regulatory Regime for ABS
- Chapter III: ABS Administrative systems
- Chapter IV: Mechanisms for Public Education Awareness and Participation

The Lao ABS-ACB-UNEP-GEF Project on the development of the Lao National Framework on the Access to Genetic Resources and the Fair and Equitable Sharing of Benefit Arising from their Utilization of Lao People's Democratic Republic started in April, 2012 and ended on October, 2013. The National Executing Agency for the Project was:

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Chapter I

The Government Policy on ABS

1.1 National Socio-Economic Priority Programmes

The eight national socio-economic priority programmes have been devised to channel the Government's development efforts in a focused way towards the 2020 goal. They serve as a major reference for the national planning system, and for defining the national investment priorities. Of these priority programmes, achieving permanent food security, preserving the country's natural resources, and developing the national human resource potential, are given the highest importance.

1.1.1 Food production – The programme aims to ensure food security by increasing food and rice production. It promotes more intensive and diversified food production, including increasing the productivity of rice, the expansion of dry and rainy season irrigation in identified priority plains, improved animal husbandry and crop varieties, and more appropriate use of machinery, fertilizers, manure and pesticide.

1.1.2 Commercial production - The programme seeks to promote investment in commodities including coffee, fruit and forest products, large livestock and fisheries, to encourage exports including hydropower and mining development, to promote light and small-scale industries and handicrafts, and more varied agricultural production. The programme promotes increased commercial production and the development of processing industries and handicraft enterprises as a means to generate income.

1.1.3 Stabilization and reduction of shifting cultivation - The Government wishes to protect forests and the environment by providing sedentary settlements, extension programmes and

start-up resources for shifting cultivators.

1.1.4 Rural development - The intention in this sector is to bring together rural development efforts in an integrated and focused manner within a clearly defined geographical area. The focal sites development strategy is designed to provide development services in an integrated and locally owned way, from the construction of basic transport infrastructure, education and health care facilities to skills development, aimed at improving the living standards in rural areas. Other aims are increasing food and commercial production, creating employment opportunities and establishing the conditions for improved living standards in rural areas, thereby reducing rural-urban disparities and rural to urban migration.

1.1.5 Infrastructure development - The programme seeks to modern national and international communications and transport networks, including roads, bridges, airports and river port facilities, and to expand postal and telecommunication services in all regions, transforming Lao PDR from a landlocked to a 'land linked' sub-regional hub in ASEAN.

1.1.6 Improved socio-economic management and foreign economic relations - Goals are to consolidate the national economic management and reinforce conditions for the high economic growth essential for development. On the domestic side, the programme seeks to promote domestic production and develop rural markets. On the international side, it aims to expand international trade and reduce the external trade deficit, by increasing the quality and quantity of export goods, lifting regulations and mechanisms hampering export-orientated production, securing increased foreign investment, promoting transit trade, re-export and duty-free zones, and preparing for AFTA and WTO membership.

1.1.7 Human resource development - The programme is designed to build capacity at the individual, institutional and community level in nine sub-programmes: (1) Education; (2) Labour and social welfare; (3) Public health; (4) Civil service and public administration; (5) Culture and information; (6) Lao Women's Union; (7) Lao Youth's Union; (8) Lao Federation of Trade Unions; and (9) the Lao Front for National Construction. The objectives are to link training to the Lao PDR's socio-economic goals, to upgrade knowledge and skills, to build managerial and technical capacities, and to enhance leadership.

1.1.8 Services development - The programme aims to generate increased foreign revenue, primarily through the development of the tourism sector. The country is endeavoring to improve tourism infrastructure, to facilitate entry into the Lao PDR by improving procedures, ports-of-entry and transit posts, to develop tourist routes in each region, and to train personnel in the tourism sector.

1.2 The existing policy related to Biological Diversity and ABS

Having regard to the eight national socio - economic priority programmes and achieving the 2020 goal for sustainable development, the concerned line Ministry has established and developed policies related to Biological Diversity as follows:

1.2.1 Biotechnology Research Priorities

The Government of Lao PDR promotes infrastructure investment and provides material equipment and human research development, necessary for national socio-economic development by financial support to research, development and public service in science, biotechnology and advanced technology and determines national research themes in sectoral priorities as follows:

1. Agriculture and forestry biotechnology:
 - Plant and Animal Varieties,
 - Identification and Prevention of Plant and Animal Diseases,
 - Plant Propagation for Reforestation and
 - Soil Resources.
2. Human health biotechnology:
 - Systems of Diseases Identification and Diagnosis,
 - Pharmaceuticals and
 - Human Cloning
3. Industrial biotechnology:
 - Agriculture and Forestry Processing Industries,
 - A biofuels Industry and
 - Environment Protection Industries.
4. Environmental biotechnology:
 - Protection and Conservation Benefits ,
 - Biological Indicators of Environmental Health and
 - Environmental Damage Mitigation and Restoration.

1.2.2 Genetic Identification and Data bases

In accordance with the development of genetic identification and associated data bases, Competent National Authorities will:

1. Identify components of biological resources important for biodiversity conservation and sustainable use having regard to:
 - ecosystems and habitats: containing high biodiversity, large numbers of endemic or threatened species, wilderness; or are required by migratory species;
 - have social, economic, cultural or scientific importance; or are representative, unique or associated with key evolutionary or other biological processes;
 - contain species and communities which are threatened; wild relatives of domesticated or cultivated species; of medicinal, agricultural or other economic

value; or social, scientific or cultural importance; or importance for research into the conservation and sustainable use of genetic resource, such as indicator species; and

- describe genomes and genes and biochemical components of social, scientific or economic importance.
2. Monitor, through sampling and other techniques, the components of biological and genetic resources identified pursuant to subparagraph (1) above, paying particular attention to those requiring urgent conservation measures and those which offer the greatest potential for sustainable use.
 3. Identify processes and categories of activities which have or are likely to have significant adverse impacts on the conservation and sustainable use of biological and genetic resources, and monitor their effects through sampling and other techniques.
 4. Summarize and establish data bases, by using information technology systems, derived from identification and monitoring activities pursuant to subparagraphs above.

1.2.3 In situ conservation

In situ conservation means the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties.

Competent National Authorities will take actions necessary to:

1. Establish a system of protected areas or areas where special measures need to be taken to conserve biological and genetic resources.
2. Develop, where necessary, guidelines for the selection, establishment and management of protected areas or areas where

special measures need to be taken to conserve biological and genetic resources.

3. Regulate or manage biological resources important for the conservation of genetic diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use.
4. Protect ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings.
5. Promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas.
6. Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species through the development and implementation of plans or other management strategies.
7. Establish or maintain the means to regulate, manage or control any risks associated with the use and release of living modified organisms resulting from modern biotechnology which are likely to have adverse environmental impacts that affecting the conservation and sustainable use of genetic resources, taking also into account any risks to human health.
8. Control or eradicate alien species which threaten Lao ecosystems, habitats or species.
9. Provide the conditions needed for compatibility between present uses of biological resources and the conservation of such resources and the sustainable use of its genetic and biochemical components.
10. Develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations.
11. Where a significant adverse effect on genetic resources must, regulate or manage the relevant processes and categories of

activities.

1.2.4 Ex situ conservation

Ex situ conservation means the conservation of components of genetic resources outside their natural habitats. Competent national authorities will take:

1. Establish and maintain facilities for ex-situ conservation of and research on plants, animals and micro-organisms, preferably in the country of origin of genetic resources.
2. Adopt measures for the recovery and rehabilitation of threatened species and for their reintroduction into their natural habitats under appropriate conditions.
3. Regulate and manage collection of genetic resources from natural habitats for ex-situ conservation purposes so as not to threaten ecosystems and in-situ populations of species, except where special temporary ex-situ measures are required under subparagraph above.

1.2.5 Accesses and Benefit Sharing to Genetic Resources

Recognizing the Lao peoples' sovereign rights over its natural resources, the Government of Lao PDR has determined the principles to access to its genetic resources and benefit sharing from its uses by ensuring the benefits arising from the utilization of Lao genetic resources as well as subsequent applications and commercialization will be shared in a fair and equitable way and upon mutually agreed terms, in accordance with Article 15, paragraphs 3 and 7 of the Convention on Biological Diversity.

The Lao PDR will take legislative, administrative or policy measures, as it decides appropriate, with the aim of ensuring that benefits arising from the utilization of genetic resources that are held by indigenous and local communities, in accordance with Lao legislation or policy regarding the established rights of these indigenous and local

communities over their genetic resources, are shared in a fair and equitable way with the communities concerned, based on mutually agreed terms.

The Lao PDR ensures that benefits may include monetary and non-monetary benefits, including but not limited to those listed in the Annex to the Nagoya Protocol and takes legislative, administrative or policy measures, as it decides, in order that the benefits arising from the utilization of traditional knowledge associated with genetic resources are also shared in a fair and equitable way with indigenous and local communities holding such knowledge and that such sharing shall be upon mutually agreed terms.

In implementing these principles the Lao PDR will:

1. Provide for legal certainty, clarity and transparency of its access and benefit-sharing legislation and regulatory requirements;
2. Provide for fair and non-arbitrary rules and procedures on accessing genetic resources;
3. Provide information on how to apply for prior informed consent;
4. Provide for clear and transparent written decisions by its competent national authorities, in a cost-effective manner and within a reasonable period of time;
5. Provide for the issue at the time of access of a permit or its equivalent as evidence of the decision to grant prior informed consent and of the establishment of mutually agreed terms, and notifying the Nagoya Protocol Access and Benefit-sharing Clearing-House accordingly;
6. Setting out criteria and/or processes for obtaining prior informed consent or approval and for the involvement of indigenous and local communities for access to genetic resources; and

7. Establishing clear rules and procedures for requiring and establishing mutually agreed terms. These terms will be in writing and will include, inter alia:
 - (1) A dispute settlement clause;
 - (2) Terms on benefit-sharing, including in relation to intellectual property rights;
 - (3) Terms on subsequent third-party use, if any; and
 - (4) Terms on changes of intent, where applicable.

1.2.6 Traditional Knowledge

Subject to the establishment of broader traditional knowledge principles, the Government of Lao PDR:

1. Respect, preserve and maintain knowledge innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of genetic diversity.
2. Promote their wider application with the approval and innovations of the holders of such knowledge, innovation and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.
3. Protect and encourage customary use of genetic resources in accordance with traditional cultural practices that are compatible with conservation and sustainable use requirement.
4. Support local populations to develop and implement remedial action in degraded areas where genetic diversity has been reduced, and Encourage cooperation between governmental authorities and the private sector in developing methods for the sustainable use of genetic resources associated with traditional knowledge.

In implementing these principles the Government of Lao PDR will take measures with the aim of ensuring that traditional knowledge associated with genetic resources held by indigenous and local communities is accessed with the prior and informed consent or approval and involvement of these indigenous and local communities, and that mutually agreed terms have been established.

