Annex 9 Initiative 5b: Support to Universities, Business and Research in Agricultural Innovation (UniBRAIN)

Description of the initiative and its current state

The initiative

"Linking university education, research and business in sustainable agriculture will promote innovation and produce graduates with entrepreneurial and business skills and research-based knowledge that is relevant to the development of African agriculture and agro-businesses. A facility will be established in partnership with the African Union Commission through its agreement with the Forum for Agricultural Research in Africa. The facility will help implement the Forum for Agricultural Research in Africa's mandate to support networking amongst its stakeholders. The aim is to strengthen capacity by sharing resources, exchanging experiences and facilitating change. Universities will be invited to submit grant applications in partnership with private sector firms and agricultural research institutions".

A Programme Document for the UniBRAIN program was developed by the Forum for Agricultural Research in Africa and its partners² and presented in December 2009 to the Danida Board. The Programme document foresaw a three-pronged approach:

- Development and implementation of collaborative programmes between universities, research institutions and the private sector which foster innovation and lead to the commercialisation of agribusiness innovations.³
- Development and implementation of improved and better contextualised BSc and MSc teaching and learning that takes advantage of various approaches and tools and creates agribusiness graduates with the potential to become efficient entrepreneurs being produced by tertiary educational institutions.
- Facilitating exchange of experiences and sharing of resources and knowledge between universities, research institutions and private enterprise to raise awareness and realise the potential of such collaboration to drive positive change with a view to scale-up and replicability⁴.

Following approval, Phase 1 commenced (covering the inception phase⁵ and the start-up phase) with a total budget of DKK 30 million and an implementation period from 1st January 2010 to 31st December 2011. The implementation phase received DKK 99 million in support and had an implementation period from 1st January 2012 to 31st December 2015 (but only commenced

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¹ Report of the Africa Commission, May 2009.

² These include ICRISAT Agri-Business Incubator (ABI), African Network for Agriculture, Agro forestry and Natural Resources Education (ANAFE), and Pan African Agribusiness and Agro Industry Consortium (PanAAC) and Sub-regional research organisations including ASARECA, CCARDESA and CORAF.

³ Both the September 2011 Appraisal of the Project Document and Danida board comments when approving it stress that in an African context it would be important to interpret innovation in a broader sense to also include adaptation of technologies.

⁴ "The Universities, Business and Research in Agricultural Innovation (UniBRAIN) is an initiative of the Forum of Agricultural Research in Africa (FARA) and the government of Denmark whose objective is to enable universities, business and agricultural research institutions to commercialise agricultural technologies and produce graduates with entrepreneurial and business skills. UniBRAIN supports the establishment of the Agribusiness Innovation Incubation Consortia comprised of members drawn from universities, businesses and agricultural research innovations. The Consortia are committed to creating jobs and wealth, generating commercial innovations and producing graduates with entrepreneurial and business skills through hands-on experience with agribusinesses." Ralph von Kauffman, initial UniBRAIN coordinator. (http://www.emrc.be/en/media/interviews/ralph-von-kaufmann-fara-unibrain-agri12.aspx)

⁵ It was accepted that the original time to design the UniBRAIN initiative to meet the deadlines of the Africa Commission Secretariat were inadequate and therefore an extended inception phase was agreed to firm up on concepts (Source: Ralph von Kaufmann, telephone conversation)

operation in April 2012 according to the UniBRAIN 2013 Annual Report). Against the background of unutilized funds an extension until 31st March 2016 was approved.

Progress

Fifty-one concept notes were submitted by consortia consisting of universities, research institutions and private sector organisations from the nine partner countries in Africa. A competitive process, secured the selection of the best six pilot consortia located in five countries

(Kenya, Ghana, Mali, Uganda and Zambia) and operating in various sectors (coffee, banana, sorghum, non-timber forest products, cereals, fruits and vegetables).

The initial MFA appraisal of the UniBRAIN concept expressed concern that "the institutional setup as a whole is complex with many directly involved stakeholders representing universities, research institutions and the private sector in six different consortia as well as four regional institutions involvement, i.e. a total of more than 20 stakeholders." This complexity in developing shared visions and agreements as to how to proceed has delayed implementation significantly. A report⁶ commissioned by the MFA to "enhance lessons learned and knowledge exchange in the UniBRAIN agribusiness innovation incubator consortia" found that that there had been a

Incubators: Business versus project?

