

Project AHK - Congo DRC

Rehabilitation & Medical Capacity Enhancement in the General Referral Hospital (HGR) KABINDA

A PROJECT WHERE, FOR WHO : THE BENEFICIARIES

▼ **A region, a population :** Kabinda, province of Lomami (ex-Kasai Oriental), Congo DRC.

- Kabinda: the administrative center of the new province of Lomami, destined to develop in a very landlocked region, disadvantaged by a difficult access, sometimes temporarily impossible.



A high concentration of population grouped in and around Kabinda: during the wars, a huge influx of residents now pauperized by the absence of employment, a widespread poverty contributing to a degraded health, to the development of diseases and epidemics.

Except Kabinda, no hospital alternative worthy of the name in the region. And a risky travel during one to several days by imaginary roads, for who wants to reach a city better equipped and accessible by plane (Mbuji Mayi).

⇒ A practical impossibility for sending a patient, an emergency to another hospital.

⇒ The critical and vital need for a local, versatile and efficient hospital, covering the region.



▼ **An hospital, a medical team motivated and anxious to improve, many patients, but a minimalist equipment :**

- The General Referral Hospital Saint Camille de Lellis in Kabinda : a story, an evolution, a future.



1959 : Just built, a gradually abandoned hospital, degraded over the troubles and plundering that followed DRC independence.

*1982 : The Diocese of Kabinda, which received from the State the responsibility to manage the hospital, entrust the direction to the **Community of the Beatitudes**.*

1996 : The war, the successive occupations, a difficult situation. The community, supported by the population, chooses to remain there despite the risks, and keeps the hospital operational. The most part of the Kabinda district remains isolated until 2005.

*2008 : Partnership with **AAI (Association Alliances Internationales)**.*

2016 : A major hospital, destined to develop and to later become a reference center for the province of Lomami. A recognized hospital, considered as the best in the region by the DRC medical authorities as well as by the auditors delegated by the European Community.

Spacious buildings, recently renovated and supplemented by several extensions financed by the European Union, but lacking the necessary medical equipment.

A motivated medical team with hands bound by the lack of adequate technical means. And without public network, an hospital equipment and lighting which requires an autonomous electricity supply, currently degraded and very insufficient..



A PROJECT FOR WHAT : AN ASSESSED AND CONFIRMED NEED

May 2016 : A 1-month evaluation mission, conducted by 2 recognized experts specializing in technical assistance and implementation of suitable biomedical equipment in the district hospital, gives its diagnosis and draws essential conclusions in an objective portrait.

- ▼ The HGR Kabinda Hospital, its infrastructure, its organization, its human capital, its rigorous management and its positive financial balance, its strong desire for improvement, constitute a solid and credible base for building a sustainable project and progression towards an optimal therapeutic offer and quality of care.
- ▼ The current electricity supply (diesel generator and photovoltaic system), an indispensable basis prior to any investment in biomedical equipment, is insufficient & inadequate, unreliable in continuity as in quality, and potentially destructive for powered equipment.
- ▼ In most departments and especially in some major units, the hospital does not have the minimum technical equipment necessary for the therapeutic and diagnostic services expected in an HGR district hospital of Central Africa. Most encountered and checked donations, new or second-hand, are unusable, inappropriate, irretrievably defective or ineffective.

