



**Name of Applicant:** IITA KALAMBO YOUTH AGRIPRENEURS (IKYA)

**Name of Project:** Nyakabera

**Project's title:** "Unlocking Job opportunities for Youths and Women in South-Kivu/DR Congo through aquaculture".

**Investment plan budgeted at:** \$ 823,361

**Amount Requested from Humidtropics:** \$ 50,000

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## **I. Context**

Youth unemployment's rate in the DR Congo is the highest in the World and is a threat to national security. More than 70% of youths have no jobs and this undesirable situation is severe in the urban areas (IYF 2013). The DR Congo like several other African countries has no comprehensive policy to address youth unemployment. In the South-Kivu Province, youth unemployment has been associated with the consumption of illegal drugs, early pregnancy, crime and violence. The rapid increase in the population of unemployed youth has been described as a time bomb. Decades of civil war in Eastern DRC did not help matters as it encouraged rural-urban migrations which have left many youths in the street in search of remunerative jobs which are not available. There have been limited unsuccessful government interventions to create job opportunities for the teeming in youth population. For example, in 1978 the government jointly with USAID and the Peace Corps initiated the Fish Farming Project in Nyakabera (40 ponds) near Bukavu to address household nutrition deficiency as well as increase job opportunities for youth. Operationalized in 1992, the project gradually became redundant and virtually abandoned. Similarly, the agricultural sector did not receive adequate attention, thereby affecting the livelihoods of a large population of women who constitute the workforce as well as the food and nutrition security of the household. One of the consequences of this ugly situation is the unattractiveness of the agricultural sector to the youths as a means of livelihoods. To address these issues, IITA has signed an MoU with the South Kivu provincial government to reactivate the 40

ponds through the engagement of youth Agripreneurs in fish pond management as a means of addressing youth unemployment and empowering vulnerable women.

## **II. Goals**

To promote income generating opportunities through commercial aquaculture for the youths and vulnerable women and for improving household's nutritional security.

Following are specific objectives:

- ❖ To create income generating opportunities through aquaculture for the youth to be able to earn income up to \$450/month
- ❖ To enhance the income of vulnerable women in South Kivu's province up to \$300 per month through active participation in fish/crop/livestock value chain.
- ❖ To improve the nutritional status of households through consumption of fish and fish products.
- ❖ To provide opportunity for learning and understanding of fish-crop-livestock integration.

## **III. Implementation Approach**

These objectives will be achieved through the Youth Agripreneurs' initiative nurtured by IITA, and through mobilization and organization of vulnerable women into agri-business groups for distribution and marketing of fish and fish-based products. Systematically identified enterprising youths will be upskilled in fish pond management, fish processing, business plan development, agri-business enterprise management, group action, as well as incentivized to engage in aquaculture business. In addition, vulnerable women will be mobilized and organized into agri-business groups and trained in fish selling, fish preservation including smoking, feed production and selling, etc. The project will also use the fora of youth and vulnerable women to create awareness for regular consumption of fish and fish based products to improve household dietary diversity and nutritional status.

This project will have 3 Phases:

- Phase 1 (Sept 2015 to December 2016) will be about consolidating IKYA's learning of aquaculture enterprise. The process of gaining knowledge, skills and hands-on experience in fish pond enterprise will be based on reactivation of 20 ponds at Nyakabera station. Attention will be focused on enhancing the knowledge and skills of Youth Agripreneurs (at least 30 agribusiness builders), building on their limited fish pond management experience gained at in Murhesa Center. During this Phase that is made up of two production cycles, attention will also be focused on

commercial fish stock management and production, piloting of feed and fingerlings production and marketing. In the second cycle of this phase, a commercial hatchery will be installed to provide fingerlings for its ponds and for the independent ponds that will be established by the youth agripreneurs. In addition, initial activities will also commence on identification and basic training of enterprising youth groups in collaboration with IDRC/Diobass/IITA Youth in Agriculture project. Similarly, preliminary activities will also start on identification of enterprising vulnerable women from among those discharged at Panzi Hospital. The women will be organized into and trained through business groups as fish value chain actors. This activity will be pursued in collaboration with ICART/IITA Women in Agriculture project. See below specific activities and expected outputs under this Phase.

