New Partnership for
Africa's Development (NEPAD)

Comprehensive Africa Agriculture
Development Programme (CAADP)

Food and Agriculture Organization
of the United Nations

Investment Centre Division

GOVERNMENT OF THE REPUBLIC OF ANGOLA

SUPPORT TO NEPAD–CAADP IMPLEMENTATION

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Volume VI of VI

BANKABLE INVESTMENT PROJECT PROFILE

Integrated Support Centres for Artisanal Fisheries

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ANGOLA: Support to NEPAD–CAADP Implementation

Volume I: National Medium–Term Investment Programme (NMTIP)

Bankable Investment Project Profiles (BIPPs)

Volume II: Irrigation Rehabilitation and Sustainable Water Resources Management

Volume III: Rehabilitation of Rural Marketing and Agro–Processing Infrastructures

Volume IV: Agricultural Research and Extension

Volume V: Revitalization of Angola Forestry Sector

Volume VI: Integrated Support Centres for Artisanal Fisheries

NEPAD–CAADP BANKABLE INVESTMENT PROJECT PROFILE

Country: Angola

Sector of Activities: Artisanal Fisheries

Proposed Project Name: **Integrated Support Centres for Artisanal Fisheries**

Duration of Project: 39 months

Estimated Cost:
Foreign Exchange ..... US$22.8 million
Local Cost ..... US$15.4 million
Total ..... US$38.2 million

Suggested Financing:

Source	***US$ million***	***% of total***
Government	15.0	39
Financing institution(s)	22.8	60
Private sector	0.4	1
Total	***38.2***	***100***

ANGOLA:

NEPAD–CAADP Bankable Investment Project Profile

"Integrated Support Centres for Artisanal Fisheries"

Table of Contents

Abbreviations

CAADP	Comprehensive Africa Agriculture Development Programme
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
IPA	Institute of Artisanal Fisheries
MINPESCAS	Ministry of Fisheries
NEPAD	New Partnership for Africa's Development

I. PROJECT BACKGROUND

A. Project Origin

I.1. In order to provide the environment required for the sustained development of the country's natural resources, the Government of Angola, through the *Ministry of Fisheries* (MINPESCAS), has identified and structured this project along the FAO–recommended approach, with a view to submitting it for financing in the framework of the national implementation of NEPAD/CAADP.

I.2. In conformity with the NEPAD/CAADP guidelines the proposed project should contribute positively to a rational and balanced development of renewable resources and job creation for it to be sustainable. The following paragraphs. cover the project proposal in greater detail.

I.3. MINPESCAS utilized the experience gained in promoting similar projects that were implemented in the late nineties in order to formulate a more feasible project. Five *Integrated Support Centres for Artisanal Fisheries* were established: two in Zaire Province, one in Luanda Province, one in Kwanza Sul Province and one in Benguela Province. The approach adopted constituted the prime information source for designing this project.

I.4. The five Centres demonstrated that it is essential for such activities to be integrated in a private management structure which in turn, ensures that value of the services rendered by the Support Centre are logically reflected in the prices of products, and recouped progressively to the extent possible. It should also remunerate and cover the depreciation and operating costs of the infrastructure.

I.5. This project intends to establish 15 *Integrated Support Centres for Artisanal Fisheries*, (10 in the hinterland for inland fisheries and 5 along the coast for marine fisheries). These would meet basic requirements for developing such an important economic activity, creating jobs in inland communities and contributing decisively to improve their diet in sustainable conditions by the marketing of some of the items produced.

B. General Information

I.6. With a surface area of 1,246,700 km^2 and a coastline 1,650 km long, Angola is endowed with the favourable conditions to launch a vigorous process of sustained development, to support a population of 14.5 million inhabitants.

I.7. The petroleum industry sector dominates the country's economic structure (over 50 percent of the GDP from 2001 to 2003), with exports predominating (90 percent during the same three–year period). The sector is wholly controlled by expatriate manpower under foreign ownership. However, the other productive sectors' participation is minimal as indicated in the table below:

Table 1: Percent Distribution of GDP by Sector at Market Prices					
Sector	1999	2000	2001	2002	2003 (*)
Agriculture, Forestry & Fisheries	6.4	5.8	8.5	8.7	8.1
Extractive Industries	67.1	66.9	57.6	54.4	51.2
Processing Industries	3.3	3.1	4.0	4.1	3.8
Construction	3.1	2.8	3.8	3.8	3.5
Business Services	15.0	14.5	15.8	15.5	15.0
Non–business Services	4.9	6.8	10.2	11.5	15.9
Import Duties & Taxes	0.2	0.1	0.1	2.0	2.5
(*) CONSULT projections.					