"The management structures are challenged by UniBRAIN's unique setup because the incubators are developing businesses whereas the UniBRAIN Partners and the FARA Secretariat maintain project-based approaches, where work plans and budgets drive the process rather than the generation of revenue." Review of UniBRAIN Implementation Phase, Yebo Consult, May 2013.

"limited degree of actual incubation and incubator management activities. Much of the activities during the initial phase have been related to the institutional environment rather than the operational dimension." The same study was expected to reflect on incubator experiences within UniBRAIN's two main objectives: a) their efforts to support commercialization of agribusiness innovations and b) their effort to support tertiary educational institutions to produce efficient entrepreneurs. The team concluded that "activities related to the first main objective – commercialization – have not been initiated during the timeframe of the first study, and activities in relation to the second objective – curriculum change – has only to a very limited degree been initiated".

The incubators have each adopted somewhat different approaches to and definitions of what constitutes incubation by developing business models based on a mix of traditional business incubator functions and accelerator services, value chain development interventions, and elements of franchising, centres for technology dissemination and outgrowing schemes.

Progress and achievements have been slow – and this probably reflects the complex design and the over-optimistic projections of how rapidly self-sustainability of business incubators could be achieved as several reviewers have pointed out.⁷

⁶ Final report for the study to enhance lessons learned and knowledge exchange in the UniBRAIN agribusiness innovation incubator consortia, Associate Professor Carsten Nico Hjortsø and others, August 2014.

^{7 &}quot;Therefore, it can be concluded that the UniBRAIN PSD was overly optimistic in the estimation of how long it would take to institutionalise incubators as independent businesses." Review of UniBRAIN Implementation Phase, Yebo Consult, May 2013.

As the Forum for Agricultural Research in Africa/UniBRAIN-commissioned sustainability review concluded: "Across all incubators, there appears to be challenges in translating the business plans into implementable and actionable strategies/business models to yield the intended results". This is perhaps a reflection of the project-based approach (which is still very apparent within the incubators visited by the Evaluation (see text box)) and the commercial approach that the incubators must adopt if they are to become self-financing. The high level of expenditure on infrastructure which does not appear to have the purpose always of increasing revenue streams in a cost-efficient manner has been highlighted by previous reviews⁸.

We share the concerns expressed by several previous reviewers that the fundamental principle of business incubation – that incubatees must pay for the services that they receive – remains a principle rather than the operational norm⁹ and this is

CCLEAr: an example of a UniBRAIN

The CCLEAr (Creating Competitive Livestock Entrepreneurs in Agribusiness) Agri-Business Incubator is a public-private agribusiness incubator consortium based in Accra, Ghana and jointly owned by the Council for Scientific and Industrial Research-Animal Research Institute (as the lead institution), the University of Ghana, the Ministry of Food and Agriculture, Heifer International, Ghana (an NGO) and Humbeg Farms (a private farm).

CCLEAr has offered technical and agribusiness training to 727 beneficiaries from eight regions in Ghana. The incubator has actively promoted some important technologies, including (i) Indigenous Micro-Organism method of pig husbandry (reducing the smell associated with pig husbandry to make urban piggeries viable) and (ii) Pelletized Formulated Grasscutter Feed (improving the productivity and profitability of rearing grasscutters).

CCIEAr has supported 33 incubatees in expanding an existing business (27 pig entrepreneurs, three in the poultry value chain, two in meat processing, and one grasscutter feed processor) and has supported 70 startups in the grasscutter business.

Source: Presentation made to Evaluation by CCLEAr.

certainly reflected in their income generation (see table in the sustainability section below).

