Context

Following Pakistan’s obligation to the Convention on Biological Diversity (CBD), and given diverse agro-ecological realities of Khyber Pakhtunkhwa, enhanced responsibilities of the province towards biodiversity conservation in the backdrop of the 18th Constitutional Amendment, and its Green Growth Initiative, it was pertinent to develop the Khyber Pakhtunkhwa Biodiversity Strategy and Action Plan. The KP-BSAP is closely linked to the National Biodiversity Strategy and Action Plan and contributes to the Aichi Biodiversity Targets. It comprises of:

- A Biodiversity Strategy with a vision, statement of principles, defined goals, and a set of targets to help guide implementation; and
- A Biodiversity Action Plan that identifies priority actions and clearly outlines how these will be implemented, including expected timelines, monitoring and reporting, and the roles and responsibilities of the institutions and stakeholders involved. The action plan also includes a framework for mobilising necessary funding and a communication strategy to support the implementation of the KP-BSAP.

It follows the principles and process outlined by CBD for developing sub-national biodiversity strategies and action plans. The KP-BSAP is based on the Khyber Pakhtunkhwa Biodiversity Assessment Report, which includes an assessment of the conservation status of habitats and species, and also presents an inventory of biological information for selected species and habitats, and of biodiversity subsectors including forestry, wildlife, agriculture, livestock, and fisheries.

KP and its biodiversity

Khyber Pakhtunkhwa, renamed from NWFP in 2010, has diverse geo-ecological formation, ranging from Dera Ismail Khan at 250 metres above mean sea level in the South to 7708 metres high Tirich Mir in the Chitral District. Khyber Pakhtunkhwa is comprised of 25 districts having distinct ecological and cultural identities. Politically, the province has 35 national assembly and 99 provincial assembly constituencies.

It has a wide range of climatic conditions from a lowest of -14 °C in the north to the highest of 51 °C in the south, and precipitation as low as 130 mm per annum in the southern districts to around 3200 mm in the northern parts. This wide range of precipitation and temperature bestows the province with unique and diverse floral and faunal biodiversity.

In its total geographic area of around 7452 km² (7452079 ha), the major land uses are agriculture, forestry, and grazing. It is the second most densely populated province of Pakistan with an extrapolated population of 29.27 million, which puts enormous anthropogenic pressure on natural resource base. The economy of Khyber Pakhtunkhwa is the 3rd largest in the country with an estimated GDP of PKR 2283 billion in 2013 and average GDP growth of 4.3%.

Around 20.25% of the province is forested with trees of varying density and age, and nine major vegetation types. To date, around 466 species of birds, 100 of mammals, 66 of reptiles, 44 butterflies, 118 of fish, and more than 4500 of plants have been reported in Khyber Pakhtunkhwa. The province has a reasonable proportion (14.3%) of its geographical area designated as protected areas. Agriculture sector, including livestock and fisheries, contributes around 21% to the provincial GDP. It covers crops, fruits, vegetables, farm forestry, livestock and fisheries sub-sectors.

Development of KP-BSAP

The KP-BSAP has been developed following an inclusive and participatory approach as a concise, clear, and easily comprehensible document, backed by the KP Biodiversity Assessment Report, synthesis of a wide range of literature and data available from diverse sources, and discussions with the relevant experts. The participation of, and consultation with, the relevant stakeholders at all levels, was the foremost priority for the provincial government in order to ensure the ownership and sustainability of the process and the product, i.e., KP-BSAP. The process engaged BKP Steering Committee, the Khyber Pakhtunkhwa Biodiversity Working Group, the Technical Expert Team, and the field level expertise through series of meetings and dedicated regional consultations (at Swat, Abbottabad, Peshawar, Dera Ismail Khan, Kohat, and Chitral). The diverse range of stakeholders included academia, biodiversity practitioners, civil society and private sector representatives, community representatives, and staff of the forest, wildlife, agriculture, livestock, and fisheries departments.

