KENYA'S SUBMISSION OF RELEVANT INFORMATION FOR THE SUBSIDIARTY BODY ON IMPLEMENTATION MEETING TO BE HELD IN MONTREAL, CANADA. 9-13 JULY 2018

MAINSTREAMING OF BIODIVERSITY AND OTHER STRATEGIC ACTIONS TO ENHANCE IMPLEMENTATION

(PRODUCTION SECTORS: ENERGY AND MINING, INFRASTRUCTURE, MANUFACTURING AND PROCESSING AND HEALTH)

20th MARCH 2018

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BACKGROUND:

1) The Conference of the Parties at its thirteenth meeting adopted decision XIII/3, regarding actions to mainstream biodiversity in agriculture, forestry, fisheries, and tourism, as well as in cross-sectoral policies, international processes and through actions by key actors. In the same decision, the Conference of Parties decided that the Conference of the Parties should consider, at its fourteenth meeting, the mainstreaming of biodiversity in the following sectors: energy and mining, infrastructure, manufacturing and processing, and health (paragraph 103).

2) The Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), at its twenty-first meeting, which took place on 11-14 December 2017, considered key scientific and technical matters relevant to the mainstreaming of biodiversity in these sectors, and adopted SBSTTA recommendation XXI/4 which requested the Executive Secretary, inter alia, "to invite Parties and other relevant stakeholders to submit case studies and practical examples of the mainstreaming of biodiversity into the sectors of energy and mining, infrastructure, and manufacturing and processing, and health, and to consider these in its preparations for deliberations on this issue at the second meeting of the Subsidiary Body on Implementation" (paragraph 7(b)). In addition, case studies regarding obstacles and effective practices related to implementation of the Convention and the Strategic Plan, and options for improving implementation at the national level.

3) In addition, at the high-level segment of the United Nations Biodiversity Conference (Cancun, Mexico, 2016), Parties adopted the Cancun Declaration. The decision provided guidance to Parties on a number of matters, and also requested the Executive Secretary to continue collaboration with a number of partners. At its thirteenth meeting, the Conference of the Parties focussed on the sectors of agriculture, forestry, fisheries and tourism. It decided to focus, at its fourteenth meeting, on the sectors of energy and mining, infrastructure, manufacturing and processing, and health.

4) The Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), at its twenty-first meeting, which took place on 11-14 December 2017, considered key scientific and technical matters relevant to the mainstreaming of biodiversity in these sectors, and adopted SBSTTA recommendation XXI/4 which requested the Executive Secretary, inter alia, "to invite Parties and other relevant stakeholders to submit case studies and practical examples of the mainstreaming of biodiversity into the sectors of energy and mining, infrastructure, and manufacturing and processing, and health, and to consider these in its preparations for deliberations on this issue at the second meeting of the Subsidiary Body on Implementation" (paragraph 7(b))

5) In response, on 25th January 2018; the Executive Secretary through a notification, requested submissions from the Parties to provide relevant information with respect to mainstreaming of biodiversity:
    a. Case studies and effective practices, guidelines, methodologies, experiences and tools on biodiversity mainstreaming in the relevant sectors, as well as cross-cutting policies (e.g. development plans and budgets);
    b. Examples of laws, policy frameworks, or administrative measures that were introduced or strengthened in order to further the mainstreaming of biodiversity (either aimed at the relevant sectors or that have broad application across sectors);
    c. Lessons learned as well as remaining gaps and challenges associated with biodiversity mainstreaming;
    d. Options for addressing these gaps and challenges, and to take further action on biodiversity mainstreaming at the national level;
    e. Successful models of institutional mechanisms in place at the national level to support implementation of the Strategic Plan 2011-2020.

6) The submission from Kenya is presented below.

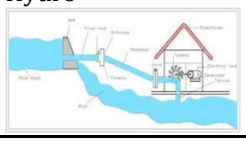
(A) CASE STUDIES AND EFFECTIVE PRACTICES, GUIDELINES, METHODOLOGIES, EXPERIENCES AND TOOLS ON BIODIVERSITY MAINSTREAMING IN THE RELEVANT SECTORS, AS WELL AS CROSS-CUTTING POLICIES (E.G. DEVELOPMENT PLANS AND BUDGETS);

ENERGY SECTOR

Energy is a critical enabler for economic and social development in any country and as the country implement the big four access to clean and affordable energy will be paramount. Energy demand is expected to increase as a result of population, economic development, urbanization, technological advancement.