I.8. For a variety of reasons, among which the war played a vital part, the Angolan economy is highly dependent on economies of other countries, in domestic production and technical knowledge. Another important feature of the structure of the Angolan economy is the predominance of the "grey market", which is reported to account for about 30 percent of the present GDP according to recent studies. It has to be mentioned here how dynamic the numerous of "grey market" Angolan businessmen are, especially when compared with the relatively apathetic business class operating in the formal economy, who has been sluggish to take advantage of the opportunities generated by the end of the war and the opening of all roads throughout the country.

I.9. Angola's natural resources are abundant, especially water resources, which could promote the development of projects such as artisanal fisheries, both marine and continental. Due to the country's geophysical configuration, exceptional conditions are available, since practically all of the hinterland is covered by many rivers with hundreds of kilometres of navigable stretches, dozens of lakes and lagoons with ideal conditions, rivers running through the whole country and flowing into the Atlantic Ocean or transient through neighbouring countries.

I.10. The hydrographic configuration is characterized by four main zones: the Atlantic that runs along the whole coastline, the Zaire River, the Zambezi and the Kalahari, with the Kwanza River having the longest navigable length, over 1,000 km and large catchments basins dotted with beautiful valleys and natural lagoons.

I.11. The potential for developing artisanal fisheries, whether marine or continental, based on intensifying fish farming in Angola is enormous, considering the country's natural conditions, i.e. the extension of the coastline (1,650 km), and the waterways (10 catchments basins), dam reservoirs and lagoons inland.

I.12. Successful development of this potential calls for an ever–increasing appreciation of modern technology involved in fish farming and catching and processing fish. This requires training of a large number of technicians in such fields as biology, genetics, business administration, marketing, etc., as well as creating attractive and conducive conditions for private investment.

I.13. As for fish farming, the productive, commercial activity involved in this type of fisheries is practically non–existent in Angola, although there are currently positive and encouraging experiments on going in Africa. Angola's natural environment is favourable to the development of farming several species of aquatic nature, the most important of which are bivalves such as mussels. It has been reported that in experiments carried out from 1972 on and resumed in more recent years, the growth potential for bivalves can attain levels at par with the best the world.

I.14. What is known about species capable of reproducing in captivity and fish–farming management techniques is gradually on the increase. The production rate in fish–farming is much higher than what is obtained with traditional fishing techniques, where marine fisheries are naturally limited by the system's stock replacement capacity.

I.15. According to estimated data, the production of species in captivity in sub–Saharan Africa reportedly reached more than 70,000 tons in 2003, valued at over US$120m. This shows the advantages of organizing and developing continental fisheries in conjunction with fish farming, along with a yearly average growth rate of 14.7 percent for production in sub–Saharan Africa from 1984 to 1995.

I.16. Although this growth rate is better than average world figures, it is also true that with the low initial production for the whole sub–region, better results would have been expected given the length of the time period and the number of projects that were implemented to develop fish farming. The value of world fish–farming production rose by a yearly average of 18 percent from 1984 to 1995 and 17.5 percent from 1990 to 1995. For catches, the yearly average growth in terms of volume was much lower during the two time periods, respectively 2.8 percent e 0.8 percent.

II. PROJECT AREA

II.1. Given the phase that Angola now finds itself in, it would be prudent to concentrate the resources to be utilized in areas that offer a conducive environment for improved results. In addition, sites that must be the basis for selecting areas where artisanal fisheries is to be developed (depending on the abundance of fisheries resources) must have:

- sea and river bays and protected lagoons;
- relatively deep waterways;
- high product demand nearby.

II.2. As a result, the five zones to be given priority for ***marine artisanal fisheries*** are:

- Bengo Province: Catumbo community;
- Luanda Province: Santiago Beach community;
- Luanda Province: Buraco community;
- Benguela Province: Cuio community;
- Namibe Province: Namibe provincial community.