This extensive process has not only helped in developing the KP-BSAP, but also in bringing biodiversity at the policy forefront and widening the fiscal space for the sustainable management of biodiversity.
The Strategy and Action Plan

The biodiversity strategy for Khyber Pakhtunkhwa is entrenched in the global principles of biodiversity conservation, national commitments toward multilateral environmental agreements, inventory and state of provincial resources, local capacities, and communities’ willingness to act for saving their natural resource based livelihoods. While benefitting from global knowledge repositories, it builds upon local conservation knowledge; hence sets the targets which are strategic but specific with measurable indicators, achievable, and realistic within the given resources, and timeframe.

The Khyber Pakhtunkhwa Biodiversity Strategy and Action Plan also corresponds to five of the thematic programmes of work established by CBD, including (1) Agricultural Biodiversity, (2) Dry and Sub-humid Lands Biodiversity, (3) Forest Biodiversity, (4) Inland Waters Biodiversity, and (5) Mountain Biodiversity. At the same time it will contribute toward Sustainable Development Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. The Goals and Targets planned under KP-BSAP are directly relevant to the SDG 15 and its Targets, while the indicators planned to measure progress on KP-BSAP implementation are also in line with the SDGs indicators.

Vision

Deriving from the vision of the Government of Khyber Pakhtunkhwa—attainment of a secure, just and prosperous society through socio-economic and human resource development, creation of equal opportunities, good governance and optimal utilisation of resources in a sustainable manner—the KP-BSAP envisions resilient ecosystems which are functional to their natural capacities providing goods and services for enhanced livelihood options and opportunities for the people of Khyber Pakhtunkhwa.

It reflects the commitment of the government towards its people, that all possible efforts and resources will be allocated and applied for creating and sustaining conducive environment which supports the efforts by all segments of society to conserve their natural assets and sustainably use these resources with inter- and intra-generational equity.

Benefitting from global thinking and customising it to the local realities, the KP-BSAP follows principles set by CBD for its development and implementation.

Strategic goals and targets

Taking lead from the Strategic Plan for Biodiversity 2011-2020, the Aichi Biodiversity Targets, and analysing the underlying causes of biodiversity degradation in Khyber Pakhtunkhwa, the KP-BSAP sets five strategic goals and targets thereunder to achieve the long-term vision of Khyber Pakhtunkhwa. The targets and actions for the Khyber Pakhtunkhwa Biodiversity Strategy and Action Plan have been planned over a period of 10 years, i.e., 2016-2025.

Following are the strategic goals (A-E), and respective targets (1-20) and planned actions under each target to be undertaken by the relevant stakeholders.

A. Address the underlying causes of biodiversity loss in Khyber Pakhtunkhwa by mainstreaming biodiversity across government, the private sector, and communities

The biodiversity degradation needs dedicated efforts on part of the Government of Khyber Pakhtunkhwa and the society at large to reverse the declining state of biodiversity through integrating it across the sectors as a crosscutting theme, which would require creation of an informed constituency through communication, education, advocacy, and outreach; recognition of biodiversity conservation as lynchpin for local development and poverty alleviation; devel-
development of biodiversity sensitive policies, plans, and programmes ending perverse incentives and subsidies negatively affecting biodiversity; and promotion of sustainable use of natural resources.

1. By 2025, at least 25% of the people of Khyber Pakhtunkhwa are aware of the value of biodiversity in the context of its conservation and sustainable use.

   ☐ Develop a comprehensive awareness, education, and communication action plan for mass awareness on biodiversity.

   ☐ Constitute and operationalise a group of opinion leaders, and media persons to serve as biodiversity champions, and conduct field based trainings for the same.

   ☐ Sensitise the ulema, journalists, teachers, armed forces, and the private sector on value of biodiversity and conservation of natural resources.

   ☐ Revise elementary and secondary curriculum to incorporate biodiversity concepts for the formal and non-formal education.

   ☐ Establish Nature Clubs in schools across the province, develop manuals and materials for Nature Clubs, conduct environmental quiz competitions, and train the selected school-teachers as Nature Club facilitators and the selected students as Nature Club Leaders to be the master trainers.