Relevance of the initiative to the recommendations of the Africa Commission

The UniBRAIN aims to establish collaborative partnerships between "research, the private sector and universities and other tertiary institutions to commercialize technologies and innovations while incubating youth for successful employment and entrepreneurship. This is done by equipping young graduates (females and males) with additional soft skills through internships and industrial apprenticeships to make them more readily employable and to also encourage them to become entrepreneurs. UniBRAIN works through the African Network for Agriculture, Agroforestry and Natural Resources Education to reorient curricula of member universities to make their agribusiness offerings more relevant to industry needs". This initiative is designed to address Recommendation 22 of the Africa Commission. As can be seen the initiative fits the recommendations closely and is thus highly relevant to what the Africa

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⁸ The 2014 Review of UniBRAIN noted "that a number of incubators have ambitious plans (more or less developed) to construct a number of buildings. The Consultant finds it hard to understand why large headquarters /office buildings are required at this stage. The limited resources available should be focused on facilities which are required to test and demonstrate new technologies."

⁹ The 2015 Review of UniBRAIN noted that "in a number of cases, the incubators have provided free services to a number of incubatees while they were piloting incubatee models. As the incubators mature, payment for services needs to be enforced. The RT finds too many cases where payment conditions and contractual basis for the services are unclear. The payment and revenue sharing is agreed along the way as the projects evolve. Consequently, there is a challenge of a) managing expectations and b) safeguarding the business-models – and consequently the commercial sustainability – of the incubators." It also highlighted that "consequently, the incubators navigate in a grey area between acting as a NGO and as a private enterprise. The RT finds that there is a need to address this issues and for the incubators to strengthen their commercial profile."

¹⁰ Empowering Novel Agri-Business-Led Employment for Youth in African Agriculture (ENABLE Youth): A Bland Template Concept Note prepared by the International Institute of Tropical Agriculture (IITA), Alliance for a Green Revolution in Africa (AGRA), Forum for Agricultural Research in Africa (FARA), and Food and Agriculture Organisation of the United Nations (FAO) with inputs from CTA, September 2015.

Commission was seeking to achieve. It was also based on a proposal developed by the Forum from Agricultural Research in Africa and thus has a high degree of local ownership.

Initiative	Related Africa Commission policy recommendations
Promoting Post-	R22: African countries and regional organisations, supported by
Primary	development partners, should invest in the creation of better linkages
Education and	between university education, research and the private sector in agricultural
Research	development and value chains. Such an investment should be based on
	national and regional strategies and funded through African organisations,
	with particular emphasis on promoting innovation and gender equality

Effectiveness of achievement to date

As previous reviewers have stated, UniBRAIN has reached the majority of its performance targets (see appendix 1) according to the monitoring data supplied by the Forum for Agricultural Research in Africa – but which we have not had the opportunity to independently verify. However, if an integral element of the UniBRAIN model is that it is based on self-sustaining incubators operating in a commercial manner then this has clearly not been achieved (and nor, at this stage, do the incubators appear to be on the path to such a goal).

It is also unclear as to whether really significant changes have been made (or could be made) through the UniBRAIN model to improving agribusiness curricula¹¹. The African Network for Agriculture, Agroforestry and Natural Resources Education (ANAFE) has developed a broadbrush, generalised agribusiness curriculum guide for Certificate, Diploma, BSc, MSc and PhD degree levels for use in African universities (with the support of UniBRAIN and the SIDA programme "Strengthening Africa's Strategic Agricultural Capacity for Impact on Development"). The curricula was developed over the period 2012 to 2014 and published in 2014 and, during that time, it is difficult to see how the very limited activities of the incubators could have had a significant input into the formulation of the curriculum guide and this was confirmed in discussions with the Chief Executive of the Sorghum Value Chain Development Consortium and with the team currently undertaking the study to enhance lessons learned and knowledge exchange in the UniBRAIN agribusiness innovation incubator consortialed by Associate Professor Carsten Nico Hjortsø. However, it is possible that the incubators did provide an opportunity for some university staff and students to understand some aspects of the practical realities of agribusiness¹².

