



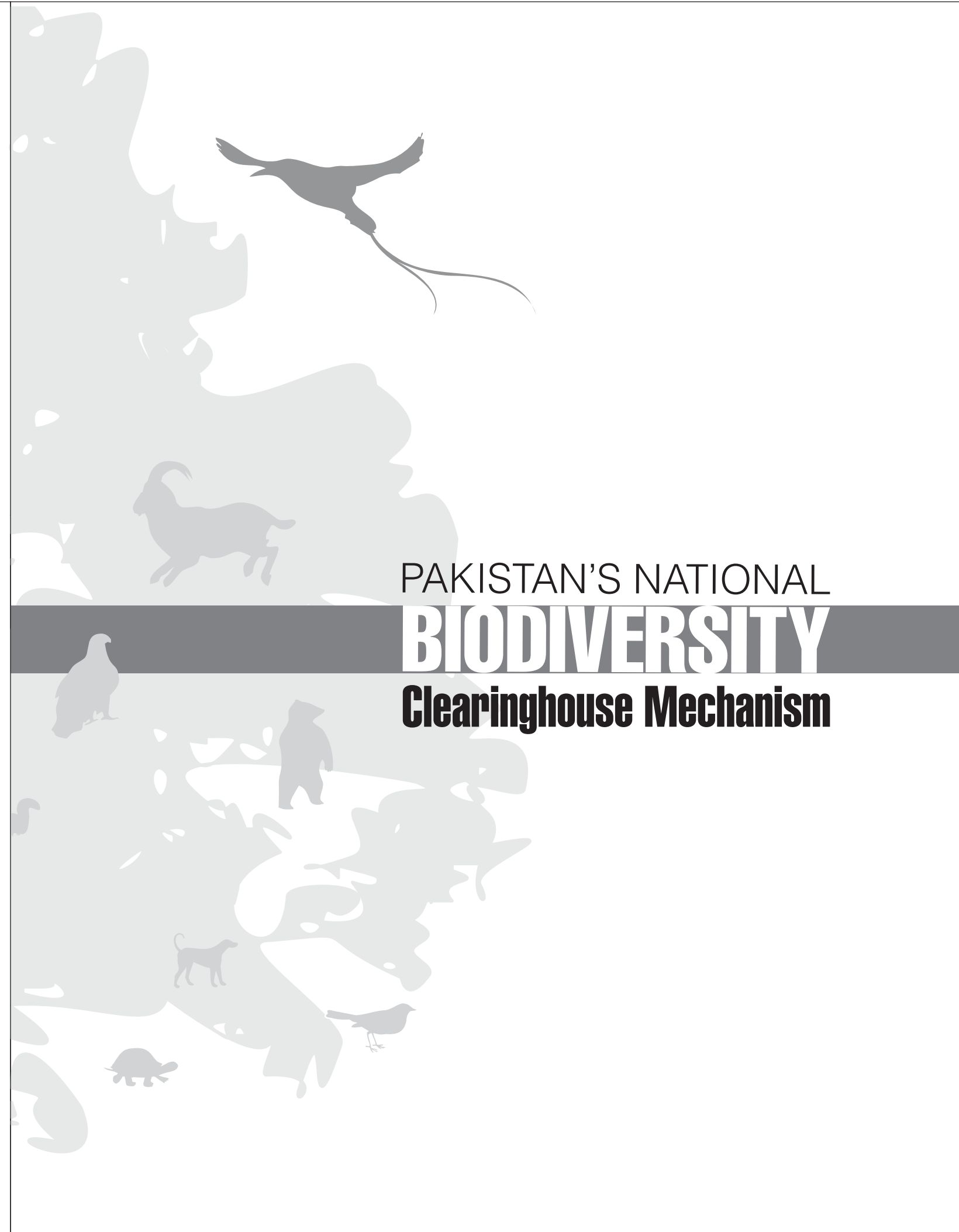
Working Strategy for CHM Stakeholders

PAKISTAN'S NATIONAL
BIODIVERSITY
Clearinghouse Mechanism

CHM
September 2012



Government of Pakistan
Ministry of Climate Change
Directorate of Biodiversity / Forestry Wing
with the Technical Assistance of WWF-Pakistan



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Preface

This working strategy contains guidelines and procedure for establishing and updating Pakistan's National Biodiversity Clearinghouse Mechanism (CHM), in compliance to relevant decisions of Convention on Biological Diversity (CBD) on CHM. The Conference of Parties (COP) of CBD in all its meetings realized that attainment of its three objectives would not be possible without generating and sharing information related to all aspects of biodiversity. Nevertheless, it took many years for the CBD to come to decisions regarding the make-up of CHM both at global and national levels. Indeed establishment of global CHM by the CBD Secretariat to achieve the three goals was rather simple process, but the embedded objective of national CHMs was extremely complicated mainly due to varied national capacities, data availability and laws governing sharing of data and information. In developing countries including Pakistan, there is often little understanding about legal provisions and restrictions of data sharing, particularly spatial data, and this single factor cautions data producers to share with potential data users. This working strategy covers all the legal aspects of data sharing in Pakistan from the perspectives of CBD and its Strategic Plan 2011-20.

During the process of establishment of Pakistan's National Biodiversity CHM, there were many doubts and differences of opinion in the minds of members of Biodiversity Working Group (BWG) and other stakeholders, for example, about administrative structure of national CHM and functions of different stakeholders, types of data to be uploaded and shared, terms of data acquisition and data use, architecture of national CHM website etc. In view of these problems of today and tomorrow, it was decided by the National Focal Point for CBD and the National Focal Point for CHM, under the guidance of Biodiversity Working Group and under the advice of WWF-Pakistan to have a CHM working strategy prepared with the consensus of all stakeholders. The potential users of this document are all users of Pakistan's National Biodiversity CHM including Ministries, national and provincial organizations, academia, R&D organizations, UN organizations, donor community and wide spectrum of other stakeholders, dealing with one or more aspects of biodiversity, either directly or indirectly. They will benefit potentially from this work in furthering their respective programmes through transparent system of information and data sharing and mobilizing resources.

During the process of preparation of this document, all relevant laws governing data protection and sharing were fully consulted and referred. This work was also inspired by discussions and recommendations of National Workshop on Biodiversity Clearinghouse Mechanism held in May 2012 and a number of workshops

and meetings held in Pakistan on various aspects of data sharing, particularly related to permissible levels of spatial data sharing. Undoubtedly, the international requirements of the CBD, as narrated in the relevant decisions of COPs, were in the forefront through this process. In my opinion, this strategy is not yet complete and error-free in true sense. Indeed this is a working strategy that will be regularly updated as new issues crop up and new solutions emerge. The users of Pakistan's National Biodiversity CHM are advised to consult relevant sections on provisions and restrictions of data sharing contained in the working strategy. They are also requested to pinpoint and report any error or omission if they come across while consulting it.

In the process of establishing Pakistan's National Biodiversity CHM and the working strategy, Ministry of Climate Change, NFP-CBD and NFP-CHM were privileged to have technical expertise of WWF-Pakistan at all stages, besides advisory contributions of Pakistan Bioresource Research Centre, National Herbarium, IUCN and Pakistan Museum of Natural History as the members of Technical Committee on CHM. This important international obligation of Pakistan was fulfilled with the financial support of Global Environment Facility to Biodiversity Enabling Activities Project (BEAP) administered through the United Nations Environment Program (UNEP). This work was completed under the esteemed guidance of Syed Mahmood Nasir, Inspector General of Forests. Special gratitude to Dr. Ghulam Akbar (Senior Director Programmes), Dr. Ejaz Ahmad (Senior Director), Dr. Masood Arshad (Senior Manager), Usman Akram (CHM Expert) and Sajid Ali (CHM Associate) of WWF - Pakistan for providing all possible support to the CHM sub-project. Personal contributions of Dr. Fakhar-e-Abbas (PBRC), Umeed Khalid (Conservator Wildlife) and Naeem Ashraf Raja (Director Biodiversity/NFP-CBD) are fully acknowledged.

(Dr. Shahzad Jehangir)

Deputy Inspector General Forests
 National Focal Point for
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Convention on Biological Diversity

Biological diversity is the variety of life on Earth, from the simplest bacterial gene to the vast, complex rainforests of the Amazon. Human beings are an integral part of this diversity, as are the food, medicine, clothing and other biological resources that sustain us. Recognizing the importance of biodiversity to our daily lives and the pressures that human activities are placing on our living world, governments adopted the Convention on Biological Diversity in 1992 as a framework for action.

Pakistan, as the signatory of CBD is implementing various Programme of Works (PoWs) towards fulfillment of objectives of Biodiversity Action Programme (BAP). Under its Article 18.3, CBD has established Clearing House Mechanism (CHM). As per decision X/15, CHM is meant to contribute significantly to CBD and Strategic Plan for Biodiversity

2011-2020 through effective information services and scientific & technical cooperation, knowledge sharing and information exchange.

The work programme for the Clearing House Mechanism should be considered in the broad context of supporting the implementation of the Strategic Plan for Biodiversity 2011-2020 and of the national biodiversity strategies and action plans at the national level. In order to follow a coherent approach, this overall support covers not only Article 18 of the Convention on technical and scientific cooperation, but also other articles aiming at building capacity and providing cross-cutting support, such as Article 16 on access to and transfer of technology and Article 13 on public education and awareness.

Biodiversity Clearinghouse Mechanism (CHM)

The term "clearing-house" originally referred to a financial establishment where checks and bills are exchanged among member banks so that only the net balances need to be settled in cash. Today, its meaning has been extended to include "any agency that brings together seekers and providers of goods, services or information, thus matching demand with supply". Biodiversity Clearing-House Mechanism seeks to support the Convention's thematic and cross-cutting programs of work by promoting cooperation, exchanging information and developing a network of partners. The mechanism's first priority was to ensure universal access to the Convention's official records. The texts of the Convention and the Cartagena Protocol on Biosafety, lists of signatories and Parties, and official reports and documents have been made available through the Convention's website, on CD-ROM and in paper form. Since then, the range of available information has been greatly expanded. Users can now

readily access case studies, national reports, and other relevant documentation.

Biodiversity CHM also seeks to increase public awareness of Convention programs and issues. It is establishing an Internet-based system to facilitate greater collaboration among countries through education and training projects, research cooperation, funding opportunities, access to and transfer of technology, and repatriation of information.

