ANNEX II

Description of the Action for the Programme for Transboundary Water Management in the Cubango – Okavango River Basin

INFORMATION FOR POTENTIAL GRANT APPLICANTS

WORK PROGRAMME FOR GRANTS

This document constitutes the work programme for grants in the sense of Article 128(1) of the Financial Regulation (Regulation (EU, Euratom) No 966/2012), applicable to the EDF by virtue of Article 37 of the Regulation (EU) No 323/2015] in the following sections concerning grants awarded directly without a call for proposals: in section 5.4.1

1. Title/basic act/ CRIS number	Programme for Transboundary Water Management in the Cubango – Okavango River Basin CRIS number: RSO/FED/039-558 Financed under the European Development Fund			
2. Zone benefiting from the action/location	The action shall be carried out at the following location: Cubango-Okavango River Basin and riparian countries: Angola, Namibia, Botswana.			
3. Programming document	11th EDF Regional Indicative Programme for Eastern Africa, Southern Africa and the Indian Ocean (EA-SA-IO) 2014-2020			
4. Sector of concentration/ thematic area	Regional Natural resources Management	DEV. Aid: Yes		
5. Amounts concerned	Total estimated cost: EUR 2 364 600 Total amount of contribution: EUR 1 670 640 This action is co-financed by the grant beneficiary OKACOM for an amount of EUR 693,960.			
6. Aid modality(ies) and implementation modality(ies)	Project modality Direct management: grant – direct award to OKACOM			
7 a) DAC code(s)	14010 (Water sector policy and administrative management) 14015 (Water resources conservation (including data collection)			
b) Main Delivery Channel	47000 - Other Multilateral Institutions (OKACOM)			
8. Markers (from CRIS DAC form)	**General policy objective**	**Not targeted**	**Significant objective**	**Main objective**
	Participation development/good governance	☐	X	☐
	Aid to environment	☐		X
	Gender equality (including Women In Development)	☐	X	☐
	Trade Development	X	☐	☐

	Reproductive, Maternal, New born and child health	X	☐	☐
	RIO Convention markers	**Not targeted**	**Significant objective**	**Main objective**
	Biological diversity	☐	X	☐
	Combat desertification	☐		X
	Climate change mitigation	☐	X	☐
	Climate change adaptation	☐		X
9. Global Public Goods and Challenges (GPGC) thematic flagships	n/a			
10. SDGs	Main : SDG 13 "Climate Action" Secondaries: SDG 16 "Peace, justice and strong institutions" and SDG 15 "Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forest, combat desertification, and halt and reverse land degradation and halt biodiversity loss"			

SUMMARY:

The Cubango-Okavango River Basin is a transboundary basin which includes parts of Angola, Botswana and Namibia. The long term fate of the basin and its delta depends upon the sustainable management of its water resources, since the three countries have different but legitimate perspectives on the same river system. Future development plans, especially on agriculture, might have a considerable impact on the quantity and quality of the waters reaching the delta. Recognising that the next decade is critical, the three countries have put in place mechanisms and policies to manage potential impacts through the 1998 Permanent Okavango River Basin Water Commission (OKACOM) Agreement, which commits the three member states to promote a coordinated water resource development. A Strategic Action Programme (SAP) for the Sustainable Development and Management of the Cubango-Okavango Basin was approved in 2011, and plans are being made to implement it. The SAP includes a long-term planning framework, the Basin Development and Management Framework (BDMF), established to improve the basin governance and tackle specific issues on 4 thematic areas: 1) livelihoods and socio-economic development; 2) water resources management; 3) land management; and 4) environment and biodiversity.

The proposed action focuses on establishing the foundation for sound decision-making by supporting the BDMF, in particular the data collection, data management and analytical systems that provide information used in decision-making (Decision Support System –DSS in OCAKOM terminology); thematic area 2) water resources management, by filling gaps in the data monitoring networks and developing early warning systems; and thematic area 3) land management, with the aim of introducing better land-use planning guidelines and addressing livelihood issues that lead to environmental degradation.

The project will be implemented partially through a direct grant to the Permanent Okavango River Basin Water Commission (OKACOM) and partially through procurement of services and supplies under direct management.