To secure this aim the Government of the Lao PDR will:

1. Take into consideration indigenous and local communities' customary laws, community protocols and procedures, as applicable, with respect to traditional knowledge associated with genetic resources.
2. With the effective participation of the indigenous and local communities concerned, will establish mechanisms to inform potential users of traditional knowledge associated with genetic resources about their obligations, including measures as made available through the Nagoya Protocol Access and Benefit-sharing Clearing-House for access to and fair and equitable sharing of benefits arising from the utilization of such knowledge.
3. Support, as appropriate, the development by indigenous and local communities, including women within these communities, of:
 - (1) Community protocols relating to access to traditional knowledge associated with genetic resources and the fair and equitable sharing of benefits arising out of the utilization of such knowledge;
 - (2) Minimum requirements for mutually agreed terms to secure the fair and equitable sharing of benefits arising from the utilization of traditional knowledge associated with genetic resources; and

- (3) Model contractual clauses for benefit-sharing arising from the utilization of traditional knowledge associated with genetic resources.
4. As far as possible, not restrict the customary use and exchange of genetic resources and associated traditional knowledge within and amongst indigenous and local communities in accordance with the objectives of the Convention on Biological Diversity.

1.2.7 Intellectual Property right

Recognizing that technology includes biotechnology, and that both access to and transfer of technology among Contracting Parties are essential elements for the conservation and sustainable use of genetic resources that do not cause significant damage to the environment and human health.

In the case of technology subject to patents and other intellectual property rights, such access and transfer shall be provided on terms that recognize and are consistent with the adequate and effective protection of intellectual property rights. The Government of Lao PDR will:

1. Take legislative measures, as appropriate, with the aim that access to genetic resources and the transfer of technology which makes use of those resources, is undertaken on mutually agreed terms, including where such technology is held and protected by patents and other intellectual property rights.
2. Take measures, as appropriate, with the aim that the private sector facilitates access to, joint development and transfer of technology for the benefit of both governmental institutions and the private sector of developing countries.
3. Ensure that Lao national legislation support international law to which it is a party on intellectual property rights and does not run counter to its objectives.

1.3 The development policy related to ABS

The objective of Lao ABS Development Policy is to take legislative and administrative measures for the fair and equitable sharing of the benefits arising from the utilization of genetic resources by providing greater legal certainty and transparency for both providers and users of its genetic resources.

Specific obligations to support compliance with Lao domestic legislation or regulatory requirements of the Party providing genetic resources and contractual obligations reflected in mutually agreed terms are a significant innovation of the Nagoya Protocol. These compliance provisions as well as provisions establishing more predictable conditions for access to genetic resources contribute to ensuring the sharing of benefits when genetic resources leave Lao PDR. Also, the ABS policy's provisions on access to traditional knowledge held by indigenous and local communities when it is associated with genetic resources strengthens the ability of these communities to benefit from the use of their knowledge, innovations and practices.

Lao Competent National Authorities will determine necessary principles for the proper implementation of the following issues as set out in the following Articles of the Nagoya Protocol:

- 1.** ABS scope;
- 2.** Relationship with international agreements and instruments;
- 3.** Fair and equitable benefit-sharing;
- 4.** Access to genetic resources;
- 5.** Access to traditional knowledge associated with genetic resources;
- 6.** Special considerations;
- 7.** Contribution to conservation and sustainable use;
- 8.** Global multilateral benefit-sharing mechanism;
- 9.** Transboundary cooperation;
- 10.** Traditional knowledge associated with genetic resources;

11. National focal points and competent national authorities;
12. The access and benefit-sharing clearing-house and information-sharing;
13. Compliance with domestic legislation or regulatory requirements on access and benefit-sharing;
14. Compliance with domestic legislation or regulatory requirements on access and benefit-sharing for traditional knowledge associated with genetic resources;
15. Monitoring the utilization of genetic resources;
16. Compliance with mutually agreed terms;
17. Model contractual clauses;
18. Codes of conduct, guidelines and best practices and/or standards;
19. Awareness-raising;
20. Capacity;
21. Technology transfer, Collaboration and cooperation.

1.3.1 Policy on ABS regulation

The Government of Lao PDR will make and translate this National Policy on Biological Diversity and ABS into its national framework on law, regulation, technical guidelines, plans and detailed project for the ABS management and monitoring.

1.3.2 Policy on ABS Administrative Systems

Access and benefit-sharing systems will be based on an overall access and benefit-sharing strategy at the country or regional level. This access and benefit-sharing strategy should aim at the conservation and sustainable use of biological diversity, and may be part of a national biodiversity strategy and action plan and promote the equitable sharing of benefits. The steps involved in the process of obtaining access to genetic resources and sharing of benefits may include activities prior to access, research and development conducted on the genetic resources, as well as their commercialization and other uses, including benefit-

sharing. The objectives of ABS Administrative systems are the following:

1. To contribute to the conservation and sustainable use of biological diversity;
2. To provide Competent National Authorities and stakeholders with a transparent framework to facilitate access to genetic resources and ensure fair and equitable sharing of benefits;
3. To provide guidance to Competent National Authorities in the development of access and benefit-sharing regimes;
4. To inform the practices and approaches of stakeholders (users and providers) in access and benefit-sharing arrangements;
5. To provide capacity-building to guarantee the effective negotiation and implementation of access and benefit-sharing arrangements, especially to developing countries, in particular least developed countries and small island developing States among them;
6. To promote awareness on implementation of relevant provisions of the Convention on Biological Diversity;
7. To promote the adequate and effective transfer of appropriate technology to providing Parties, especially developing countries, in particular least developed countries and small island developing States among them, stakeholders and indigenous and local communities;
8. To promote the provision of necessary financial resources to providing countries that are developing countries, in particular least developed countries and small island developing States among them, or countries with economies in transition with a view to contributing to the achievement of the objectives mentioned above;
9. To strengthen the clearing-house mechanism as a mechanism for cooperation among Parties in access and benefit-sharing;

10. To contribute to the development by Competent National Authorities of mechanisms and access and benefit-sharing regimes that recognize the protection of traditional knowledge, innovations and practices of indigenous and local communities, in accordance with domestic laws and relevant international instruments;
11. To contribute to poverty alleviation and be supportive to the realization of human food security, health and cultural integrity, especially in developing countries, in particular least developed countries and small island developing States among them;
12. Taxonomic research, as specified in the Global Taxonomy Initiative, should not be prevented, and providers should facilitate acquisition of material for systematic use and users should make available all information associated with the specimens thus obtained.

1.3.3 Policy on ABS Public Awareness, Education and Participation

Competent National Authority will take measures to raise awareness of the importance of genetic resources and traditional knowledge associated with genetic resources, and related access and benefit-sharing issues. Such measures may include, *inter alia*:

1. Promotion of this Protocol, including its objective;
2. Organization of meetings of indigenous and local communities and relevant stakeholders;
3. Establishment and maintenance of a help desk for indigenous and local communities and relevant stakeholders;
4. Information dissemination through a national clearing-house;
5. Promotion of voluntary codes of conduct, guidelines and best practices and/or standards in consultation with indigenous and local communities and relevant stakeholders;

6. Promotion of, as appropriate, domestic, regional and international exchanges of experience;
7. Education and training of users and providers of genetic resources and traditional knowledge associated with genetic resources about their access and benefit-sharing obligations;
8. Involvement of indigenous and local communities and relevant stakeholders in the implementation of this Protocol; and
9. Awareness-raising of community protocols and procedures of indigenous and local communities.

1.4 The status of Lao PDR with respect to ratification of Convention on Biological Diversity (CBD) and access to the Nagoya Protocol on ABS

The Convention on Biological Diversity (CBD) was opened for signature at the Earth Summit in Rio de Janeiro in 1992, and entering into force in December 1993, the CBD is an international treaty for the conservation of biodiversity, the sustainable use of the components of biodiversity and the equitable sharing of the benefits derived from the use of genetic resources. The Government of Lao PDR has acceded to the CBD on September 20, 1996. With 193 Parties, the Convention has near universal participation among countries. The CBD seeks to address all threats to biodiversity and ecosystem services, including threats from climate change, through scientific assessments, the development of tools, incentives and processes, the transfer of technologies and good practices and the full and active involvement of relevant stakeholders including indigenous and local communities, youth, NGOs, women and the business community.

Heads of State and Government at the World Summit on Sustainable Development, held in Johannesburg in September 2002 first recognized the need for an international regime to promote and safeguard the fair and equitable sharing of benefits and called for negotiations to be carried out within the framework of the Convention on Biological

Diversity. The Conference of the Parties to the Convention responded at its seventh meeting, in 2004, by mandating its Ad Hoc Open-ended Working Group on Access and Benefit-sharing to elaborate and negotiate an international regime on access to genetic resources and benefit-sharing to effectively implement Articles 15 (Access to genetic resources) and 8(j) (Traditional knowledge) of the Convention and its three objectives.

The Nagoya Protocol significantly advances the objective of the CBD on the fair and equitable sharing of benefits arising from the utilization of genetic resources by providing greater legal certainty and transparency for both providers and users of genetic resources. It contains specific obligations applying to all Parties to the Nagoya Protocol to support compliance with domestic legislation or regulatory requirements of the Party providing genetic resources and contractual obligations reflected in mutually agreed terms. This is a significant innovation of the Protocol. These compliance provisions as well as provisions establishing more predictable conditions for access to genetic resources contribute to ensuring benefit-sharing when genetic resources leave a Party providing genetic resources. Also, the Protocol's provisions on access to traditional knowledge held by indigenous and local communities when it is associated with genetic resources strengthens the ability of these communities to benefit from the use of their knowledge, innovations and practices.

By promoting the use of genetic resources and associated traditional knowledge, and by strengthening the opportunities for fair and equitable sharing of benefits from their use, the Protocol creates incentives to conserve biodiversity, sustainably use its components, and further enhance the contribution of biodiversity to sustainable development and human well-being.

At CBD COP 11 in Hyderabad, October 08-19, 2012, Parties demonstrated a clear commitment towards the early entry into force and implementation of the Nagoya Protocol. Parties agreed on activities for

the next biennium, including the reconvening of the Open-ended Ad Hoc Intergovernmental Committee for the Nagoya Protocol for a third meeting in preparation for the first meeting of the COP-MOP. The eleventh meeting of the Conference of the Parties also provided guidance to the Global Environment Facility (the financial mechanism of the Protocol) to support the Nagoya Protocol, emphasizing the importance of financial and technical support aimed at promoting its ratification.

The Lao PDR is the 6th Party to the CBD to deposit its instrument of ratification for the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity. This was done on September 26, 2012. Nagoya Protocol enters into force 90 days after the deposit of the fiftieth instrument of ratification.

Chapter II

The Regulatory Regime for ABS

The objective of regulatory regime for ABS is to establish and develop legislative and policy frameworks for the fair and equitable sharing of the benefits arising from the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding, thereby contributing to the conservation of biological diversity and the sustainable use of its components through law, President's Decrees, Prime Minister's Decrees, Minister's Orders, Guidelines and Manuals.