The Secretariat of the CBD Convention is promoting the clearing-house and its goals through workshops addressing the scientific and technical information needs of developing countries. These workshops give priority to issues identified by the countries themselves, such as assessing national capacities for implementing the Convention, improving access to new information technologies and expertise, and strengthening Public Education and Awareness.



In order to achieve the Goal 2 of CBD's CHM programme and in consonance with the objectives and priorities of national CHM, a biodiversity knowledge network will be developed, including a database and network of practitioners, to bring together this knowledge and experience and to make it available through the Clearing House Mechanism to facilitate and support enhanced implementation of the Convention,

including its various programmes and all national biodiversity strategies and action plans. Furthermore, analyze and disseminate concrete and practical information as well as best practices on ongoing activities that support, facilitate, or promote technology transfer as well as scientific and technological cooperation.

Relevant decisions of Conference of Parties on Clearing-house Mechanism, in its ninth and tenth meetings, are reproduced in Annexes "A" and "B".

Goals & Objectives of Global Biodiversity CHM

Goal 1: The central clearing-house mechanism provides effective global information services to facilitate the implementation of the Strategic Plan for Biodiversity 2011-2020.

Objectives of Goal 1

1. The purpose of central CHM is to make key information and knowledge, for the implementation of the Strategic Plan for Biodiversity 2011-2020, discoverable and accessible from the central clearing-house mechanism acting as the main entry point to the biodiversity knowledge network. Such information includes official and public content held at the Secretariat as well as linkages to further sources at the national or partner levels. The purpose is also to facilitate global knowledge sharing and information exchange by allowing contributions from the whole network.

2. It is strategically important to adopt good planning and monitoring practices, as well as to be able to measure the effectiveness of the central clearing-house mechanism in order to determine how to prioritize actions for further improvements.
3. A high-quality CBD website is available in all United Nations languages.
4. The CBD website is the main communication platform of the central clearing-house mechanism. A web content strategy is a means to clarify how its role translates into content and services for its target audiences. This strategy should also determine how to reach the expected level of quality, and how to manage content in all United Nations languages.
5. Effective information exchange services are fully operational.
6. Expand the knowledge base in a way that allows easy access and cross-references by continuously incorporating Convention-related information such as decisions,

work programs, targets, indicators, implementation activities, online sources, reference documents, case-studies, best practices, training materials, organizations, experts, contacts, events, maps, multimedia resources, and other relevant items.

7. Integrate collaboration tools in a user workspace encouraging Parties, experts, practitioners, and other stakeholders to maintain contact, share ideas, and work together, while providing quick access to information directly related to each user's role and activities.
8. Implement the online submission system as the update mechanism of the knowledge base and the collaboration tools in order to enable Parties and all stakeholders to make contributions related to the Convention and its implementation.
9. Provide tools enabling national clearing-house mechanisms to automatically access and display relevant information from the central clearing-house mechanism.
10. Continue to develop and use information exchange services to make Convention-related information easily and widely accessible, in line with technological and social trends.
11. Establish a global contact database including national focal points, experts, practitioners, and other relevant contacts with a user-friendly Promote networking of Parties and partners by linking the central and national clearing-house mechanisms.

12. Promote networking of Parties and partners by linking the central and national clearing-house mechanisms.

Goal 2: National clearing-house mechanisms provide effective information services to facilitate the implementation of the national biodiversity strategies and action plans.

Objectives of Goal 2

1. Prepared a realistic national implementation strategy for the clearing-house mechanism, where appropriate, preferably as a component of the national biodiversity strategy and action plan, based on identified needs and anticipated resources.
2. Mobilize and allocate resources for strengthening the institutional capacity to implement the national clearing-house mechanism and for sustaining its operations.
3. Define roles and responsibilities for collecting, reviewing and disseminating information, managing website content, and for outreach activities.
4. Existence of a clearing-house mechanism national focal point.
5. Existence of a national structure to coordinate the clearing-house mechanism and its composition.
6. Resources made available to the clearing-house mechanism.
7. The community of national practitioners implementing the national biodiversity

strategy and action plans can greatly contribute to the effectiveness of the national clearing-house mechanism through high-quality national clearing-house mechanism websites.

8. Identify relevant content and information sources at the national level and promote them through the national clearing-house mechanism.
9. Maintain and improve the national clearing-house mechanism website in terms of content, services, appearance, user-friendliness, usability and accessibility taking into account users' feedback.
10. The national clearing-house mechanism website will be available in national language also.
11. In the long run, the quality and sustainability of a national clearing house mechanism website is in direct relation with the capacity of the team in charge of it.
12. National information is exchanged through the clearing-house mechanism network.
13. Whenever possible, develop information exchange mechanisms with relevant national databases, making use, whenever applicable and appropriate, of well-established open standards.
14. Number of national databases connected automatically to the national clearing-house mechanism.
15. By interconnecting the national clearing-house mechanism with both national databases and the central clearing-house

mechanism, valuable national information can be made more prominent and accessible at the global level. Automation allows to reduce low-level IT tasks and to concentrate on high-level activities.

16. Use the national clearing-house mechanism as a repository to preserve key knowledge on the implementation of national biodiversity strategies and action plans.
17. Develop a knowledge-sharing culture to ensure that information and knowledge from various national sources is effectively provided and published on the national clearing-house mechanism.
18. Encourage the use of the national clearing-house mechanism as a tool to dialog with the civil society, major groups and stakeholders.
19. Whenever possible, facilitate international collaboration initiatives, including scientific and technical cooperation.
20. Organize capacity-building workshops to assist Parties in developing their national clearing-house mechanisms, including through organizations which are present and active at the national or regional levels, and based on the special capacity-building needs of developing countries and on the status of their national clearing-house mechanisms.
21. Encourage collaboration initiatives, as well as regional networking to further develop national clearing-house mechanisms.

Goal 3: Partners significantly expand the clearing-house mechanism network and services.

Objectives of Goal 3

1. Identify and share, through the clearing-house mechanism network, valuable information, knowledge and expertise held by partners in order to make it accessible to those who need it for implementing the Strategic Plan for Biodiversity 2011-2020 or the national biodiversity strategies and action plans.
2. These partners can also be national institutions or other centers of excellence that have a recognized role at the regional or global levels.
3. Partners can sustain their participation in the clearing-house mechanism.
4. Identify the benefits of participating in the clearing-house mechanism in line with the organization's mandate and strategy.
5. Regional clearing-house mechanisms are in a good position to provide appropriate support to a group of national clearing-house mechanisms sharing regional commonalities. Thematic clearing-house mechanisms can act as centers of excellence in specific biodiversity areas relevant to the implementation of the Convention.
6. Develop, through technical collaboration between the Secretariats of the Global Environment Facility (GEF) and the Convention on Biological Diversity, an

interoperability mechanism that facilitates access to information on GEF-funded projects related to the Convention.

7. A collaborative approach is recommended to assess which information should be exchanged, and to agree on the common mechanisms and interfaces to do so.
8. Technical expertise is usually required on each side to design and implement an information exchange mechanism.
9. Whenever possible, undertake initiatives to generate, capture, organize, package or transfer information and knowledge relevant to the implementation of the Convention.
10. Contribute to the knowledge base by submitting information related to the implementation of the Convention, such as projects, case-studies, and other relevant resources.
11. Around the world, there is a wealth of information and knowledge held by various actors in the field of biodiversity. If partners carry out the above activities, valuable information and knowledge will be gradually collected and made globally available through the clearing-house mechanism network. This is expected to benefit practitioners who implement the Convention.

CHM for Implementing Strategic Plan 2011-2020

The Conference of Parties at its 10th Session (COP-10) held in Nagoya in 2010 adopted a 10-Year Strategic Plan (2011-2020) and associated Aichi Biodiversity targets for the same period. In decision X/15, the Conference of the Parties adopted the renewed mission, goals and objectives of the

Clearing House Mechanism for the period 2011-2020. It is therefore imperative to consider a decadal timeframe, especially in the context of the Decade on Biodiversity (2011-2020), by taking into account maintenance and continuity needs during planning and budgeting.

Specific mission, goals, and objectives of the Clearing-house Mechanism for the period 2011-2020 are provided in Annex "C".



Essentials of National Biodiversity CHM

National Clearing-House Mechanism (or National CHM) is a network that provides relevant information on the Convention on Biological Diversity in a particular country in support of the UN Convention on Biological Diversity. Following are the steps recommended by the CBD Secretariat for establishing a National CHM:

1. Designate a CHM National Focal Point.
2. Identify an appropriate person as the CHM manager, preferably with an IT background.
3. Convene a stakeholders consultation and formally organize a stakeholders network including official contact persons and their related contacts information (email, telephone, website);.
4. Agree on minimum biodiversity information for uploading in the national CHM website.
5. Identify roles and responsibilities of each member of the stakeholders network on biodiversity information contributions and frequency of information updating.
6. Set up a national CHM website and decide on the web programs and equipment to be used in its establishment.
7. Conduct periodic capacity enhancement on website establishment, uploading and maintenance.
8. Design and establish a national CHM website as a tool to promote the progress of the NBSAP and mechanism for biodiversity information exchange among concerned agencies.
9. Prepare a **CHM Business Plan** which defines the roles and responsibilities of the CHM components, particularly in information exchange and contribution.
10. Arrangements, detailed activities pertaining to networking and collaboration among the stakeholders and website establishment and maintenance and budget and funding sources for these activities.

Management Structure & Corresponding Functions

The management structure of Pakistan's National Biodiversity CHM is illustrated in Figure 1 (a), whereas corresponding functions are given in Figure 1(b). Ministry of Climate Change, as the focal ministry for CBD, will be the custodian of National CHM. The **Secretary** in the highest tier will grant administrative approvals of the related matters, while Inspector General Forests will provide overall technical guidance in all matter.

The **National Focal Point (NFP) of CBD** will be responsible for coordination with the CBD Secretariat, international negotiations and political support. Director Biodiversity Programme in the capacity of NFP-CBD will be the custodian of Biodiversity CHM Repository that houses all information on different aspects of biodiversity of Pakistan, status of international negotiations, important decisions, and national reports, in hard and soft forms for sharing with stakeholders under the given guidelines. The objective is bringing together information on Pakistan's biodiversity

and making it available to all those who need it.

The **NFP of CHM**, in close collaboration with NFP-CBD, will be responsible for all technical matters from inception to establishment of national CHM, training, capacity building, data sharing, website designing, maintenance and updating etc. He / she will also officially acquire, authenticate and make available necessary documentation and data required for the Pakistan's National CHM.