		State complying to requirements and expectations applicable to an HGR-level hospital.
		Partially compliant state, with necessary corrective or improvement actions.
		Critical state, mandatory and urgent modification or improvement.
Substructure - Buildings		Large installations in very good condition, renovated or new wards (recent extensions), sufficiently spacious, suitable for the needs.
Substructure - Technical equipment		Needed and requested operating rooms air conditioning.
Substructure - Waste management		Well organized in departments, improvable incineration.
Substructure - Safety		Major risks identified, determined by the condition of the equipment (electrical distribution, O2 sources, autoclaves, imaging).
Organization - Management		Very good structure and management capabilities. Decision-making responsibility to be confirmed / stabilized as soon as possible (action in progress).
Organization - Human resources		All essential functions are supported. Existing & consistent (para)medical capabilities <> medical offer & beds number.
Organization - External interfaces		Good relations with regional authorities, but some changes to follow (Replacement of the bishop, new provincial government).
Organization - Financial resources		Well managed and sufficient, 2014-2015 balance is positive.
Organization - Maintenance		No prior organized maintenance but management's determination and a recently hired maintenance agent, training and equipment required.
Resources - Electricity		3 diesel generators but limited power, micro-cuts, under- and overvoltages. Insufficient coverage of photovoltaic installations, widely deployed but poorly distributed, under-dimensioned, partially obsolete, architecture not optimal, choice of components with low quality / durability. Distribution to be rehabilitated: general power unbalance on the 3 phases, current condition or lack of the protection / distribution devices, of the earthing.
Resources - Water		Sufficient quality and quantity, rainwater exploitation, private spring.
Resources - Oxygen		Very critical situation: available external supply (O2 cylinders) and autonomous sources (concentrators), but very insufficient quantity, degraded condition and % O2 abnormally low (even local O2 cylinders), without therapeutic effect.
Resources - Blood transfusion		Insufficient availability, storage and transfusion means improvable for an optimal use (especially pediatric use).
Resources - Cold chain		Overall well managed, adequate means available, but quality control to improve.
Resources - Stérilization		Inadequate donated autoclaves (electric supply, no vacuum system), CQ tests nok. Inadequate Poupinels (power supply), defective, unreliable (regulation), CQ tests nok.
Resources - Internal production		Distilled water, alcohol and bleach produced in sufficient quantities. Bleach concentration nok, to modify.
Biomedical equipment - General assessment		Under-equipped hospital, new or 2nd hand donations creating an illusion but coming from inadequate and mostly unexploitable choices. General lack of training (no effective or sufficient training of users when installing the existing equipment).
Biomedical equipment - Intensive Care/REA - Emergency		Absence of essential equipment in adult and pediatric intensive care: some donations, not functional or inadequate.
Biomedical equipment - Operating theater		Lack of essential equipment for surgery (aspiration) and anesthesia (ventilator, monitoring): some donations, not functional or inadequate. Operating tables and surgical lights to be rehabilitated.
Biomedical equipment - Clinical laboratory		Meets the needs of a basic hospital and laboratory, but mandatory essential additional equipment and training for reaching an HGR level.
Biomedical equipment - Imaging		Functional radiology and ultrasound equipment, but inadequate (power supply), incomplete (ultrasound probes) or with a technically limited functionality.
Biomedical equipment - Hospital care - out-patients		General lack of diagnostic means for out-patient and hospitalization departments.

SOME DATA JUSTIFYING THE NEED AND THE EMERGENCY

Covered area & population	278 897 inhabitants spread over 19 800 km ² , 26 health centers 278 897 good reasons to invest in a project to help them
Hospital - Available beds	225 beds in 8 main care units Pediatric intensive care: average occupancy rate 119%
Hospital - Medical resources	7 doctors, 69 nurses/paramedics actively employed
Hôpital - Financial management	2015 balance : positive statement of income 8 919 USD, reserves 138%
Out-patient - Treated cases	8 146 new cases
Hospitalization - Entries	8 611 hospitalized patients hospitalisés of whom 5 496 new cases 33% hospitalized in pediatric intensive care, 21% in gyneco-obstetrics
Frequent pathologies	Malaria, malnutrition, anemia, acute respiratory infections, tuberculosis, AIDS, meningitis, parasitoses, peritonitis, accidental trauma, ...
Major causes of death	Intensive care, pediatrics, neonatology
Surgery - Interventions	1 247 interventions, 259 operating days 715 major interventions of whom 352 emergencies, 364 in gyneco-obstetrics
Transfusions	2 042 transfusions
Mother/Child Delivery Neonatology	743 deliveries, of whom 367 dystocic deliveries, 12 maternal deaths 332 deliveries with complication, 263 Caesarean 779 births (65 deaths ≤ 7 days), 186 entries in neonatology (17 deaths)
<i>Based on data published in 2015 Annual Report - General Referral Hospital (HGR) Kabinda</i>	