II.3. For ***continental fisheries***, the 10 Centres would be set up in the following provinces and communities:

- Cabinda (1): Sassa–Zau;
- Malange (2): Calandula and Kapanda;
- Moxico (1): Socassange (Luena);
- Kuando–Kubango (2): Menongue and Mbembwa;
- Huambo (1): Gove;

- Uíge (1): Ngoma (Antunes dam);
- Lunda Norte (1): Dundo (Seed Reproduction Unit);
- Lunda Sul (1): Saurimo (Chicapa River).

II.4. These sites offer the appropriate conditions for the project's success, based on a recent study performed on a national scale by a mission that visited and identified all potential project sites methodically. As a matter of fact, the sites were already selected by the local authorities' and other stakeholders by consensus and there is a high degree of commitment for *Integrated Support Centres for Artisanal Fisheries* to be set up there since they provide all the probable conditions for the initiative to be successful:

- Adequate water resources, either in bays and lagoons or permanent high flow–rate waterways;
- Strong business motivation;
- Acute unemployment;
- Demand for basic foodstuffs.

II.5. As the design is a novelty in the regions where the project will be implemented, there are no comparable businesses. Fish supplied for consumption is processed very slightly, usually dried, due to the difficulty of getting frozen fish from the coast and, in addition, because there is no means of cold conservation.

III. PROJECT RATIONALE

III.1. Angola has gained some experience in implementing *Integrated Support Centres* and considers that it is vital for this experience to be more comprehensively developed on a sectoral basis. The country also considers the experience should not be geographically extended to marine areas only, but specifically to continental or inland fisheries. In the hinterland, having infrastructure facilities such as warehouses, fuel depots, fresh water tanks, the technical knowledge for repairing motors and hulls, shops to sell nets and other fishing implements, plus some ice–making and fish conservation capability to prevent deterioration and a small pier so that vessels can moor is essential for development. This is especially appropriate for communities that suffered the most from war and lack of security that characterized the daily lives of many Angolans for over 30 years.

III.2. In an environment characterized by the non–existence of the most basic technical and operational capacity for fishing activities, the most authentic solution, both from organizational and technical/operational perspective, is in fact to establish a Centre that centralizes the conditions required for fishing. Centralization in a complex will allow integrated management and control, and generate the economies of scale that are significant in circumstances where management resources are scarce or even completely absent. For this reason it would be necessary to transfer management solutions.

III.3. This is why areas and population nodes were selected where the living conditions and potential production characteristics gave the best guarantee of success in implementing the project. Even though the sites chosen do not exhaust the opportunities existing in Angola, the selected communities are where it is the most urgent to launch this infrastructure investment and provide them with the production conditions that will enable them to face the future with optimism.

III.4. Due to the technical requirements of continental fisheries, it would be necessary to install fish–farming facilities in each *Integrated Support Centre* to ensure the reproduction and sustained management of fish that are caught in the fishing areas.

III.5. Given the principle of integration that dictates the project concept and the physical proximity of the fish–farming area and the remaining facilities in the Centre, management must also be integrated and concentrate the responsibility for proper operation of the overall Centre in a single entity.

III.6. Although the initiative is central to the MINPESCAS, the implementation, organization and control of the *Integrated Support Centres* requires the participation of the local state administration as well as the active and resolute contribution of traditional authorities and other entities and partners who seek an improvement in their living conditions through effective economic activity.

III.7. Another guiding principle for organizing and managing the *Integrated Support Centres* lies in the type of intervention reserved for government authorities and for private players interested in the activity. The state is considered to play an regulatory and collaborating role in the organization and control of compliance with the objectives set out for each Centre, whereas private entities involved would assume responsibility for the tangible management of each Centre.

III.8. Since this is a project that enjoys national consensus as to the need for implementation, it is not included in the General State Budget (OGE) due to insufficient available funds. However, there are budgetary conditions allowing the Angolan government to cover around 41 percent of the total project cost with its own resources.

IV. PROJECT OBJECTIVES

IV.1. ***Social and economic objectives*** of the project are as follows:

- Make sound economic use of renewable natural resources;
- Generate sources of income contributing to the improvement of the living conditions of the families involved in the exploitation of the project;
- Increase the number of productive jobs;
- Contribute to national production growth and hereby the growth of GDP;
- Contribute to the improvement of the diet of inland populations;
- Develop management skills and the use of initiatives that can promote the engagement of the rural population in productive activities.

