

Kenya

Country Plan of Implementation Orange Knowledge Programme

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0. List of abbreviations

AfDB	African Development Bank
ASAL	Arid and Semi-Arid Land
CDACC	Curriculum Development Assessment and Certification Council
CPI	Country Plan of Implementation
CUE	Commission for University Education
EKN	Embassy of the Kingdom of the Netherlands
FNS	Food and Nutrition Security
HE	Higher Education
IWRM	Integrated Water Resources Management
KEWI	Kenya Water Institute
KIFFWA	Kenya Innovative Finance Facility for Water
KNQA	Kenya National Qualification Framework Authority
KPWF	Kenya Pooled Water Fund
KTTC	Kenya Teacher Training College
LIWA	Linking Industry With Academia
MaMaSe	Mau Mara Serengeti Sustainable Water Initiative
MASP	Multi Annual Strategic Plan
NFP	Netherlands Fellowship Programmes
NICHE	Netherlands Initiative for Capacity-development in Higher Education
NITA	National and Industrial Training Authority
NWP	Netherlands Water Partnership
OKP	Orange Knowledge Programme
LMIC	Low Middle Income Country
PWG	Permanent Working Group
RVO	Rijksdienst voor Ondernemend Nederland / Netherlands Enterprise Agency
SHAEA	Strengthening Higher Agricultural Education in Africa
SRoL	Security and the Rule of Law
TUK	Technical University of Kenya
TVET	Technical and Vocational Education and Training
TVETA	Technical and Vocational Education and Training Authority
TVC	Technical and Vocational College
VTC	Vocational Training Centres (or youth polytechnics)
WASH	Water, Sanitation and Hygiene

I. Introduction

This document describes the purpose and intentions of the implementation of the OKP programme in Kenya. It follows on an identification process in which capacity needs in the country have been analysed in the light of the available information and discussions with stakeholders. This approach has helped to define the priority intervention area(s) and to formulate the outcomes to be achieved. The Dutch organisation for internationalisation in education (Nuffic), administers this programme on behalf of the Ministry of Foreign Affairs of the Netherlands. Nuffic is responsible for its implementation and follow-up in accordance with each Country Plan of Implementation (CPI).

II. Brief presentation of the OKP programme

The Orange Knowledge Programme (OKP) is the successor to the Netherlands Fellowship Programmes (NFP) and the Netherlands Initiative for Capacity Development in Higher Education (NICHE). The Orange Knowledge Programme merges the two preceding programmes into a single integrated approach, with the addition of new elements including co-financing, increased involvement of alumni, attention to cooperation between knowledge organisations, and communication focusing on the presentation of results.

The main objective is to contribute to sustainable and inclusive development through the strengthening of organisations key to sectoral development in OKP partner countries. This will be achieved by developing the capacity, knowledge and quality of individuals as well as organisations both in the field of Technical and Vocational Education and Training and Higher Education (TVET/HE) and in other fields related to the priority themes in the OKP partner countries.

The Orange Knowledge Programme will last for 5 years and will be implemented through three types of interventions:

- individual scholarships,
- group trainings and
- institutional projects focusing on sustainable improvement of technical and higher education capacity.

For further information on the OKP reference is made to annex 1.

III. Present state of affairs

History of cooperation

Throughout the last nine years NICHE projects and NFP have largely focused on improving the capacity (in education) in the fields of Food and Nutrition Security and Integrated Water Resource Management. This was done in line with the objectives of the Embassy of the Kingdom of the Netherlands (EKN) in Nairobi which aligned the efforts of NICHE and NFP with other initiatives of EKN. See also Annex 7 and 8 for an overview of the project results of the NFP and NICHE programme in Kenya.

The Embassy wishes to work more strategically with the alumni and foster the institutional relationships between the Netherlands and Kenya built through NFP, NICHE and in the future through OKP. This will contribute to paving the way for a mutually beneficial economic relationship. In this context, Kenya's status as an LMIC potentially makes the country a suitable candidate for co-financing.