A CONVINCING PROJECT, MANY SUCCESS FACTORS

- A project built in close co-operation with the hospital's medical actors, tailored to the real needs, priorities and local constraints, rather than a copy / paste of pre-existing equipment's lists or equipment standards from our European hospitals.
- A large-scale, high-budget project, but divided into individual work packages making easier the executive management and promoting the partnership with donors having a limited budget (multi-partner funding).
- A project carried out at the lowest cost, with a maximum ROI (return on investment).
 - All actors involved in the project management are experienced but unpaid volunteers.
 - No structural costs, donor's money is used in the best interests of the hospital.
- A strong will for transparency and good communication:
 - A regular and objective reporting to the partners (executive and financial) is planned throughout the duration of the project, independent evaluation missions are planned during the progress and at the end of the project.
- A financial risk minimized by a project and budget management entrusted to reliable and ethical interlocutors having the approval and the complete confidence of the hospital and its partners:
 - *AAI (Association Alliances Internationales), founded in 1982 and partner of the Community of Beatitudes, is dedicated to support charitable and humanitarian projects in developing countries. The association, formally recognized as "Association of Support and Charity" (France) and "ASBL" (Belgium), offers tax exemption possibilities in France, Belgium and Germany.*
- A priorities and achievement approach focused on the concern to avoid the classic statement of failure from WHO and NGOs:
 - « 70% of all medical equipment in developing countries lies inoperable » (WHO, 2010 - WhyDev, 2014).
 - First to secure the operating conditions (electrical supply) before beginning to install sensitive biomedical equipment requiring the quality and permanence of electrical supply.
 - Each purchased equipment is deeply studied by an engineer experienced in the technology and hospital implementation of biomedical equipment, and takes into account the experience gained in the specific context of the district hospital in Central Africa : a guarantee of suitability and durability through a selection process considering the purchase price but also the consistency with the essential needs of a district hospital, the capacities of the local users, the compatibility of the required supplies (electricity, fluids, ...) with the local resources, the reliability and maintainability (technology, construction, operating costs, maintenance requirements and intervals, long-term support).
- At every stage of the project, training, a lot of training.
 - Technical training : teaching the users to know and properly operate all the features, to maintain the equipment, to avoid the destructive risks, to react in the event of a problem.
 - Medical training : strengthening the knowledge, leading the first implementation of new equipment and helping the hospital to make the best use of it, in the best interests of the patients.

PARTNERSHIP, ORGANIZATION, PARTICIPANTS

▼ The project applicant : HGR Kabinda.

- At the root of decisions and choices, the management and the medical staff of the beneficiary hospital.

▼ The major partners of the hospital are involved in the project : CB, AAI (AAI-F, AAIC, EFCL).