   ☐ Coordinate with the relevant line departments, CSOs and the private sector to celebrate special days related to biodiversity and environment, such as International Biodiversity Day, World Environment Day and Earth Day, to create mass awareness.

   ☐ Establish arboretum, botanical gardens, and wildlife facilities in each district to provide awareness and sensitise the public to the natural heritage.

   ☐ Integrate sustainable agriculture and bio-diversification of agro-ecosystems in the educational and extension programmes of agriculture.

   ☐ Increase awareness of livestock farming community regarding livestock biodiversity, its benefits, and complications of livestock biodiversity loss.

2. By 2025, biodiversity value is integrated into Khyber Pakhtunkhwa’s community driven local development (CDLD) policy, poverty reduction programmes, and annual development planning process, and provincial accounting and reporting systems incorporate biodiversity as one of the indicators.

   ☐ Advise the relevant departments, including the local governments, for integration of biodiversity conservation in their relevant annual development plans, and report public sector investment in biodiversity conservation in the Budget White Paper.

   ☐ Allocate at least 5% of the challenge fund under CDLD policy for natural resource management schemes.

   ☐ Sensitise the provincial poverty reduction programmes towards biodiversity towards value of biodiversity and link the same with natural resource based livelihood development, such as sustainable agriculture, horticulture and livestock management.

3. By 2025, subsidies harmful to biodiversity are reformed in order to minimise negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied in relevant sectors in Khyber Pakhtunkhwa.

   ☐ Incentivise the farmers engaged in biodiversity supportive practices, such as cultivation of indigenous crop varieties, and organic farming, and link them with the appropriate marketing mechanisms.

   ☐ Incentivise the livestock farmers engaged in biodiversity supportive practices, such as raising indigenous livestock and poultry breeds.

   ☐ Draft the Khyber Pakhtunkhwa Livestock Breeding Bill and present for enactment.

   ☐ Keep a strict check on, and minimise any indirect incentives to fertilisers, pesticides and hybrid seeds, and revise the policy for registration of pesticides to discourage synthetic pesticides.

   ☐ Liberalise the import of timber from forest rich countries to save local forests.

   ☐ Incentivise afforestation and energy plantation under agro-forestry through establishing nurseries.

   ☐ Introduce livestock insurance schemes to promote conservation of predators. By 2025, governments, business and society at all levels
have taken steps to develop and implement plans for sustainable production and consumption in Khyber Pakhtunkhwa, and have kept the impacts of use of natural resources well within safe ecological limits.

4. By 2025, governments, business and society at all levels have taken steps to develop and implement plans for sustainable production and consumption in Khyber Pakhtunkhwa, and have kept the impacts of use of natural resources well within safe ecological limits.

๏ Demarcate ecological management units, and determine baseline and sustainable use level for each component of biodiversity, such as mean annual increment of forests, population growth for wildlife, and health of pastures, identifying the contribution of these resources to other sectors.

๏ Develop ecosystem management and sustainable use plans for each of the ecosystems, prioritising for immediate, medium-term and long-term conservation actions.

B. Reduce the direct pressures on biodiversity and promote sustainable use in Khyber Pakhtunkhwa

The biodiversity in Khyber Pakhtunkhwa faces multiple direct pressures, including loss of habitats resulting from degradation, conversion, and fragmentation, over harvest and consumption, pollution from excessive nutrients and contaminants, invasion by alien species, and rapid increase of human population. This situation warrants immediate reversal of the trend to safeguard precious biodiversity resources by halting or minimising the direct pressures. Khyber Pakhtunkhwa will assess, prioritise, plan, and implement initiatives to reduce the rate of habitat loss, restore the endangered species, and sustainable manage the natural resources.

5. By 2025, the rate of loss of all natural habitats, including forests, in Khyber Pakhtunkhwa is at least halved, and degradation and fragmentation is significantly reduced.