V. PROJECT DESCRIPTION

V.1. The project covers two sub–sectors of the Fisheries Sector: marine fishing activities and continental artisanal fisheries.

V.2. The goal to be attained in the context of this project is the creation of 15 *Integrated Support Centres* distributed by various areas of the country (North/South and Coastland/Hinterland). The prime objective is a further active participation of the artisanal fishermen in planning, production, and management of fisheries resources and safety in rivers, lakes and marine coast. The project would construct the Centres and appended facilities in the fifteen implementation areas defined previously.

V.3. With the congruence of financial and business resources as much as possible in the management of the Centres, the project would be better placed to achieve sustainability and replicate itself in other places in future.

V.4. In terms of product conception, the project would incorporate all phases – from production up to the consumer, whether the fish is caught in rivers, lagoons and dam reservoirs or raised on fish farms. The products would be consumed either fresh or dried and may also be refrigerated, depending on the refrigeration capacity, when it is installed.

V.5. Since no technical processes are envisaged for processing fish other than traditional drying, the project's technical viability would be ensured by making resources available to keep vessels, the generator, the ice makers and preservation systems operational.

V.6. In conclusion, the project would have a simple structure with enormous economic and social potential. It would include the establishment of *Integrated Support Centres for Artisanal Fisheries* in areas and places where there is no structure of this type, with 15 locations selected (5 of which near the coast and 10 in the inland near the lakes and permanent streams). The project would be implemented in phases as follows:

- ***Study of the project configuration model*** *and its adaptation to the specifications of each location, including technical, economic and financial feasibility analysis of the Centre* — in each location, in consonant to the technical condition of the physical environment and human management resources, and according to the social character of the communities to be involved in the production and commercialization, the study would indicate the optimal technical solution;

- ***Selection of the management solution*** *to be applied in each location, with the analysis and the signing of the contract* — according to the corporate capacity and the existing technical resources, engage a discussion on what the management set–up of the project would be, and establish with the community leaders formal links for the implementation;

- ***Procurement of equipment*** — place field orders for equipment and tender contracts for civil works;

- ***Organization of the project management team*** — in compliance with the indications provided by a study that should identify the anticipated/expected implementation weaknesses of, the project;

- ***Recruitment of personnel and its training plan***;

- ***Physical installation of equipment***;

- ***Launching of the Project's operations and activities***; and
- ***Full production and commercialization***.

<u>Component 1:</u> Construction and Installation of Equipment

V.7. Investments would be made for construction works and procuring materials and equipment. For aquaculture, the construction of infrastructure includes office buildings, housing, road–works, fish tanks with the respective water pumping material and other associated equipment.

V.8. The infrastructures are also meant for supplying more easily vessels with fuel, oils, lubricants and fishing materials. They also allow that a better quality product be presented to the consumer.

V.9. The activities of this component as follows:

- Construction of a warehouse for general purposes;
- Construction of equipped store and small office, including an investment stock;
- Drilling of a borehole with a pumping system and the construction of a water vessel and fish processing tanks;
- Procurement of two PVC vessels for fuel with 10 ton joint capacity, equipped with "transfega" system;
- Procurement of fish processing equipment;
- Procurement and installation of crushed ice making unit with an installed capacity to produce 3,000 kg/24 hours;
- Procurement of multifunction official support equipment;
- Procurement of one conservation chamber with an installed capacity 3,000 kg of fish;
- Procurement of 15 or 10 fuel engine artisanal fishing vessels and fishing arts;
- Procurement of a radio communication system with the boats, a generator, solar panels and electricity distribution system;
- Procurement of a four–wheel–drive vehicle and two motorcycles;

V.10. This basic equipment and infrastructure relate to only one *Integrated Support Centre*. The number of vessels would vary depending on either the type of Centre (marine or continental artisanal fisheries).

V.11. The premises to be constructed are expected to have adequate space and rooms for:

- Storage of fishing materials and engines;
- Tables to eviscerate fish;
- Tanks for fish processing;
- Installation of conservation chambers;

- Ice–making unit;
- Repair and maintenance shop for generators;
- Fishing tanks and fish raising infrastructures.

V.12. In addition, a shop and small office would serve as the administrative block of the Centre and would be equipped with the following:

- Fuel and water tanks; and
- 15 and 30 kVA generators***;***

V.13. Besides the items indicated above, the project would provide other infrastructure items such as: quay, access roads; medical centre; and school.