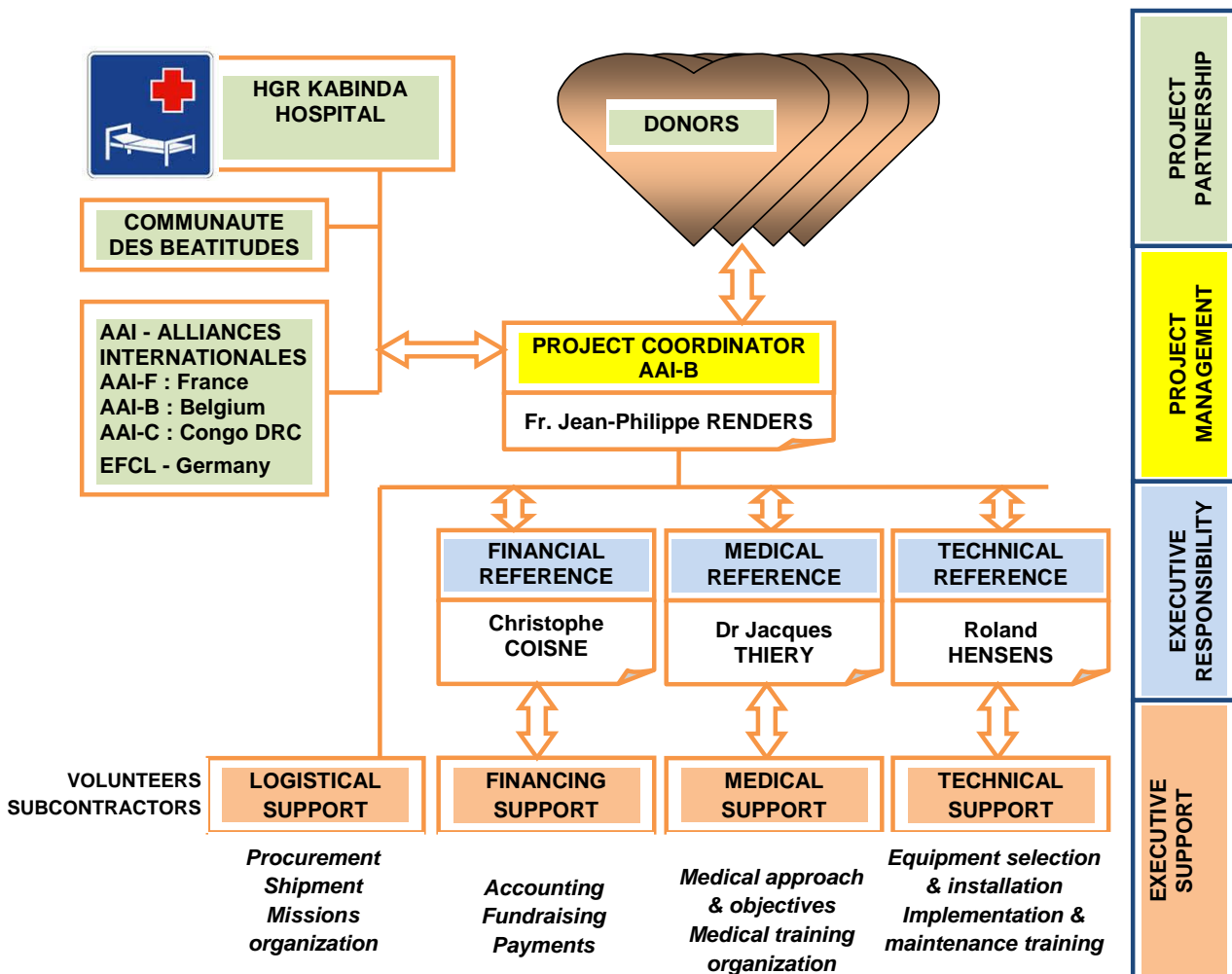
- The Community of the Beatitudes (CB), which assumes the management of the hospital and represents by delegation its organizing authority (the Diocese of Kabinda, which has received from the State the hospital's management responsibility, entrusted the Community of the Beatitudes since 1982 to lead and run the hospital).
- AAI-F (Association Alliances Internationales, France) and its German partner EFCL (Germany), who are already co-financing the project, supplemented by a local anchoring of the project (subsidiary AAI-C in Mbuji-Mayi, Congo DRC, which provides a close and essential link of South-South cooperation).

▼ The project leader and executive body : AAI-B, Belgian subsidiary of the association AAI.

- Within a framework of close collaboration with the project applicant and its major partners, it receives by delegation of them the executive and financial responsibility for the project, and assumes the technical, medical and accounting management. The applicant and the partners remain involved and consulted for any major decision during the entire construction phase of the project.
- It provides, in a totally free framework (voluntary work), the human resources necessary to manage (administration, purchase, shipment, finances) and to carry out the project (technical studies and selection of the appropriate equipment, installations of equipment, technical and medical training).

▼ The donors who agree to join the project :

- A dedicated framework open for mixed private - institutional public - individual funding, through a subdividing of the project into tasks subgroups (work package), allowing each donor to choose and finance a well-defined part of the project.