To aid in the technical decision making, Ministry of Climate Change has notified Technical Committee with the following composition.

#	Name	Designation	Organization
1	Mr. Obaidullah Azeem	Database	Pakistan Museum of Natural History
2	Mr. Hammad Saeed	Coordinator	International Union for Conservation of Nature and Natural Resources
3	Mr. Fakhar-e-Abbas	Chief Executive	Bio Resource Centre (BRC)
4	Ms. Urooj Saeed	Manager	World Wide Fund for Nature - Pakistan
5	Dr. Rubina Akhtar	Director	National Herbarium, National Agriculture
6	Mr. Abdul Wahab	Director	Zoological Survey
7	Mr. Naeem Ashraf Raja	Director Biodiversity	Ministry of Climate Change

WWF Pakistan will provide technical assistance and manpower in establishing biodiversity repository and CHM website designing and updating. More specifically, WWF-P will:

- Develop CHM strategy after detailed discussions and consultations with stakeholders and keeping in view the guidance of the Technical Committee of this project.
- Provide technical assistance to Ministry of Climate Change to establish national CHM, and particularly data repository.
- Develop, host and maintain the Pakistan's National Biodiversity CHM Website on behalf of Ministry of Climate Change to act as an information hub for national and international stakeholders.

- Upload biodiversity related information in close consultation with Ministry of Climate Change.
- Support the Ministry of Climate Change in building capacity of the regional and national stakeholders through training workshops.

Provincial nodes of National CHM

The CHM will be housed at the Ministry of Climate Change's GIS Laboratory established by Pakistan Wetlands Programme to provide support to the partners and stakeholders. In order to facilitate the respective provinces and territories, six GIS nodes were set up under the "Pakistan Wetlands Programme". The contact addresses along with the details of the contact person is given below:

Name & Designation	Department	Contact No	E-mail
Hafiz Rehmat Ullah, Computer Operator	KP Wildlife Department	(091) 9211479 0300-9035132	hafiz_rahmat@yahoo.com
Asim Bashir Cheema, District Wildlife Officer	Punjab Wildlife and Parks Department	(042) 99212367 0314-5661882	
Adnan Hamid Khan, Game Officer	Sindh Wildlife Department	(021) 9204951-52 , (071) 5630687 (Sukkur) 0321-2467564	khanadnan_khi@hotmail.com
Faisal Imtiaz, Supervisor Wildlife	AJK Wildlife Department	0343-5161352	supervisor.wildlife@gmail.com
Muhammad Iftikhar, RFO	Gilgit Baltistan Forest, Wildlife and Parks Department	(05811) 920471 0344-5508331	sajjad.pmac@gmail.com
Muhammad Latif, Deputy Conservator Wildlife	Balochistan Forests and Wildlife Department	(081) 9201137 0301-3760667	latifdara@yahoo.com

Fig 1(a): Management Structure of Pakistan's National Biodiversity CHM

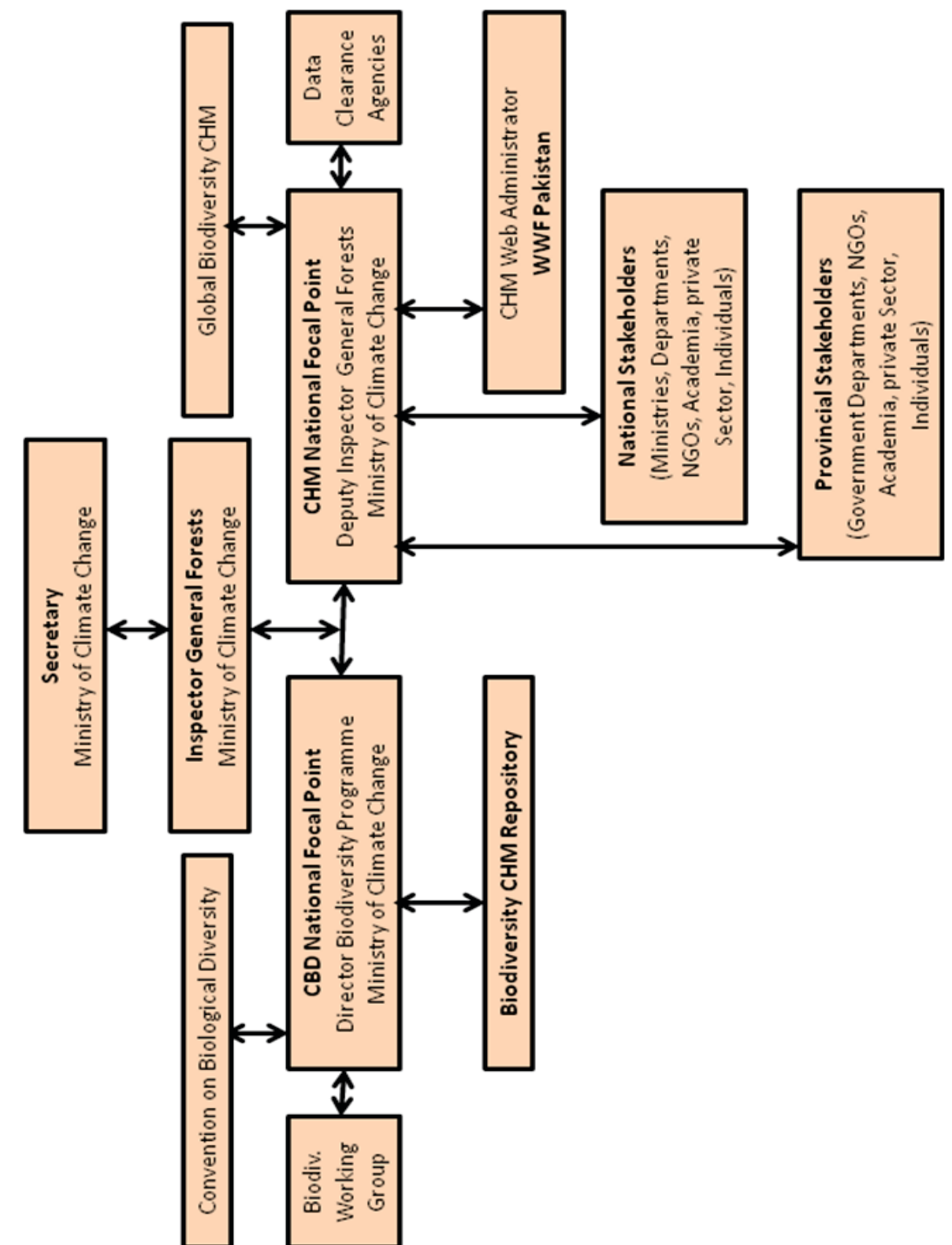
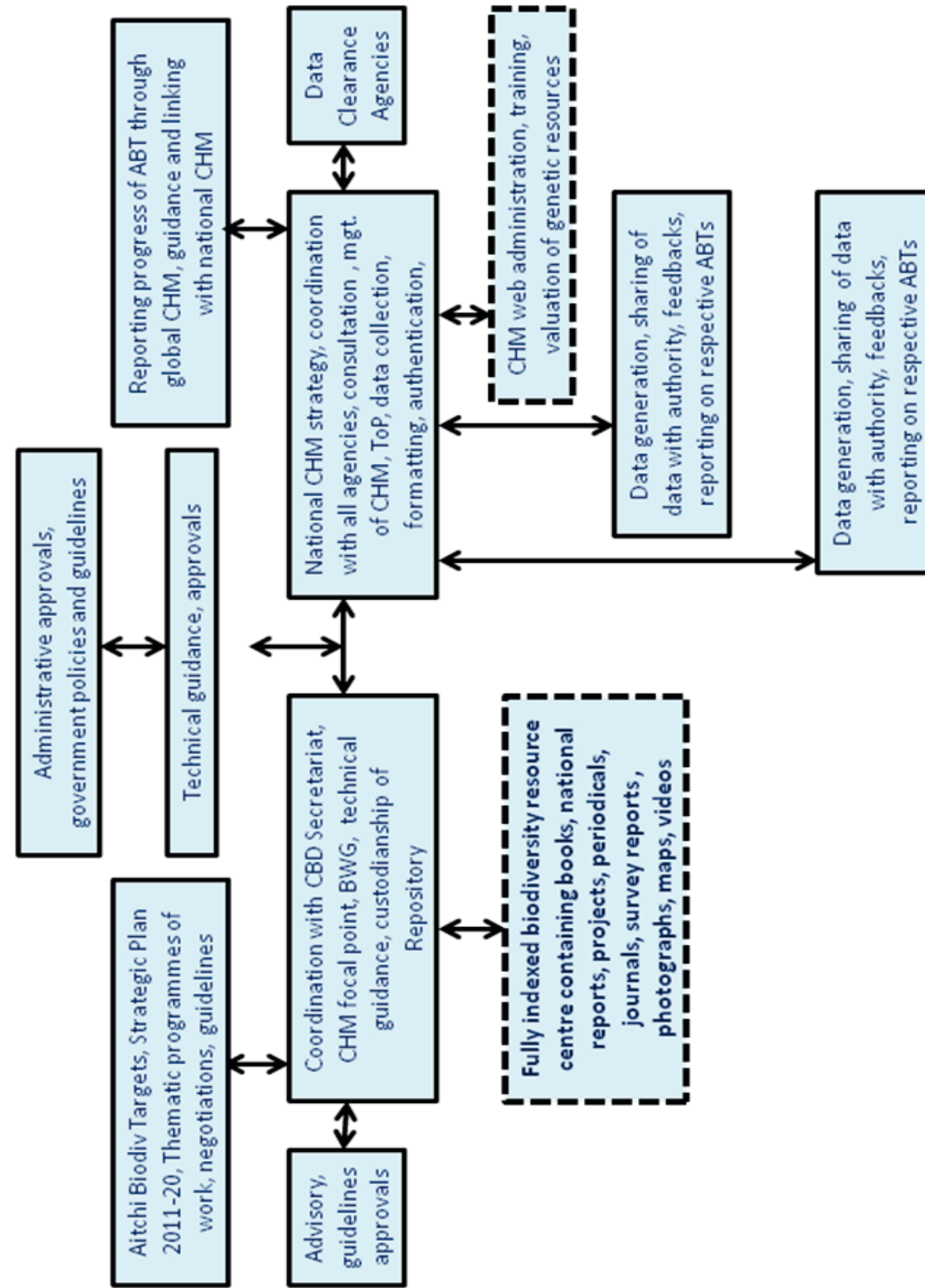


Fig 1(b): Corresponding functions of Management Structure of Pakistan's National CHM



Data Classification Levels in Vogue

Access, storage, restriction and sharing of data in Pakistan's National Biodiversity CHM will be regulated according to the following British data classification system (from the highest level to lowest):

- **Top Secret (TS):** The highest level of classification of material on a national level. Such material pertains mainly security and defence related matters that would cause "exceptionally grave damage" to national security if made publicly available. Biodiversity CHM will ensure that such data or material is not acquired from any agency either in hard or soft formats.
- **Secret:** Such material would cause "serious damage" to national security, or adverse effect on public opinion or result in legal suits, if it were publicly available. For example, no document be released which refers to experiments with humans etc. Biodiversity CHM will endeavor not to access such data or material from other agencies and if already available in the Ministry, not to share with any user either in hard or soft formats.
- **Confidential:** Such material would cause "damage" or be "prejudicial" to national security if publicly available. High resolution geodesic information, intra-ministerial correspondence before taking

a decision etc fall in this class. Biodiversity CHM will endeavor not to access such data or material from other agencies and if already available in the Ministry, will not share with any user either in hard or soft formats.