A large proportion of the energy needed to meet the country's future demand will come from natural resources such as traditional energy sources (hydrocarbons), with renewable forms of energy (solar, wind, biomass, geothermal, and so forth) contributing around 70 percent of the energy .There is a real concern that there will be a scarcity of resources to meet this energy demand in the future.Activities in the energy sector impacts biodiversity and ecosystem different ways. These activities include (exploration, extraction, and processing distribution generation, Renewable –solar, wind hydro, geothermal and biofuels.

SUMMARY OF IMPACTS

Forms	Impacts
Geothermal 	• Terrestrial species (plant and animal) disturbance, displacement. • Terrestrial habitats, soils and land area degradation, fragmentation. • Water resources depletion, pollution. • Freshwater species injury, disturbance. • Atmosphere greenhouse gas emissions.
Solar 	• Terrestrial species (plant and animal) injury, disturbance, displacement • Terrestrial habitats, soils and land area degradation, fragmentation.
Wind both on and off shore 	• Terrestrial species (especially birds and bats) mortality, collision. • Terrestrial habitats, soils and land area degradation, fragmentation. • Marine species disturbance, displacement. • Marine habitats degradation, fragmentation.
Hydro 	• Terrestrial habitats, soils and land area habitat loss, degradation. • Freshwater species reduced survival, disturbance, displacement. • Freshwater habitats alteration, degradation. • Water resources pollution, sedimentation.
Biofuels 	• Terrestrial species disturbance, displacement, bio-invasion. • Terrestrial habitats, soils and land area habitat loss, fragmentation, pollution. • Water resources depletion, pollution. • Atmosphere pollution

OPPORTUNITIES AVAILABLE FOR MAINSTREAMING

1. International Instruments both in Environment and energy sector
2. National policies and legislations
3. Integrates Biodiversity values in National and sub-county planning mechanism/frameworks
4. Accounting for natural capital
5. Promote positive incentives for biodiversity conservation and sustainable use
6. EIA and SEA

CHALLENGES LIKELY TO BE ENCOUNTERED

1. Conflict of policies
2. Capacity and awareness
3. Finances
4. Data and information

CASE STUDIES

Energy companies are familiar with the Convention on Biological Diversity, understand its implications for their industry, and contribute to its implementation. For instance energy /electricity generating companies here in Kenya e.g.KENGeN[1], Geothermal Development Corporation (GDC)[2] and Private power producers are all aware of the significant role biodiversity plays in sustaining their industries.

We have seen these Energy companies, private power producers, communities and conservation organizations working together in partnership to integrate biodiversity conservation. Especially in the areas of rehabilitation and tree planting including establishment of protected conservation areas like community forest association, water association etc.

KENGEN has demonstrated its commitments by taking action on the ground, by supporting several biodiversity-related projects worldwide, including conservation, environmental education, capacity-building, and communication and awareness creation. They have been working hard to mainstream biodiversity into its business operations in order to reduce its operational footprint.

Kenya Power[3] and KETRACO[4]: The two are now promoting the use of concrete poles for power distribution away from the traditional tree poles which have been having a negative impact on biodiversity. This has seen reduction in cutting down of trees for use as distribution poles.

KIPETO WIND FARM – Mainstreaming Biodiversity into Wind Farms[5](See box below)

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[1]http://www.kengen.co.ke/
[2]http://www.gdc.co.ke/
[3]http://www.kplc.co.ke/
[4]https://www.ketraco.co.ke/
[5]**By Dr. Paul Matiku, SerahMunguti and John Kiptum: Nature Kenya, Nairobi. Kenya.**

Aim: Secure conservation of breeding colonies of Critically Endangered (CR) Rupell's and White-backed Vultures in Kwenia IBA threatened by proposed Kipeto Wind Farm

Objectives:

1. By November 2017 to form a national joint lobby for raptor conservation
2. By December 2017 get the developers to ensure that the project design meets IFC PS6
3. By March 2018 lobby government to enhance safeguards in wind energy development by conducting a country wide SEA for the sector which includes sensitivity mapping for wind energy against hotspots for CR vultures, Migratory and resident Soaring Birds, other raptors and bats