The reason for the limited curricular changes is that five of the six universities have a fixed curricular change process where the curricular is revised each 5-10 year. The universities are positive towards and recognize the need to implement changes, but have not been able to

¹¹ Component 2 was expected to be "achieved by improving agribusiness education, firstly in the universities that are members of the UniBRAIN agribusiness innovation incubator consortia (AIICs). This will be achieved by drawing on improvements in agribusiness education that are being implemented in and out of Africa and taking advantage to adapt and contextualise them with the advantage of hands-on experience for faculty and internships for students working on agribusiness projects through the UniBRAIN agribusiness incubators. Once the improved approaches, methods and materials have been validated they will be disseminated to universities across Africa by ANAFE. The improvements in agribusiness education will be designed to produce agribusiness graduates with the potential to become effective entrepreneurs. This combination of improved agribusiness teaching and learning approaches, methods and aids will be tested and validated in preparation for wide dissemination." 12 This does not indicate that UniBRAIN/ANAFE failed to meet their defined goals, but rather - as Associate Professor Carsten Nico Hjortsø puts it "the indicators are too broad". In an unpublished communication he stresses that "a number of activities have been conducted by ANAFE and the UniBRAIN universities have been involved in developing the curricula, but when it comes to implementation it seems that only two universities (Mulungushi and IJKUAT) have made changes in their curricula. According to ANAFE several universities beyond UniBRAIN have done so too. In terms of changed teaching tools and methodologies, we have not yet seen any specific examples beyond the two above-mentioned. All incubators seem to have engaged in some sort of collaboration with the universities over interns but it seems primarily to be graduate students that are involved.'

because it was not the correct time in their curriculum development cycle to engage in the process. The ANAFE process may have impact on university curricula in the end, but this will take some time.

Possibly the greatest achievement is the success in branding "the UniBRAIN model": it is now well known across Africa. An inherent problem though is that the model is open to such broad interpretation that there is lack of clarity amongst everyone we have spoken to as to what exactly the model is¹³.

Sustainability and scaling up

The following table shows the operating income and expenditure for the period 2012 to 2014 based on the audited accounts of the incubators:

Name of Incubator	Operating Income (USD)			Operating Expenditure (USD)				
	2012	2013	2014	2012	2013	2014		
ABP	0	4,532	16,076	0	318.666	404,636		
AgBIT ¹⁴	0	1,000	179 , 303 ¹⁵	0	188,816	613,169		
CCLEAr	0	0	17,079	9,620	249,994	434,869		
CURAD ¹⁶	0	1,027	5,235	20,648	145,863	393,376		
SVCDC ¹⁷	0	0	0	0	177,608	233,033		
WAARI	0	0	0	632,525 ¹⁸				

Source: audited accounts as provided by Forum for Agricultural Research in Africa.

It must be clear that the prospect of financial self-sustainability of the incubators is extremely distant and there is no clear path to its achievement¹⁹. It is unclear exactly what will happen to the incubators on the finalisation of Ministry of Foreign Affairs support as stipulated in the project document and associated agreements, but it is clear that without another external source of financial support they cannot continue at the current level of activities. The Evaluation understands that most incubators are actively seeking additional project funding and seem more oriented towards raising further project funding than in achieving internally generated financial

¹³ Theoretically, the model is relatively simple in that it comprises (1) Agribusiness incubators operated as independent non-for profit structures co-owned by industry, university and research organisation(s); (2) a dual focus on enhancement of education and promotion of entrepreneurship among university graduates and more traditional incubator related business development objectives; and (3) the overarching (FARA/AAIN) support structure. But then, as Associate Professor Carsten Nico Hjortsø puts it "beyond that the complexity starts". The complexity of the model is that it has been treated as inherently flexible. This does indeed allow for locally designed solutions that take into consideration potential opportunities in the actual institutional and political context and that might prove to be a positive feature, but is also allows for confusion as to exactly how the incubator should be run to becoming self-financing and serve the development needs of SMEs within their value chain. It has allowed incubators to stray into the risky areas of providing virtually unsecured loan finance – without them having any experience of loan risk analysis. It has encouraged some to stretch the bounds of their operations to include activities which may put them into competition with their tenants or to move outside the boundaries of their focus of expertise: their value chain.

¹⁴ Converted at the rate ZMK 5.194 to USD 1.

¹⁵ Of which USD 160,582 was obtained through exchange rate gains.

¹⁶ Converted at USH 3,475 to USD 1.

¹⁷ Conversions based on KSH 102.25 to USD 1.

¹⁸ Breakdown of operating expenses by year is not available. According to the accounts each partner has received payments at some stage as well as payments being made to WAARI.