Component 2: Quay

V.14. Quays are the strategic facet for an proper preparation of work and the for off–loading of fish from ships in hygienic and sanitary conditions. In this regard be one quay facility will be constructed using local materials in each fishing area.

Component 3: Improvement of the Access Roads

V.15. The project's targeted communities are located at a distance of about 10 km away from main access roads making the construction and repair of access roads essential for the project. Better access will allow the clients/customers arrive quicker to fishing Communities, thereby facilitating a continuous fish flow. The project would level and compact the main access roads.

V.16. The fifteen artisanal fishing communities have about 20,000 families composed of fishermen and farmers and families.

Component 4: Construction of Medical Centres

V.17. It is also essential that social infrastructure be established to support the other social and economic features of fishing communities. The project would construct a medical centre and a residence for the nurse in each of the project areas will contribute to preventing and curing certain diseases among fishing communities.

Component 5: Schools

V.18. The demographic growth among the fishing communities has a significant number of school–going age children. Besides the fact that there are no schools in these communities, the displacement of people to other villages where they can get free schooling, makes it difficult for these communities to have access to education and literacy. For adults, an *Adults Literacy and Education* scheme will be established, while the teaching–educational process for their children in school age will take place according to the system set up by the *Ministry of Education and Culture*.

Component 6: Technical Assistance

V.19. Given the necessity to improve the functioning of the *Integrated Support Centre* professional training and technical support activities will be implemented at the project's inception.

VI. INDICATIVE COSTS

VI.1. The annualized investment costs shown in table below cover a five–year project duration and have been budgeted for on the basis of other on–going projects in the country but more detailed costing would need to be supported by financial feasibility required by each Centre. Estimated costs have been projected in the budget presented below:

Table 2: Summary Cost by Component and by Year

Component	2006	2007	2008	2009	2010	Total
1. Construction and Installation of Equipments	2,000,000	2,500,000	3,500,000	4,000,000	4,200,200	16,200,200
2. Quay	1,500,000	2,000,000	2,500,000	1,500,000	1,000,000	8,500,000
3. Improvement of Access Roads	500,000	500,000	500,000	500,000	500,000	2,500,000
4. Construction of Medical Centres	500,000	800,000	1,000,000	1,000,000	1,000,000	4,300,000
5. Schools	500,000	1,000,000	1,000,000	1,500,000	1,500,000	5,500,000
6. Technical Assistance	250,000	250,000	250,000	250,000	250,000	1,250,000
Total	5,250,000	7,050,000	8,750,000	8,750,000	8,450,200	38,250,200

VII. PROPOSED SOURCES OF FINANCING

VII.1. The financing of the total project cost has been proposed as follows: Angolan Government will cover 39%; Financial institutions 60% and the private sector 1%

VIII. PROJECT BENEFITS

VIII.1. The development of the Integrated Support Centres will result in the following benefits:

- Increased fish production;
- Job creation;
- Development of renewable natural resources.

VIII.2. Artisanal fisheries catches will experience considerable growth with the development of the proposed with the following increases are expected:

Table 3: Production Resulting from the Project

	Year 1	Year 2	Year 3	Year 4	Year 5
Catch in tons	4,500	4,950	5,445	5,989	6,588
Yearly change in %		+10%	+10%	+10%	+10%

VIII.3. The project would generate jobs as follows:

Table 4: Job Creation Induced by the Project					
	Year 1	Year 2	Year 3	Year 4	Year 5
Direct Employment	1,510	1,586	1,665	1,748	1,835
Indirect Employment	3,020	3,171	3,330	3,496	3,671
Total	4,530	4,757	4,994	5,244	5,506

VIII.4. The above figures have been based on the assumption that each fishing vessel will create 13 direct jobs and that for each direct job two indirect jobs are generated. In marine fisheries, each vessel includes two crews of four people (total of eight) with five people on shore, totalling 13 direct and 26 indirect jobs. In continental fisheries, the vessels contain a single six–persons crew, thus resulting in 18 additional and 12 are indirect jobs created.

VIII.5. ***Benefit/Cost Ratio of Project.*** The benefits that would be obtained from de implementation of the project activities resulting would be from the functioning of the Centres fully established.