2.1 The categorizing of Lao regulatory instruments

The different types of regulatory instruments of Lao PDR at the various levels are categorized as follows:

1. Level 1: includes National Constitution;
2. Level 2: includes Laws that approved by Lao National Assembly;
3. Level 3: includes President's Decrees that approved by Lao Government and Permanent Secretarial Committee of National Assembly;
4. Level 4: includes Prime Minister's Decrees that approved by Lao Government;
5. Level 5: includes Minister's Orders that approved by Concerning Ministries;
6. Level 6: includes Guidelines and manuals as non - legally binding instruments that approved by concerning Committees, Department or Institutions.

2.2 The draft of Law on Genetic Resources

The draft of Law on Genetic Resources (including the Access to Genetic Resources and Traditional Knowledge and the Fair and Equitable Sharing of Benefits Arising from their Utilizations) as be considered by Lao Government and will be considered by Lao National Assembly.

The draft of Genetic Resources Law includes as following:

PART 1-PRELIMINARY PROVISIONS

Article 1 Title of Act and Commencement

1. Law on Genetic Resources;
2. Law on the Utilization of Genetic Resources;
3. Law on Access and Benefits Sharing from the Utilization of Genetic Resources;
4. Law on Access and the Fair and Equitable Sharing of Benefits Arising from the Utilization of Genetic Resources;
5. Law on Access and the Fair and Equitable Sharing of Benefits Arising from the Utilization of Genetic Resources and Traditional Knowledge;
6. Law on Access to Genetic Resources and Traditional Knowledge and the Fair and Equitable Sharing of Benefits Arising from their Utilizations.

Article 2 Objectives

The objective of this Genetic Resources Law is to implement Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity. Lao PDR deposited its instrument of ratification to the Protocol on September 26, 2012.

Article 3 Use of Terms

The terms shall apply to the ABS Law:

1. “Biological diversity” means the variability among living organisms from all sources including, inter alia, terrestrial,

marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

2. "Biological resources" includes genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity.
3. "Biotechnology" means any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use.
4. "Country of origin of genetic resources" means the country which possesses those genetic resources in in-situ conditions.
5. "Country providing genetic resources" means the country supplying genetic resources collected from in-situ sources, including populations of both wild and domesticated species, or taken from ex-situ sources, which may or may not have originated in that country.
6. "Derivative" means a naturally occurring biochemical compound resulting from the genetic expression or metabolism of biological or genetic resources, even if it does not contain functional units of heredity.
7. "*ex situ* conservation" means the conservation of components of genetic resources outside their natural habitats
8. "Genetic material" means any material of plant, animal, microbial or other origin containing functional units of heredity.
9. "Genetic resources" means any material of plant, animal, microorganism and other origin of actual or potential value, that contain functional units of heredity.
10. "in situ conservation" means the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties.

11. “in situ conditions” means conditions where genetic resources exist within ecosystems and natural habitats, and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties.
12. “Utilization of genetic resources” means to conduct research and development on the genetic and/or biochemical composition of genetic resources, including through the application of biotechnology.

Article 4 Scope

The scope of the Genetic Resources Law shall apply:

1. to biological material containing genetic resources;
2. to genetic resources;
3. to the benefits arising from the utilization of such resources;
4. to traditional knowledge associated with genetic resources; and
5. to the benefits arising from the utilization of such knowledge.

PART II - COMPETENT NATIONAL, MANAGEMENT AND MONITORING AUTHORITIES

Article 5 Competent National Authority on ABS

Competent National Authorities on ABS, where they are established as technical a coordinating committee, will, in accordance with applicable national legislative and administrative or policy measures, be responsible for approving access and be responsible for technical advice to the Management and Monitoring Organization on ABS on:

1. The negotiating process;
2. Requirements for obtaining prior informed consent and entering into mutually agreed terms;
3. Monitoring and evaluation of access and benefit-sharing agreements;

4. Implementation and enforcement of access and benefit-sharing agreements;
5. Processing of applications and approval of agreements;
6. The conservation and sustainable use of the genetic resources accessed;
7. Mechanisms for the effective participation of different stakeholders, as appropriate for the different steps in the process of access and benefit-sharing, in particular, indigenous and local communities; and
8. Mechanisms for the effective participation of indigenous and local communities while promoting the objective of having decisions and processes available in a language understandable to relevant indigenous and local communities.

Article 6 Management and Monitoring Organization on ABS

Management and Monitoring Organization on ABS includes:

1. The Ministry of Science and Technology, being the management and monitoring organization on ABS at the central level;
2. If any other Ministries are required to establish management and monitoring organizations on biotechnology and ABS, they have to cooperate with the Ministry of Science and Technology;
3. Provinces, municipalities, cities and special zones shall establish their own management and monitoring units on biotechnology and ABS in cooperation with the Ministry of Science and Technology; and
4. Districts and prefectures shall establish their own management and monitoring units on biotechnology and ABS in cooperation with management and monitoring units at the provincial, municipal, city and special zone level in which they are located.

PART III - ACCESS TO GENETIC RESOURCES AND TRADITIONAL KNOWLEDGE

Article 7 Access to genetic resources

In the exercise of sovereign rights over its natural resources, access to genetic resources for their utilization shall be subject to the prior informed consent of the Lao PDR as exercised through the Lao PDR Competent National Authorities on ABS (National Competent Authorities) when providing such resources where Lao is the country of origin of such resources or has acquired the genetic resources in accordance with the CBD.

Competent National Authorities on ABS shall take measures, as appropriate, with the aim of ensuring that the prior informed consent or approval and involvement of indigenous and local communities is obtained for access to genetic resources where they have the established right to grant access to such resources.

Requiring prior informed consent, and subject to the necessary legislative, administrative or policy measures, Competent National Authorities on ABS shall:

1. Provide legal certainty, clarity and transparency in their application of access and benefit - sharing legislation or regulatory requirements;
2. Provide for fair and non-arbitrary rules and procedures on accessing genetic resources;
3. Provide information on how to apply for prior informed consent;
4. Provide a clear and transparent written decision signed by the competent national authority, in a cost-effective manner and within a reasonable period of time;
5. Provide for the issuance at the time of access of a permit or its equivalent as evidence of the decision to grant prior informed consent and of the establishment of mutually agreed terms, and notify the Access and Benefit-sharing Clearing-House accordingly;

6. Where applicable, and subject to Lao PDR legislation, set out criteria and/or processes for obtaining prior informed consent or approval and involvement of indigenous and local communities for access to genetic resources; and
7. Establish clear rules and procedures for requiring and establishing mutually agreed terms. Such terms shall be set out in writing and may include, inter alia:
 - (1) A dispute settlement clause;
 - (2) Terms on benefit-sharing, including in relation to intellectual property rights;
 - (3) Terms on subsequent third-party use, if any; and
 - (4) Terms on changes of intent, where applicable.

Article 8 Contribution to conservation and sustainable use

Lao Competent National Authorities on ABS shall encourage users and providers to direct benefits arising from the utilization of genetic resources towards the conservation of biological diversity and the sustainable use of its components.

Article 9 Traditional knowledge associated with genetic resources

In accordance with Lao PDR law, policies and administrative measures, Competent National Authorities on ABS shall take into consideration indigenous and local communities' customary laws, community protocols and procedures, as applicable, with respect to traditional knowledge associated with genetic resources.

With the effective participation of the indigenous and local communities concerned, Competent National Authorities on ABS shall establish mechanisms to inform potential users of traditional knowledge associated with genetic resources about their obligations, including measures as made available through the Access and Benefit-sharing Clearing-House for access to and fair and equitable sharing of benefits arising from the utilization of such knowledge.

Competent National Authorities on ABS shall endeavour to support, as appropriate, the development by indigenous and local communities, including women within these communities, of:

1. Community protocols in relation to access to traditional knowledge associated with genetic resources and the fair and equitable sharing of benefits arising out of the utilization of such knowledge;
2. Minimum requirements for mutually agreed terms to secure the fair and equitable sharing of benefits arising from the utilization of traditional knowledge associated with genetic resources;
3. Model contractual clauses for benefit-sharing arising from the utilization of traditional knowledge associated with genetic resources,
4. As far as possible, not restrict the customary use and exchange of genetic resources and associated traditional knowledge within and amongst indigenous and local communities

Article 10 Access to traditional knowledge associated with genetic resources

Competent National Authorities shall take measures, as appropriate, with the aim of ensuring that traditional knowledge associated with genetic resources that is held by indigenous and local communities is accessed with their prior and informed consent or approval and involvement and that mutually agreed terms have been established.

Article 11 Special Considerations

In the development and implementation of Lao PDR access and benefit-sharing legislation or regulatory requirements, Competent National Authorities on ABS shall:

1. Create conditions to promote and encourage research which contributes to the conservation and sustainable use of biological

diversity, including through simplified measures on access for non-commercial research purposes, taking into account the need to address a change of intent for such research. The minimum conditions for such simplified conditions may include that the user:

- (1) does not intend to use the biological resources, to which the proposed action relates, for commercial purposes;
 - (2) undertakes to give a written report on the results of any research on the biological resources to the Competent Authority on ABS;
 - (3) undertakes to offer a taxonomic duplicate of each sample taken, to an Lao public institution that is a repository of taxonomic specimens of the same order or genus as those collected, for permanent loan or such institution as the Competent Authority on ABS may determine;
 - (4) undertakes not to give the sample to any person, other than the institution mentioned in paragraph iii above, without permission of the Lao PDR; and
 - (5) undertakes not to carry out, or allow others to carry out, research or development for commercial purposes on any genetic resources, or biochemical compounds, comprising or contained in the biological resources unless a benefit sharing agreement has been entered into.
2. Pay due regard to cases of present or imminent emergencies that threaten or damage human, animal or plant health, as determined nationally or internationally. Competent National Authorities on ABS may take into consideration the need for expeditious access to genetic resources and expeditious fair and

equitable sharing of benefits arising out of the use of such genetic resources, including access to affordable treatments by those in need, especially in the Lao PDR and developing countries;

3. Consider the importance of genetic resources for food and agriculture and their special role for food security.

PART IV- BENEFIT-SHARING

Article 12 Fair and equitable benefit-sharing

Benefits arising from the utilization and subsequent applications and commercialization of Lao PDR genetic resources or from genetic resources it has acquired in accordance with the CBD form shall be shared in a fair and equitable way. Such sharing shall be upon mutually agreed terms.

In accordance with Lao PDR legislation, policies and administrative measures, Competent National Authorities on ABS shall aim to ensure that benefits arising from the utilization of genetic resources held by indigenous and local communities, in accordance with Lao PDR legislation or policies regarding the established rights of these indigenous and local communities over these genetic resources, are shared in a fair and equitable way with the communities concerned and are based on mutually agreed terms.

Benefits may include monetary and non-monetary benefits, including but not limited to those listed in the Annex to the Nagoya Protocol.