¹⁹ The Evaluation should also note that some incubators have given loans to incubatees which are basically unsecured (judging by loan agreements viewed). The prospect of some loan default will exacerbate their already precarious finances.

sustainability (and given their existing income generation capacity this is probably the best survival strategy).

With respect to the sustainability of the UniBRAIN Facility, this has institutionalised itself as the African Agribusiness Incubation Network. The African Agribusiness Incubation Network is now a legal entity governed by a board of directors. The draft business plan for the African Agribusiness Incubation Network (2016-21) envisages a cash requirement of USD 8 million for the operation of the African Agribusiness Incubation Network itself: no clear funding source has been identified.

In March 2015 Forum for Agricultural Research in Africa/African Agribusiness Incubation Network, which is an umbrella organisation currently with 52 members, requested support from the African Development Bank with the implementation of the African Agro-business Incubation Programme. The African Agribusiness Incubation Programme would finance agribusiness incubation programme activities in 24 African Countries over a period of five years following the UniBRAIN model. "Its implementation will be coordinated by the African Agribusiness Incubator Network as a subsidiary arm of Forum for Agricultural Research in Africa supported by the African Agribusiness Incubation Programme partners. The African Agribusiness Incubation Network Board of trustees will provide overall governance oversight." The application envisaged financial support from the African Development Bank of USD 166 million and from other donors of USD 30 million. The Evaluation met with Dr. Jonas Chianu, Principal Agricultural Economist within AfDB, who expressed interest in supporting the continuation and extension of the UniBRAIN model as a part of the African Development Bank's package for country level borrowing plans. It was also mentioned that UniBRAIN is being considered as one model in the new Agro-business Strategy of the African Union. We would not wish to speculate on the likelihood of the application being approved.

The Forum for Agricultural Research in Africa advise that in August 2015 the Alliance for a Green Revolution in Africa approved funding of USD 595,000 for the establishment of a pilot seed incubator based on the UniBRAIN model in Ghana and that there is a plan to replicate this in five other African countries in partnership with the Alliance for a Green Revolution in Africa.

On a more general level, it is clear that with the expanded interest in agriculture in Africa from the African Development Bank (with "Feed Africa" being one of the President's "High Fives" of priority) and the Comprehensive Africa Agriculture Development Programme in which Forum for Agricultural Research in Africa coordinates pillar four "agricultural research, technology dissemination and adoption" represents enormous scope for Forum for Agricultural Research in Africa/Agribusiness Incubation Network to press for continued support for the UniBRAIN model's implementation.

The UniBRAIN initiative is definitely locally-owned, but its future is dependent upon identifying further project finance in the very near future as it has failed to meet the expected goal of self-financing sustainability and the Danish-financed initiative ceases at the end of March 2016.

Conclusions

UniBRAIN has not achieved the goal of creating a network of self-financing agribusiness incubators – but such a goal was probably unrealistic from the start²⁰ given the short timeframe,

²⁰ A 2002 report on EU incubators found that "public funding accounts for a high proportion of the set up costs of most incubators and for around 37% of operating revenue". In other words most EU incubators are not able to or expected to achieve financial self-sustainability. However, the same report finds that EU incubators are able to recoup at least 40% of their costs from the incubatees – but this is primarily in the formal of rental income in a more traditional managed workspace. The

the limited technical assistance and training given to the incubator staff²¹, and the "virtual nature" of the incubation under the UniBRAIN model (which meant the primary source of income for most incubators – rental income – was not forthcoming).

However, most of the incubators appear to be offering some form of technology transfer/diffusion services²² to their clients. These vary in nature, but some are unquestionably helping to ensure increased competitiveness and employment opportunities in agribusiness. However, there is a real risk that – in a search for financial survival – the incubators will move into a range of income generating activities that have nothing to do with their goal as well as widening their technical scope with the risk of losing focus on what is supposed to be their core sector competence. Some incubators have already moved in this direction. Technology diffusion is a valuable service to increasing the productivity and competitiveness of key value chains. Such work is normally done as a "public good" funded by national governments (or donors²³) rather than expecting that it can be made self-financing.²⁴