VIII.6. It is not foreseen that the project would have any possible negative impact resulting from its activities. However, other benefits that could result from the project's implementation are as follows:

VIII.7. ***Economic and Social Benefits:***

- Improvement of the living conditions for the families directly and indirectly involved in the project by means of the commercialization of the substantial part of the production;
- Improvement of the diet of the populations benefiting from the project generated production, by introducing 27,500 tons of fish during the first five years, which is a natural product with deep effects in the quality of life and the capacity to face difficulties related to the isolated communities;
- Improvement of the production and maintenance conditions of fish and other products from the fishing activity;
- Providing the consumer with a better quality product, resulting in more profits for the fishermen and the ship owners;
- Reasonable and sustained development and exploitation of renewable natural resources;
- Reasonable exploitation of a production activity with high potential in the framework of the Angolan natural resources;
- Improvement of the access roads, allowing the communities to have bigger accessibility and the products to flow quicker;
- Improvement of health and sanitary conditions of the communities;
- Collaboration with Health Authorities in preventing and curing various diseases that may appear in the communities;
- Increase of the literacy levels among the population of the communities.

VIII.8. Another advantage is to provide the poorest and clearly less–developed zones with basic infrastructure allowing a much improved welfare of the population.

VIII.9. ***Confronting Pre–and Post–Implementation Phases of the Project.*** *Before the Implementation of the Project.* As mentioned earlier, the targeted zones for the implementation of the project are characterized by an underdevelopment and poor living conditions of the fishing communities. Their living conditions are generally degrading without any economic opportunity or dynamic capacity to seize the opportunity emerging with the onset of peace in Angola with the end of the war. The majority of the population in these communities is illiterate, due to the fact that there are no educational institutions and they do not have an access to neighbouring villages which have schools.

VIII.10. In the inland communities the production activities are reduced to subsistence seasonal cultivations, without any margin for savings that could allow them develop direct exchange process or commercialize; in the coastal communities the non–existence of resources of any kind create anachronistic situations of food insecurity, although they live near immeasurable wealth, as it is the case of fisheries resources.

VIII.11. The working instruments for fishing activities are very scarce and sometimes misemployed as regards the most basic tasks. The deterioration of the instruments and equipments is much accentuated because of the non existence of maintenance and/or technical assistance services.

VIII.12. *After the Implementation of the Project.* The artisanal fishing activity will be the most important source of revenue for the population living in he implementation zones. The production scheduled for year 1 of the project will reach 4.5 tons of fresh fish, and the estimated annual increases are around 10%, with positive impact in all the sectors and in all the aspects of the day–to–day life of the families to involve in the implementation of the Project.

VIII.13. There will be hygienic and sanitary conditions for the appropriate handling of the product after catch, allowing the increase of the parameters of the level of life of the population. The instruments and equipments provided for the execution of fishing activities will have a longer operating life time due to fact that the maintenance and repair shops are operating.

VIII.14. The constructed infrastructure will generate more conducive conditions for the unloading fish and other fishing products, from boats as well as generally improve the communication between the communities and the project areas. The living conditions will be better as there will be an increase in fish production allowing self support of the local population and the supply of the communities involved in the project.

IX. IMPLEMENTATION ARRANGEMENTS

IX.1. The government, through MINPESCAS, will play a central facilitator role in the implementation of programme activities; however, the operational implementation of the programme and projects would be at provincial and municipal levels. Specifically, MINPESCAS along with local authorities and communities and the private sector will undertake community and stakeholder mobilization and sensitisation meetings on the programme. To support this effort, the programme includes a programme coordination budget to assist in establishing an implementation and coordination mechanism. This will enable all stakeholders participate in the planning and implementation stages of the various components of the programme in different project locations. The following phases would be observed for the implementation of the programme.

IX.2. ***Preliminary Phase* – *Social Mobilization for the Project and Preparation of the Feasibility Study.*** In the phase of preparation of the technical, economic and financial feasibility study and the market study, the advantages and the modus operandi of the project, including the obligations of the return that needs to be formalized in a contract as soon as the financing sources are assured, have to be analyzed at the same time that the discussions with the local authorities and the potential contractors and agents as well as other elements to be involved in the project, in each community are held.

IX.3. This phase will end with the formal organization of the corporate solutions that will be responsible for the setting up and commencement of the Centre's operations: Fishermen Association/Fishermen Co–operative Society or Fishermen Association + Managing Company.