Activities	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Stakeholders workshops on Youth and Women in Agriculture																
Cleaning of the premises and evacuation of polluted water (each cycle)																
Farm office restoration																
Excavation and Ramming																
Liming and Fertilization and refilling																
Establishment of nursery cages																
Importation of fingerlings and restocking and acclimatization on and maturation																
Restocking and maintenance (including labor and consumables)																
Piloting in fish feed production																
Procurement of processing tools and equipment																
Establishment of a smoking film																
Harvesting and processing																
Exploring and developing market																
Identifying and mobilizing targeted youths and women groups																
Capacity building for IKYA and study visits																
Capacity building for targeted youth and women groups																
Performance monitoring																
End of Phase one evaluation and																



liquid fertilizer for food crops. See below specific activities planned on 2 years though the project will take 4 years and expected outputs under this Phase.

Activities	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Cleaning of the 20 existing ponds and reactivating of 30 new ponds																								
Cleaning of the 50 existing ponds and reactivating of 30 new ponds																								
Maintenance of stocks in all operationalized ponds																								
Fish feed production																								
Processing and value addition																								
Additional capacity building activities for youth and women																								
Helping youths and women groups to establish their enterprises through incentives																								
Performance monitoring and reporting																								
Stakeholders advocacy workshops																								
Linkage and collaboration with IITA projects																								
Stakeholders advocacy workshops																								
End of Phase 2 evaluation and reflection workshops																								

Expected outputs:

- At least 80 commercial fish ponds operationalized
- At least 312 tons of fish produced and sold.
- Youths and women commercial fish enterprises facilitated and established
- At least 12 awareness' creation campaigns carried out
- At least 200 youth trained in mini commercial fish pond construction and management, marketing, feed production, fingerlings multiplication, fish

processing and preservation, business plan development, business record keeping and sustainable fish pond management practices.

- At least 100 vulnerable women trained in marketing, business plan development, business record keeping, processing and preservation.
  - At least 2 stakeholder's advocacy workshops organized.
  - Fingerlings and fish feed production operationalized
  - Knowledge on the integration of fish ponds with crop livestock production generated.
  - Performance reports produced quarterly basis and end of phase 2 evaluation conducted.
- Phase 3 will be about achieving scale and promoting widely fish ponds business among youth Agripreneurs, vulnerable women groups as well as other interested groups. Additionally, mobilizing public and private sector support for the development and growth of the fish industry, powered by the youth Agripreneurs and the women will be pursued in the course of Phase 3.

#### *Evaluate impact, document and disseminate lessons learned*

The project will develop a robust participatory M&E framework to be used to track project performance during the Phase 1 as well as track the performance of youth Agripreneurs and vulnerable women who are engaged in fish enterprises. The M&E framework will include baselines and identification of a core set of minimum indicators along multiple pathways and outcomes and that can be feasibly monitored on the ground. The project will use workshops and platforms with multiple stakeholders, including actors along the fish value chain as well as policy makers, to disseminate the knowledge learned and to present and discuss scaling up strategies and possible policy or market reform recommendations..

#### **IV. Target beneficiaries**

About 200 youths and 100 vulnerable women will be targeted for business and technical support during Phases 1& 2. It is expected that 500 people (i.e, 200 youths who may be employed by the enterprising youth Agripreneurs and additional 100 people who will be engaged by the vulnerable women business groups) will benefit indirectly from the project. The 100 vulnerable women will be purposively selected from the victims of sexually abused women who have undergone both physical and psychological treatment at Panzi Hospital and are currently eking out a living in the suburbs of Bukavu primarily because they have no land to return to.

#### ***The IITA-Kalambo Youth Agripreneurs (IKYA)***

The IITA-Kalambo Youth Agripreneurs (IKYA) is a group of young graduates involved in Agribusiness with the aim of serving as a model to other young people and become

trainers of trainers. The group which was established in July 2013, currently has a membership strengthened of 30 Youth Agripreneurs, aged between 25-32 years old from different backgrounds. The activities of the group cut across the value-chains of different crops including cassava, maize, beans, and soybean production, agro processing including soybean and cassava based food products and agro services provision.