UniBRAIN has forged the necessary links for effective technology transfer and diffusion along selected value chains through its creation of structures, which are independent, not-for-profit and are jointly owned by universities, business organisations and national research organisations. UniBRAIN has helped in bringing the academic world and the business sector together: the first steps in an important bridge building between two very different and separated worlds.

same study concluded that "The provision of physical space is central to the incubator model. Standard good practices now exist with regard to the most appropriate configuration of incubator space. The research suggests that European incubators typically have around 5,800 square meters of space for tenants, sufficient to accommodate some 18 firms at any one time in a variety of units. Smaller incubator space than this is likely to make it more difficult to generate economies of scale.", Benchmarking EU Incubators, Centre for Strategy and Evaluation Services, 2002.

²¹ Each incubator might – for example – have benefitted from a twinning relationship with a fully established operational incubator in the EU or South Africa which was expected to achieve financial self-sustainability. There is no doubting the obvious competence of ICRISAT - but we understand that they themselves do not have to be financially sustainable, and the context they operate in, in India, is very different. ICRISAT's defined tasks as shown in the Project Document include "provide assurance that the incubators' business models and business plans are properly formulated and are carried out "The current state of the incubators accounts show that the business plans must have been either unrealistic or improperly carried out. It was clearly ICRISAT's responsibility to address either circumstance. ICRISAT undoubtedly faced challenges in that the initial staff recruited for the incubators often proved inappropriate and had to be replaced - and this resulted in delays and wasted trainings. However, ICRISTAT started rather slowly and their support tended to be supply rather than demand driven. Within the broader framework of the Africa Commission we feel that there should also have been linkages with the Youth Entrepreneurship Facility (Africa Commission Initiative 3) to provide entrepreneurial training to both incubator staff and incubatees (at least in countries where the two projects overlapped) and advise on loan financing could have been sought from the African Guarantee Fund (Initiative 2 of the African Commission). ICRISAT were given the opportunity to comment on this finding and confirmed: "it was the responsibility of ICRISAT to facilitate development of business model and the business plan. However, the implementation of business plan was done by the respective AIICs and ABI-ICRISAT reviewed the progress and gave its feedback to FARA and the AIICs for strengthening the operations. Further while implementing the business plan there have been frequent strategic changes on the business plan itself and also the changes in the budgeting based on the resource availability, staffing attritions, management changes including timely fund releases that affected the implementation of the business plan. The sustainability of the business incubator is in term of continuity of client service, brand leverage and positive cash flows and reserves. In this regard, except for reserves, all the rests are attained by 5 AIICs. Also, the revenue generation and sustainability of a business incubator cannot be achieved in a short time of 2-3 years. It is to be noted that the most of AIICs started its operations in early 2014 and continues to generate revenues from 2015 onwards. Hence, we need to assess their 2015 and 2016 cash flows and ascertain their sustainability. Sustainability of AIICs are not dependent only upon revenue generated but also on the new projects and sponsorships mobilized to sustain and scale the operations." Email communication from S M Karuppanchetty, Chief Operating Officer, ICRISAT, 3rd March 2016.

²² Such services normally encompass technology monitoring and acquisition (exploratory research and development to develop an area of capability or a technology platform or acquisition of a technology); Technology development: Further work to refine and exploit that knowledge in relatively unstandardized ways, often in collaborative projects with industry. Technology transfer: More routinized exploitation of mature technologies.

²³ Donors themselves may have distorted the operation of the market in business development services by providing these for free: once SMEs grow used to free training and advice they become resistant to the concept of paying for such services,
 ²⁴ An example, is the Rwandan National Industrial Research & Development Agency – see
 http://www.minicom.gov.rw/index.php?id=24&tx ttnews%5Dtt news%5D=903&cHash=ec083c58f2c0f19ad069a67e7c7f2c5b

That is a significant achievement and Pan-African, regional and/or national structures may wish to support both the African Agribusiness Incubator Network and the individual incubators to continue to offer the technology development, adaptation, transfer and diffusion service to help improve the competitiveness of priority value chains.