๏ Introduce range management initiatives in the province to ensure natural habitats for ILBs.

๏ Update the provincial forest legislation to incorporate biodiversity conservation and collaborative forest management concepts.

๏ Undertake a time-series study to calculate existing rate of habitat degradation.

๏ Introduce and incentivise community based watch and ward and community check post system for biodiversity conservation.

๏ Reduce wastage in resource use through energy saving tools and techniques, and promoting alternate energy sources.

๏ Impose a complete ban on cutting and felling of trees in reserved forests by converting all these state owned forests into biosphere reserves in a phased manner.

6. By 2025, all fish and invertebrate stocks and aquatic plants in Khyber Pakhtunkhwa are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.

๏ Determine total stock and sustainable catch levels for all water bodies in Khyber Pakhtunkhwa, and promote sustainable community based fishing and eco-tourism along these rivers, especially:
  ✦ Segment of Kabul River between Warsak Dam and Nowshera
  ✦ River Swat between Barikot and Malakand
  ✦ River Barandu in Buner
  ✦ Sirran River through all its spread
  ✦ River Kunhar between Batakundi and Balkot

๏ Develop and implement recovery plans, and establish hatcheries to restock ‘critically endangered’ and ‘endangered’ fish species.

๏ Promote and support cooperative fish catch management to conserve fish fauna in accordance with the existing laws and rules.

7. By 2025, Khyber Pakhtunkhwa areas under agriculture, aquaculture, and forestry are managed sustainably, ensuring conservation of biodiversity.

๏ Develop land use plans for the entire province with special focus on forests, agricultural lands, highland pastures, rangelands, and inland water bodies.

๏ Promote integrated soil and nutrient management to reduce soil erosion and degradation.
Encourage crop diversity and high-yield fodder cultivation and availability to reduce pressure on rangelands.

Promote value addition in agricultural and livestock produce to reduce pressure on natural resources.

Develop, incentivise, and implement guidelines for harvesting, processing, and marketing of NTFPs including MAPs, based on actual resource assessment.

Develop and implement a project for piloting and demonstrating the ecosystem approach, including collaborative forest and rangeland management, in three different forest ecosystems and exchange the lessons learned nationally and regionally.

Strengthen and prepare Management Plans for all forest types in each forest region to incorporate the ecosystem approaches for sustainable management of forests and biodiversity, including NTFPs.

By 2025, pollution, including from excess nutrients such as chemical fertilisers, has been brought to levels that are not detrimental to ecosystem function and biodiversity in Khyber Pakhtunkhwa.

Discourage the imbalanced use of fertilisers, pesticides, and insecticides through awareness campaign, and promoting composting of farmyard manure though farmer field schools.

Undertake BOD and COD assessment of all water bodies in the province as baseline and undertake regular monitoring to track any pollution thereafter.

By 2025, invasive alien species and pathways are identified and prioritised, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment in Khyber Pakhtunkhwa.

Develop an inventory of invasive alien and vector species along with their distribution, pathways, and impact on indigenous biodiversity.

Develop and implement a plan to discourage the invasive alien species.

By 2025, at least 17 per cent of terrestrial and inland water resources in Khyber Pakhtunkhwa, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-
Develop management plans for the following National Parks, and improve implementation of Management Plans in all National Parks, especially to incorporate climate change considerations:

- Broghil Valley
- Sheikh Badin
- Lulusar & Dodipath
- Saiful Muluk

Demarcate ecological boundaries of all protected areas using remote sensing and GIS techniques, and improve the management of buffer zones around all National Parks.

 Undertake feasibility of nomination of the appropriate water bodies as Ramsar Sites, and declare the following inland waters as protected areas, supported by community based conservation initiatives:

- Segment of Kabul River between Warsak Dam and Nowshera
- River Swat between Barikot and Malakand
- River Barandu in Buner
- Sirran River through all its spread
- River Kunhar between Batakundi and Balakot

 Undertake feasibility of nomination of the following areas as Man and Biosphere Reserves, and/or World Heritage Sites:

- Palas Valley
- Broghil National Park
- Kalash areas in Chitral
- Shandoor in Upper Chitral
- Kumrat Valley in Upper Dir
- Manoor Valley in Mansehra

 Revisit and revise the existing community hunting areas agreements to provide protection on landscape basis rather than to just one or two species of economic interest to the community.