Intermediate Outcomes:

1. Government and developer to recognize the conservation importance of Kwenia Important Bird Area for the conservation of CR vultures and MSBs
2. Developers to put safeguards in place to ensure net gain of CR vultures and other migratory soaring birds
3. The developers to collect and make available additional data to on use of the Kipeto Wind Farm site by CR vultures and MSB
4. Create awareness to a wide range of stakeholders on vulture conservation
5. A Strategic environmental assessment of wind energy development in Kenya including sensitivity mapping for soaring birds of prey, other raptors and birds

Key outcomes

1. Developers agreed to uphold IFC PS6 and ensure net gain for critically endangered vultures
2. The developers commissioned a biodiversity action plan for Kipeto wind farm, to be implemented in partnership with conservation groups drawn from government non-government and community groups. The biodiversity action plan was used to prepare a business case with details on the feasibility and associated costs for mitigation and offset options.
3. The developer allocated $ 1million per year to fund biodiversity offsets through implementation of a comprehensive vulture conservation programme.
4. The developer effectively engaged USAID to fund a national Strategic Environmental Assessment on Wind Farms placement, informed by a sensitivity mapping tool. The tool will provide information on overlaps between sites that are suitable for wind farms but would present threats to resident and migratory soaring birds of prey, other raptors and bats. The SEA will aid in decision making on wind farm placement country wide.

Context: The International Finance Corporation (IFC), African Infrastructure Investment Managers (AIIM, wholly owned by Old Mutual), and Craftskills Wind Energy International Ltd, with funding provided by the US-based Overseas Private Investment Corporation (OPIC) are proposing to put up the Kipeto Wind Farm in Kajiado County. The wind farm will be located just 14 km from the Kwenia Cliffs – one of the largest nesting colonies for Critically Endangered Rüppells Vulture in Kenya; and 10 km from the 'Karibu' White-backed Vulture colony. It is recommended that a wind farm site must be more than 30km away, but the proposed wind farm is less than 15km from Kwenia's cliffs. Recent surveys commissioned by the project developers show that collectively these two colonies regularly hold >80 pairs of nesting vultures and that both species frequently fly over and occasionally forage at the proposed wind farm site and would be at risk of colliding with wind turbines. The area has already seen the extinction of Endangered Egyptian Vultures, yet it still holds an impressive number of cliff-dwelling large falcons and Verreaux's Eagles.

The most important industry standard for wind energy projects is careful site selection to minimize the risk of collisions with birds and bats. The Kipeto wind farm project would construct 60 turbines whose blades will be as large as the wings of a passenger jet plane with a spinning velocity at the tip reaching up to 270 Kph. Any bird or bat flying into the blades will die and some are killed just due to the air pressure changes caused by the rapidly spinning blades.The Kipeto Wind Power project was conceived in 2011 which is when the developers commissioned an environmental impact assessment. This included a biodiversity survey by the National Museums of Kenya. Nature Kenya, BirdLife Africa Partnership Secretariat (BLAPS) and other

bird conservation organizations were consulted on the project and there were no major concerns. That was because of two reasons majorly:

1. Kwenia was not yet designated an IBA
2. The vulture species in question were classified as Near Threatened in the IUCN Red List.

Since then, these factors have drastically changed. In 2012 Kwenia was designated an IBA on strength of the breeding vulture colonies. Vulture numbers in Kenya are thought to have declined by 65% in the last 25 years, due to a range of environmental factors as well as human-wildlife conflict and, principally, the indirect impact of carcass poisoning. At the end of 2015, following a drop in numbers worldwide, the Rüppell's and White-backed Vultures were reclassified to 'Critically Endangered' on the IUCN Red List. This reclassification caused Kipeto Energy Limited (KEL) to re-examine the potential impact of the Kipeto wind project on these indigenous vulture species. KEL commissioned new data collection for the site and presented the results to the main bird conservation organizations in Kenya in April 2017. The report showed that the Kipeto wind farm would kill vultures even with the highest level of mitigation measures.