These activities are supported by cross-cutting activities such as partnerships development, projects development/proposals writing and networking to mobilize and empower youths.

## **V. Significance and Justification**

Fish is a popular source of protein in many parts of East Africa. In addition, fish farming has flourished in many African countries such as Nigeria, Kenya, Zambia, etc. Fish pond farming practiced also in semi-urban areas is quick yielding, and attractive to the youth, if well managed. In South Kivu, especially in Bukavu, demand falls below supply which is largely dominated by imported fish from Uganda and China. The project will work towards building a local fish industry while at the same creating income generating opportunities for the youth and women who play active roles in marketing and distribution network.

## **VI. Market**

There is rapid population growth both in urban, peri-urban and rural areas of South-Kivu. It is estimated that over the 1105 tons is demanded per year by the populace, with only 84 tons produced in the region. This leads to large importation of fish and fish products with attendant health challenges. The imported fish usually exposes consumers to health hazards since they are preserved using chemicals, and are most of the time obsolete and tasteless.

IKYA seeks to engage in fish farming with a view creating job opportunities for teeming population and vulnerable women, contribute to increasing local production of fish to meet the high demand for fish and fish based products. It will also seek to promote enhanced household food nutrition. Through an IDRC-sponsored market assessment survey, IKYA will be equipped with market information that will inform its business plan development around fish pond management, fish marketing, finger and feed production.

## **VII. Expected long term outcomes**

The “Unlocking Job opportunities for Youths and Women in South-Kivu/DR Congo through aquaculture” project recognizes that engaging youths and women in Aquaculture and agribusiness is a key to break through the unemployment and poverty

among the youths and women in the South-Kivu's province. The outputs of this project therefore are expected to contribute to the following development outcomes:

- Reduced poverty level.
- improved safety and security as a result of reduced cases of crime associated with youth.
- increased revenue for the government from taxes and fees.
- improved households' health security.
- vibrant fish industry.

### **VIII. Ability to Execute**

Through its mini tilapia fish pond project in Murhesa, IKYA has acquired knowledge and experience in fish farming, processing preservation and marketing. IKYA will build on this exposure to consolidate its knowledge and skill in fish pond management. Besides, the fish pond will be managed 4 IKYA members who are currently undergoing training at IITA Ibadan with the IITA Youth Agripreneurs who have established a very successful and profitable fish industry.

The project will be supported by IITA-Kalambo scientists and support staff including the Stakeholder Engagement Advisor. In addition, IKYA will also benefit from its partnership with IPAPPEL through SENAQUA (Service National d'Aquaculture). SENAQUA has more than 40 years' experience in fish farming, especially in fingerlings multiplication, ponds management and extension activities. The Provincial government of South Kivu is favorably disposed to facilitating importation of fish stocks/fingerlings as well as put in place measures to promote local fish industry.



**IX. Budget: Phase 1 (From August 2015 to December 2016)**

Phase 1		
Activities	Cycle1	Cycle 2
<b>Commercial operations costs</b>	Amounts	
Cleaning of the premises and evacuation of polluted water (each cycle)	3750	2500
Farm office restoration	1000	0
Excavation and Ramming	300	300
Liming and Fertilization and refilling	300	300
Establishment of nursery cages	500	0
Importation of fingerlings and restocking and acclimatization and maturation	3000	3000
Restocking and maintenance (including labor and consumables)	7800	7800
Piloting in fish feed production	1300	1300
Procurement of processing tools and equipment	4500	0
Establishment of a smoking film	1700	0
Harvesting and processing	4500	4500
Exploring and developing market	500	500
Identifying and mobilizing targeted youths and women groups	0	2000
Capacity building for IKYA and study visits	3000	2000
Allowances for IKYA members assigned to the ponds	15000	22500
Performance monitoring	1500	1500
Hatchery for commercial production of fingerlings	0	20000
<b>Sub total</b>	<b>48650</b>	<b>68200</b>
<b>Research and development costs</b>		
Stakeholders workshops on Youth and Women in Agriculture	5000	0
Capacity building for targeted youth and women groups	5000	5000
Coordination support, communication etc	22500	22500
End of Phase one evaluation and reflection workshop	0	4500
Youth and women group formation and preparation for November harvest and marketing	0	1000
Poultry, piggery and small stock (rabbit) construction		15000
Feed for poultry, pigs and rabbits		5000
<b>Sub total</b>	<b>32500</b>	<b>33000</b>
<b>Total</b>	<b>81150</b>	<b>101200</b>
<b>Overhead</b>	<b>4058</b>	<b>5060</b>
<b>Total general</b>	<b>85208</b>	<b>106260</b>
<b>Grant total Phase 1</b>	<b>191468</b>	
<b>Sources of funds</b>		
1. Humid Tropics (Requested for the First Cycle of the Phase 1.)	50000	
2. Expected from DG's office/IFAD	141468	
3. Internally generated revenue from cycle 1 of the phase	0	