1. Objectives/results and options

This project is relevant for Agenda 2030. It contributes primarily to SDG 13 "Climate Action" and in particular to ensure the right to health including the right to safe, clean, healthy and sustainable environment and the rights of all people to freely dispose of their natural wealth and resources. The project also contributes to SDG 16 "Peace, justice and strong institutions", as uncoordinated use of transboundary water resources is potentially one of the main sources of conflict and to SDG 15 "Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forest, combat desertification, and halt and reverse land degradation and halt biodiversity loss" in particular to the right to food and safe drinking water.

The **overall objective** of the Action is to strengthen the Cubango-Okavango river Basin governance and promote sustainable management of its water and land resources.

The proposed programme has been defined within the overall structure of the SAP and has the following three specific objectives:

1. To improve the Decision Support Systems (DSS) used in the Cubango-Okavango Basin Development and Management Framework (BDMF) to enable OKACOM to provide effective advice to member states;
2. To strengthen water management in the Cubango-Okavango River Basin, through improved water resources data availability and early warning system;
3. To strengthen land management in the Cubango-Okavango basin through improved land use planning, reduction of environmental degradation and improved livelihood.

The following direct Outputs will be delivered:

Outputs related to Specific Objective 1 – 'Basin Development and Management Framework' BDMF:

1.1 Decision Support System operationalised and OKASEC capacitated to fully utilise the DSS for analysis and advice to Member States (SAP BDMF 4);
1.2 National databases upgraded and harmonised in support of Okavango Basin DSS (SAP BDMF 5);
1.3 Revised OKACOM Data-sharing Protocol signed and operational agreements signed by data providers (SAP BDMF 3.1).

Outputs related to Specific Objective 2 – Water Resources Management:

2.1 Improved availability of water resources data through implementation of monitoring stations and equipment covering surface and ground water resources, water quality and sedimentation including capacity of institutions for monitoring (contribute to SAP WRM 2);
2.2 Reduced flood damage in the basin due to improved flood forecasting and early warning systems (SAP WRM 9).

Outputs related to Specific Objective 3 – Land Management and Livelihoods:

3.1 Harmonised, basin-wide land use planning guidelines developed (SAP LM 1);
3.2 Existing environmental degradation halted or reversed (SAP LM 2) in specific demonstration sites.

2. Main activities

The main interventions related to Specific Objective 1 – Basin Development and Management Framework' BDMF:

The Basin Development Management Framework (BDMF) will provide the scientific basis for decision-making in OKACOM. While projects over the last 15 years have provided substantive building blocks to a Decision Support System (DSS), none of these building blocks are available for OKACOM. The outputs of the TDA, the IFA, WEAP Model, the Mike SHE for the Delta; the Future Okavango; the MISOA analysis models and the outputs from the SAREP Project and many others are not institutionalised in the OKASEC and available for OKACOM decision making. This is simply because OKASEC has until now not had the professional capacity to utilise the analytical tools. This action will change this situation by assisting OKACOM establish professional capacity and systematically collect the valuable components of the DSS that has been developed by various ICPs over the years.

The consultants that have developed the DSS components will be engaged to install these in the OKASEC and train a DSS Specialist and members of the relevant Technical Committees[1] in the use of the systems.

The combined systems and the way these can interact will be analysed and the gaps towards a fully functioning DSS will be assessed and where possible filled. This will include a spatially geo-referenced system integrating water and land information. The DSS at OKASEC will depend on data from the Member States and the activities will include substantial work and capacity building with institutions and stakeholders in the Member States for routinely maintaining and updating databases and establishing the links to OKASEC. This will include the development of a data-sharing Protocol to be signed by the three Member States and operational agreements signed between OKACOM and the data providers. These are typically institutions in the Member States and will also include providers of remote sensing data such as Botswana Meteorological Services/ Monitoring Environment and Security for Africa (MESA) project.

The main interventions related to Specific Objective 2 – Water Resources

The water resource interventions will provide the data foundation for the DSS and subsequent development of the early warning system. OKACOM will carry out an assessment of the existing monitoring networks and prepare a 'Monitoring Plan', an overall analysis of the data requirements for sound decision-making on development in the basin. The Action will provide funding to implement the highest priority investments (in the form of equipment for the network and data transmission systems) of the Monitoring Plan. The full commitment from the Member States to the priorities in the Monitoring Plan is important for sustaining the operation and maintenance of the network and data transmission systems. The Monitoring Plan will include water quality and sediment aspects resulting in a basin-wide water quality and sediment monitoring programme.

The combination of the establishment of the BDMF with basin models and the improvements in the available data will enable OKACOM to establish improved flood forecasting and early warning systems.