- **Restricted:** Such material would cause "undesirable effects" if publicly available. Large scale maps, high resolution images, inter-ministerial correspondence records or any other material, data or information that is declared restricted by the Government of Pakistan will not be shared through Biodiversity CHM. In inevitable cases, the users will be bound to obtain NOC from concerned agencies for acquisition and use of such restricted material, data or information.
- **Unclassified:** Technically not a classification level, but is used for government documents that do not have a classification listed above. Such documents can sometimes be viewed by those without security clearance.
- **Compartmented information:** In addition to above classification levels, there are additional limitations or restrictions imposed by Ministry of Interior and civil and military intelligence agencies on access and sharing of specialized data

and information. Often such compartmented information is assigned special codes to different data levels. National CHM will seek guidance and

clearance from Ministry of Interior in case of any doubt in this matter before acquiring, storing, processing and sharing any compartmented information.

National Legislation Governing Access of Data and Information

National Biodiversity CHM will be governed by the following legal instruments:

- (i) Copyright (Amendment) Act, 1992 ("the Amendment Act"),
 - (ii) Freedom of Information Ordinance 2002, and Article 19-A of the Constitution of Islamic Republic of Pakistan
 - (iii) Electronic Data Protection Act 2005
- (i) **Copyright (Amendment) Act, 1992 ("the Amendment Act"),**

In Pakistan, copyright protection is governed by the provisions of the Copyright Ordinance, 1962 ("the Ordinance") which is modeled on the English Act of 1914. Pakistan is a member of Berne Copyright Union and the Universal Copyright Convention. One of the most significant developments in relation to the protection of copyright in Pakistan is the recent promulgation of the Copyright

(Amendment) Act, 1992 ("the Amendment Act").

Copyright protection originally available to literary, dramatic, musical, artistic, cinematographic and architectural works, books, photographs, newspapers, engravings, lectures, records (defined as "any disc, tape, wire, perforated roll or other device in which sounds are embodied so as to be capable of being reproduced therefrom, other than a sound track associated with a cinematographic work") and sculptures is now extended to computer software, periodicals, video films and all kind of audio-visual works.

The Ordinance now provides stiffer penalties for offenders and better compensation to the persons whose rights have been infringed. The manner in which the copyright is breached has also been extended. Entirely new offences have been created through the Amendment Act which, inter alia, include penalties for publishing collections or

compendiums of work (the Ordinance defines "work" to include literary, dramatic, musical, artistic, cinematographic works and a record) which have been adapted, translated or modified in any manner without the authority of the owner of the copyright.

Section 37 of the Ordinance has been amended to restrict granting of licenses to produce and publish translation of a literary or dramatic work in English, French or Spanish, hence an applicant requesting the grant of license, upon granting of the licence and payment of prescribed royalty to the author, can produce and publish translation of a literary or dramatic work in any Pakistani language or any language not being English, French or Spanish.

The period of copyright of a literary, dramatic, musical or artistic work (other than a photograph) is the life of the author and 50 years thereafter. In the case of a cinematographic work and a photograph, copyright subsists until 50 years from the beginning of the calendar year from publication of the work.

The act of copying of work, which is entitled to copyright protection, by any method, either directly or with the aid of a machine or device constitutes an infringement of the copyright in the work. Section 56 of the Ordinance provides that copyright in a work shall be deemed to be infringed in the following cases:-

- (a) when any person without the consent of

the owner of the copyright or without a license granted by such owner or the Registrar under the Ordinance or in contravention of the conditions of a license so granted or of any condition imposed by a competent authority under the Ordinance:-

- (i) does anything the exclusive right to do which is by this Ordinance conferred upon the owner of the copyright; or
 - (ii) permits for profit any place to be used for the performance of the work in public where such performance constitutes an infringement of the copyright in the work unless he was not aware and had no reasonable ground for suspecting, that such performance would be an infringement of the copyright, or
- (b) when any person:-
- (i) makes for sale or hire or sells or lets for hire, or by way of trade displays or offers for sale or hire, or
 - (ii) distributes either for the purpose of trade to such an extent as to affect prejudicially the owner of the copyright, or
 - (iii) by way of trade exhibits in public, or
 - (iv) imports into Pakistan, any infringing copies of the work.

Section 39 of the Ordinance allows the author or publisher of, or owner of, or other person interested in the copyright in any work, to make an application for registration of the copyright. Rule 4(1) of the Copyright Rules,

1967 ("the Rules") requires every application for registration of copyright to be made in triplicate in Form-II. Rule 4(2) of the Rules requires every application to be in respect of one work only and to be accompanied by a copy of the work.

(ii) Freedom of Information Ordinance 2002 and Article 19-A

Freedom of Information Ordinance 2002 and **Article 19-A** of the Constitution of Pakistan (inserted after 18th Amendment of 2010). Freedom of information legislation comprises laws that guarantee access to data held by the state. They establish a "**right-to-know**" legal process by which requests may be made for government-held information, to be received freely or at minimal cost, barring standard exceptions. In many countries, constitution guarantees for the right of access to information, but usually these are unused if specific support legislation does not exist.

Freedom of Information Ordinance 2002 was promulgated in October 2002. The law allows any citizen access to public records held by a public body of the federal government including ministries, departments, boards, councils, courts and tribunals. It does not apply to government owned corporations or provincial governments.

- Subject to the provision of this law, the following records of all public bodies have been declared to be the public record:
- Policies and guidelines

- Transactions involving acquisition and disposal of property and expenditure undertaken by a public body in the performance of its duties
- Information regarding grant of licenses, allotments and other benefits and privileges and contracts and agreements made by a public body
- Final orders and decisions, including decision relating to members of public
- Any other record which may be notified by the Federal Government as public records for the purpose of this Ordinance

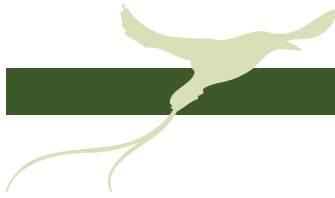
The above detailed provision **shall not apply** to the following record of all public bodies:

- Noting on the files
- Minutes of meetings
- Any intermediary opinion or recommendation
- Record of the banking companies and financial institutions relating to the accounts of their customers
- Record relating to defence forces, defence installation or connected therewith or ancillary to defence and national security
- Record declared as classified by the Federal Government
- Record relating to the personal privacy of any individual
- Record of private documents furnished to a public body either on an express or implied condition that information contained in any such document shall not be disclosed to a third person

- Any other record which the Federal Government may, in public interest, excludes from the purview of the Ordinance.

As per the 18th Amendment of 2010, **Article 19-A** has been inserted in the Constitution of Pakistan that gives right to access to information the status of a fundamental constitutional right. Article 19-A "**Right to Information**" reads: "**Every citizen shall have the right to have access to information in all matters of public importance subject to regulation and reasonable restrictions imposed by law**".

- (iii) Electronic Data Protection Act 2005**
 The EDP Act 2005 provides legal protection to electronic data with regard to its processing in Pakistan, while respecting the rights, freedom and dignity of natural and legal persons. The Act also ensures right to privacy, secrecy and personal identity and for matters connected therewith and ancillary thereto. Complete text of the EDP Act 2005 is provided at **Annex "D"**



General Data Categories of Pakistan's National CHM

In accordance with the provisions of relevant laws following categories of data types will in the domain of Biodiversity CHM;

1. Approved policies, laws, guidelines
2. Draft policies and laws for the purpose of public review and opinion (for specific period) before approval
3. Published survey and research reports wholly, or their parts in forms of texts, tables, photographs, maps etc.
4. Final and approved project documents including technical and financial details for the sake of transparency and monitoring
5. National and provincial, approved and published, reports on implementation of Convention on Biological Diversity, Biodiversity Action Plan, Strategic Plan 2011-20, Aitchi Biodiversity Targets and different programmes of work of CBD
6. Notices of biodiversity related meetings, national events,

international events

7. Important decisions of the meetings relevant to biodiversity
8. Any other category to be defined and included by Biodiversity Working Group

In accordance with the provisions of relevant laws following categories of data do not fall in the purview of Biodiversity CHM:

1. Noting on the files
2. Minutes of meetings
3. Any intermediary opinion or recommendation
4. Record declared as classified by the Federal Government
5. Record relating to the personal privacy of any individual
6. Record of private documents furnished to a public body either on an express or implied condition that information contained in any such document shall not be disclosed to a third person

Spatial Data & GPS Security and Restriction

Global Positioning System (GPS) is satellite-dependent powerful tool, which gives position, time and movement, the three degrees of freedom. Selective availability was lifted in the year 2000 and this tool is now widely used in biodiversity surveys, mapping, tracking activities. Accuracy of horizontal position in point positioning mode with a single receiver is limited to 15 to 20 metres, since P-code is not available to civil users. It is however possible to get better than 1 metre accuracy in position (latitude and longitude) by simultaneously using 2 receivers in relative or differential positioning.

In Pakistan, however, there are some security related restrictions for the use of GPS in terms of maps, coordinates, heights, contours, gravity values, digitized maps/data, and many other surveying and mapping inputs and products. Raw GPS data will be neither acquired nor disseminated through Biodiversity CHM.