In the past, 17 NICHE projects built up capacity in agriculture and water at departments of universities, TVET colleges and training centres and supported research institutes involved in agriculture and water. Projects have been identified and developed in consultation with EKN, the Kenyan Ministry of Agriculture, Livestock and Fisheries (and its predecessors) and the Kenyan Ministry of Education, Science and Technology (and its predecessors). Flanking these projects with education institutes, Nuffic identified projects with organisations that are crucial in improving the quality and accessibility of education, like the Commission for University Education (CUE) and the Technical Vocational Education and Training Authority (TVETA) that accredit universities and TVET colleges respectively. The link between education and the labour market was another important effort of NFP and NICHE which will continue in OKP as graduates of Kenyan formal education often do not meet the demand of the labour market.

NFP supported approximately 500 NGOs, education organisations, government bodies and small and medium enterprises by building the capacity of their staff. A large number of fellowships were awarded to officials from the Ministries of Agriculture, Livestock and Fisheries and its predecessors (approx. 100 fellowships) and to officials from the Ministry of Water and Irrigation on both national and county level. Especially since the devolution of agriculture from the national level to county governments many fellowship requests have come from the ranks of county officials.

Education and training in Kenya

In Kenya basic education runs through to the age of 14 and is compulsory.

After primary school pupils can choose to go for practical training straight away without secondary school training at one of the 378 accredited vocational training centres (VTCs or youth polytechnics) that convey basic skills and are managed by the county governments. Pupils that go for secondary school can - after passing the secondary school exam and depending on their grades - either enrol at a) one of the 31 public or 18 private accredited universities or b) one of the 11 accredited polytechnics that offer courses at a more practically oriented level or c) one of the 235 accredited public Technical and Vocational

Colleges (TVCs) that focus on skills training. Apart from the public TVCs there are a substantial number of private ones, but the majority is not accredited (yet). Of the 235 accredited public Technical and Vocational Colleges 200 are managed by the Ministry of Education. The other 35 are managed by the line ministries, like the Ministry of Agriculture, Livestock and Fisheries, the Ministry of Water and Irrigation, the Ministry of Health etc. More TVET colleges (TVCs and VTCs) are in the process of being built in order to accommodate the large number of secondary school graduates that search for placement in tertiary education but it appears that those buildings need more equipment and (qualified) teachers in order to function.

Already in 2007 the government launched Vision 2030 (a long-term plan to develop Kenya) which undertakes the “*establishment of new technical training institutions as well as the enhancement of closer collaboration between the industry and training institutions*”. It took more than 5 years until reforms of the education sector were actually initiated and one year later, in 2013, the Technical and Vocational Education and Training Act was adopted. This Act created TVETA (the Technical and Vocational Education and Training Authority), which accredits TVET institutes (TVCs and VTCs), CDACC (Curriculum Development Assessment and Certification Council) the authority that accredits the curricula developed by education institutes, and KNQA (Kenya National Qualification Framework Authority) that sets the qualifications to which educational programmes should lead. Now that the framework is completed and the institutions to act on the policies and frameworks are established, focus is laid on the enforcement of regulations and standards.

Recently the government made financing available to provide the authorities with more staff. With regard to TVETA the number of staff has increased and projects with the AfDB and Nuffic (2017 – 2020) work with TVETA to improve their capacity. See also annex 7 for an overview of NICHE projects currently under implementation. In addition to Vision 2030 the government of Kenya also launched in 2018 the so called “Big Four Agenda” which shows a clear emphasis on budget spending in food and nutrition security (together with manufacturing, universal health coverage and affordable housing). Also areas like education that enable the big four themes have been given government priority, in particular addressing youth employment through the expansion of technical vocational education training infrastructure and hiring of training instructors.

With the establishment of the [Permanent Working Group \(PWG\)](#) for TVET in 2014 stakeholders from government, private sector, academia and development partners were brought together in their quest to improvement of the quality, accessibility and relevance of TVET. To promote TVET among students, parents and the private sector and to support the dialogue between the public education sector and the business, the PWG organised the event *Hands on the Future* in 2018.