[1] OKACOM organisational structure includes 5 Technical Committees covering the 4 thematic areas in the SAP and institutional aspects. The Technical Committees are developing and assessing the professional aspects of the OKACOM work and provide recommendations to the Okavango Basin Steering Committee (OBSC) for decisions to be finally approved by the OKACOM Commissioners. The Technical Committees consist of professional staff from the Member States and research and civil society organisations active in the basin.

The main interventions related to Specific Objective 3 – Land and Livelihoods

The proposed interventions related to Land Management will include support to the development of harmonised basin-wide land-use planning guidelines. Using the results of developing the BDMF and georeferenced land data, the activities will include mapping of basin's vegetation cover, economic-ecological aptitude, and land-use potential (sensitivity maps). A detailed assessment of land-use policies, legislations, regulations, and plans in the basin countries will be undertaken with the aim of working towards harmonising basin-wide land-use planning guidelines and technical criteria.

The EU Supported interventions related to land management will also include interventions to reduce environmental degradation and enhance livelihoods. These interventions will be implemented in close collaboration with the Basin Management Structures in the three member states and the National Action Plan (NAP) Implementation Units.

The livelihood activities supported through the EU Project will initially focus on establishing the capacity in OKASEC for supporting livelihood activities in the basin. This could include increased capacity to raise funding for basin activities, as well as capacitating the NAP Implementation Units and operationalising the reporting and monitoring set-up. The OKASEC Programme Coordination would be supported to establish procedures for planning basin livelihood activities and facilitating financing as well as operationalising consistent procedures for collection of lessons-leaned and dissemination.

Once these processes have been established, a number of small demonstration projects will be implemented. The activities involved in these demonstration projects will be determined after a detailed identification mission, but could include the land management activities suggested in the SAP such as river-bank restoration; protection and restoration of riverine forests; vegetation buffer schemes; halting spread of alien species and reducing fires. The activities would be combined with livelihood activities such as establishment of micro-enterprises to produce and sell efficient stoves and cooking systems based on alternative energies with the final purpose of reducing firewood and charcoal consumption; opportunities through non-timber forest products; value adding to natural and agricultural products; agro-forestry systems; conservation agriculture; small-scale irrigation and water saving technologies; and demonstration horticultural projects**.**

3 Intervention logic

The project will support the implementation of the OKACOM *Strategic Action Programme*, by providing basin-wide decision support systems and an enhanced knowledge base, and by enhancing member states' capacities in the areas of water resources management and land management. This will strengthen OKACOM's ability to monitor and predict changes, and to advise its member states on making informed policy decisions – which, in turn, will reduce flood damage and prevent environmental degradation, and ensure the equitable utilisation of the river basin waters.

4. Implementation methodology

The direct grant awarded to OKACOM will be reinforced through two contracts under direct management:

- One service contract awarded through international restricted tender to provide technical assistance to assist in the implementation of the different activities foreseen under the Action. Short-term consultants will be hired through a service contract (under direct management) for specific assignments needed to complete this action such as: institutional capacity building, studies and specialist inputs related to basin-wide information sharing; specialist inputs related to DSS and upgrading of the national databases; specialist inputs

for specification and supervision of supply of works related to monitoring stations and monitoring equipment; studies and design of early warning systems; specialist input related to harmonised land use planning and for the design and implementation of studies and livelihood projects for halting environmental degradation.

- One supply contract awarded through international open tender for specific investments in equipment for networks and data transmission system in the 3 member states[2].

Subject in generic terms, if possible	Type (works, supplies, services)	Indicative number of contracts	Indicative trimester of launch of the procedure
Short-term Technical Assistance to provide capacity building and technical input to the implementation of the activities	Services	1	1st of 2017
Equipment for networks and data transmission system	Supplies	1 (3 Lots)	1st of 2019

4.1 Organisational set-up and responsibilities

The project will be implemented by OKACOM as an integrated part of its organisational structure. The OKACOM Secretariat (OKASEC) will perform the project management function. OKASEC has two permanent operational staff members, namely an "Executive Secretary" and "Programme Coordinator". These two staff members will be responsible for the daily management of the project and for the coordination with other projects, and in particular the UNDP project, where its complementary nature needs to be optimised.