IX.4. ***Phase 1* – *Securing Funding.*** This is most important and decisive phase for the implementation of the project since it will define the time of the implementation starts for all the scheduled actions.

IX.5. ***Phase 2* – *Construction of Infrastructure and Procurement of Equipment.*** After ensuring the financing of the project and defining the action outlines for the execution of the project–related operations, the construction and acquisition of the required materials, buildings and equipments begins.

IX.6. This phase may last one year and shall be subject to the accessibility of the project incidence communities. The activities will be as follows:

- Construction of a multi–purpose premises and execution of other scheduled production civil construction works: shop, small office, water tank and fish processing tank;
- Construction of the quay;
- Construction of the access roads and/or conservation and opening of tracks for the communities;
- Construction of fish tanks for aquaculture;
- Construction of a medical centre;
- Construction of a school for the fishermen children and the community in general;
- Acquisition and installation of an ice–making unit;
- Acquisition and installation of the conservation chamber;
- Acquisition of artisanal fishing equipped vessels;
- Acquisition of generators and solar plates;
- Acquisition of a vessel for inspection and support activities;
- Acquisition of an isothermal vehicle.

IX.7. ***Phase 3* – *Organization and Setting up of the Business.*** With the technical support of a consultant and the permanent cooperation with the selected managers, the organisation and setting–up of the business starts, providing the required training and preparing all the participants for the multiple tasks to be carried out.

IX.8. ***Phase 4* – *Launching of the Activities.*** The activities will start after the setting–up of the infrastructure and the formalization of the management responsible for the management of each Centre:

IX.9. ***Phase 5* – *Project Maturity.*** After one year of project, the local community will, in this phase, be in a process of total integration with the defined objectives.

IX.10. With the separation of the project into phases, the Fishermen Associations will be expected to play a vital role for the success of the project. The Association will be the formal interlocutor of the government authorities in the implementation phase and will be responsible for the success or failures that might happen. It will also be responsible for ensuring that the share of the revenues assigned to the renewal and the growth of the Centre is applied in good safety and for the benefit of the community.

IX.11. The association is directly in charge of managing the Centre and has to adopt the cooperative legal format for this purpose. The association will contract a company to be in charge of managing the Centre and maintaining its operations.

IX.12. Although the Centre may transform itself into a rallying point for the economic development of the community(ies) it serves, what is crucial is that individuals who are prone to turn their activity into a business can find a variety of form of support that will help them get better organized.

X. TECHNICAL ASSISTANCE

X.1. As mentioned before, it is anticipated the setting up of an entity with consulting technical capacity that will act with flexibility, exigency and the capacity to adapt itself to the local conditions where the project is implemented.

X.2. This entity will be responsible for the setting up of a model of management and control of the exploitation that can suit the tangible conditions of the communities, including the necessary training as well as any follow–up.

X.3. The material and human resources necessary for the execution of the *Integrated Support Centres for Artisanal Fisheries Project* are accessible as from the Angolan economy, since in the internal market there is an important part of the equipment available for the execution of the anticipated activities, at reasonable prices and quantities. Specialized manpower in the fisheries sector necessary to carry out the proposed project can easily found within the country.

X.4. On behalf of the government, MINPESCAS and IPA are entitled to market the project. It is the responsibility of this institution to coordinate and organise all the tasks necessary for the start of the project. The intercessions with the *Provincial Governments* where the fifteen communities benefiting from the activities are crucial. It is its role to formulate decisions based on studies carried out to identify in which zones the projects would focus, as well as the risks and benefits that could result from the implementation of these projects.

X.5. It will be the responsibility of IPA to ensure the follow–up of all phases of the project, working together with each Association in the selection of the entity to provide the required technical assistance, anticipated in the project costs.

XI. POSSIBLE RISKS

XI.1. After assessing the benefits and costs that may result from the execution of the project, the following factors can be considered as risky:

- Inadequate management capacity at both the management and intermediate technical personnel levels;
- insertion and acceptance of the money exchange relationships;
- Inadequate knowledge on art and fishing techniques;
- Predominance acceptance of the basic economic principles in the management of resources to allocate in defence of its maintenance and longevity;
- Effective support to the target communities by the public institutions.

XI.2. These risks are manageable and can be controlled provided that there are joint efforts of all stakeholders Although difficulties may occur, IPA effective connection and the constant presence of the consultant during the first year is an condition essential for the success of the project.