The Environmental and Social Performance Standards of the International Finance Corporation (IFC), to which the Kipeto wind power project must adhere, require that, if the project occurs in critical habitat, the project will put in place mitigation actions and conservation measures to deliver net gains to the values or species triggering critical habitat status. In this case, highly threatened vulture species are considered to meet the criteria for critical habitat.The Maasai community in Kipeto wanted the project due to job opportunities that will be created and anticipated income from compensation for land to be taken up by the project. The government needs the project to proceed to deliver additional electricity to the national grid and fuel much needed national development.

Kenya's energy sector is majorly green and the country is a main beneficiary of CDM funding from the World bank for energy projects. Kipeto Energy Limited Company (KEL) is a special purpose vehicle incorporated in Kenya for the development of the Kipeto Wind Power Project. With a generation capacity of 100MW of clean, renewable electrical energy, the project is the second largest wind power project in Kenya.

MINING AND MANUFACTURING

PLASTIC BAGS BAN IN KENYA (See legal notice below).

GAZETTE (6) NOTICE NO. 2356
THE ENVIRONMENTAL MANAGEMENT AND
CO-ORDINATION ACT
(*Cap*. 387)

IN EXERCISE of the powers conferred under section 3 and 86 of the Environmental Management and Co-ordination Act, it is notified to the public that the Cabinet Secretary for Environment and Natural Resources has with effect from 6 months from the date of this notice banned the use, manufacture and importation of all plastic bags used for commercial and household packaging defined as follows:

(a) Carrier bag—
bag constructed with handles, and with or without gussets;
(b) Flat bag—
bag constructed without handles, and with or without gussets.

Dated the 28th February, 2017.

JUDI W. WAKHUNGU,
Cabinet Secretary for
Environment and Natural Resources

6http://kenyalaw.org/kenya_gazette/gazette/notice/181293

(B) EXAMPLES OF LAWS, POLICY FRAMEWORKS, OR ADMINISTRATIVE MEASURES THAT WERE INTRODUCED OR STRENGTHENED IN ORDER TO FURTHER THE MAINSTREAMING OF BIODIVERSITY (EITHER AIMED AT THE RELEVANT SECTORS OR THAT HAVE BROAD APPLICATION ACROSS SECTORS);

MINING AND MANUFACTURING:

MINING	**Examples of laws, policy frameworks, or administrative measures that were introduced or strengthened in order to further the mainstreaming of biodiversity**	**Aichi targets**
Strategies	• Sand mining regulations at national and county levels to control sand harvesting	Target 5:
	• Mining policy (2016) recommends alignment of sector laws with environmental laws	Target 4
	• Mining Act (2016) requires compliance with environmental laws.	Target 4:
Practices	• Sand harvesting boards in place at county level as a governance structure to enforce regulations	Target 14:
	• Environmental Impact Assessment license is a prerequisite for obtaining a mining license	Target 4
	• Mining companies are required to provide an **environmental protection bond** sufficient to cover the costs associated with the implementation of the environmental and rehabilitation obligations of the holder	Target 4
MANUFACTURING		
Strategies	• Promoting sustainable industrial processes sensitive to biodiversity conservation including biotechnology and industrial technology – use of industry waste to manufacture fertilizer	Target 4:
	• Efficient use of natural resources including renewable energy sources, biodiversity, minerals and water e.g. waste water recycling, growing own woodlots	Target 4:
	• Waste management and pollution control in industry	Target 8.
	• Industry to ensure efficient use of local raw materials	Target 4:
	• Demarcate special areas for industry to minimize ecological footprint e.g. special economic zones, industrial parks, industrial clusters	Target 4:
Industry standards	• Kenya Bureau of Standards bioenergy standards	Target 4:
Practices	EIAs for industrial projects	Target 4:
	Environmental audits for industries	Target 4: limits.
	National Industrial Training Authority – mainstream environmental stewardship in curriculum	Target 1:.

HEALTH:

- The Public Health Act (Cap 242)-which prohibits disease related nuisances e.g. wastes, Insects, rodents, flies.
- The Meat Control Act (Cap 356)-that controls the spread of zoonotic diseases by providing for approved slaughter areas, pre-inspection of animals, effluent discharge.
- The Pharmacy and Poisons Board-regulates safe access and use of pharmaceutical products and technologies.
- The Health Act 2017.
- The Pharmacy and Poisons Board Guidelines for the Registration of Herbal and Complementary Products 2010.
- The Protection of Traditional Knowledge and Cultural Expressions Act, 2016.