The project steering function will be performed by the OKACOM management; the Okavango Basin Steering Committee (OBSC) will perform the recurrent project steering function with regular biannual meetings to assess progress and provide advice to the project managers. A representative from the EU Delegation will be invited to attend OBSC sessions specifically dealing with this project. OKACOM will meet annually and will provide overall guidance to the OBSC and the OKASEC on the project implementation.

Professional guidance will be provided by the OBSC and in particular the technical committees of OBSC will be engaged in project implementation activities in accordance with the mandates of the committees. In particular, the Water Resources Technical Committee; the Land Management Technical Committee and the Socio-Economic Technical Committee are expected to be active in guiding the implementation of the project activities.

The national partners in cooperation with OKASEC/technical committees will define the scope of works, participate in the vetting of consultants/ contractors, supervise implementation of the works and give instruction on payment. OKASEC (Project Manager

[2] Estimated needs are (to be refined in the course of the implementation of the action):

- Angola: Installation/rehabilitation of at least 7 hydrometric stations (two must be HYCOS stations) + 5-7 points associated with hydrometric stations for water quality monitoring + groundwater monitoring;
- Namibia: Installation / rehabilitation of at least 2-3 additional stations + 2-3 points associated with hydrometric stations for water quality monitoring + groundwater monitoring;
- Botswana: Installation / rehabilitation of at least 3-5 additional stations + 3-5 points associated with hydrometric stations for water quality monitoring + groundwater monitoring.

with the procurement and financial management staff) will be responsible for the coordination of implementation activities and undertaking the actual procurement and financial management activities.

The project will hire the **following staff:**

- A Project Manager will be hired for the duration of the project and will report directly to the OKASEC Programme coordinator. The Project Manager will work in close cooperation with the basin management structures and national departments in each of the three countries responsible for the type of activity.
- A Decision Support Systems (DSS) Specialist with the following tasks: overall responsibility for the development of the DSS including: design of the structure of the DSS incorporating where appropriate the existing basin information systems and planning tools; development of integrated Geographical Information System (GIS) and the linkages to national databases and support to national departments for developing and upgrading the GIS and databases; design and linkages to remote sensing data management systems; design and implementation of use interfaces/ dashboards/ websites; and training of OKASEC and Member State professional staff in the use of the DSS. The scope is very wide and, where needed, the DSS Specialist will prepare specifications and terms of references for specialist inputs to supplement the in-house capacity.

In order to increase the professional capacity of the OKASEC in the two thematic areas of i) Water Resources Management and ii) Land Management and Livelihoods, it will be ensured that the project manager has a Land Management profile and the DSS Specialist a Water Resources Management profile or visa-versa.

The Project will cover the salary for the Project Manager and the DSS Specialist for the duration of the Project. OKACOM has expressed its commitment to the DSS Specialist being a permanent staff position at the OKACOM Secretariat and will mobilise resources during the project period to ensure funding will be available to cover the full salary of the DSS Specialist at the very latest after the end of the EU Support Project.

5 Indicative Action Plan for Implementing the Action

	Year 1				Year 2				Year 3				Year 4			
Objectives/ Outputs/ Activities	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
SAP Objectives, Outputs and Activities																
BASIN DEVELOPMENT AND MANAGEMENT FRAMEWORK (BDMF)																
Basin wide information sharing and management tools developed and operational																
Strengthening of existing OKACOM hydrologic data sharing protocol, signed by the key data providers and water resource regulatory and management organizations in each state.																
Decision Support System developed which presents to the decision makers, at the basin-wide and national levels, the options in a clear and understandable fashion																
Review of existing decision support system and needs assessment in light of the BDMF and national decision frameworks.																
Re-design of new system components (inputs, outputs and interfaces)																
Installation of full DSS in OKACOM secretariat and in OKACOM national coordinating units																
Training on DSS operation for decision makers at different levels																
Development of water resource/ hydrological models for the basin with an adequate concept																
Refinement of economic model, including more detailed assessment of indirect benefits and the existence value of the Cubango/Okavango system and comparative study of the value of water for different economic uses.																