In accordance with Lao PDR legislation, policies and administrative measures Competent National Authorities on ABS shall also aim to ensure that the benefits arising from the utilization of traditional knowledge associated with genetic resources are shared in a fair and equitable way with indigenous and local communities holding such knowledge. Such sharing shall be upon mutually agreed terms.

PART V- AWARENESS AND ACCESS TO INFORMATION

Article 13 Public Awareness and Participation

National Competent Authorities on ABS shall take measures to raise awareness of the importance of genetic resources and traditional knowledge associated with genetic resources, and related access and benefit sharing issues. Such measures may include:

1. Promotion of this ABS National Framework, including its objective;
2. Organization of meetings of indigenous and local communities and relevant stakeholders;
3. Establishment and maintenance of a help desk for indigenous and local communities and relevant stakeholders;
4. Information dissemination through a national clearing-house;
5. Promotion of voluntary codes of conduct, guidelines and best practices and/or standards in consultation with indigenous and local communities and relevant stakeholders;
6. Promotion of, as appropriate, domestic, regional and international exchanges of experience;
7. Education and training of users and providers of genetic resources and traditional knowledge associated with genetic resources about their access and benefit-sharing obligations;
8. Involvement of indigenous and local communities and relevant stakeholders in the implementation of this Protocol; and
9. Awareness-raising of community protocols and procedures of indigenous and local communities.

Article 14 International Information Sharing and the ABS Clearing House

An Access and Benefit Sharing Clearing-House serving as a means for sharing of information related to access and benefit-sharing and providing legal certainty and acting as a key link to compliance

measures introduced by all countries is established under the Nagoya Protocol. In particular, provides access to information made available by each Party, without prejudice to the protection of confidential information. The Lao Competent National Authorities on ABS shall make available to the Access and Benefit-sharing Clearing-House the following information:

1. Legislative, administrative and policy measures on access and benefit-sharing;
2. Information on the national focal point and competent national authority or authorities;
3. Permits or their equivalent issued at the time of access as evidence of the decision to grant prior informed consent and of the establishment of mutually agreed terms.
4. Relevant competent authorities of indigenous and local communities, and information as so decided;
5. Model contractual clauses;
6. Methods and tools developed to monitor genetic resources; and
7. Codes of conduct and best practices.

PART VI - CAPACITY, TECHNOLOGY TRANSFER AND COOPERATION

Article 15 Capacity

Lao National Competent Authorities on ABS shall internationally cooperate in the capacity-building, capacity development and strengthening of human resources and institutional capacities, including through existing global, regional, sub regional and national institutions and organizations, by facilitated the involvement of indigenous and local communities and relevant stakeholders, including non-governmental organizations and the private sector.

Lao National Competent Authorities on ABS shall identify national capacity needs and priorities through its national capacity self-assessments. In doing so, it will support the capacity needs and

priorities of indigenous and local communities and relevant stakeholders, as identified by them, emphasizing the capacity needs and priorities of women. Capacity-building and development may address, among other things, the following:

1. Capacity to implement, and to comply with the obligations of the ABS Nagoya Protocol;
2. Capacity to negotiate mutually agreed terms;
3. Capacity to develop, implement and enforce domestic legislative, administrative or policy measures on access and benefit-sharing;
4. Capacity of countries to develop their endogenous research capabilities to add value to their own genetic resources.
5. Legal and institutional development;
6. Promotion of equity and fairness in negotiations, such as training to negotiate mutually agreed terms;
7. The monitoring and enforcement of compliance;
8. Employment of best available communication tools and Internet-based systems for access and benefit-sharing activities;
9. Development and use of valuation methods;
10. Bioprospecting, associated research and taxonomic studies;
11. Technology transfer, and infrastructure and technical capacity to make such technology transfer sustainable;
12. Enhancement of the contribution of access and benefit-sharing activities to the conservation of biological diversity and the sustainable use of its components;
13. Special measures to increase the capacity of relevant stakeholders in relation to access and benefit-sharing; and
14. Special measures to increase the capacity of indigenous and local communities with emphasis on enhancing the capacity of women within those communities in relation to access to

genetic resources and/or traditional knowledge associated with genetic resources.

Article 16 Technology transfer

National Competent Authorities on ABS shall internationally collaborate and cooperate on scientific research and development programmes, including biotechnological research activities to promote and encourage access to technology, in order to enable the development and strengthening of a sound and viable technological and scientific base.

Article 17 Transboundary cooperation

In instances where the same genetic resources are found *in situ* within the territory of more than one Party, Lao Competent National Authorities on ABS shall endeavour to cooperate, as appropriate, with the involvement of indigenous and local communities concerned, where applicable, where the same traditional knowledge associated with genetic resources is shared by one or more indigenous and local communities in several Parties.

Article 18 Model contractual clauses

National Competent Authorities on ABS shall encourage, as appropriate, the development, update and use of sectoral and cross-sectoral model contractual clauses for mutually agreed terms.

Article 19 Codes of conduct, guidelines and best practices and/or standards

National Competent Authorities on ABS shall encourage, as appropriate, the development, update and use of voluntary codes of conduct, guidelines and best practices and standards in relation to access and benefit-sharing.

PART VII – MONITORING AND LAW ENFORCEMENTS

Article 20 Monitoring the utilization of genetic resources

To support compliance, National Competent Authorities on ABS shall take measures, as appropriate, to monitor and to enhance transparency about the utilization of genetic resources in Laos.

1. Such measures shall include the designation of one or more checkpoints, as follows:
 - (1) Designated checkpoints to collect or receive, as appropriate, relevant information related to prior informed consent, to the source of the genetic resource, to the establishment of mutually agreed terms, and/or to the utilization of genetic resources, as appropriate;
 - (2) Shall, as appropriate and depending on the particular characteristics of a designated checkpoint, require users of genetic resources to provide the information specified in the above paragraph at a designated checkpoint. National Competent Authorities on ABS would take appropriate, effective and proportionate measures to address situations of non-compliance;
 - (3) Such information, including from internationally recognized certificates of compliance where they are available, will, without prejudice to the protection of confidential information, be provided to relevant national authorities of the providing Party, to the Party providing prior informed consent and to the Access and Benefit-sharing Clearing-House, as appropriate;
 - (4) Checkpoints must be effective and should be relevant to the utilization of genetic resources, or to the collection of relevant information at, *inter alia*, any stage of research, development, innovation, pre-commercialization or commercialization;

2. National Competent Authorities on ABS will encourage users and providers of genetic resources to include provisions in mutually agreed terms to share information on the implementation of such terms, including through reporting requirements;
3. Encourage the use of cost-effective communication tools and systems;
4. A permit or its equivalent issued will be made available to the Access and Benefit-sharing Clearing-House and therefore constitute an internationally recognized certificate of compliance in accordance with the Nagoya Protocol;
5. An internationally recognized certificate of compliance will serve as evidence in Lao PDR that the genetic resource which it covers has been accessed in accordance with prior informed consent and that mutually agreed terms have been established, as required by the domestic access and benefit-sharing legislation or regulatory requirements of the Party providing prior informed consent;
6. Lao PDR recognizes that internationally recognized certificates of compliance contain the following minimum information when it is not confidential:
 - (1) Issuing authority;
 - (2) Date of issuance;
 - (3) The provider;
 - (4) Unique identifier of the certificate;
 - (5) The person or entity to whom prior informed consent was granted;
 - (6) Subject-matter or genetic resources covered by the certificate;
 - (7) Confirmation that mutually agreed terms were established;

- (8) Confirmation that prior informed consent was obtained; and
- (9) Commercial and/or non-commercial use.

Article 21 Compliance with mutually agreed terms

National Competent Authorities will encourage providers and users of genetic resources and/or traditional knowledge associated with genetic resources to include provisions in mutually agreed terms to cover, where appropriate, dispute resolution including:

1. The jurisdiction to which they will subject any dispute resolution processes;
2. The applicable law; and
3. Options for alternative dispute resolution, such as mediation or arbitration.

National Competent Authorities will ensure that an opportunity to seek recourse is available under the Lao legal system, consistent with applicable jurisdictional requirements, in cases of disputes arising from mutually agreed terms and will take effective measures, as appropriate, regarding:

1. Access to justice; and
2. The utilization of mechanisms regarding mutual recognition and enforcement of foreign judgments and arbitral awards where consistent with Lao law.

Article 22 Compliance with access and benefit-sharing

National Competent Authorities on ABS shall take appropriate, effective and proportionate action to implement Lao PDR legislative, administrative or policy measures to provide that genetic resources utilized within its jurisdiction have been accessed in accordance with prior informed consent and that mutually agreed terms have been established, as required by the access and benefit-sharing legislation or regulatory requirements of the other Party.

National Competent Authorities on ABS shall take appropriate, effective and proportionate measures to address situations of non-compliance with adopted measures and cooperate in cases of alleged violation of other Party's access and benefit-sharing legislation or regulatory requirements.

Article 23 Compliance with traditional knowledge associated with genetic resources

National Competent Authorities on ABS shall take appropriate, effective and proportionate action to implement the country's legislative, administrative or policy measures, as appropriate, to provide that traditional knowledge associated with genetic resources utilized from other Parties within their jurisdiction has been accessed in accordance with prior informed consent or approval and involvement of indigenous and local communities and that mutually agreed terms have been established, as required by domestic access and benefit sharing legislation or regulatory requirements of the other Party where such indigenous and local communities are located.

National Competent Authorities on ABS will take appropriate, effective and proportionate measures to address situations of non-compliance with Lao adopted measures and will cooperate in cases of alleged violation of foreign domestic access and benefit-sharing legislation or regulatory requirements.

PARTVIII- POLICY AND PENALTY MEASURES

Article 24 Award

Article 25 Sanctions

Article 26 Liability and Redress

PART IX- IMPLEMENTATION MEASURES

Article 27 Monitoring

Article 28 Final provision

2.3. Framework of regulations to implement ABS Law

2.3.1. Framework of ABS Law proposal and adoption

2.3.2. Framework of Prime Minister's Decree to implement ABS Law

2.3.3. Framework of Minister's Decree to implement ABS Law

2.3.4. Framework of Guidelines and Manuals to implement ABS Law

Chapter III

ABS Administrative systems

Under the Nagoya Protocol access and benefit-sharing systems should be based on an overall access and benefit-sharing strategy at the country or regional level. This access and benefit-sharing strategy should aim at the conservation and sustainable use of biological diversity, and may be part of a national biodiversity strategy and action plan and promote the equitable sharing of benefits. The steps involved in the process of obtaining access to genetic resources and sharing of benefits may include activities prior to access, research and development conducted on the genetic resources, as well as their commercialization and other uses, including benefit-sharing.

The objective of the Lao ABS Administrative system is to establish and develop Competent National Authorities, National Focal Points and the participation of stakeholders, Management and Monitoring Organizations, prior informed consent, mutually agreed terms and other provisions of the Nagoya Protocol and this National Framework.