12. By 2025, the extinction of known threatened species in Khyber Pakhtunkhwa has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.
D. Enhance the benefits to all from biodiversity and ecosystem services in Khyber Pakhtunkhwa

Pakistan has recently ratified the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation, while the national legislation is underway. Improving the potential benefits from biodiversity, the provincial government will ensure access to biodiversity resources and equitable sharing of benefits from biodiversity gains to all relevant stakeholders. Inclusion, equity, and positive discrimination towards marginalised groups will be a crosscutting approach in management of natural resources.

14. By 2025, ecosystems in Khyber Pakhtunkhwa that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.

- Prepare detailed maps of all ecosystems and their constituent components in Khyber Pakhtunkhwa, especially glaciers, mountain streams, wetlands, range lands/pastures, medicinal plants, woodlands, and habitats of flagship species, in relation with goods and services provided by the same.
- Develop and implement management plans (including monitoring plans) for these critical habitats and ecosystems.

15. By 2025, ecosystem resilience and the contribution of biodiversity to carbon stocks in Khyber Pakhtunkhwa has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

- Develop REDD+ enabling framework, including rules, to address drivers of deforestation.
- Undertake mass plantation, especially of threatened species, in Khyber Pakhtunkhwa on communal and private lands.
- Undertake sowing, dibbling, and bioengineering measures to reclaim/rehabilitate problematic, waterlogged, saline and marginal lands, especially in urban areas.
- Undertake dry afforestation through water harvesting techniques.

- Implement modern techniques to treat degraded sub-catchment valleys of watershed.
- Undertake sand dunes stabilisation through shelter-belt plantation.
- Undertake enrichment plantation in the gaps of poorly stocked forests having 10% to 20% density.

16. By 2025, the Khyber Pakhtunkhwa implements the Access Benefit Sharing legislation effectively.

- Play an active role for enactment of national Access Benefit Sharing legislation.
- Create generalised understanding on ABS legislation and the role of province
- Draft provincial legislation and rules for ABS regime.
- Use ABS regime for sustainable promotion and regulation of NTFPs’ production and value chain development.

Strategic Goal E: Enhance implementation of KP-BSAP through participatory planning, knowledge management, and capacity building

While setting biodiversity targets for the province, the Government of Khyber Pakhtunkhwa is fully cognisant of the need to create and sustain institutional mechanisms for implementing the Khyber Pakhtunkhwa Biodiversity Strategy and Action Plan. Without creating new institutions, the government has already devised and operationalised an advisory and coordination mechanism from within the existing line department to conserve and sustainably manage biodiversity. The relevant departments will be provided fullest possible policy and fiscal support to implement KP-BSAP. Recognising the capacity constraints, both in terms of human and financial, the government will approach all available avenues to fill the capacity gap.

Biodiversity related information and knowledge management, especially that from indigenous sources, and its dissemination to all segments of society will be given special attention through supporting the academia and students in undertaking research, documenting the best practices, and inventorying the elements of biodiversity.

17. By 2017, the requisite institutional arrangements are in place for an effective, and participatory implementation of the Khyber Pakhtunkhwa Biodiversity Strategy and Action Plan.

- Notify and strengthen the Biodiversity Cell within Planning & Development Dept., and
the coordination mechanism proposed by KP-BSAP.

* Set up the proposed monitoring system with the requisite human and technical resources.
* Establish and support fully functional Biodiversity Working Group as an advisory body to the Government of Khyber Pakhtunkhwa.
* Develop, deploy, and manage Biodiversity Outlook as web enabled GIS based database of biodiversity.
* Appoint at least one biodiversity expert in each of the biodiversity related departments to be designated as Biodiversity Focal Point.
* Strengthen the Statistics Cell of the Forest Department.
* Develop and implement a comprehensive capacity building programme for the professionals engaged in conservation and sustainable management of biodiversity.
* Enhance prosecution capacity of biodiversity related departments to pursue litigation against the offenders more effectively.