Appendix 1: UniBRAIN achievements as at December 2015

		Target 2013-2015		Cumulative achievements			% achieved	
Code	Indicator	PD ²⁵	M&E FW ²⁶	2013	2014	2015 ²⁷	to date M&E FW	PD
3.1 Co	mmercialization of agribusiness innovations supported	d and promo	oted		I.	I.		ı
3.1.1	Number of start-up businesses incubated	120	90	51	138	186	207	155
3.1.2	Number of jobs created by start-up Incubatees	3,000	2,175	189	1,289	3,218	148	107
	- Of which full-time	600	435	54	442	986	227	164
	- Of which part-time	2,400	1,740	135	847	2,232	128	93
3.1.4	Number of technologies (inventions, innovations and							
	improved management practices) taken up by	N/A^{28}	108	17	43	58	54	N/I
	incubatees for commercialization						207 148 227 128 54 54 99 249 66 358	
	- Of which are successfully commercialized	N/A	54	16	25	29		N/L
3.1.5	Annual income (revenue) generated by incubator start- ups from UniBRAIN activities (USD)	3,120,000	900,000	93,076	310,130	887,903	99	28
3.1.6	Number of existing businesses that are supported to either expand, diversify or enter new markets	96	72	48	111	179	249	186
3.1.7	Number of households that benefit as suppliers to supported agribusinesses	40,000	25,500	2,737	8,605	16,728	66	42
3.1.8	Number of assisted existing businesses reporting increased income, decreased cost of production or decreased operational time (Refer to 3.1.6)	N/A	45	9	55	161	358	N/A
3.2	Agribusiness graduates with potential to become eff	icient entrep	reneurs p	roduced l	y tertiary	education	al institu	tions
3.2.1	Number of graduates that benefit from improved education through internships, attachments, reviewed or new agribusiness curriculum							
	- BSc and Diploma	1,200	900	227	686	1058	118	88
	- MSc	360	270	3	52	55	20	15
	- Total	1,560 1,170 230 738 1113	1113	95	71			
	- Of whom are female	N/A	351	83	274	399	114	N/.
	- Of whom are 35 years and under	N/A	468	230	733	1104	236	N/.
3.2.3	Number of targeted graduates who have established own businesses with support from incubators within one year of graduation and completion of other compulsory service requirements	(N/A)	117	3	17	48	41	N/A
	- Of whom are female	N/A	35	2	5	19	54	N/A
	- Of whom are 35 years and under	N/A	47	2	17	36	77	N/A
3.2.4	Number of targeted graduates who are employed within six months of graduation and completion of other compulsory service requirements	(N/A)	117	7	74	106	91	N/.
	- Of whom are female	N/A	35	3	38	50	143	N/A
	- Of whom are 35 years and under	N/A	47	7	72	102	217	N/A

 $^{^{25}}$ PD = Program document.

²⁶ M&E FW = Monitoring and Evaluation Framework.

²⁷ Numbers in this column are achievements, targets being indicated in the third and fourth column. Numbers do not include 4th quarter updates from ABP Ltd. which are still forthcoming.

²⁸N/A implies this is an additional indicator not contained in the Program Document.

		Target 2013-2015		Cumulative achievements			% achieved	
Code	Indicator	PD ²⁵	M&E	2013	2014	201527	to date	
Couc	indicator	T.D	FW ²⁶	2013	2014	2013	to date M&E FW 82 N/A 120 170	PD
3.3.1	Number of innovation incubators developed based on the UniBRAIN model	11	11	7	9	9	82	82
	- Initial winning consortia	6	6	6	6	6	N/A	N/A
	- Outside initial	5	5	5	5	6	120	120
3.3.2	Number of incubation consortia for which establishment is in the pipeline	10	10	6	1729	17	170	170
3.3.3	Number of Universities and tertiary institutions taking up (probably more of reached/provided with products and services) UniBRAIN improved agricultural education products (e.g. new or revised curricula, incorporation of agribusiness internships and attachments, improved teaching materials and methodologies)							
	- Initial	N/A	8	8	8	8	N/A	N/A
	- Additional	30	30	20	20	14330	477	477

Source: Forum for Agricultural Research in Africa, 2016.

²⁹ Funding proposals under development: AGRA (five incubators), Government of Ghana (five incubators), Uganda (five incubators) and Ethiopia (two incubators).

³⁰ This is the number of institutions covered by ANAFE who have accessed education products from ANAFE.