3.1 National Competent Authorities on ABS (NCAABS)

The organization structure of National Competent Authorities on ABS should include:

- 1.** Chair by the Minister of Science and Technology,
- 2.** Permanent secretariat by National Focal Point to Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity, and
- 3.** Members, Government office holders at the second or third levels (Director General or Deputy Director General), that are proposed and appointed by concerning ministries and sectors.

The NCAABS that have the legal power to consider the approval and granting of the prior informed consent may delegate this power to other entities, as appropriate. Recognizing that Parties and stakeholders may be both users and providers, the following balanced list of roles and responsibilities as developed and adopted by CBD COP Decision VI/24 provides key elements to be considered by NCAABS in the development and discharge of their responsibilities. This list includes:

3.1.1 Contracting Parties which are countries of origin of genetic resources, or other Parties which have acquired the genetic resources in accordance with the Convention, should:

1. Be encouraged to review their policy, administrative and legislative measures to ensure they are fully complying with Article 15 of the Convention;
2. Be encouraged to report on access applications through the clearing-house mechanism and other reporting channels of the Convention;
3. Seek to ensure that the commercialization and any other use of genetic resources should not prevent traditional use of genetic resources;
4. Ensure that they fulfill their roles and responsibilities in a clear, objective and transparent manner;
5. Ensure that all stakeholders take into consideration the environmental consequences of the access activities;
6. Establish mechanisms to ensure that their decisions are made available to relevant indigenous and local communities and relevant stakeholders;
7. Support measures, as appropriate, to enhance indigenous and local communities' capacity to represent their interests fully at negotiations.

3.1.2 In the implementation of mutually agreed terms, users should:

- 1.** Seek informed consent prior to access to genetic resources, in conformity with Article 15, paragraph 5, of the Convention;
- 2.** Respect customs, traditions, values and customary practices of indigenous and local communities,
- 3.** Respond to requests for information from indigenous and local communities;
- 4.** Only use genetic resources for purposes consistent with the terms and conditions under which they were acquired;
- 5.** Ensure that uses of genetic resources for purposes other than those for which they were acquired, only take place after new prior informed consent and mutually agreed terms are given;
- 6.** Maintain all relevant data regarding the genetic resources, especially documentary evidence of the prior informed consent and information concerning the origin and the use of genetic resources and the benefits arising from such use;
- 7.** As much as possible endeavour to carry out their use of the genetic resources in, and with the participation of, the providing country;
- 8.** When supplying genetic resources to third parties, honour any terms and conditions regarding the acquired material. They should provide this third party with relevant data on their acquisition, including prior informed consent and conditions of use and record and maintain data on their supply to third parties. Special terms and conditions should be established under mutually agreed terms to facilitate taxonomic research for non-commercial purposes;
- 9.** Ensure the fair and equitable sharing of benefits, including technology transfer to providing countries, pursuant to Article 16 of the Convention arising from the commercialization or other use of genetic resources, in conformity with the mutually

agreed terms they established with the indigenous and local communities or stakeholders involved;

3.1.3 Providers should:

1. Only supply genetic resources and/or traditional knowledge when they are entitled to do so;
2. Strive to avoid imposition of arbitrary restrictions on access to genetic resources.

3.1.4 Contracting Parties with users of genetic resources under their jurisdiction should:

Take appropriate legal, administrative, or policy measures, as appropriate, to support compliance with prior informed consent of the Contracting Party providing such resources and mutually agreed terms on which access was granted. These countries could consider, *inter alia*, the following measures:

1. Mechanisms to provide information to potential users on their obligations regarding access to genetic resources;
2. Measures to encourage the disclosure of the country of origin of the genetic resources and of the origin of traditional knowledge, innovations and practices of indigenous and local communities in applications for intellectual property rights;
3. Measures aimed at preventing the use of genetic resources obtained without the prior informed consent of the Contracting Party providing such resources;
4. Cooperation between Contracting Parties to address alleged infringements of access and benefit-sharing agreements;
5. Voluntary certification schemes for institutions abiding by rules on access and benefit-sharing;
6. Measures discouraging unfair trade practices; and
7. Other measures that encourage users to comply with legal provisions.

3.2 National focal point and Participation of stakeholders

National Competent Authority should designate one national focal point for access and benefit-sharing and make such information available through the clearing-house mechanism. The national focal point should inform applicants for access to genetic resources on procedures for acquiring prior informed consent and mutually agreed terms, including benefit-sharing, and on competent national authorities, relevant indigenous and local communities and relevant stakeholders, through the clearing-house mechanism.

Involvement of relevant stakeholders is essential to ensure the adequate development and implementation of access and benefit-sharing arrangements. However, due to the diversity of stakeholders and their diverging interests, their appropriate involvement can only be determined on a case-by-case basis. Relevant stakeholders should be consulted and their views taken into consideration in each step of the process, including:

1. When determining access, negotiating and implementing mutually agreed terms, and in the sharing of benefits;
2. In the development of a national strategy, policies or regimes on access and benefit-sharing.

To facilitate the involvement of relevant stakeholders, including indigenous and local communities, appropriate consultative arrangements, such as national consultative committees, comprising relevant stakeholder representatives, should be made. The involvement of relevant stakeholders should be promoted by:

1. Providing information, especially regarding scientific and legal advice, in order for them to be able to participate effectively;
2. Providing support for capacity-building, in order for them to be actively engaged in various stages of access and benefit-sharing arrangements, such as in the development and implementation of mutually agreed terms and contractual arrangements;

3. The stakeholders involved in access to genetic resources and benefit-sharing may wish to seek the support of a mediator or facilitator when negotiating mutually agreed terms.

3.3 Management and Monitoring Organization on ABS

3.3.1 Ministry of Science and Technology

The Ministry of Science and Technology, being the management and monitoring organization on ABS at the central level and through its NCABS, has the following duties and functions:

1. To act as a Secretary to the Government of Lao PDR in making and translating biotechnology and ABS policies into the national framework, law and regulation, technical guidelines, plans and detailed project for the management and monitoring.
2. To implement management and monitoring activities, and to report the situation of the ABS of the country regularly to the Government.
3. To act as the coordination centre between the concerned sectors and local administrations for the study analyze and resolve of ABS problems;
4. To instruct the development projects and activities to prepare reports of the access and benefit-sharing process and other provisions.
5. To monitor and control the implementation of the national framework, law and regulations, technical guidelines, plans and project activities to the ABS.
6. To issue, revoke or reinstate licenses of any organization engaging in biotechnology and ABS related services.
7. To cooperate with authorized concerned sectors in giving orders to adjust, suspend, remove or close down any activities that cause adverse impacts to human health, genetic resources and ecosystem.

8. To receive and response petitions from the population and other sector regarding to the ABS issues.
9. To organize the meeting and seminars on the biotechnology and ABS issues.
10. To train and upgrade the skills of the scientific and expert staff, and to educate and raise ABS awareness for all strata of the population in the country, in close cooperation with the sectoral agencies and local administrations.
11. To disseminate, collect and evaluate system of biotechnology and ABS information for use as inputs in the national socio - economic planning process.
12. To promote international relations and cooperation related to biotechnology and ABS issues.
13. To perform other rights and duties related to the biotechnology and ABS which are assigned by the Government, or as stipulated in the regulations and laws.

3.3.2 Management and Monitoring Unit at the Ministerial Level

If any other Ministries are required to establish management and monitoring organizations on biotechnology and ABS, they have to cooperate with the Ministry of Science and Technology. The Ministerial management and monitoring units have the following authorities and function for conducting its sectoral activities:

1. To make and implement plans and regulations on biotechnology and ABS concerning its sector based on the general plans and regulation issued by the Ministry of Science and Technology;
2. To study analyze and resolve ABS problems that related to their sectors;
3. To monitor and control the implementation of the ABS regulations and law;
4. To receive and study the petitions from the population and other

parties regarding to ABS issues and submits to the central level for their consideration and responsibility;

5. To report, participate in discussions and exchange experiences on biotechnology and ABS with the Ministry of Science and Technology the local authorities and other concerned parties for ABS issues;
6. To train and upgrade the skills of the scientific and biotechnological staff, and to educate and raise ABS awareness for all parties in its sectors;
7. To disseminate, summarize and analyze ABS information;
8. To promote informational relations and cooperation related to biotechnology and ABS in its sector;
9. To perform other authorities and functions related to ABS with are assigned by the Ministry or as stipulated in regulations and laws.

3.3.3 Management and Monitoring Unit at the Provincial, Municipal and City Level

Provinces, municipalities, cities and special zones shall establish their own management and monitoring units on biotechnology and ABS in cooperation with the Ministry of Science and Technology. The management and monitoring units at the provincial, municipal, city and special zone level have the following rights and duties to conduct activities in their areas:

1. To make and implement plans and regulations on biotechnology and ABS at the Provincial, Municipal, City and Special Zone Level, in accordance with the general plans and regulation;
2. To study analyze and resolve ABS problems that related to their sectors;
3. To monitor and control the implementation of the law, decrees, regulation and rules on ABS;

4. To receive and study the petitions from the population and other parties regarding to ABS issues and submits to the central level for their consideration and responsibility;
5. To report, participate in discussions and exchange experiences on biotechnology with the Ministry of Science Technology the local authorities and other concerned parties for ABS issues.
6. To train and upgrade the skills of the scientific and expert staff, and to educate and raise the public awareness on ABS issues.
7. To collect, summarize, analyze and disseminate ABS information;
8. To promote international relation and cooperation in the field of biotechnology and ABS that related to their sectors;
9. To perform other authorities and functions related to ABS with are assigned by the Governor, Major and the special zone chief or as stipulated in regulations and laws.

3.3.4 Management and Monitoring Unit at the District and Prefecture Level

Districts and prefectures shall establish their own management and monitoring units on biotechnology and ABS in cooperation with management and monitoring units at the provincial, municipal, city and special zone level in which they are located. The district and prefecture management and monitoring units have the following rights and duties to conduct activities in their areas:

1. To make and implement plans and regulations on biotechnology and ABS at the district and prefecture level, based on the provincial, municipal and special zone's plans in which they are located.
2. To monitor and control the implementation of the law, decrees, regulation and rules on ABS.
3. To receive and study the petitions from the population and other parties regarding to ABS issues and submits to the central

level for their consideration and responsibility.

4. To recommend the authorized authority to issue orders to adjust, suspend, remove or close down any activities in its sector that cause adverse impacts to human health, genetic resources and ecosystem.
5. To report, participate in discussions and exchange experiences on biotechnology with the provincial, municipal and special zone's management and monitoring units, the local authorities and district sectors for ABS issues.
6. To train and upgrade the skills of the scientific and expert staff, and to educate and raise the people's and other parties in their district awareness on ABS issues.
7. To disseminate, summarize and analyze ABS information.
8. To perform other authorities and functions related to ABS with are assigned by the district chiefs, and the management and monitoring units of the Provinces, municipality, city and special zone or as stipulated in regulations and laws.