Refinement of Integrated Flow Assessment (IFA) methodology and geographical expansion of IFA																
National databases upgraded and harmonised in support of Okavango Basin DSS																
Development of common structure and format for national databases (water resources, water quality etc.) compatible with basin DSS																
Up-grading of GIS database and expansion of layers for land-use, water resource, conservation and other planners																
Development/ upgrading of remote sensing monitoring database to determine land use and vegetation change for land-use and conservation managers																
Development of basin-wide biodiversity databases and listing of indicator species																
Creation of basin-wide socioeconomic database, to include all major areas of economic activity (tourism, agriculture, fishing, mining, etc.)																
Development of web-based information management system linked to DSS and accessible at different levels by a range of stakeholders																
THEMATIC AREA 2: WATER RESOURCES MANAGEMENT																
Basin-wide hydrological and meteorological monitoring system to determine surface water resource yields, groundwater recharge and predict drought and flood events strengthened																
Implementation of basin-wide meteorological and hydrological monitoring programme, including establishment of new monitoring stations in appropriate sites throughout the basin																
Development and implementation of targeted training courses on meteorological and hydrological monitoring																

Basin-wide water quality monitoring programme established																	
Implementation of basin-wide water quality monitoring programme, including establishment of new monitoring stations in appropriate sites throughout the basin																	
Development and implementation of targeted training courses on water quality monitoring (including, where appropriate, with community involvement)																	
Basin-wide sediment monitoring system established																	
Development and establishment of basin-wide sediment monitoring programme (i.e. monitoring systems, equipment etc.)																	
Development and implementation of targeted training courses on sediment monitoring																	
Reduced flood damage in the basin due to improved flood forecasting and early warning systems																	
Production of basin-wide flood risk maps																	
Development of basin wide flood forecasting model																	
Development of basin-wide flood early warning system																	
THEMATIC AREA 3: LAND MANAGEMENT																	
Harmonised, basin-wide land use planning guidelines developed																	
Mapping of land use potential (sensitivity map) of the basin																	
Detailed assessment of land use policies, legislation, regulations and plans in the basin countries.																	
Development of harmonised, basin wide land use planning guidelines and implementation in pilot sites																	
Existing environmental degradation halted or reversed																	
Restoration of degraded river banks and riverine forests and establishment of vegetation buffers (5000 Hectares of riverine forest protected and restored + Five vegetation buffer schemes established in each basin state)																	

Mapping and assessment of impact of invasive species in the river basin																
Establishment of transboundary programmes for control of spread of alien plant species																
Establishment of basin-wide fire control programme coordinating existing national programmes																

6 Sustainability of the Action

The Action will be fully integrated within the OKACOM institutional structure and is based on the Agenda and Work Programme of the OKACOM, derived from the *Strategic Action Programme (SAP) for the Sustainable Development and Management of the Cubango-Okavango Basin*, which was approved by OKACOM in 2011, by the Botswana and Namibia governments in 2013, and by Angola in 2014.

The programme is a basin-wide policy framework document that lays down principles for developing the basin and improving the livelihoods of its people through the cooperative management of shared natural resources. The programme is supported by, and in accordance with, the national action plans[3] (NAPs) of the three member states. With the strategic action programme, the OKACOM countries have recognised emerging areas of concern, and climate change is identified as a main driving factor. The countries have therefore responded by promoting basin-wide integrated water resources management, strengthening governance components, reinforcing efforts towards achieving the development goals, and encouraging alternative development pathways.

Implementation of the SAP is the responsibility of the basin states independently as component of their national action plans, and collectively as part of OKACOM. Implementation is coordinated by the OKACOM Secretariat, which will be the institution coordinating the Action and its progress is monitored by OKACOM. Since the approval of the SAP, OKACOM has taken a leading role and requested that all initiatives carried out in the basin be aligned with the programme framework and priorities.

To implement the SAP, a long-term planning framework has been established to improve the basin governance and tackle specific issues in four thematic areas: 1) livelihoods and socio-economic development; 2) water resources management; 3) land management; and 4) environment & biodiversity.

The OKACOM Secretariat recently reviewed the current funding support for the implementation of the key strategic programme components and identified the main funding gaps: OKACOM operations have received funding from Sweden and the riparian member states[4], but the analysis clearly highlighted that most of the objectives of thematic areas 2 and 3 currently receive no transboundary funding at all. There is therefore a need to act on **these two thematic areas, which are the areas targeted by this Action**.

The objectives within thematic areas 2 and 3 are receiving attention at national level only. OKACOM is planning to address some objectives within thematic area 2 as part of a planned GEF Project and there is a need to focus on the following to ensure that decision-makers are provided with sound data and other relevant information on which to base decisions.