According to the State Department of TVET the country requires at least 30,000 technologists, 90,000 technicians, and more than 400,000 craftsmen to achieve Vision 2030 and the big 4. At the moment policy-making on TVET is difficult as the number of students enrolled at polytechnics, TVCs and VTCs is insufficiently clear. However, TVETA is developing a Management Information System in order to capture all enrolments in TVET which will be ready by the end of 2018.

With regard to university education 443,783 students were enrolled in university courses in 2016. According to information of the Ministry of Education in 2018 180.000 young people were enrolled in public TVET institutions while 600.000 students studied a university. Government prefers to have those numbers turned around.

IV. Identification of the needs

This section describes the main outcomes of the needs assessment and covers the gender/inclusion and labour market situation in relation to post-secondary education in the context of the selected priority themes. The identification travel took place from 29 January till 9 February 2018. In Kenya Nuffic held two stakeholders' workshops. One on Food and Nutrition Security (FNS) and one on Water in support of FNS. Furthermore Nuffic had meetings with the representatives of the Ministry of Agriculture and Irrigation, the Ministry of Education and other donors. Nuffic was accompanied by two representatives of the Ministry of Foreign Affairs of the Netherlands.

Food and Nutrition Security (FNS) and Water

In 2018 Kenya is still not food and nutrition secure despite the efforts of the Kenyan Government, large donors and successes of the EKN programmes, NFP, NICHE and the like. Around three million Kenyans depend on food support doubling during calamities, like the persisting droughts in 2016 and 2017. In 2018 several areas were confronted with excessive rainfall and floods. Of the staple food 20 – 30% is imported and the domestic production of horticulture produce is low in the dry season. With a growing population and expanding industry competing with agriculture for land and water, food and nutrition security is stuck between increasing demand for food and decreasing means to meet this demand. As population growth is exceeding production growth in agriculture the problem will only aggravate over time.

The long term goal of the Kenyan government is to become food and nutrition secure. The government focuses on increasing production and income especially in the value chains of food commodities such as maize, rice and potato. Furthermore agro-processing is explicitly mentioned under food and nutrition security in the "big 4 agenda" priority areas of the current government.

By the 2010 Constitution of Kenya several governance and decision making responsibilities have been devolved to the 47 county governments which encompass also decentralisation of clear mandates regarding education, agriculture and water. The training of county officials is a priority for the government in order to assure good planning and extension services to the people. Each county has selected three priority value chains (please refer to annex 5 for more details) in which it will strengthen its efforts to gain more knowledge and expertise.

The Minister for Foreign Trade and Development Cooperation in the Netherlands recently put forward a new policy paper: Investing in Global Prospects. In this policy paper is stipulated that development policy will focus more strongly on countries and regions in Europe's vicinity where the Netherlands can make a difference by tackling root causes and stimulating development. One of these regions that is given special focus is the Horn of Africa,

in which Kenya plays an important role.¹ The Embassy of the Kingdom of The Netherlands (EKN) in Kenya together with the Ministry in The Hague will lay down in a multiannual country strategy its vision on cooperation with Kenya. One of the objectives will be the continuation of transitioning from cooperation based on bilateral aid to one based on much stronger economic relations. Food and Nutrition Security and Water will continue to be context-relevant themes within the Dutch efforts for private sector development. To that aim the EKN conducts surveys and trade missions to inform the Kenyan and Dutch private sector of opportunities in the Kenyan market and connect the countries' entrepreneurs. The EKN's focus is mainly on the value chains horticulture, potato, dairy and aquaculture. But depending on the match between Kenyan demand for knowledge and investment and the Dutch supply EKN regularly reassesses new topics that have influence on the business climate in a wider sense like climate change and migration. Apart from creating an overview and inventory of information and brokering between Kenyan and Dutch business, the EKN implements programmes to address pressing bottlenecks identified in the surveys. For example programmes are developed to train medium size farmers on how to raise their productivity, reduce their post-harvest loss, improve their capacity to commercialise their agricultural activities, use innovative technologies etc. Attention is also given to inclusivity through entrepreneurship training for youths, initiatives to promote corporate social responsibility and employment creation for certain marginalized target groups.