## Phase 2 (From January 2017 to December 2018)

Phase 2				
Activities	Cycle 1	Cycle 2	Cycle 3	Cycle 4
<b>Commercial operations cost</b>	Amounts			
Cleaning of the 20 existing ponds and reactivating of 30 new ponds	33500	33500	0	0
Cleaning of the 50 existing ponds and reactivating of 30 new ponds	0	0	53500	53500
Maintenance of stocks in all operationalized ponds	16250	16250	26000	26000
Fish feed production	3350	3350	5680	5680
Processing and value addition	3500	4500	6000	6000
Performance monitoring and reporting	1500	1500	1500	1500
Allowances for IKYA members assigned to ponds	9000	9000	9000	9000
Communication and Security	3400	3400	3400	3400
<b>Sub Total</b>	<b>70500</b>	<b>71500</b>	<b>105080</b>	<b>105080</b>
<b>Research &amp; development costs</b>				
Additional capacity building activities for youth and women	15000	5000	5000	5000
Helping youths and women groups to establish their enterprises through incentives	150000	100000	100000	0
Stakeholders advocacy workshops	0	2500	0	3000
Linkage and collaboration with IITA projects	0	0	0	0
Stakeholders advocacy workshops	0	0	3500	0
End of Phase 2 evaluation and reflection workshops	0	0	0	3500
<b>Sub Total</b>	<b>165000</b>	<b>107500</b>	<b>108500</b>	<b>11500</b>
<b>Total</b>	<b>235500</b>	<b>179000</b>	<b>213580</b>	<b>116580</b>
Overhead	11775	8950	10679	5829
<b>Total General</b>	<b>247275</b>	<b>187950</b>	<b>224259</b>	<b>122409</b>
<b>Grand Total for Phase 2</b>	<b>781893</b>			
<b>Source for funds</b>				
1. Internally generated revenue	<b>100000</b>			
2. DG's office/IFAD	<b>681893</b>			

## X. Financial Forecast (General Estimates)

Revenues	Commodity	Phase 1		Phase 2			
		Cycle 1	Cycle 2	Cycle 1	Cycle 2	Cycle 3	Cycle 4
	Fish	37800	37800	94500	102060	151200	162540
	Livestock	0	0	10000	10000	10000	10000
	Fingerlings multiplication	0	0	25200	25200	40320	40320
	Crops	0	0	1200	1200	1200	1200
	<b>TOTAL</b>	<b>37800</b>	<b>37800</b>	<b>130900</b>	<b>138460</b>	<b>202720</b>	<b>214060</b>
<b>Expenses</b>							
	Total expenses (operational costs, small equipment, administrative costs and taxes)	48650	68200	70500	71500	105080	105080
	<b>TOTAL</b>	<b>48650</b>	<b>68200</b>	<b>70500</b>	<b>71500</b>	<b>105080</b>	<b>105080</b>
<b>Revenue</b>							
	<b>Total Net Revenue</b>	<b>-10850</b>	<b>-30400</b>	<b>60400</b>	<b>66960</b>	<b>97640</b>	<b>108980</b>
	A detailed Business Plan is under development						