As such there is no general policy or guidelines in consolidated forms available on the use and restrictions of use of GPS in Pakistan. Restrictions on geo-spatial data are occasionally notified by departmental circulars and orders of Survey of Pakistan, Ministry of Defence, Ministry of Interior and other concerned agencies. Pakistan Biodiversity CHM will follow these general guidelines for GPS and geo-spatial data:

- **GPS Receivers:** There is no restriction on GPS receivers. One can freely own a GPS receiver or a number of GPS receivers. He is free to carry out survey and acquire desired data, analyze and disseminate the same in WGS 84.
- **Topographical Maps**
 - Maps of the scale larger than 1:250,000 will not be used or shared through Biodiversity CHM.

- **Position data in latitude and longitude:** Horizontal control data up to 1 minute of arc of latitude or longitude are restricted.
- **Heights:** Heights above mean sea level rounded off to 10 cm in **unrestricted zone** are safely used for information purpose.
- **Aerial Photographs:** All aerial photographs are classified as **secret**. However, upon clearance, some photographs may be available for educational purposes on payment by requesting Survey of Pakistan.
- **Satellite Imageries:** All satellite imageries of 10 metres and higher resolution are restricted. Some additional restrictions defined by SUPARCO on the acquisition and use of raw satellite data will also be strictly adhered.
- **Data from Independent Surveys:** There is no restriction for Pakistan nationals of Government or private agencies for survey and sharing of data in **unrestricted zone**. Foreign nationals require clearance from Ministry of Interior

for individual surveys in any part of Pakistan. In case of any doubt in this regards, Ministry of Interior should be contacted for advice.

- **Digital data:** Pakistan, National Biodiversity CHM will endeavor to acquire and share only those GPS-based published works which had prior clearance from concerned agencies. GPS-based reports and other digital data published by different projects of the Ministry of Environment (def) including National Land Use Plan (NLUP), Sustainable Land Management Project (SLMP), National Environmental Information Management System (NEIMS), Pakistan Wetlands Programme (PWP) and other projects and federal agencies may be acquired, used, and disseminated through Biodiversity CHM. Most of the digitized data and maps are restricted.

Potential Data Producers, Publishers and Users

Stakeholders are individuals, groups or organizations that has direct or indirect stake in a project/organization, because it can affect or be affected by the organization's actions, operations, objectives and policies. National CHM will be implemented through the consultation of all stakeholders including: Data Producers, Data Publishers, Data Users;

(i) Data Producers: The most important stakeholders are biodiversity data and information producers. Increasing concern on biodiversity loss and reporting requirements of international biodiversity agreements have called for world's attention to inventory and monitor the wealth of biodiversity. There is an immense need to bring all the biodiversity data producers to one platform where they can share their respective data and information. Some of

biodiversity data producers as identified by CHM Technical Committee are named in **Annexure 'E'**: Biodiversity will acquire publicly available data and information from these data producers with the authority of the Heads of the department. Data acquisition form is provided at **Annexure "F (i)"** and **"F (ii)"**

(ii) Data Publishers: Data publishers include Ministry of Climate Change, national and international NGOs, Statistics Division, UN-agencies, project authorities, academia and R&D organizations.

(iv) Data Users: Main categories of Data Users include: R&D Organizations, Federal Ministries, Planning Division, Non Governmental Organizations (NGOs), Public / Private sector Universities, colleges, schools, other education institutions etc.



Training and Capacity Building of CHM Users

Training and capacity building of data producers, publishers and users is an integral component of National CHM Strategy with the ultimate aim of successful implementation of Strategic Plan 2011-2020. Capacity building workshops will be

organised on need-basis in all provinces, Azad Jammu & Kashmir and Gilgit Baltistan. The GIS lab facilities provided by PWP in provincial HQs will be used for CHM training.

National CHM Website

In accordance with the Goal 2 (objectives 7-12) of the Biodiversity CHM Programme of Work, development of national website development is an integral part of the Pakistan National Biodiversity CHM strategy for bringing together the seekers and providers of Biodiversity information.

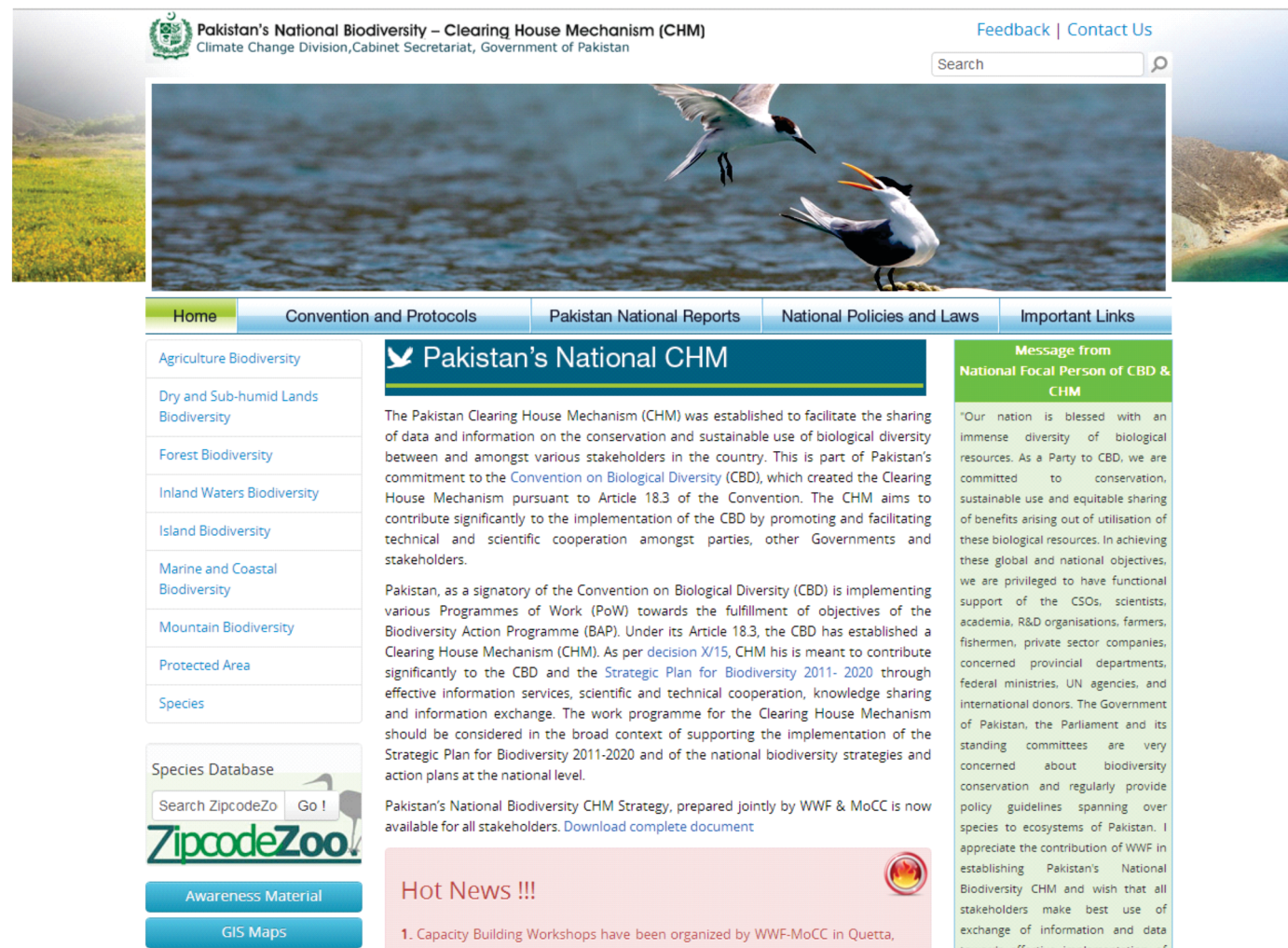
The website is required to assist policy makers and interested stakeholders to meet obligations under the CBD and to conserve and sustainable use Biodiversity. The design and contents of the website were finalized with the recommendations of all stakeholders in an inception workshop on "Pakistan's National Biodiversity CHM" organized by WWF in February 2012.

WWF provided technical assistance for development of national CHM developed website. The website was developed using

the latest PHP methodology (MVC) Model View Controllers, currently used in top branded large-scaled websites. The technology used are PHP as Server side scripting language deployed on Apache Web Server along with MySQL database to store updated information on a Linux platform. Database design and normalization has been done with latest indexing algorithms used for high performance, usability and server stability.

The website contains national biodiversity related information that is required to assist policy makers and interested stakeholders to meet obligations under the CBD and to conserve and sustainable use biodiversity. Data on the website is categories into different themes of biodiversity. The contents of Home Page, Main sections and Sub sections are described below:

Fig 2: Layout of National CHM website



Home Page (www.biodiversitychm.gov.pk)

The home page is the index page that starts with the logo of Ministry of Climate Change as the focal ministry of CBD and is followed by an introduction to:

- Convention and Protocols
- Pakistan's National Reports
- National Policies and Law
- Important links of the organization developing CHM and related biodiversity organizations

Home page indicates Logos of contributing

donors including WWF, GEF, PWP, UNEP, and CBD are also displayed in the bottom of the main page.

Main Sections of the Home Page

The Home Page contains Main Sections that covers the detailed description of the Biodiversity information which can be accessed under meaningful headings in sequential order as follows:

i. Thematic areas of Biodiversity

Data and information pertaining to different thematic programme areas of CBD and in

accordance with the Aichi Biodiversity Targets are arranged vertically on the left side of the Home Page. They Include:

- Agriculture Biodiversity
- Dry and Sub-humid Lands Biodiversity
- Forest Biodiversity
- Inland Biodiversity
- Island Biodiversity
- Marine and Coastal Biodiversity
- Mountain Biodiversity
- Protected Area
- Species

ii. Species Database

ZipcodeZoo is the species based database that provides you to search all the biodiversity relevant species.

iii. Awareness Material

This section provides the basic information about the Biodiversity of the Pakistan.

iv. Publications

National CHM website provides a wide range of publications on the principles and the guidelines for the sustainable use of Biodiversity.

v. Projects and Programmes

This section provides the information about the projects and programs documents of different organizations.

vi. News Section

There is a separate place for the news section in Pakistan National CHM website for keeping the users informed with the "Hot News"

related to the Biodiversity and its main features.

vii. Upcoming Events

The upcoming events with dates are displayed at a prominent place of the website

viii. Data sharing Organizations

This section gives the links and logos of the organizations working in the field of biodiversity and is contributing in the data sharing.