3.4 Prior informed consent

As provided for in Article 15 of the Convention on Biological Diversity, which recognizes the sovereign rights of States over their natural resources, each Contracting Party to the Convention is obliged to endeavour to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties and fair and equitable sharing of benefits arising from such uses. In accordance with Article 15, paragraph 5, of the Convention on Biological Diversity, access to genetic resources shall be subject to prior informed consent of the contracting Party providing such resources, unless otherwise determined by that Party. The Lao PDR implementation of the Nagoya Protocol achieves this and in doing so, it takes into account the following principles and processes.

3.4.1 Basic principles of a prior informed consent system

The basic principles of a prior informed consent system should include:

1. Legal certainty and clarity;
2. Access to genetic resources should be facilitated at minimum cost;
3. Restrictions on access to genetic resources should be transparent, based on legal grounds, and not run counter to the objectives of the Convention;
4. Consent of the relevant Competent National Authorities on ABS in the provider country to be obtained;
5. The consent of relevant stakeholders, such as indigenous and local communities, as appropriate to the circumstances and subject to domestic law, will also be obtained.

3.4.2 Elements of a prior informed consent system

Elements of prior informed consent system include: (1). Competent authorities granting or providing for evidence of prior informed consent; (2). Timing and deadlines; (3). Specification of use; (4). Procedures for obtaining prior informed consent; (5). Mechanisms for consultation with relevant stakeholders; and (6). Due process.

(1) National Competent Authorities on ABS granting prior informed consent

Prior informed consent for access to in situ genetic resources is to be obtained from the Contracting Party providing such resources, through its competent national authorities, unless otherwise determined by that Party. In accordance with national legislation, prior informed consent may be required from different levels of Government. Requirements for obtaining prior informed consent (national/provincial/local) in the provider country should therefore be specified. National procedures should facilitate the involvement of all relevant stakeholders from the community to the government level,

aiming at simplicity and clarity. Respecting established legal rights of indigenous and local communities associated with the genetic resources being accessed or where traditional knowledge associated with these genetic resources is being accessed, the prior informed consent of indigenous and local communities and the approval and involvement of the holders of traditional knowledge, innovations and practices should be obtained, in accordance with their traditional practices, national access policies and subject to domestic laws. For *ex situ* collections, prior informed consent should be obtained from the competent national authorities and/or the body governing the *ex situ* collection concerned as appropriate.

(2) Timing and deadlines

Prior informed consent is to be sought adequately in advance to be meaningful both for those seeking and for those granting access. Decisions on applications for access to genetic resources should also be taken within a reasonable period of time.

(3) Specification of use

Prior informed consent should be based on the specific uses for which consent has been granted. While prior informed consent may be granted initially for specific use(s), any change of use including transfer to third parties may require a new application for prior informed consent. Permitted uses should be clearly stipulated and further prior informed consent for changes or unforeseen uses should be required. Specific needs of taxonomic and systematic research as specified by the Global Taxonomy Initiative should be taken into consideration. Prior informed consent is linked to the requirement of mutually agreed terms.

(4) Procedures for obtaining prior informed consent (PIC)

An application for access could require the following information to be provided, in order for the competent authority to determine whether or not access to a genetic resource should be

granted. This list is indicative and should be adapted to national circumstances:

- 1.** Legal entity and affiliation of the applicant and/or collector and contact person when the applicant is an institution;
- 2.** Type and quantity of genetic resources to which access is sought;
- 3.** Starting date and duration of the activity;
- 4.** Geographical prospecting area;
- 5.** Evaluation of how the access activity may impact on conservation and sustainable use of biodiversity, to determine the relative costs and benefits of granting access;
- 6.** Accurate information regarding intended use (e.g.: taxonomy, collection, research, commercialization);
- 7.** Identification of where the research and development will take place;
- 8.** Information on how the research and development is to be carried out;
- 9.** Identification of local bodies for collaboration in research and development;
- 10.** Possible third party involvement;
- 11.** Purpose of the collection, research and expected results;
- 12.** Kinds/types of benefits that could come from obtaining access to the resource, including benefits from derivatives and products arising from the commercial and other utilization of the genetic resource;
- 13.** Indication of benefit-sharing arrangements;
- 14.** Budget;
- 15.** Treatment of confidential information; and
- 16.** Permission to access genetic resources does not necessarily imply permission to use associated knowledge and vice versa.

(5) Process

Applications for access to genetic resources through prior informed consent and decisions by the Competent National Authorities on ABS to grant access to genetic resources or not shall be documented in written form. The NCAABS could grant access by issuing a permit or license or following other appropriate procedures. A national registration system could be used to record the issuance of all permits or licenses, on the basis of duly completed application forms. The procedures for obtaining an access permit/license should be transparent and accessible by any interested party.

3.5 Mutually agreed terms (MAT)

In accordance with Article 15, paragraph 7, of the Convention on Biological Diversity, each Contracting Party shall "take legislative, administrative or policy measures, as appropriate, with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of genetic resources with the Contracting Party providing such resources. Such sharing shall be upon mutually agreed terms". Thus, guidelines should assist Parties and stakeholders in the development of mutually agreed terms to ensure the fair and equitable sharing of benefits.

3.5.1 Basic requirements for mutually agreed terms

The following principles or basic requirements could be considered for the development of mutually agreed terms:

1. Legal certainty and clarity;
2. Minimization of transaction costs, by, for example:
 - (1) Establishing and promoting awareness of the Government's and relevant stakeholders' requirements for prior informed consent and contractual arrangements;

- (2) Ensuring awareness of existing mechanisms for applying for access, entering into arrangements and ensuring the sharing of benefits;
- (3) Developing framework agreements, under which repeat access under expedited arrangements can be made;
- (4) Developing standardized material transfer agreements and benefit-sharing arrangements for similar resources and similar uses (see *Appendix I. Suggested Elements for Material Transfer Agreements*);
3. Inclusion of provisions on user and provider obligations;
4. Development of different contractual arrangements for different resources and for different uses and development of model agreements;
5. Different uses may include, *inter alia*, taxonomy, collection, research, commercialization;
6. Mutually agreed terms should be negotiated efficiently and within a reasonable period of time;
7. Mutually agreed terms should be set out in a written agreement.

The following elements could be considered as guiding parameters in contractual agreements. These elements could also be considered as basic requirements for mutually agreed terms:

1. Regulating the use of resources in order to take into account ethical concerns of the particular Parties and stakeholders, in particular indigenous and local communities concerned;
2. Making provision to ensure the continued customary use of genetic resources and related knowledge;
3. Provision for the use of intellectual property rights include joint research, obligation to implement rights on inventions obtained and to provide licenses by common consent;
4. The possibility of joint ownership of intellectual property rights according to the degree of contribution.

3.5.2 Indicative list of typical mutually agreed terms

The following provides an indicative list of typical mutually agreed terms:

1. Type and quantity of genetic resources, and the geographical/ecological area of activity;
2. Any limitations on the possible use of the material;
3. Recognition of the sovereign rights of the country of origin;
4. Capacity-building in various areas to be identified in the agreement;
5. A clause on whether the terms of the agreement in certain circumstances (e.g. change of use) can be renegotiated;
6. Whether the genetic resources can be transferred to third parties and conditions to be imposed in such cases, e.g. whether or not to pass genetic resources to third parties without ensuring that the third parties enter into similar agreements except for taxonomic and systematic research that is not related to commercialization;
7. Whether the knowledge, innovations and practices of indigenous and local communities have been respected, preserved and maintained, and whether the customary use of biological resources in accordance with traditional practices has been protected and encouraged;
8. Treatment of confidential information; and
9. Provisions regarding the sharing of benefits arising from the commercial and other utilization of genetic resources and their derivatives and products.

3.5.3 Benefit-sharing

Mutually agreed terms could cover the conditions, obligations, procedures, types, timing, distribution and mechanisms of benefits to be shared. These will vary depending on what is regarded as fair and equitable in light of the circumstances.

1. **Types of benefits:** Examples of monetary and non-monetary benefits are provided in *Appendix II. Monetary and Non-Monetary Benefits*
2. **Timing of benefits:** Near-term, medium-term and long-term benefits should be considered, including up-front payments, milestone payments and royalties. The time-frame of benefit-sharing should be definitely stipulated. Furthermore, the balance among near-term, medium-term and long-term benefit should be considered on a case-by-case basis;
3. **Distribution of benefits:** Pursuant to mutually agreed terms established following prior informed consent, benefits should be shared fairly and equitably with all those who have been identified as having contributed to the resource management, scientific and/or commercial process. The latter may include governmental, non-governmental or academic institutions and indigenous and local communities. Benefits should be directed in such a way as to promote conservation and sustainable use of biological diversity;
4. **Mechanisms for benefit-sharing:** Mechanisms for benefit-sharing may vary depending upon the type of benefits, the specific conditions in the country and the stakeholders involved. The benefit-sharing mechanism should be flexible as it should be determined by the partners involved in benefit-sharing and will vary on a case-by-case basis. Mechanisms for sharing benefits should include full cooperation in scientific research and technology development, as well as those that derive from commercial products including trust funds, joint ventures and licenses with preferential terms.

3.6 Other provisions

3.6.1 Incentives

The following incentive measures exemplify measures which

could be used in the implementation of the guidelines:

1. The identification and mitigation or removal of perverse incentives, that may act as obstacles for conservation and sustainable use of biological diversity through access and benefit-sharing, should be considered;
2. The use of well-designed economic and regulatory instruments, directly or indirectly related to access and benefit-sharing, should be considered to foster equitable and efficient allocation of benefits;
3. The use of valuation methods should be considered as a tool to inform users and providers involved in access and benefit-sharing; and
4. The creation and use of markets should be considered as a way of efficiently achieving conservation and sustainable use of biological diversity.

3.6.2 Accountability in implementing access and benefit-sharing arrangements

Parties should endeavour to establish mechanisms to promote accountability by all stakeholders involved in access and benefit-sharing arrangements. To promote accountability, Parties may consider establishing requirements regarding: (1). Reporting; and (2). Disclosure of information.

The individual collector or institution on whose behalf the collector is operating should, where appropriate, be responsible and accountable for the compliance of the collector.

3.6.3 National monitoring and reporting

Depending on the terms of access and benefit-sharing, national monitoring may include:

1. Whether the use of genetic resources is in compliance with the terms of access and benefit-sharing;
2. Research and development process;

3. Applications for intellectual property rights relating to the material supplied.

The involvement of relevant stakeholders, in particular, indigenous and local communities, in the various stages of development and implementation of access and benefit-sharing arrangements can play an important role in facilitating the monitoring of compliance.

3.6.4 Means for verification

Voluntary verification mechanisms could be developed at the national level to ensure compliance with the access and benefit-sharing provisions of the Convention on Biological Diversity and national legal instruments of the country of origin providing the genetic resources.

A system of voluntary certification could serve as a means to verify the transparency of the process of access and benefit-sharing. Such a system could certify that the access and benefit-sharing provisions of the Convention on Biological Diversity have been complied with.