With regard to the policy priority water the EKN has several programmes that improve water management in the agriculture-water-nexus, but also in WASH. The EKN has a well-established network of Dutch and Kenyan Water stakeholders and Dutch companies are active on a wide scale in the Kenyan water sector.

Analysis of selected priority themes in Kenya

Based on consultations with the EKN and other stakeholders in Kenya the selected priority themes in Kenya are:

- Food and Nutrition Security (FNS);
- Water (focus on water for agriculture).

Security and the rule of law (SRoL) has also been considered as a priority theme but due to budget limitations OKP will first establish support programmes for FNS in a nexus with Water. This will also create more focus and impact of OKP interventions. If new policy developments imply an expansion of the OKP programme with an increase of available budget support to SRoL in Kenya will be taken into consideration.

Food and Nutrition Security and Water are not treated as two separate priority themes in Kenya's context. All OKP initiatives in water will focus on agriculture-related water management and water use as water scarcity restricts agriculture for a great part of the year, in some regions longer than in others.

During the scoping mission a stakeholder workshop on FNS and one on Water for FNS were organised with participants from the government, education institutes, international NGOs and other experts on the context of Kenyan agriculture and water management that active relationships with the private sector. The participants were asked about the current state of affairs in the topics and about their ideas to improve FNS. While giving an excellent

¹ See Ministry of Foreign Affairs, *Investeren in perspectief. Goed voor de wereld, goed voor Nederland* (May, 2018).

context analysis about FN insecurity, their most important message highlighted the role of capacity building in solving Kenya's problems.

Nuffic will build on their analysis on FN insecurity and water scarcity and will elaborate in this CPI on the possible capacity building initiatives in order to contribute to solving these problems. The main factors that cause FN insecurity are according to the FNS stakeholder group:

1. The inefficient production
2. Post-harvest loss
3. Lack of Food Safety
4. Low participation of youth in agriculture

Ad 1) Food production is low for a number of reasons:

- The availability of land for food production is not sufficient and decreasing;
- The unpredictability of rainfall and poor governance related to water use and storage
- the costs of quality inputs (seeds and fertiliser) and machinery are high and not affordable for small and medium scale farmers (with the current return on investment);
- Small and medium scale farmers lack access to investment capital which prevents them from investing and expanding;
- There is a lack of knowledge and skills on all levels that causes low productivity levels.
- Lack of interest of youth to engage in agriculture

Ad 2) The available food is not used optimally because:

- Due to climate-change and rising pests - and the lack of knowledge and training on how to respond to these changes - crops are already lost on the field or post-harvest;
- Due to a lack of capital, infrastructure and knowledge about processing and adequate storage, crops are not packed and processed optimally. This results depending on the season in food wastage or shortage of food when supply gets low;
- The value addition of crops is low due to lack of capital, infrastructure and knowledge. Contributing to the vulnerable situation of small and medium scale farmers is the poor network among value chain actors;
- Also relating to infrastructure and low income is the uneven distribution of food across the country and the inability to buy food for the poorer part of the population;
- Little training on nutrition is available in Kenya, making it important to enhance knowledge about nutrition among the population. Often vegetables and indigenous crops, which have a high nutritional value are not favoured.

Ad 3) Food safety is not established and concerns among the population are increasing.

- The lack of a functioning system of food traceability and safety checks exposes the population to food that is contaminated with toxins like aflatoxin, pesticides and residues of antibiotics;

- Poor hygiene on- and off-farm reduces the quality of food and therefore the health of the people and leads to mistrust towards domestic produce.

Ad 4) Low participation of youth in agriculture.

- Although youth unemployment is high, youth are rather reluctant to work in the agricultural sector where there is a high potential for new businesses.
- Difficult access to land, financial services and other factors of production.

Inclusion of youth is an important way to modernise agriculture and adopt new technologies and an entrepreneurial attitude. As such all initiatives will be tailored towards the promotion of participation of youth in agriculture and education for agriculture. The Kenya Youth Agribusiness Strategy 2017 – 2021 identifies 11 strategic objectives among which “equip youth with appropriate agribusiness skills, knowledge and information” and “engage youth in research, development and utilisation of innovative agricultural technologies” to address the challenges that hamper meaning and sustainable youth participation in agribusiness.