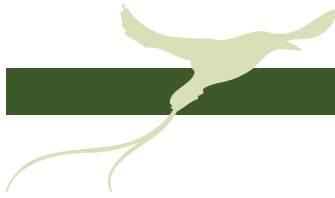
ix. Feedback

This section provides the form of inquiry about your details and feels freely to give us your suggestions and ask generously about the queries.

x. Flora and Fauna photo gallery

This section contains picture galleries of the flora and fauna of Pakistan in following subsections:

- Agriculture Biodiversity
- Dry and Sub-humid Lands Biodiversity
- Biodiversity
- Forest Biodiversity
- Inland Biodiversity
- Island Biodiversity
- Marine and Coastal Biodiversity
- Mountain Biodiversity
- Protected Area
- Species



Valuation of Genetic Resources

The valuation of genetic resources is an integral part of Pakistan National Biodiversity CHM, in support of three objectives of the Convention and the Nagoya protocol. This is a mandatory requirement for achieving Aichi Biodiversity Targets 2011-2020. According to the Decision VI/24 of CBD on the access and benefit-sharing as related to genetic resources, national governments have to develop and implement guidelines for valuation of genetic resources with the following main objectives:

- To contribute to the conservation and sustainable use of biological diversity;
- To provide Parties and stakeholders with a transparent framework to facilitate access to genetic resources and ensure fair and equitable sharing of benefits;
- To provide guidance to Parties in the development of access and benefit-sharing regimes;
- To inform the practices and approaches of stakeholders (users and providers) in access and benefit-sharing arrangements;
- To provide capacity-building to guarantee the effective negotiation and

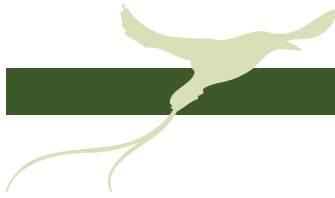
implementation of access and benefit-sharing arrangements, especially to developing countries, in particular least developed countries and small island developing States among them;

- To promote awareness on implementation of relevant provisions of CBD;
- 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;
- 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;
- To strengthen the clearing-house mechanism as a mechanism for cooperation among Parties in access and benefit-sharing;

- To contribute to the development by Parties 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;
- 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.

- 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.

WWF Pakistan has provided technical assistance to Ministry of Climate Change for developing guidelines for proper economic valuation of genetic resources. These guidelines with case studies will be widely disseminated to all stakeholders through national Biodiversity CHM and also shared with the international community through central CHM.



ANNEXURE "A"

COP 9 Decision IX/30

1 Scientific and technical cooperation and the clearing-house mechanism

The Conference of the Parties,

Noting with appreciation the Executive Secretary's efforts to enhance the Convention's website and to translate it into French and Spanish,

Having considered the note (UNEP/CBD/COP/9/23) prepared by the Executive Secretary in consultation with the informal advisory committee of the clearing-house mechanism,

Aware that full implementation of the strategic plan of the Clearing-house Mechanism is constrained by the limited capacity and resources available at the national and global levels,

1. Decides to extend the mandate of the informal advisory committee, as defined by its operational guidelines, and to review it at the eleventh meeting of the Conference of the Parties;

2. Encourages Parties, whenever appropriate, to take the following steps with a view to establishing strong and sustainable national clearing-house mechanisms:

(a) If not yet done, designate, as soon as possible, a national focal point for the clearing-house mechanism, as requested by paragraph 7 of decision II/3, with the appropriate expertise to coordinate and

implement the national Clearing-house Mechanism;

(b) Prepare a national implementation strategy for the Clearing-house Mechanism, where appropriate, preferably as a component of the national biodiversity strategy and action plan, based on identified needs;

(c) Develop their national clearing-house mechanisms as a key means for the implementation and review of their national biodiversity strategies and action plans;

(d) Whenever possible, develop links between the national Clearing-house Mechanism and existing networks, and develop information exchange mechanisms with relevant national databases, making use, whenever applicable and appropriate, of well-established open standards;

(e) Establish a national structure, as appropriate, to coordinate the development of the clearing-house mechanism, such as an inter-institutional steering committee with participation of relevant biodiversity-related organizations and stakeholders;

(f) Mobilize and allocate resources for strengthening the institutional capacity to implement the national Clearing-house Mechanism and for sustaining its operations;

(g) Define roles and responsibilities for collecting, reviewing and disseminating information, managing website content, and

for outreach activities;

(h) Identify relevant biodiversity-related information sources at the national level and promote them through the national clearing-house mechanism, and if not yet done, first provide basic information on national contacts and on biodiversity in the country;

(i) Encourage the use of the national Clearing-house Mechanism as a tool to dialog with the civil society, major groups and stakeholders

(j) Whenever applicable and feasible, make the national Clearing-house Mechanism website available also in national or local languages, and disseminate relevant materials at the national level, including to indigenous and local communities in appropriate formats and languages;

3. Encourages relevant partners holding biodiversity-related information to:

(a) Designate an appropriate technical contact or focal point for the Clearing-house Mechanism;

(b) Investigate, in collaboration with the Secretariat, ways to make their information accessible through the clearing-house mechanism;

(c) Contribute to the establishment of regional, subregional or thematic clearing-house mechanisms, with a view to provide support to national Clearing-house Mechanisms, to share knowledge and to facilitate scientific and technical cooperation, including cooperation on science and innovation as well as the transfer of technology;

4. Invites Parties, other Governments, relevant agencies and other donors to provide resources to enable developing country Parties, in particular the least developed countries and small island developing States, and countries with economies in transition, to carry out the above activities while fostering a

structured cooperation strategy between Parties;

5. Urges the Global Environment Facility and other donors to continue to provide funding to developing country Parties, in particular the least developed countries and small island developing States, and countries with economies in transition, for the establishment and maintenance of their clearing-house mechanisms;

6. Requests the Executive Secretary to:

(a) Gradually build a knowledge base, to facilitate access to relevant references, such as guidelines, strategies, reports and other information;

(b) Provide collaboration tools to enable Parties to maintain contact, share ideas and brainstorm on how to implement the Convention; keeping in mind that such collaboration is most effective when appropriate incentives such as well-defined discussion topics and clear objectives are available to encourage participation;

(c) In consultation with the informal advisory committee (CHM-IAC), provide a detailed analysis about the scope and complexity of a potential on-line submission system for sharing knowledge and experiences, and, if feasible and appropriate, develop a prototype for review and comments by interested Parties;

(d) Establish, whenever applicable and feasible, common formats and vocabularies for the Clearing-house Mechanism information systems with a view to enhance clarity, user-friendliness, efficiency, interoperability, and data comparability;

(e) Strengthen the Secretariat's capacity in areas related to the clearing-house mechanism, such as information technology, website, knowledge management and other modern information services, focusing on the priority areas identified in this paragraph;

(f) Improve the Convention's website, its accessibility, and make this website available in all United Nations languages;

(g) Provide guidance and support to Parties to assist in the establishment of their national clearing-house mechanism, including through organizations which are present and active at the national or regional levels, and based on the special capacity-building needs of developing countries;

(h) Further collaborate with key partner organizations, inter alia:

i. Other Rio conventions to develop synergies for national implementation and support to the clearing-house mechanism;

ii. The Global Biodiversity Information Facility for the management of biodiversity data;

iii. The United Nations Environment Programme and its related institutions for biodiversity issues and knowledge management;

iv. Regional and sub regional organizations that have the expertise and mandate to support the clearing-house mechanism;

v. Organizations active in the field of technology transfer, the 2010 indicators, and communication, education and public awareness;

(i) Take into account the strategy for the preparation of the International Year of Biodiversity adopted under decision IX/33 when further developing the services offered by the Clearing-house Mechanism leading up to the year 2010;

(j) Consider the role of the Clearing-house Mechanism in analyses prepared for revisions to the Strategic Plan of the Convention

beyond 2010;

(k) Facilitate cooperation between the informal advisory committee on the Clearing-house Mechanism (CHM-IAC) and the informal advisory committee on communication, education and public awareness (CEPA-IAC) in order to further develop the Clearing-house Mechanism as a tool for communication, education and public awareness activities.

- COP 8 Decision VIII/11
- COP 7 Decision VII/23
- COP 6 Decision VI/18
- COP 5 Decision V/14
- COP 4 Decision IV/2
- COP 3 Decision III/4
- COP 2 Decision II/3
- COP 1 Decision I/3

ANNEXURE "B"

COP 10 Decision X/15 X/15. Scientific and technical cooperation and the clearing-house mechanism

The Conference of the Parties,

Having considered the report and recommendations prepared by the Executive Secretary in consultation with the informal advisory committee of the clearing-house mechanism,

Appreciating the progress made so far by the Parties and the Executive Secretary in the implementation of the clearing-house mechanism,

Taking into account the updated Strategic Plan for Biodiversity 2011-2020 which reaffirms the important supporting role of the clearing-house mechanism in the implementation of the Convention,

1. Adopts the mission, goals, and objectives of the clearing-house mechanism for the period 2011-2020 annexed to this decision, and welcomes the priority activities for the intersessional period in annex II to the progress report of the Executive Secretary as well as other suggestions for further development;

2. Encourages Parties to:

(a) Continue to take the necessary steps to establish, strengthen, and ensure the

sustainability of, national clearing-house mechanisms (goal 2), and to implement, as appropriate, the activities mentioned in annex II to document UNEP/CBD/COP/10/15;

(b) Contribute, whenever possible, to cooperation initiatives aiming at developing regional, sub regional, thematic, or national clearing-house mechanisms;

(c) Include support for the clearing-house mechanism when requesting funding from the Global Environment Facility for updating and implementing national biodiversity strategies and action plans;

3. Encourages relevant partners to further contribute to the expansion of the clearing-house mechanism network and services (goal 3);

4. Requests that the Executive Secretary and the Global Environment Facility cooperate to facilitate access to funding for the clearing-house mechanism as a key component to support the implementation of the Strategic Plan for Biodiversity 2011-2020, as well as the implementation of NBSAPs;

5. Requests the Executive Secretary, subject to available resources, to:

The Conference of the Parties,

Having considered the report and recommendations prepared by the Executive Secretary in consultation with the informal advisory committee of the clearing-house mechanism,

Appreciating the progress made so far by the Parties and the Executive Secretary in the implementation of the clearing-house mechanism,

Taking into account the updated Strategic Plan for Biodiversity 2011-2020 which reaffirms the important supporting role of the clearing-house mechanism in the implementation of the Convention,

1. Adopts the mission, goals, and objectives of the clearing-house mechanism for the period 2011-2020 annexed to this decision, and welcomes the priority activities for the intersessional period in annex II to the

ANNEXURE “C”

Mission, Goals and Objectives of the Clearing-House Mechanism for the Period 2011-2020

MISSION

To contribute significantly to the implementation of the Convention on Biological Diversity and its Strategic Plan for Biodiversity 2011-2020, through effective information services and other appropriate means in order to promote and facilitate scientific and technical cooperation, knowledge sharing, and information exchange, and to establish a fully operational network of Parties and partners.