18. **By 2025,** the traditional knowledge, innovations and practices of indigenous and local communities in Khyber Pakhtunkhwa relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, provided legislative cover, and fully integrated and reflected in the implementation of KP-BSAP.

* Identify and prepare inventory of the aromatic and medicinal plants and their traditional use, and promote sustainable harvesting and value chain development.
* Protect indigenous intellectual property rights under the ABS legislation.
* Ensure equitable access and sharing of benefits to the indigenous communities, including nomads, accruing from indigenous knowledge.
* Document the existing indigenous knowledge being used in good land use practices.
* Develop and implement plans for up-scaling the good land use practices.

19. **By 2025,** knowledge, the science base, and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied in Khyber Pakhtunkhwa.

* Start a merit-based funded research programme for the university students in the province to undertake research on biodiversity related topics.
* Enhance forestry sector research through establishment of Regional Adoptive Research Stations.
* Undertake a province-wide knowledge, attitude, and practice survey on value of biodiversity, covering at least 1% of the population.
* Develop case studies on success and failure in biodiversity conservation.

20. **By 2020,** the financial resources, required for effective implementation of KP-BSAP, are fully made available through budget allocation and donor-assisted programmes.

* Make block allocation for implementation of KP-BSAP as identified for specific actions.
* Make specific allocations for biodiversity conservation as demanded through the relevant line departments following the specified procedures, and ensure timely release of funds.
* Engage foreign and domestic donors to support implementation of KP-BSAP.
* Encourage the private sector to support certain biodiversity conservation actions under public-private partnership arrangement.
* Build capacity of the biodiversity related departments in developing PC-1s and project proposals for biodiversity-sensitive integrated project.
* Develop professional capacities of the relevant human resources through formal trainings, advanced studies, exchange programmes, exposure visits, and secondments.
Implementation Arrangements

Coordination mechanism

Steering and coordination of KP-BSAP implementation will be the most crucial elements of its implementation strategy. Biodiversity being the lifeline for rural livelihoods, ecosystem services, and a significant contributor to the provincial economy, it is important that steering of the KP-BSAP implementation is placed at highest echelons of governance. Hence, the Provincial Assembly of Khyber Pakhtunkhwa, as custodian of people’s rights, will steer the KP-BSAP implementation through joint sitting of its two Standing Committees: (1) Standing Committee # 11 on Environment, and (2) Standing Committee # 5 on Agriculture, Livestock & Cooperation. If needed, the Provincial Assembly may form a Special Committee on Biodiversity for integrating the sectoral efforts and oversight.

The Khyber Pakhtunkhwa Biodiversity Working Group, duly notified by the Government of Khyber Pakhtunkhwa and already operational, will oversee the KP-BSAP implementation through the Biodiversity Cell, especially set-up within the Planning and Development Department. The Biodiversity Cell will be the lynchpin for KP-BSAP implementation coordinating within the P&D Department, and the relevant line departments. The constituent departments of the Forest, Environment and Wildlife, and the Agriculture, Livestock & Cooperation Departments will designate at least one relevant expert from amongst their staff to be the Biodiversity Focal Point, represented on the coordination mechanism and working closely with the Biodiversity Cell for designing biodiversity related initiatives, monitoring KP-BSAP implementation, and being custodians of biodiversity agenda in their respective departments.

Considering the specialised nature of inputs required from the Biodiversity Cell, it would be equipped with dedicated expertise in different elements of biodiversity. It will also be able to access technical resources from the relevant line departments.

The Biodiversity Cell will work under direct supervision and guidance of the Biodiversity Steering Committee, chaired by the ACS (Dev), and comprised of the Secretaries of Finance, P&D, Environment, and Agriculture departments. The Chief Agriculture & Environment, P&D Department, who will be heading the Biodiversity Cell, will also be secretary to the Biodiversity Steering Committee.