3.6.5 Settlement of disputes

As most obligations arising under mutually agreed arrangements will be between providers and users, disputes arising in these arrangements should be solved in accordance with the relevant contractual arrangements on access and benefit-sharing and the applicable law and practices.

In cases where the access and benefit-sharing agreements consistent with the Convention on Biological Diversity and national legal instruments of the country of origin of genetic resources have not been complied with, the use of sanctions could be considered, such as penalty fees set out in contractual agreements.

3.6.6 Remedies

Competent National Authority may take appropriate effective and proportionate measures for violations of national legislative, administrative or policy measures implementing the access and benefit-sharing provisions of the Convention on Biological Diversity, including requirements related to prior informed consent and mutually agreed terms.

Appendix I
Suggested Elements for Material Transfer Agreements

Material transfer agreements may contain wording on the following elements:

A. Introductory provisions

1. Preamble reference to the Convention on Biological Diversity
2. Legal status of the provider and user of genetic resources
3. Mandate and/or general objectives of provider and, where appropriate, user of genetic resources

B. Access and benefit-sharing provisions

1. Description of genetic resources covered by the material transfer agreements, including accompanying information
2. Permitted uses, bearing in mind the potential uses, of the genetic resources, their products or derivatives under the material transfer agreement (e.g. research, breeding, commercialization)
3. Statement that any change of use would require new prior informed consent and material transfer agreement
4. Whether intellectual property rights may be sought and if so under what conditions
5. Terms of benefit-sharing arrangements, including commitment to share monetary and non-monetary benefits
6. No warranties guaranteed by provider on identity and/or quality of the provided material
7. Whether the genetic resources and/or accompanying information may be transferred to third parties and if so conditions that should apply
8. Definitions
9. Duty to minimize environmental impacts of collecting activities

C. Legal provisions

- 1.** Obligation to comply with the material transfer agreement
- 2.** Duration of agreement
- 3.** Notice to terminate the agreement
- 4.** Fact that the obligations in certain clauses survive the termination of the agreement
- 5.** Independent enforceability of individual clauses in the agreement
- 6.** Events limiting the liability of either party (such as act of God, fire, flood, etc.)
- 7.** Dispute settlement arrangements
- 8.** Assignment or transfer of rights
- 9.** Assignment, transfer or exclusion of the right to claim any property rights, including intellectual property rights, over the genetic resources received through the material transfer agreement
- 10.** Choice of law
- 11.** Confidentiality clause
- 12.** Guarantee

Appendix II
Monetary and Non-Monetary Benefits

- (1) Monetary benefits may include, but not be limited to:**
1. Access fees/fee per sample collected or otherwise acquired;
 2. Up-front payments;
 3. Milestone payments;
 4. Payment of royalties;
 5. License fees in case of commercialization;
 6. Special fees to be paid to trust funds supporting conservation and sustainable use of biodiversity;
 7. Salaries and preferential terms where mutually agreed;
 8. Research funding;
 9. Joint ventures;
 10. Joint ownership of relevant intellectual property rights.
- (2) Non-monetary benefits may include, but not be limited to:**
1. Sharing of research and development results;
 2. Collaboration, cooperation and contribution in scientific research and development programmes, particularly biotechnological research activities, where possible in the provider country;
 3. Participation in product development;
 4. Collaboration, cooperation and contribution in education and training;
 5. Admittance to *ex situ* facilities of genetic resources and to databases;
 6. Transfer to the provider of the genetic resources of knowledge and technology under fair and most favourable terms, including on concessional and preferential terms where agreed, in particular, knowledge and technology that make use of genetic

- resources, including biotechnology, or that are relevant to the conservation and sustainable utilization of biological diversity;
- 7.** Strengthening capacities for technology transfer to user developing country Parties and to Parties that are countries with economies in transition and technology development in the country of origin that provides genetic resources. Also to facilitate abilities of indigenous and local communities to conserve and sustainably use their genetic resources;
 - 8.** Institutional capacity-building;
 - 9.** Human and material resources to strengthen the capacities for the administration and enforcement of access regulations;
 - 10.** Training related to genetic resources with the full participation of providing Parties, and where possible, in such Parties;
 - 11.** Access to scientific information relevant to conservation and sustainable use of biological diversity, including biological inventories and taxonomic studies;
 - 12.** Contributions to the local economy;
 - 13.** Research directed towards priority needs, such as health and food security, taking into account domestic uses of genetic resources in provider countries;
 - 14.** Institutional and professional relationships that can arise from an access and benefit-sharing agreement and subsequent collaborative activities;
 - 15.** Food and livelihood security benefits;
 - 16.** Social recognition;
 - 17.** Joint ownership of relevant intellectual property rights.

Chapter IV

Mechanisms for Public Education Awareness and Participation

(PEAP)

4.1 The overall objectives, Lao concepts and principals for PEAP on Biodiversity and ABS

4.1.1 The overall objectives of PEAP

Make Lao PDR be aware of “ biological diversity “ and that its public has knowledge of and skills on the fair and equitable sharing of the benefits arising from the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding, thereby contributing to the conservation of biological diversity and the sustainable use of its components.

4.1.2 The key principals of PEAP on Biodiversity and ABS

To achieve the goals and objectives mentioned as above, the PEAP can be incorporated into current formal activities, e.g. at schools, training courses, projects, mass organization programs, and also in the individual daily activities: at home in the daily life and at work places. So PEAP on Biodiversity and ABS is not only a subject to learn and teach, but it is something you live. In order to complete all of PEAP process, much better implement PEAP on Biodiversity and ABS. Key Principles as are:

1. PEAP on Biodiversity and ABS should be open to everyone. Because the environment is very important and related to all people. Therefore, PEAP on Biodiversity and ABS should not focus on specific persons or group of people in the society. It is a responsibility of all people including the government, government staff, workers, students, business people, and the public;

2. PEAP on Biodiversity and ABS should be a long term and continuing process. Data and information on ABS have been often changed and adjusted based on the past experience and lessons. There is opportunity to improve technology, knowledge and skills that can be used to mitigate challenging ABS issues. In order to achieve this, therefore, every person has to improve their knowledge and skills;
3. Formal and non-formal education should be jointly developed in order to complement each other. That means ABS information should come from two main sources: formal and non-formal education. Although, some knowledge on ABS mainly come from formal education, but some of them may come from non-formal education. Therefore, formal and non-formal education will complement and support each other and improve the content of subject mater and spread out widely which can be implemented with other activities;
4. A participatory approach should be used in the planning and implementation of PEAP on Biodiversity and ABS. Starting by giving explanation about direct and indirect benefit of ABS protection to learners to make them interested in the subject. PEAP on Biodiversity and ABS is related to many people in the society. Therefore, it is important to use ideas and opinions of different people in the planning and implementation then it will make those plans appropriate and can provide benefit to participant, and the plans will be implemented more smoothly;
5. PEAP on Biodiversity and ABS should start from small to large scale based on concerned community's capacity. Community's institution should be used as a place to support and promote PEAP on Biodiversity and ABS. In addition, we should strengthen and support existing institutions such as village administration offices, Youth Organization, Women

Union, national Front for Construction, schools, temples and cultural centre that can be important parts for implementation of PEAP on Biodiversity and ABS activities;

6. We should select and analyze relevant issues in order to define characteristics and the needs of different target groups aiming to improve and protect their fundamental interest, knowledge, culture and tradition to make them participate actively in PEAP on Biodiversity and ABS activities, and to promote local cultural value;
7. Different curriculum and methodologies, and contents should be used in PEAP on Biodiversity and ABS for families, communities, schools, work places, temples, mass media, recreational centres and others, that are designed and constructed for study purpose. The content and methodology that used in PEAP on Biodiversity and ABS should be appropriate to target groups, and concerned sectoral agencies;
8. PEAP on Biodiversity and ABS activities should be related to sectoral development and to find appropriate way to use natural resources, facilities that suitable to existing infrastructure, lessons and experience. Therefore, development will provide opportunity and job allocation to Lao people;
9. Monitoring and evaluation is a key component to assess, improve and extend initiative on PEAP on Biodiversity and ABS. Monitoring the result of PEAP on Biodiversity and ABS is aiming to learn and improve theory and practice in PEAP on Biodiversity and ABS and make them consistent with each other.

4.2 The existing system of public education awareness and participation on biodiversity

Based on draft of National Biodiversity Strategy and Action Plan upper to year 2020, the PEAP on biodiversity as well as the PEAP on Environment, are necessary to promote the general public, public

sectors, private sectors, mass organization, mass media and different group people in society, understand better about the benefits of environment as well as the biodiversity in order to attach them to participate more in the biodiversity management, conservation, and sustainable use.

In Lao PDR, environment education as well as biodiversity issues have been incorporated into the curriculum of common schools (formal and non-formal) and vocational colleges. These curricula and teaching materials were developed by various organizations and have not been standardized. To this concern, the National Research Institute for Education Science (NRIES), MONRE, MOST, National University of Lao, and Different Institutes are enough strong cooperating and conducting a discussion on biodiversity education curriculum development as well as on environment, in particularly the Faculty of Natural Science of National University of Lao is improving existing teaching curriculum on biodiversity for fulfilling of the teaching need and for relevant technicians.

Attempts to raise Awareness on environmental and biodiversity have also been conducted in form of dissemination meetings, campaign, lectures and in forms of dissemination include the publishing of information in the mass media namely in newspapers, magazines, radio, television broadcasts and others. The biodiversity training for building the capacity of technical staff has been conducted by different ministries and institutions which aim at meeting their own, specific demands. For example, Ministry of Agriculture and Forestry conducts training courses on biodiversity as such: wildlife survey and Protected Areas management, while MOST and MONRE conducts courses in Environmental Impact assessment, public participation and public awareness on biodiversity and the different sectors at central as well as local level also are conducting the own biodiversity training activities based on dissemination of own main tasks. Based on the past activities can be evaluated as are following:

➤ **Key Issues:**

1. Low incentives for staff working in remote areas.
2. Inadequate materials and means of dissemination.
3. A lack of good PEAP system to promote the best understanding of the importance of biodiversity among local communities and government staff due to the inadequate dissemination of information.
4. Insufficient numbers of professional staff are currently working in this field and a lack of capable staff and inadequate dissemination techniques.
5. Education levels of the majority of rural people remain low and many are illiterate.
6. Limited budget allocations to finance PEAP programmes and curriculum development.
7. The majority of people do not like to read.
8. Inadequate coordination among sectors.

➤ **Intervention Options:**

1. Enhance PEAP regarding the significance of biodiversity resource conservation and its sustainable use.
2. Increase PEAP by focusing on the government, as well as the private and public sectors.
3. Improve the communication process between all stakeholders.
4. Disseminate the principles and targets of the CBD.
5. Provide information on the status of biodiversity to the public.
6. Create an awareness among the younger generation both within and outside of the education system.
7. Address gender issues.
8. Upgrade the provision of education for people living in remote areas.
9. Ensure that budget allocations for this field are put in place.