Further elaboration on these topics is given in the chapter *Analysis of the education and training gap for FNS and Water in relation to FNS* below.

The most recent National Food and Nutrition Security Policy from 2011 offers a to-the-point analysis that is in line with the outcomes of the stakeholder workshop and a solid plan of implementation. Reforms to facilitate the proposed changes have been carried out and results are showing recently. However, the Kenyan government acknowledges and works on the capacity gaps within the (county) government(s) that are responsible for land planning, agricultural production and for information and training services to farmers. The Kenyan Ministry of Agriculture, Livestock and Fisheries has a training plan for its staff to close the knowledge gap within the ministry.

Obviously, many factors that contribute to Food & Nutrition (FN) insecurity cannot be influenced by OKP (like the availability of land for agriculture, the persisting drought in recent years, or the high costs of agricultural input). Other factors could be tackled by contributions of OKP but the constraint on the budget, which is smaller than the budgets that were available for NICHE and NFP, makes it mandatory to focus on selected initiatives. In order to make effective use of the available budget focus will be laid on initiatives that build on existing efforts of the EKN and on outcomes of previous projects managed by Nuffic. See also annex 7 and 8 for an overview of projects and result areas.

The education and training gap in the priority themes

The embassy's objectives in the field of post-secondary education, relevant to the priority theme

The Multi Annual Strategic Plan (MASP) of Kenya expired in 2017. A new MASP will be drafted following the recent policy paper of the Minister of Foreign Trade and Development Cooperation.² Knowledge-sharing and transfer is fully in line with the aid to trade agenda.

² This Country Plan of Implementation will be updated and revised in line with the new policy programme of the EKN in the case that change of policy priorities will also have clear implications for OKP interventions.

The annual plan is an internal document of the EKN but was made available to Nuffic and was used to inform this document. Nuffic will make sure the CPI of OKP is in line with the new MASP of the EKN. Thematic experts of the EKN on the chosen policy priorities were present at the stakeholder workshops. Both the results of the workshops and the focus areas of the EKN and possible synergy were discussed during the scoping mission.

Structure and current status of the provision of post-secondary education in Food and Nutrition Security and Water

The TVET system is very organised in the documentation of policy papers, strategies and acts, although the mandates of each of the involved institutions are not always clearly defined. The government is investing in building Technical Training Institutes, curricula have been developed according to the qualification standards set by KNQA, the curricula are then certified by CDACC and NITA (National and Industrial Training Authority) and the teachers are trained at the universities and equipped with teaching skills at the KTTTC (Kenya Teacher Training College). However, for example the majority of the teachers have difficulties to translate the newly developed curricula into actual lessons and have insufficient skills to provide practical training.

Only a few of the 11 polytechnics offer a limited number certificate and diploma courses in agriculture related fields. Six of the 235 accredited public TVCs are dedicated to offering education in agriculture and have a broad range of certificate and diploma courses on offer. Also universities offer certificate and diploma courses. The offer in education on water related to agriculture is very limited at vocational level. Several universities offer bachelor and master training in water subjects related to agriculture.

The private sector also provides agricultural TVET programmes at certificate and diploma (levels 1-5), and also short courses for skills upgrading and continuing professional development. NGOs, research organizations, private training organizations, and industry players (e.g. processors, professional associations, value chain development authorities or boards, research organizations) commonly offer or are planning to develop short courses (e.g. 1 -2 weeks, sometimes up to 3 months), focussing on practical training in aspects of agricultural production, processing, agri-business and extension. With very few exceptions, these short courses are not formally recognised or accredited by the authorities responsible for TVET regulation and quality assurance.

The government recently has come up with the idea of elevating certain TVET institutes managed by line ministries to become Centres of Excellence in their field of expertise. These Centres of Excellence will be equipped to bundle and generate knowledge and sector specific skills taking into consideration the needs of the private sector. They will be responsible for passing this knowledge on to other education institutes at TVET level. Next to the initiative to improve sector specific knowledge, attention of the Kenyan Government is also set on the improvement of the educational environment. Competency-based education and training will be implemented which requires profiling of occupation standards, development of training materials and renewed approach to the training of trainers. Especially in agriculture, this initiative will be paired with strengthening outreach services in order to provide a good practical approach to training.