In order to facilitate the departmental input into the biodiversity conservation efforts, each of the relevant departments may set up Departmental Technical Expert Teams. Such teams may have representation from all technical wings of the departments.

The figure below elaborates the coordination mechanism to be put in place for effective implementation of the Khyber Pakhtunkhwa Biodiversity Strategy and Action Plan.
**M&E and reporting**

A simple but robust monitoring and evaluation system of the KP-BSAP implementation will be put in place to keep track of the progress on KP-BSAP implementation, and report it to the internal and external stakeholders. The Biodiversity Cell will be responsible for monitoring of KP-BSAP implementation using the indicators mentioned in KP-BSAP. The Biodiversity Focal Points in the relevant departments will report on their relevant actions and indicators on a biannual basis to the Biodiversity Cell, which will compile this information in the form of a biannual Biodiversity Report, which will be presented to the Biodiversity Working Group during its meeting.

Once in a year, the KP-BWG will present the Biodiversity Report to the KP Assembly Standing Committees # 11 and 5 on Environment and Agriculture, Livestock & Cooperation, respectively. The Standing Committee in turn will make recommendations to the Khyber Pakhtunkhwa Assembly for allocation of financial resources, and/or any other legislative business.

The Biodiversity Cell will commission independent third party mid-line and end-line evaluations of the progress made on KP-BSAP, and to identify any corrective actions. Reports of the evaluations will be presented to the KP-BWG and necessary measures will be taken to resolve the issues in KP-BSAP implementation.

**Financing options**

The resource mobilisation efforts for financing KP-BSAP implementation will have to be multi-pronged, such as:

- The financial planners and managers in the government will be sensitised regarding value addition biodiversity conservation can offer to the other productive sectors, enabling them to highlight biodiversity conservation as an area of investment in their discussions with bilateral and multilateral donors.

- The revenue generated from biodiversity resources will be allocated directly to the biodiversity conservation efforts through the relevant line departments following the established financial procedures.

- The technical staff of the biodiversity related line departments will work closely with other departments and development partners at the district level to assist them in incorporating biodiversity conservation activities into their regular sectoral programmes.

- The Biodiversity Cell will support the biodiversity related line departments in identifying new funding avenues as well as processing of their project proposals (PC-1s) for financing through the annual development planning cycle.

Some other possible avenues of funding are mentioned below:

- Global Environment Facility
- Khyber Pakhtunkhwa Forest Development Fund and Agro-Biodiversity Support Fund
- Multi Donor Trust Fund
- Khyber Pakhtunkhwa District Governance and Community Development Programme
- Innovative financing for biodiversity
  - Biodiversity in Climate Change Funding including REDD+ and Green Climate Fund
  - Biodiversity Offsets
  - Environmental Fiscal Reforms
  - Payments for Ecosystem Services

**Capacity development**

There are number of stakeholders directly or indirectly involved in implementation of KP-BSAP, ranging from officials of the public sector departments and organizations; teachers, researchers, and students in academia; individual biodiversity experts; members and staff of civil society organizations; entrepreneurs, businessmen, and operators in the private sector; and people as members of communities. All of these need certain level of expertise and/or skill-sets to perform their due role effectively. Since, implementation of KP-BSAP would need engagement of and support from all players along the spectrum; hence, the capacity development efforts will have to be targeted across the administrative tiers, at federal, provincial, district, and community.

The public sector departments and organizations in particular and natural resource sector in general lack adequate human resource capacity. The communities who are ultimate actor and beneficiaries of the development process are also not equipped with the required skill-sets to cope with changing demands of the natural resource management. There are extremely limited opportunities for in-service training, those too in very traditional areas of work. While a detailed capacity building plan will have to be developed based on targeted capacity need assessments, KP-BSAP identifies a few areas of capacity requirements, which need to be addressed to support implementation of KP-BSAP.