GOALS AND OBJECTIVES

Goal 1: The central clearing-house mechanism provides effective global information services to facilitate the implementation of the Strategic Plan for Biodiversity 2011-2020.

1.1. The CBD Secretariat has the capacity to sustain an effective central clearing-house mechanism.

1.2. A high-quality CBD website is available in all United Nations languages.

1.3. Effective information exchange services are fully operational.

1.4. The CBD Secretariat facilitates the development of a network of experts and practitioners among Parties and partners.

1.5. Guidance is available for Parties and partners to exchange information through the clearing-house mechanism network.

Goal 2: National clearing-house mechanisms provide effective information services to

facilitate the implementation of the national biodiversity strategies and action plans.

2.1. All Parties have the capacity to sustain effective national clearing-house mechanisms.

2.2. High-quality national clearing-house mechanism websites are available.

2.3. National information is exchanged through the clearing-house mechanism network.

2.4. Parties collaborate and share knowledge through the clearing-house mechanism network.

2.5. Partners and the CBD Secretariat have contributed to the development of national

Goal 3: Partners significantly expand the clearing-house mechanism network and services.

3.1. Partners can sustain their participation in the clearing-house mechanism.

3.2. High-quality regional and thematic clearing-house mechanism websites are available.

3.3. Partner information is exchanged through the clearing-house mechanism network.

3.4. Partners collaborate and share knowledge through the clearing-house mechanism network.

ANNEXURE “D”

Electronic Data Protection Act 2005

An Act to provide for protection to electronic data with regard to the processing of electronic data in Pakistan Whereas it is expedient to provide for the processing of electronic data while respecting the rights, freedom and dignity of natural and legal persons, with special regard to their right to privacy, secrecy and personal identity and for matters connected therewith and ancillary thereto; Now therefore it is enacted as follows:

CHAPTER 1

PRELIMINARY

1. Short title, extent and commencement.

1. This Act may be called the Electronic Data Protection Act 2005.
2. It extends to the whole of Pakistan and shall apply to the processing of electronic data which is collected or takes place within Pakistan, regardless of the location of the data processor or data controller.
3. It shall come into force at once.

2. Definitions

- 1) In this Act, unless there is anything repugnant in the subject or context,-
 - a. “blocking”, means the storage of electronic data while any other data processing operation is temporarily suspended;
 - b. “corporate data”, means any information relating to or owned by any person including financial, legal and business processes;
 - c. “data controller”, means the individual or person, who determines the

purposes and means of the processing of electronic data, including security issues;

- d. “data filing system”, means any set of data structured according to several specific criteria suitable to ease their processing, composed of one or more units, in one or more physical locations;
- e. “data operator”, means an individual employed by data processor for the processing of electronic data;
- f. “data processor”, means the individual or person, who processes electronic data on behalf of a data controller;
- g. “data subject”, means the individual or person to whom the electronic data are related;
- h. “disclosure”, means the act of making electronic data known to one or more specified individual or person, excluding the data subject himself, by any means;
- l “dissemination”, means the act of

making electronic data known to unspecified individuals or persons, by any means;

- j. “electronic data” means any information which is being processed by means of any information system, is recorded with the intention that it should be processed by means of such information system, or is recorded as part of a relevant data filing system or with the intention that it should form part of a relevant data filing system
- relevant data filing system and includes personal, corporate, foreign and local data; Explanation.—The words “information” and “information system” used in sub- clause (k) shall have the same meaning as defined in the Electronic Transaction Ordinance 2002 (LI of 2002);
- k. “federal government” means the federal government of Pakistan;
 - l. “foreign data” means both personal and corporate data collected outside Pakistan and sent to Pakistan for processing purpose only;
 - m. “individual” means natural person;
 - n. “local data” means both personal and corporate data collected within Pakistan for processing within or outside Pakistan;
 - o. “person” includes an authority, trust, waqf , association , statutory body, firm, company including joint venture or consortium , or any other entity whether registered

or not;

- p. “personal data”, means any information relating to an individual, identified or identifiable, directly or indirectly by reference to any other information;
- q. “processing”, means any operation or set of operations, whether or not performed by an information system, which involves collection, recording, organization, storage, adaptation or alteration, retrieval, use, alignment or combination, blocking, disclosure by transmission, dissemination, erasure or destruction of the data;
- r. “prescribed” means prescribed by rules made under this Act;
- s. “Rules” means rules made under this Act; and
- t. “sensitive data” means data revealing racial or ethnic origin, religious, philosophical or other beliefs, political opinions, membership in political parties, trade unions, organizations and associations with a religious, philosophical, political or trade-union, or provide information as to the health or sexual life of an individual and financial, or proprietary confidential corporate data.

3. Manual and personal data

1. The processing of personal or corporate data which are not performed by any information system or other automated means shall not be

subject to the provisions of this Act unless the manual data is collected for the purpose of converting it into electronic data.

2. The processing of personal data by an individual in the course of a purely personal activity or household and family purposes shall not be subject to the provisions of this Act, provided that the personal data are not intended to be systematically disclosed or to be disseminated.

4. Government activity and exemptions

- (1) This Act does not apply to the processing of personal or corporate data carried out by federal, provincial or local government.
- (2) The federal government, in respect of local data only, by notification in the official gazette, may exempt any public or private sector, entity or business from the operation of this Act.

CHAPTER 2

PROCESSING OF FOREIGN AND LOCAL DATA

5. Data processor and data operators

- (1) The data processor shall perform the data processing in the prescribed manner and according to the instructions received from the data controller unless it contravenes any law.
- (2) Data operators shall act on the foreign or local data, as the case may be, to which they have access only according to the instructions of the data processor.

6. Processing

Processing of foreign or local data, as the case may be, shall be: (a) done fairly and lawfully; and (b) stored for specified, explicit and lawful purposes.

7. Collection of local data

Local data that are subject to data processing shall be: (a) collected with due diligence, fairly and lawfully; (b) collected and stored for specified, explicit and lawful purposes; (c) adequate, relevant and not excessive in relation to the purposes for which it is collected or processed; and (d) processed in accordance with the rights of the data subject and, when necessary, kept up to date.

8. Information to data subject

- (1) Data subject, any other individual or

person from whom the local data is collected shall be given, prior to the collection and in writing, the following information:

- (a) the purposes and means of the processing;
 - (b) whether replies to the questions are obligatory or voluntary;
 - (c) the possible consequences of failure to reply;
 - (d) the recipients or categories of recipients to whom data may be disclosed, and the limit of data dissemination;
 - (e) the existence of his rights; and
 - (f) the name or trade name, and the address of the data controller and, if designated, of the data processor.
- (2) Some or all of the information described in Sub-section 1 may be omitted when it is already known to the person from whom the data is collected.
 - (3) Where the data have not been obtained from the data subject, the information described in Sub-section 1 shall be provided to the data subject at the time of undertaking the recording of the personal data or, if a closure is intended, no later than the time when the data is first disclosed.



CHAPTER 3

DATA SUBJECT'S RIGHTS

9. Consent

It would be the sole responsibility of the data controller to obtain the consent of the data subject, if required, whose electronic data shall be processed within Pakistan.

10. Rights of foreign Data Subjects

Data subjects shall have all their rights, if any provided under the laws of the country or territory where the foreign data has been collected or data subject resides, only against

data controller including confirmation as to existence of, access to, updating or rectification of their foreign data and objection to any or all operations involving the processing of foreign data and its intended purpose and will not deal directly with the data processor within Pakistan unless otherwise agreed between the data controller and data processor.

CHAPTER 4

ELECTRONIC DATA SECURITY

11. Electronic data security

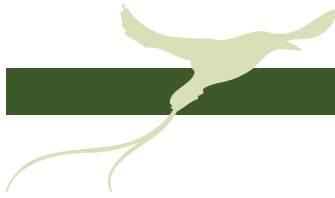
(1) Electronic data that is subject to data processing shall be kept under custody, controlled or processed in such a way as to minimize the risks of its destruction or loss, even accidental, unauthorized access, unlawful processing or processing for purposes other than those for which the electronic data were collected, by means of appropriate precautionary security measures.

2) The minimal precautionary security measures shall be as prescribed.

12. End of data processing

(1) Before ending the processing of electronic data, for any reason, the data processor shall notify the data controller of its fate.

(2) The electronic data can be: (a) destroyed; or (b) returned to data controller.



CHAPTER 5

DISCLOSURE AND DISSEMINATION

13. Data operators

The act of making electronic data known to data operators appointed by the data processor, in writing, to perform the operations related to the processing, and acting directly on his behalf, shall not be considered disclosure and dissemination subject to such limitation as may be agreed upon between data controller and data processor.

14. Data disclosure

The disclosure and dissemination of personal or corporate data shall be permitted: (a) by the data processor, when the data controller has explicitly given his consent or as provided in the contract with data controller; (b) by data controller or data processor;

(When it is performed under an obligation by national, provincial or local laws;

(ii) when necessary for the establishment, exercise or defence of legal claims in court;

(iii) when requested by any relevant government authority for purposes of national security or prevention, investigation, detection and prosecution of criminal activities; and (iv) as may be prescribed.

15. Sensitive data

(1) The processing of Sensitive Data shall be conducted in such a way as to minimize the risks of unauthorized access or use, by means of appropriate precautionary security measures.

(2) The minimal precautionary security measures for the sensitive data shall be as prescribed.

16. Transfer of local data abroad

Transfer of local data to any territory outside Pakistan shall only be carried out in the prescribed manner.

CHAPTER 6

FEDERAL GOVERNMENT

17. Powers and functions of federal government

(1) The federal government shall have the following powers and functions to,

(a) prepare and encourage the drawing up of suitable codes of conduct and ethics by certain categories;

(b) verify the compliance of such codes with applicable laws;

(c) seek views of data controllers and data processors on any matter related to electronic data;

(d) contribute to the publicity and enforcement of such codes;

(e) interact and cooperate with international and region.