All responsible listed in this chart and their assistants contributing in the project's achievement are volunteers, unpaid for their missions

WHEN, HOW: A FIVE-YEAR IMPROVEMENT PLAN

YEAR 1		Total budget : 175 370 EUR	
Sub	What	How	How much
1.1	To improve and secure the autonomous electricity supply and the distribution network in the hospital	WP02-1 2-4, 2-5	19 760 EUR
1.2	To improve the surgical conditions in the main operating room : air conditioning SO-1	WP01-1	3 250 EUR
1.3	To equip the essential services with an autonomous production and distribution of medical oxygen	WP03	61 500 EUR
1.4	To install reliable and power supply-compatible sterilization equipment	WP04-7	58 030 EUR
1.5	To improve the basic tests, the transfusion service and the interpretation of laboratory tests	WP04-8	24 350 EUR
1.6	To help to implement a biomedical maintenance service: supplying the necessary intervention equipment	WP05	8 480 EUR



A capacity improvement built in 5 years, 18 steps, starting with the highest priority



Electricity
Oxygen
Sterilization
Laboratory
Transfusion
Maintenance

YEAR 2		Total budget : 248 370 EUR	
Sub	What	How	How much
2.1	To guarantee in the essential services a permanent electricity supply through photovoltaic production	WP02-2	121 030 EUR
2.2	To strengthen the capacities and the success of adult intensive care interventions by appropriate equipment	WP04-1	21 120 EUR
2.3	To strengthen the capacities and the success of pediatric intensive care interventions by appropriate equipment	WP04-2	26 490 EUR
2.4	To improve the haematological diagnosis in the clinical laboratory : tests automation, Hgb electrophoresis	WP04-8	23 190 EUR
2.5	To equip the hospital with a versatile digital radiological system, compatible with the electrical resources	WP04-11	56 540 EUR

Photovoltaic
Intensive care
Haematology
Radiology



Surgery
Anaesthesia
Mother/Child
Ultrasound
Diabetes
Biochemistry

YEAR 3		Total budget : 184 200 EUR	
Sub	What	How	How much
3.1	To improve the surgical intervention means and the safety of anaesthesia in the main operating room	WP04-3	49 760 EUR
3.2	To guarantee in the maternity ward a permanent electrical supply by a photovoltaic production	WP02-3	21 300 EUR
3.3	To improve the surgical intervention means and the safety of anaesthesia in the maternity operating room, to improve the surgical conditions (air conditioning)	WP01-3 WP04-5	61 290 EUR
3.4	To improve the management of diabetes (HbA1c) and the biochemistry diagnosis (ionogram) in the laboratory	WP04-8	19 370 EUR
3.5	To equip the hospital with a versatile ultrasound diagnostic system, compatible with the electrical resource	WP04-12	32 480 EUR



YEAR 4		Total budget : 68 915 EUR	
Sub	What	How	How much
4.1	To improve the surgical intervention means and the safety of anaesthesia in the secondary operating room, to improve the surgical conditions (air conditioning)	WP01-2 WP04-4	23 965 EUR
4.2	To improve the Mother/Child follow-up by equipping the consultation with a suitable ultrasound system	WP04-6	12 230 EUR
4.3	To introduce in the clinical laboratory a capacity for bacteriological analysis	WP04-8	17 190 EUR
4.4	Suitable means for improving the patient care & follow-up in the hospital wards	WP04-9	15 530 EUR



Surgery
Anaesthesia
Mother/Child
Ultrasound
Bacteriology
Patient care



YEAR 5		Total budget : 52 250 EUR	
Sub	What	How	How much
5.1	To secure and reinforce the autonomous power supply of the hospital by a redundant electrical generator	WP02-6	33 730 EUR
5.2	To develop and increase the capacity for bacteriological analysis introduced in the clinical laboratory	WP04-8	11 010 EUR
5.3	Suitable means for improving the diagnostics in out-patient wards	WP04-10	7 510 EUR

Surgery
Anaesthesia
Mother/Child
Bacteriology
Out-patient



AT EACH PROJECT STEP : to build and consolidate the knowledge, for ensuring the efficiency and the sustainability of the investment.

- A « training » task integrated in each elementary step (Sub).
- Technical and medical recognized senior experts, sent on the field for training the users in the hospital and to set up the equipment maintenance.



AT 2 STEPS IN THE PROJECT : in the middle and at the end of the project, an independent external evaluation, for reporting the results and correcting if necessary.

Needing to know more ?



.....US

A complete and detailed project report / file can be downloaded via our web page
<http://alliances-internationales-belgique.be/index.php/projet-ahk/>

More specific questions ?

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