A bottleneck in Kenya is the difficulty of public educational institutes to retain their teachers as salaries in the private sector are higher and are seen as more prestigious than a position as a teacher in a public institution. Especially in TVET, teachers are more and more guided to give practical, competency-based lessons which entails being in the field or inside stables. This is something for which they were not prepared during their studies. Because of this, some teachers rather try to find other jobs outside the teaching profession. This problem can be tackled when TVET gets a more positive image and the provisions at educational institutes become more favourable for teaching. Until changes are brought about, larger employers will train their employees in-company and are as such hesitant to invest in the public TVET system.

An analysis on how OKP can support Kenya in solving its problems with education for agricultural will be addressed in the next paragraph.

University education has its own problems which are admittedly much smaller than the problems of the TVET system. On the one hand some younger universities which were upgraded from being polytechnics to become universities struggle to attain an internationally competitive academic level. When they were upgraded not enough funding was made available for them to actually elevate their teaching staff and consequently their level of education and research. Since then they have to distribute scarce funding among upgrading their staff, research, teaching and equipment. On the other hand there are quite some universities that have a good reputation internationally. The majority of the universities have difficulties in linking up with industry/private sector and translating research in to practice.

Concerning support to disadvantaged people, be it youths, women, the disabled or people from marginalised regions, Kenya has exemplary policies. The willingness to be a country that offers equal opportunities is definitely there and OKP has to implement policies that are already set and actively supported by the Kenyan government. Project partners will have to integrate and specify outcome indicators on inclusiveness that show reference to the matrix of OKP programme outcomes and impact indicators and can be aligned to Kenyan policies to support marginalized groups.

Analysis of the education and training gap for FNS and Water in relation to FNS

In the previous chapters knowledge and training were mentioned several times as limiting factors on the way to Kenya being a food and nutrition secure country. In this section of the CPI only capacity gaps will be described that can efficiently be addressed by OKP. Considering the country budget and its distribution among the three policy priorities not all capacity gaps can be addressed.

Based on the input of the stakeholders, possibilities for innovation in the development and implementation of the programme and opportunities for long-term sustainable cooperation between knowledge organisations in Kenya and in the Netherlands, Nuffic proposes to focus on integrated capacity building (individual scholarships, group trainings and institutional projects) in horticulture and dairy concerning the policy priority FNS and on water for agriculture concerning the policy priority water. Aquaculture will be targeted through individual scholarships and group trainings. Whenever possible the OKP initiatives will build on

ongoing or concluded initiatives of the EKN and its partners (e.g. RVO, NWP, Netherlands Business Hub) and previous projects of NICHE.

Special reference should be given here also to the scoping study of the Ministry of Agriculture, Nature and Food Quality in the Netherlands that was commissioned to assess the need, relevance, priorities, limitations and possible modalities to support dairy TVET programmes in the East African region. It presents clear recommendations for capacity building initiatives such as OKP how to contribute effectively to the systemic change considered necessary to enable and ensure that TVET systems and services are based on the needs of a professional, competitive, sustainable and inclusive dairy sector. The study also presents generic insights how to improve public responsibilities for the TVET provision in the broader agricultural domain (not only related to dairy), especially at system level, the initial education/training, the scope and options for the private parties in training & coaching, cost recovery options and business models.³

Following the stakeholder discussions Nuffic has identified the following 5 possible interventions for OKP⁴ for FNS and the nexus with Water:

- 1. Improve professional education and vocational training at the level of Polytechnics and Vocational Colleges in the agricultural value chains horticulture and dairy through strong collaboration with the private sector;**
- 2. Support a system in which agricultural TVET teachers are practically trained**
- 3. Improve the availability and sustainable use of water for agriculture through better knowledge about governance of water;**
- 4. Provide Fellowships in (water-smart) agriculture for individuals;**
- 5. Strengthen collaboration between TVET providers and universities in Kenya in the provisions of integrating water-smart and climate-smart agriculture programmes.**