(C) LESSONS LEARNED AS WELL AS REMAINING GAPS AND CHALLENGES ASSOCIATED WITH BIODIVERSITY MAINSTREAMING;

FOR ALL SECTORS – GAPS AND CHALLENGES

- The need for synergy for all actors in biodiversity mainstreaming (Ministries, County Governments, Departments and Agencies).
- Capacity building of technical officers to spearhead biodiversity mainstreaming at both levels of government.
- The need for national guidelines to support biodiversity mainstreaming at the county level.
- Need for a national roadmap for mainstreaming of biodiversity.

MINING AND MANUFACTURING:

- Lack of a coherent and integrated framework of engagement to guide sectors and county governments, weak compliance and enforcement.

HEALTH:

- Limited support and framework for the use of herbal medicines.
- Sound management of health care waste is an issue- No clear laws for minimization, segregation, storage, transportation and disposal.
- Low awareness and appreciation/acceptance of traditional medicine.
- limited synergies between the sectors - health and biodiversity sectors.
- Limited scientific studies/linkage between health and biodiversity in Kenya.
- Limited capacity for mainstreaming biodiversity into health e.g. Environmental Health Impact .assessment guidelines and training, Health Impact Assessment on policies and projects.

(D) OPTIONS FOR ADDRESSING THESE GAPS AND CHALLENGES, AND TO TAKEFURTHER ACTION ON BIODIVERSITY MAINSTREAMING AT THE NATIONAL LEVEL;

MINING AND MANUFACTURING:

Consultatively put together a framework of engagement in biodiversity mainstreaming that includes: guidance to sectors and counties on how to mainstream biodiversity, resource mobilization by sectors, access to those resources by sector players, measuring impact and reporting among others.

FOR OTHER SECTORS:

- Lack of localized biodiversity Indicators and targets to track achievements.
- Limited of institutional capacity and commitment.
- Limited Information Sharing on Interventions (Duplication/Complementarity).
- Conflicting Regulations.
- Low level awareness on Aichi Biodiversity Targets.
- Lack of political goodwill.
- Low compliance level by users.

(E) SUCCESSFUL MODELS OF INSTITUTIONAL MECHANISMS IN PLACE AT THE NATIONAL LEVEL TO SUPPORT IMPLEMENTATION OF THE STRATEGIC PLAN 2011-2020.

MINING AND MANUFACTURING:

Integrated land use planning at a landscape scale e.g. Tana Delta and Yala Swamp land use plans; Kipeto wind farm; Bamburi, Haler Park, East African Breweries – Funding restoration of Mt. Kenya Forest, Vivo Energy – funding habitat restoration and public awareness in Kinangop and Kilifi, Serena Hotels – installation energy saving jikos, Cocacola – Nairobi Water fund and KENGEN and KPLC – catchment restoration.

ENERGY: WORKING WITH A DEVOLVED GOVERNANCE SYSTEM - COUNTY GOVERNMENTS:

Mainstreaming of renewable energy initiatives in County Integrated Development Plans (CIDPs) to upscale use of renewable energy (this will reduce pressure posed to biodiversity conservation) in CIDPs 38 Counties.

- Establishment of Climate change fund regulations in 5 counties (Makueni, Wajir, Isiolo, kitui and Mainstreaming of climate change change in CIDPs.
- Counties have draft County environment action plans which have informed the ongoing development of NEAP (42 counties)
- 6 counties have draft energy plans awaiting the enactment of the energy Bill
- National and County charcoal regulations (counties of Makueni, Narok and Kitui) Nandi is in the process of domesticating the National regulations
- Ban on logging for 90 days (administrative order) and constitution of the taskforce

WATERSECTOR: SUPPORTING ENERGY, HEALTH AND MANUFACTURING.

(See ANNEX 1 and attached case study). Linkages of biodiversity conservation to socioeconomic delivery cognizant of water as both a social and economic good:

a. **Water Resources Users Association (WRUA) Concept** for catchment conservation as approached by WRA (This is a successful model for mainstreaming bio diversity as it involves multi-stakeholder collaboration, it is citizen driven and involves citizen participation at sub catchment level).

b. **Upper Tana Nairobi Water Fund**
The Water Fund is a Public Private Partnership (PPP) whose goal is to help protect and restore the quality and supply of water to the Upper Tana, one of Kenya's most productive and economically important regions.

c. **Implementation of various projects including;**
    i. Water resources Authority Capital projects.
    ii. Upper Tana Natural Resources Management Project (Upper Tana NRM).
    iii. Western Kenya Community Driven Development and Flood Mitigation Project (WKCDD/FMP).