<u>Thematic Area 2 – Water Resources Management:</u>

- Basin-wide hydrological and meteorological monitoring system to determine surface water resource yields and groundwater recharge and predict drought and flood events is strengthened;
- Flood damage is reduced due to improved flood forecasting & early warning systems.

Land management issues are not addressed by other initiatives by OKACOM and there is a need to address both the objectives identified in the SAP.

[3] OKACOM (2011) National Action Plan for the Sustainable Management of the of Cubango Kavango River Basin, Angola; OKACOM (2011) National Action Plan for the Sustainable Management of the Cubango Kavango river Basin, Namibia; OKACOM (2011) Okavango Cubango River Basin. Botswana National Action Plan 2011-2016.

[4] The annual contribution of each of the three member states to OKACOM budget is USD 100,000 since 2012.

Thematic Area 3 – Land Management:

- Harmonised, basin-wide land-use planning guidelines are developed;
- Existing environmental degradation is halted or reversed.

These thematic areas need greater involvement of OKACOM in collaboration with all key development actors in the basin (resources users at community level, private sector, government agencies, multi and bilateral investors, etc.) and require the development of common instruments. Therefore, this Action also foresees accompanying measures for institutional strengthening of the Secretariat and OKACOM as a whole, and for OKACOM to be viewed as a river basin organisation operating at transboundary level for the benefits of its member states. To address issues related to water and land management, the Basin Development and Management Framework (BDMF) and in particular the Decision Support System (DSS) need to be operationalised and this is the main objective of this Action.

The Action will furthermore recruit a Decision Support System Specialist, with the intention of incorporating this position within the permanent staff of the OKACOM Secretariat.

7 Logical Framework

	Results Chain	Indicators	Baseline	Targets	Sources and means of verification	Assumptions
Overall objective: Impact	To strengthen the Cubango-Okavango river Basin governance and promote sustainable management of its water and land resources	*Level of environmental degradation*	*No data available*	*To be determined once data is available (in the course of the project)*		
Specific objective: Outcome	1. To strengthen the 'Decision Support System' (DSS) and the 'Basin Development and Management Framework' (BDMF) to enable OKACOM to provide effective advice to member states	*- Number of policy papers provided by OKASEC and endorsed by Member States and adopted at national level*	*No DSS operational in OKASEC to provide foundation for advice to OKACOM/ Member States*	*- 5 policy papers presented to OKACOM/ Member States addressing key aspects of basin development by the end of project adopted at national level*	*OKACOM Integrated Annual Progress Report based on information on the use of the BDMF*	*- OKACOM will implement as planned other components of the BDMF complementing the EU Support Project* *- Member States will contribute as planned to the development of the BDMF*
	2. To strengthen water management in the Cubango-Okavango River Basin	*- Degree of coordination and utilisation of the data in the formulation of policies at member state level*	*No basin wide DSS and Early Warning Systems*	*- Comprehensive water resources information and analysis for planning and disaster management available to Member States and mainstreamed by the end of the Project*	*OKACOM Integrated Annual Progress Report based on qualitative analysis of completeness of water resources data and early warning information*	*- OKACOM will implement as planned other components of the SAP Water Resources Thematic Area complementing the EU Support Project* *- Member States will contribute as planned to the development of the Monitoring Networks*
	3. To strengthen land management in the Cubango-Okavango	*- Degree of coordination on land-use planning in OKACOM member states*	*Land use planning mainly covered by national activities and limited involvement by OKACOM in livelihood interventions*	*- Effective coordination and facilitation by OKACOM of land use planning, environmental protection and livelihood activities*	*OKACOM Integrated Annual Progress Report based qualitative assessment of implementation of basin activities and project implementation M&E on livelihoods*	*- OKACOM will implement as planned other components of the Land Management Thematic Area complementing the EU Support Project* *- Member States will contribute as planned and utilise the harmonised land use planning guidelines*
Outputs	O1 (SO 1) Decision Support System operationalised and capacities of OKASEC improved to fully utilise the DSS for analysis and advice to Member States	*% completion of key DSS components:* *- Integrated GIS with water, land, biodiversity and livelihood data* *- Basin Hydrological Model and IFA* *- Economic Model*	*No DSS operational in OKASEC*	*- 80% completion of key DSS components, with OKASEC Staff capable of maintaining the DSS and Technical Committees capable of utilising the DSS for analysis and advice by end of Project*	*OKACOM Integrated Annual Progress Report based on reporting on the completeness of the DSS and its use*	*- OKACOM will provide sustainable funding for operating the DSS and the professional staff in OKASEC for utilising the DSS* *- Member States will contribute as planned to the development of the DSS and the work of the Technical Committees*