ANNEXURE "E"

List of the Biodiversity Data Producers

#.	Name of the Organization	Address of the Organization	Contact Numbers	Website / URL
1	Baluchistan Wildlife Department	Spinny Road, Quetta , Pakistan	92-81-9201137	
2	Bioresource Research Centre (BRC)	House No: 34, Bazaar Road G-6/4, Islamabad, Pakistan	92-51-2278044	http://www.pbrc.edu.pk/
3	Centre for Biodiversity and Conservation	Shah Abdul Latif University, Khairpur Sindh, Pakistan		
4	Department of Forestry, Range management and Wildlife	University of Agriculture, Faislabad		
5	Department of Freshwater Biology and Fisheries	University of Sindh, Allama I.I. Kazi Campus, Jamshoro-76080, Sindh, Pakistan	92-22-9213181	
6	Department of Wildlife and Fisheries	Govt. of Azad Jammu Kashmir	92-5822-920176	
7	Department of Wildlife Management	Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi		
8	Himalayan Wildlife Foundation	01, Park Road, F-8/1, Islamabad 44000, Pakistan	92-51-2255990, 2856981	http://hwf.org.pk
9	Houbara Foundation International (Pakistan)	4-E/2, Gulberg III, Lahore, Pakistan	92-423-5711979, 5715785, 5715788	
10	International Union for Conservation of Nature (IUCN)	IUCN Pakistan Country Office, 1 Bath Island Road, Karachi 75530, Pakistan	92-21- 5861540, 5861543	www.iucn.org
11	Margalla Hills Society	C.D.A. Old Floral shop Super Market, F-6, Islamabad	92-51-9205083	
12	National Agriculture Research Centre (NARC)	Park Road, Islamabad, Pakistan 44000	92-51-9255012	http://www.parc.gov.pk/NARC/narc.html
13	Northern Areas Wildlife Department	Gilgit ,Pakistan	92-572-2365	
14	KPK Wildlife Department	Shami Road, Peshawar, Pakistan	92-91-9211479	

15	Pakistan Agriculture Research Council (PARC)	Plot No. 20, G-5/1, Islamabad	92-51-8442000	http://www.parc.gov.pk/
16	Pakistan Game Fish Association (PGFA)			http://www.pgfa.org
17	Pakistan Museum of Natural History (PMNH)	Garden Avenue, Shakarparian, Islamabad	92-51-9219938	www.pmnh.edu.pk
18	Pakistan Society for Conservation of Wildlife (PaSCoW)	SF-3/69, Sea View DHA, Karachi, Pakistan	92-21-9205923 – 5854323.	www.safety.net.pk/pascow/index.htm
19	Pakistan Wildlife Foundation	Basement Balochistan plaza,Fazal e Haq Road, Blue Area, Islamabad	92-51-2803400	www.pakwildlife.org
20	Punjab Wildlife Department	2-Sanda Road, Lahore, Pakistan	92-423-9212361	
21	Punjab Wildlife Research Institute	Gatwala,Faisalabad		http://wildlife-pwri.com/index.html
22	Sarhad Conservation Network	Farman Manzil, 2nd Mile Stone,Warsak Road, Peshawar 25160,Pakistan	92-91-812931, 213180	
23	Sindh Wildlife Department	Stratchen Road, Opp. PIA Booking Office, Karachi, Pakistan	92-21- 9204952	www.sindhwildlife.com.pk
24	Snow Leopard Trust	House: 15-A, Street- 21, F-7/2, Islamabad		www.snowleopard.org
25	Society for Conservation and Protection of Environment (SCOPE)	141-D (Annexe), Block 2, PECHS, Karachi 75400, Pakistan	92-21-4559448, 4522562	www.scope.org.pk
26	Society of Torghar Environmental Protection (STEP)			
27	Wildlife Department KPK		92-23-9211479	
28	World Society for Protection of Animals (WSPA)	House no 34, Bazar Road , G-6/4, Islamabad	92-51-2278044	http://wspa-international.org/
29	Zoological Society of Pakistan	University of the Punjab, 54590	92-423-99230133	http://zsp.com.pk/
30	Zoological Survey Department, Government of Pakistan (ZSD)	Kiani Road, Bhara Kahu, Islamabad 44000	92-51-2233121	http://www.zsd.gov.pk
31	MUSEUM - Zoological Survey Department	Natural History Museum, Fish Harbour, West Wharf, Adjacent Marine Fisheries Department, Karachi.	92 21 2205069 Email:zsd6167@imulti.net.pk	
32	MARINE BIOLOGICAL RESEARCH LABORATORY	Block 67, Pakistan Secretariat, Shahrah-e-Iraq, Saddar, Karachi Postal Code: 74200	92 21 9203334 zsd6167@imulti.net.pk	
33	Center of Excellence in Marine Biology	University of Karachi, Karachi 75270	Telephone:9261300-06 Ext:2256 Email:info@cemb-pk.edu.pk	
34	Belour Advisory and Social Development Organization (BASDO)	Domial Rd. PO Box 501 Gilgit, Northern Areas 15100	Tel: +92 5811-52603 Email:basdo@glt.msats.net.pk	http://www.basdo.gq.nu

35	National Council for Conservation of Wildlife	Building 14-D, Second Floor, F-8, Markaz, Islamabad	Tel: 051-9262270	
36	ICIMOD	ICIMOD-Pakistan Country Office WRRRI/NARC Premises Park Road, Islamabad	051-9255003 051-8443660 ajasra@icimod.org	http://www.icimod.org/?q=pakistan&page=pakistan
37	Sustainable Land Management Project		naveeda.nazir@undp.org	
38	ICARDA	P.O. Box 5466, Aleppo, Syrian Arab Republic	icarda@CGIAR.ORG	http://www.icarda.org/Facelift.htm
39	Federal Seed Certification and Registration Department (FSCRD)	G-9/4 Mauve Area, Islamabad	Tel: 051-9260126 Fax:051-9260234 fscd@seed.isb.sdnpk.org	
40	Pakistan Meteorological Department	Headquarter Office Sector H-8/2, Islamabad	Phone: 051-9250360-1 Fax: 051-9250368 Email: pmd@pmd.gov.pk	http://www.pmd.gov.pk
41	PMAS-Arid Agriculture University	Shamsabad, Murree Road Rawalpindi	Phone:051-9290151 Fax 051-9290160	www.uaar.edu.pk
42	CDA	Main CDA Secretariat, G7/4, Islamabad	Phone:9253003/9230274 getreply@cda.gov.pk	http://www.cda.gov.pk/cda-latest
43	Provincial Developmental Authorities			
44	National Institute of Oceanography	ST-47, Block-1 Clifton, Karachi	Ph:021-99251172-78 Fax:021-99251179 niopk@cubexs.net.pk	www.niopk.gov.pk
45	Ayub Agricultural Research Institute, AARI, Faisalabad	Jhang Road, Faisalabad	Ph:041-2654359 Fax:041-2653874 dgaraari@yahoo.com	http://www.agripunjab.gov.pk/index.php?f=1&m=0&l=0&r=1
46	Central Cotton Research Institute, Multan	Old Shujabad Road, P.O.BOX. 572, Multan	Ph:061-9200340 Fax:061-9200342 Email: ccri@mul.paknet.com.pk	
47	Pakistan Forest Institute	Pakistan Forest Institute Peshawar	Ph:091-921612	
48	Zoology, Botany Departments of all Public Universities			
49	Herbal Medicinal Institute			
50	Fertilizer manufacturer			
51	WWF – Pakistan	P.O. Box 5180 Ferozepur Road, Lahore.	Tel: 042 35862359 Fax: 042 35862358 info@wwf.org.pk	http://www.wwfpak.org/index.php

53	GEF			
54	Global Change Impact Study Centre	National Centre for Physics Complex (NCP), Near Quaid-i-Azam University Campus, Shahdra Valley Road, Islamabad	Ph.: 051-2077386 Fax: 051-2077385	www.gcisc.org.pk
55	Wapda			
56	PCRWR	Khyaban-e-Johar Road, Sector H-8/1, Islamabad	Ph:051 9101282 pcrwr@isb.comsats.net.pk	http://www.pcrwr.gov.pk/default.aspx
57	Soil Survey of Pakistan	P.O. Shahnoor, Multan Road, Lahore.	Ph:042-7841323 Fax:042-7841323	
58	Irrigation Departments			
59	Higher Education Commission	Sector H-9, East Service Road, Islamabad	Phone: (051) 9040 0000	www.hec.gov.pk/
60	Pakistan Environmental Protection Agency	House # 311, Main Margalla Road, F - 11 / 3, Islamabad	(051) 9267621	www.environment.gov.pk



ANNEXURE "F (i)"

Data Collection Form

**PROFORMA FOR
ACQUISITION OF DATA /INFORMATION FOR
Biodiversity clearing house mechanism (CHM)**

1. Name of data provider/organization
2. Organization Address
3. Contact Person
4. Authority Issuing data
5. Level of Biodiversity i. Ecosystem ii. Species iii. Genetic

6. Theme of Data/Info (Please tick relevant boxes)

Agricultural Biodiversity Dry and Sub-Humid Lands Biodiversity
 Forest Biodiversity Inlands Water Biodiversity Island Biodiversity
 Marine and Coastal Biodiversity Mountain Biodiversity Protected Area
 Species

Basic of data generation (Please tick relevant boxes)

Survey Project based Research
 Secondary sources Other (Specify)

7. Form of data (Please tick relevant boxes)

Book Publication Soft Documents Other (Specify)
 Maps Spatial Data Photographs/ Report /Research
 Notification Maps Paper
 News Articles Legal Documents
 International Rules/Registrations Other
 Convention Suggestions

8. Potential beneficiaries: (Please tick relevant boxes)

Students Researchers Others (Specify)
 Planners/ International Community Managers
 Policy makers

Initial of data Collector

Data Issuing Authority

ANNEXURE "F (ii)"

Criteria for Data Sharing on Pakistan's National Biodiversity Clearing House Mechanism

Title: _____
 Brief Description: _____
 Sector (Programme of Work): _____
 Organization / Individual Name: _____
 Contact Person: _____
 Contact Address: _____
 Telephone: _____
 Email: _____
 Authority Issuing Data: _____
 Upload Data: _____