Explanation of the intervention areas

Ad 1. Improve TVET in the value chains horticulture and dairy by supporting a select number of Polytechnics and Technical and Vocational Colleges (TVCs). These institutions should have the potential and/or are already successful in offering skills-oriented, innovative training that responds to labour market demands and the demand for entrepreneurial skills. The targeted Polytechnics and TVCs should also be strengthened to build and/or strengthen their linkages with the private sector and county government. Post-harvest, cool-chain and agro-logistics aspects respectively should be incorporated into the initiative (for example in the curricula). Public TVET institutions should also be supported to build or strengthen linkages with industry stakeholders and improve the engagement of private sector actors in TVET provision. Stronger participation of the private sector in the further development and innovation of TVET programmes should be established in the:

1) definition of Occupational Standards, Occupational Competencies and CBET curricula;

³ Richard Hawkins, Mariëtte Gross and Harm Holleman, *Scoping study to strengthen the Technical Vocational Education and Training in the Dairy Sector in East Africa*, commissioned by the Ministry of Agriculture, Nature and Food Quality in the Netherlands, April 2018.

⁴ All weaknesses and threats will be taken into consideration by Nuffic and will be taken into account in the publication of calls. These will have to be addressed in the proposals.

- 2) offer of facilities for students and practical training sessions (attachments and internships) including the development of farm and processing facilities for training organizations to ensure that they serve as models of local industries;
- 3) exploration of mechanisms for joint delivery and financing of training programme between TVET institutions, agribusinesses and private sector trainers and advisors ;
- 4) facilitation of accreditation of agriculture training programmes based on public-private collaboration with national accreditation mechanisms.

<p>Strengths:</p> <ul style="list-style-type: none"> - Supporting already successful TVET institutes to become better / excellent (preferably aligning to the plans of the government for Centres of Excellence) will contribute to delivering high quality graduates and improving the image of TVET in general. - Successful TVET institutes can start exploring innovative technologies and mechanisation and cooperate in research with local universities - Already successful schools have a solid base of management and policies -> possibly more attention available to focus on promotion of gender equality and marginalised groups - Results for youths (degrees, certificates, practical skills) and farmers (higher yields) are immediate - Contribution to the labour market by delivering quality graduates that meet their demand (business climate) 	<p>Weaknesses:</p> <ul style="list-style-type: none"> - Other donors are already active in agricultural TVET. It is important to harmonise with their interventions⁵.
<p>Opportunities:</p> <ul style="list-style-type: none"> - Student and teacher exchange with the Netherlands add value for both countries - Co-funding/co-creation with the Kenyan Government if OKP selects the same institutes the governments appoints as Centres of Excellence - Achievements of the benefitting TVET institutes may pave the way for a dual education system at other TVET institutes - Build stronger links with private sector and county government with help of alumni (used to Dutch approach) to align with labour market 	<p>Threats:</p> <ul style="list-style-type: none"> - The Kenyan government sets off a parallel capacity building plan at other institutes and efforts are doubled - High-potential TVET institutions have not always sufficient capacity to develop proposals for capacity.

⁵ An overview of interventions of other development partners can be found in Annex 6.

Ad 2. Support a system in which agricultural TVET teachers are practically trained.

TVET teachers in agriculture are currently educated at either universities (the most prominent being Egerton University) or at teacher training college. Teacher training colleges however have limited opportunities to expose students to agricultural practical training as facilities at these colleges hardly allow for expansion and make it virtually impossible to implement a dual education system. At the moment Teacher Training Colleges organise as many excursions and internships as they can but offering practical and theoretical training in an integrated way would benefit students more. Also in the training of TVET teachers more collaboration with the private sector should be sought especially in the development of the competencies of Teacher Training Colleges to assess and establish CBET delivery and in the development of competences of trainers to design and deliver CBET (i.e. training of instructors).