10. Improve the coordination of training among the relevant sectors.

4.3 The frameworks for PEAP on ABS

Based on ABS Nagoya Protocol, the existing system of PEAP on environment as well as on biodiversity as mentioned above and Environment Protection Law and National Environment Education and Awareness Strategy upper to year 2020 and Action Plan for 5 year (2010-2015), National Biodiversity Strategy upper to year 2020 and Action Plan for 5 year (2010-2015), the Lao framework for PEAP on Biodiversity and ABS should be incorporated to the existing PEAP on environment as well on biodiversity been well developed already, such as Environment Training System, Environment Education System, Environment Awareness System, Environment Public Participation System.

For promotion and facilitating public awareness, education and participation concerning ABS, the vision of PEAP system as mentioned to be successful, the Lao PDR should focus on 5 frameworks as following:

4.3.1 First framework: Incorporate the ABS education activities at all levels of general education (formal and non-formal education) as part of Environment Education curriculum

The ABS education should be part of environment education at all level of formal and non-formal as following:

(a) Formal education

Objective 1:

Conduct a survey to determine the present level and status of ABS education in formal education across country

Action:

1. To conduct the gathering baseline information regarding the status of ABS education in formal education across country.
2. To conduct the analyses of gathering baseline information on

ABS education in formal education across country.

3. Report of ABS education status in formal education across country.

Objective 2:

To identify sector, staffs and roles of responsibility about ABS education at all levels of formal education across country

Action:

1. To conduct discussion workshop for decision makers (main technical staffs) between MOST and MONRE and relevant sectors such: the Department of General Education, Ministry of Education, school administrators at all levels, concerning ABS education development in formal education.
2. To identify sector, staffs and its roles of responsibility about ABS education at all levels of formal education across country.
3. Conduct seminar workshop, training for school administrators, teachers to enhance understanding of ABS and promote commitment to the conservation and sustainable use of genetic resources, taking also into account risks to human health.

Objective 3:

To develop a ABS education curriculum for all levels of formal education across country

Action:

1. Organize multisectoral workshop to plan, design and formulate a multidisciplinary curriculum framework for the integration of ABS topics at all levels of formal education between MOST, MONRE and relevant sectors such: Department of General Education, Ministry of Education, school administrators at all levels, concerning technical staffs.
2. Pilot-test the ABS education curriculum, particularly the objectives, content, learning activities and assessment

procedures.

3. Undertake a review of the curriculum for teacher training colleges to reorient teacher education towards ABS education for sustainable use of genetic resources.

Objective 4:

To develop and produce support materials for ABS education at all level of formal education across country

Action:

1. Prepare guidelines for the development and production of ABS education support materials in the different formats (multimedia, module, poster, etc) for formal education.
2. Conduct workshops to develop ABS education support materials, involving subject experts, scientists and computer technologists for formal education.
3. Produce ABS education support materials for preschool, primary, secondary and tertiary education levels, involving classroom teachers, subject experts and computer technologists for formal education.
4. Incorporate all of ABS issues, experiences and practices (such as indigenous farming and fishing practices) in ABS education support materials for formal education.

(b) Non-formal education

Objective 5:

Conduct a survey to determine the present level and status of ABS education in non-formal education across country

Action:

1. To conduct the gathering baseline information regarding the status of ABS education in non-formal education across country.
2. To conduct the analyses of gathering baseline information on ABS education in non-formal education across country.

3. Report of ABS education status in formal education across country.

Objective 6:

To identify sector, staffs and roles of responsibility about ABS education at all levels of non-formal education across country

Action:

1. To conduct discussion workshop for decision makers (main technical staffs) between MOST, MONRE and relevant sectors such: Department of General Education, Ministry of Education, school administrators at all levels, concerning ABS education development in non-formal education.
2. To identify sector, staffs and its roles of responsibility about ABS education at all levels of non-formal education across country ;
3. Conduct seminar workshop, training for non-formal education administrators, teachers to enhance understanding of ABS and promote commitment to the conservation and sustainable use of genetic resources, taking also into account risks to human health.

Objective 7:

To develop a ABS education curriculum for all levels of non-formal education across country

Action:

1. Organize multisectoral workshop to plan, design and formulate a multidisciplinary curriculum framework for the integration of ABS topics at all levels of non-formal education between MOST, MONRE and relevant sectors such: Department of General Education, Ministry of Education, school administrators at all levels, concerning technical staffs.
2. Pilot-test the ABS education curriculum for non-formal education, particularly the objectives, content, learning activities and assessment procedures.

3. Undertake a review of the curriculum for teacher training in non-formal education to reorient teacher education towards ABS education in non-formal education for sustainable use of genetic resources.

Objective 8:

To develop and produce support materials for ABS education at all level of non-formal education across country

Action:

1. Prepare guidelines for the development and production of ABS education support materials in the different formats (multimedia, module, poster, etc) for non-formal education.
2. Conduct workshops to develop ABS education support materials, involving subject experts, scientists and computer technologists for non-formal education.
3. Produce ABS education support materials for non-formal education.
4. Incorporate all of ABS issues, experiences and practices (such as indigenous farming and fishing practices) in ABS education support materials for non-formal education.

4.3.2 Second framework: Develop the ABS awareness activities as part of Environment awareness system

Objective 9:

Conduct a survey to determine the present level and status of ABS awareness across country

Action:

1. To conduct the gathering baseline information regarding the status of ABS awareness across country.
2. To conduct the analyses of gathering baseline information on ABS awareness across country.

3. Report of ABS awareness status across country.

Objective 10:

To identify sector, staffs and roles of responsibility about ABS awareness at all levels of mass media across country

Action:

1. To conduct discussion workshop biodiversity awareness development between decision makers (main technical staffs) of MOST, MONRE and relevant sectors such: Department of Mass media, Ministry of Information and Culture, mass media administrators at all levels.
2. To identify sector, staffs and its mandates in ABS awareness at all levels across country.
3. To conduct training for administrators, mass media to enhance understanding of ABS.

Objective 11:

To develop a ABS awareness mechanism at all levels of mass media across country

Action:

1. To conduct the workshop to plan, design and formulate a ABS awareness mechanism for mass media program between MOST, MONRE and relevant sectors such: Department of Mass media, Ministry of Information and Culture, mass media administrators at all levels.
2. Pilot-test the ABS awareness program in all of media and evaluate the results, content, and procedures of awareness activities.
3. To undertake a review of the existing awareness program in all of mass media across country for improving.

Objective 12:

To develop and produce support materials for ABS awareness at all level of mass media across country

Action:

1. Prepare guidelines for the development and production of ABS awareness support materials in the different formats (multimedia, module, poster, etc).
2. Conduct workshops to develop ABS awareness support materials, involving subject experts, scientists and computer technologists.
3. Produce ABS awareness support materials.
4. Incorporate all of ABS issues, experiences and practices (such as indigenous farming and fishing practices) in ABS awareness support materials.

4.3.3 Third framework: Develop the ABS training mechanism

Objective13:

Conduct a survey to determine the present level and status of ABS manpower capacity building across country

Action:

1. To conduct the gathering baseline information regarding the status of ABS manpower capacity building across country.
2. To conduct the analyses of gathering baseline information on ABS man power capacity building across country.
3. Report of ABS man power capacity building status across country.

Objective 14:

To discuss and identify the roles of responsibility about ABS manpower capacity building across country

Action:

1. To conduct discussion workshop on manpower capacity

building between decision makers (main technical staffs) from MOST, MONRE and relevant sectors.

2. To identify the mandate and roles of responsibility of relevant sectors about ABS manpower capacity building at all levels across country.
3. To conduct training for ABS manpower capacity building administrators, trainers to enhance understanding of ABS across country.

Objective 15:

To build the capacity of trainers, teachers, curriculum-training manual developer on ABS across country

Action:

1. To conduct the workshop on ABS manpower capacity building curriculum-training manual, training and teachers building between MOST, MONRE, relevant sectors, curriculum-training manual developers, trainees, teachers across country.
2. To identify and priority the short and long term training courses,
3. To build ABS Manpower Capacity Building Training Center as appropriate,
4. To undertake a review of the topics, contents, and approach of ABS manpower capacity building for appropriate modification.

Objective 16:

To develop and produce support materials for ABS manpower capacity building across country

Action:

1. To organize the discussion workshop on development and production of ABS manpower capacity building support materials in the different formats, methods.

2. To produce ABS manpower capacity building facilities and support materials for ABS manpower capacity building relevant staffs.

4.3.4 Fourth framework: Develop the ABS public participation mechanism in the decision making.

Objective17:

Conduct a survey to determine the present level and status of ABS public participation across country

Action:

1. To conduct the gathering baseline information regarding the status of ABS public participation across country.
2. To conduct the analyses of gathering baseline information on ABS public participation across country.
3. Report of ABS public participation status across country.

Objective 18:

To develop support mechanism for ABS public participation across country

Action:

1. To conduct discussion workshop on develop support mechanism for ABS public participation between decision makers (main technical staffs) from MOST, MONRE and relevant sectors.
2. To conduct the development support mechanism for ABS public participation across country.

Objective 19:

To develop the policy and legislation on ABS public participation across country

Action:

1. To organize the discussion workshop on development of ABS

public participation policy and legislations between decision makers from MOST, MONRE and relevant sectors.

2. To develop the ABS public participation policy and legislations.

4.3.5 Fifth framework: Create the ABS network and to develop the ABS information provision mechanism.

Objective 20:

Conduct a survey to determine the present level and status of ABS networking and ABS information provision mechanism across country.

Action:

1. To conduct the gathering baseline information regarding the status of ABS networking and ABS information provision mechanism across country.
2. To conduct the analyses of gathering baseline information on ABS networking and ABS information provision mechanism across country.
3. Report of ABS networking and ABS information provision mechanism status across country.

Objective 21:

To discuss on ABS networking and ABS information provision mechanism across country

Action:

1. To conduct discussion workshop on ABS networking and ABS information provision mechanism between decision makers (main technical staffs) from MOST, MONRE and relevant sectors.
2. To identify the mandate and roles of responsibility for ABS networking and ABS information provision mechanism between relevant sectors.
3. To conduct training for relevant staffs in order to ABS networking and ABS information provision mechanism are going on.

Objective 22:

To develop ABS information provision mechanism
(ABS Clearing House) across country

Action:

1. To organize discussion workshop on development of ABS Clearing House Mechanism across country.
2. To promote and establish the ABS Clearing-House as part of the Clearing-House Mechanism that was created by the Convention of Biodiversity, getting support for exchange, provision of information to public.

Objective 23:

To facilitate the exchange of scientific, technical, environmental and
Legal information on, and experience with ABS

Action:

1. To conduct the collection and types of information to be exchange are broadly described as scientific, technical, environmental and legal information on, and experience with ABS;
2. To create the web site on ABS CHM (use electronic) and other systems for the exchange of information relevant to the protocol.
3. To conduct the relationship with the CBD's CHM for consulting the website at: <http://bch.biodiv.org/pilot/> or the main CBD website at: <http://www.biodiv.org>.