ANNEX 1: WATER SUPPORTING ENERGY, HEALTH, MANUFACTURING

Mainstreaming Biodiversity into Key Productive Sectors: Water Sector: The table below presents some effective practices, methodologies and tools as used by WRA.

Strategic Goal	Aichi Biodiversity Targets	Identified Issues/ Causes/ Problem	Mainstreaming Biodiversity in Water Resources Management		
			Strategies/Industry Standards/Codes of Practice/Guidelines/Ecosystem Approaches	**Operationalization and practical application**	**Activities**
Goal A: **Goal B:** **Goal C:** **Goal D:** **Goal E:**	**Target 1** **Target 2** **Target 5:** **Target 11:** **Target 14:** . **Target 15:**	• Lack of awareness • Limited citizen participation in Water Resources Management • Catchment degradation • Wetland and riparian encroachment • Poor land use practices,	✓ **Overarching legal & policy framework** • Constitution of Kenya 2010 • Country's blue print for development Agenda Vision 2030 • National Water Master Plan 2030 • National Water Resources Management Strategy • Water Act 2016 • Kenya National Adaptation Plan 2015-2030 • EMCA 2015 • Global Targets: Sustainable Development Goals (SDGs) and Aichi Biodiversity Targets	**WRA uses Integrated Water Resources Management (IWRM)** principle to ensure citizen participation and stakeholder involvement in water resources management. Catchment Management Strategies (CMSes)	**Classification of Catchment Management Units (CMUs)** ✓WRA has delineated all catchment areas into CMUs and applied a Water Resources Classification System (WRCS) that captures the level of importance attributed to water resources in the management units with respect to three broad types of demands, namely; ecological, livelihood and commercial. ✓Planning and implementation of projects (Incorporated in CMSes, SCMPs and WDC)
				Sub Catchment Management Plans (SCMPs) These are plans prepared with stakeholders for specific sub catchments and identify hot spots within those sub catchments for implementation of catchment conservation measures	✓Mobilization and sensitization of communities to form WRUAs ✓Development of SCMPs ✓Catchment conservation through Water Resources Users Associations (WRUAs) ✓Implementation of Livelihood projects with WRUAs ✓Protection of vulnerable water catchment areas e.g through gazettement ✓Development of small scale water resources infrastructure e.g sand dams ✓Mainstreaming gender in Planning and project implementation ✓Men, Women, Youth and PLWD hold
				WRUA Development Cycle (WDC) This is a framework developed between WRA and WSTF for engaging and facilitating technical and financial assistance	

		to WRUAs to enable them undertake catchment conservation and livelihood initiatives. WDC provides entry point for any stakeholder to participate in catchment conservation with the WRUAs	leadership positions in WRUA affairs ✓Participation in projects through provision of unskilled labour ✓Implementation of Climate change mitigation project by WRUAs e.g Establishment of tree nurseries, Tree planting e.t.c
Target 4 **Target 8:**.	• Water quality pollution • Inadequate guidelines on effluent discharge for biomedical and radioactive waste • Inadequate data and information for planning and decision making	Effluent Discharge Control Plans (EDCPs) WRA is mandated to ensure compliance to set standards among effluent discharge facilities that discharge effluent into water courses so as to safe guard the resource from adverse impacts	✓Effluent Discharge Thresh holds established ✓Review Effluent Discharge Guidelines and thresh holds ✓Development and implementation of EDCPs ✓Issuance of effluent discharge permits alongside water use permits ✓Enforcement to permit conditions ✓Partnering with Private sector and Civil Society to enhance best practice in business
		Water Resources Monitoring WRA undertakes monitoring of water resources in order to provide and make available data for planning and decision making. Data is available in form of; Trends in River flows and lakes, Water levels in Rivers and Lakes, Ground water yields and rest levels, Weather data including rainfall, evaporation and temperature and Water quality status	✓Establishment of monitoring stations for data acquisition on Ground, Surface & Water Quality