	Results Chain	Indicators	Baseline	Targets	Sources and means of verification	Assumptions
	O2 (SO 1) National databases upgraded and harmonised in support of Okavango Basin DSS	*- % completion of upgraded national databases linked to OKASEC DSS*	*- No national databases linked to OKASEC DSS*	*- Effective linkages and completeness of national data bases operational for at least 80% of OKASEC DSS full functionality*	*OKACOM Integrated Annual Progress Report based on reports from DSS on completeness of national databases*	*- Member States will contribute as planned to the development of the national data bases providing the data foundation for the OKASEC DSS*
	O 3 (SO 1) Revised OKACOM Data-sharing Protocol signed and operational agreements signed by data providers	*- Data-sharing Protocol signed by OKACOM MS* *- Number of operational agreements signed with data providers*	*- Existing hydrological data sharing protocol* *- No operational agreements with data providing Institutions*	*- Data-sharing Protocol covering all DSS data requirements signed by the end of year one of the Project* *- Operational agreements signed by all data providing Institutions by year 3 of the Project*	*OKACOM Integrated Annual Progress Report based on documentation of signed Protocol and Operational Agreements*	*- OKACOM will be able to achieve consensus on the Data-sharing Protocol* *- Member States will contribute as planned to the development of the Data Sharing Protocol* *- Data Providing Institutions in the Member States will collaborate and sign operational agreements*
	O 4 (SO 2) Improved availability of water resources data through implementation of monitoring stations and equipment covering surface and ground water resources, water quality and sedimentation including capacity of institutions for monitoring	*- Existence of systematic water resource data available in OKASEC* *- % completeness of water resources data in DSS as compared to monitoring plan*	*- No systematic water resources data available in OKASEC*	*- 80% completeness of water resource data by end of project compared to monitoring plan*	*OKACOM Integrated Annual Progress Report based on information on data completeness in DSS*	*- OKACOM will implement as planned the development of the monitoring plans for water resources quantity, quality and sediments* *- Member States will contribute as planned to the establishment of monitoring stations; will provide professional staff for training and will provide resources to sustain the operation and maintenance of the stations and data transmission systems*
	O 5 (SO 2) Reduced flood damage in the basin due to improved flood forecasting and early warning systems	*- Existence of early warning system* *- Timeliness of warning of flood events provided by OKASEC to Member States and Stakeholders*	*No Early Warning System* *No warning of flood events provided by OKASEC to member States and Stakeholders*	*- Daily warning of flood events based on real time data on rainfall and modelling of river flows*	*OKACOM Integrated Annual Progress Report based on log of data and basin model analysis*	*- OKACOM will implement as planned other components of the SAP Water Resources Thematic Area complementing the EU Support Project* *- Member States will contribute as planned to the development and operation of the Monitoring Networks*
	O 6 (SO 3) Harmonised, basin-wide land use planning guidelines developed	*- Existence of harmonised Land-use Planning Guidelines by Member States* *-Number of pilot sites in each member state using*	*- No Harmonised Land-use Planning Guidelines*	*- Use of Planning guidelines demonstrated in 2 demonstration sites in each Member State*	*OKACOM Integrated Annual Progress Report based on monitoring of the implementation of demonstration land use planning projects*	*- OKACOM and Member States will contribute as planned to the land use planning activities and the functioning of the Technical Committee- Member States will contribute as planned to the development of harmonised land-use*

	Results Chain	Indicators	Baseline	Targets	Sources and means of verification	Assumptions
		harmonised land-use planning guidelines				*planning guidelines and will utilise the guidelines*
	O7 (SO 3) Existing environmental degradation halted or reversed in specific pilot sites	*- Level of environmental degradation in demonstration sites (measurement to be established further to identification of demonstration actions)* *- Improved income level of population in demonstration communities (gender disaggregated)*	*To be established as part of planning demonstration interventions*	*- to be established as part of planning demonstration interventions*	*OKACOM Integrated Annual Progress Report based on remote sensing data on environmental degradation and project implementation M&E on livelihoods*	*- OKACOM will implement as planned other components of the Land Management Thematic Area complementing the EU Support Project* *- Member States will contribute as planned and utilise the harmonised land use planning guidelines*