<p>Strengths:</p> <ul style="list-style-type: none"> - Current education options for teachers have a good reputation among students - PWG supports this process at system level but not yet in the agricultural field 	<p>Weaknesses:</p> <ul style="list-style-type: none"> - Capability of teachers to convey practical skills in agriculture is low at this moment. - Insufficient attention to hands-on and basic skills required by local private sector.
<p>Opportunities:</p> <ul style="list-style-type: none"> - Has the potential to transform the TVET system very effectively and at relatively low cost as all agricultural TVET institutes will benefit from better and more teachers - Potential for cooperation between private sector and universities and TVET in agriculture - Introduction of the Dutch TVET approach which can lead to Kenyan TVET institutes being in the middle of a network between private sector, local government and research. - Involvement of alumni in creating linkages (are familiar with Dutch approach) - The Netherlands can share its teacher training approach and agriculture knowledge. - Exchange with Netherlands TVET providers possible 	<p>Threats:</p> <ul style="list-style-type: none"> - The Kenyan government is considering to open more Teacher Training Centres, timing of starting this intervention is therefore very important in order to select the best teacher college in agriculture and/or water for agriculture - Trained TVET teachers tend to grab the first opportunity to change career from teaching into industry.

Ad 3. Improve the availability and sustainable use of water for agriculture through better knowledge about governance of water. This should be achieved by OKP through short-term and long-term interventions. An intervention that improves water governance in the short term could be realised by giving group trainings and fellowships to staff of governmental and non-governmental organisations that play a key role in policy making of water management issues integrating agriculture and water governance interests. OKP could facilitate knowledge and innovation inputs on specific aspects of integrated water resources management relevant for agriculture which is not yet available in Kenya. Ratio of male to female fellowship holders should ideally be 50-50.

A supporting intervention to solve the problem in the long term can be a multi-year project that builds the capacity of a consortium of education institutes of different educational levels in order to sustainably accrue knowledge on integrated water resource management and governance in Kenya and build a long-term relationship with knowledge institutes in the Netherlands. Part of the project is that research from university-level is translated into practice on TVET-level.

Fellowship and group training part:

<p>Strengths:</p> <ul style="list-style-type: none"> - Low cost of fellowships and group trainings - Quick results as staff “in the right position” is trained - Results will contribute to sustainable water availability for FNS but also for industry and domestic use. - Good knowledge of the context of EKN among others through EKN-projects with the Kenya Innovative Finance Facility for Water (KIFFWA) and Kenya Pooled Water Fund (KPWF) and MaMaSe 	<p>Weaknesses:</p> <ul style="list-style-type: none"> - Rotation of government officials means capacity will be “lost” periodically - A critical mass has to be trained in order to achieve change
<p>Opportunities:</p> <ul style="list-style-type: none"> - Substantial co-financing of the Kenyan government - Embedding of group training in Kenyan education organisations - Strategic network of valuable alumni can be created (Top Sector Water) - In-depth survey of the NL business hub on water is available 	<p>Threats:</p> <ul style="list-style-type: none"> - Fellowships applications are not submitted according to the quality of the applicant (nepotism).

Institutional capacity building part:

<p>Strengths:</p> <ul style="list-style-type: none"> - It's what the Netherlands do best! - NWP (Netherlands Water Partnership) has a recognised coordinating role 	<p>Weaknesses:</p> <ul style="list-style-type: none"> - Limited number of TVET institutions, supply of quality and accredited TVET programmes does not meet the
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<ul style="list-style-type: none"> - The Netherlands Business Hub and Dutch companies are already working on water in Kenya. Concrete ways of involving the Dutch private sector in carrying out 4 programmes have been explored. - The EKN's has invested in the establishment of a centres for Integrated Water and Basin Management - Nuffic has invested in capacity building on water at KEWI and TUK and spatial planning with Maseno University. - Initiatives of cooperation between Kenyan institutes of different educational levels exist which makes the chance for failure smaller - In the long run Kenya will be able to train its own officials and water planners 	<p>demands for vocational training in Kenya.</p> <ul style="list-style-type: none"> - Technical and vocational training programmes hardly integrate water and food security issues and related skills training.
<p>Opportunities:</p> <ul style="list-style-type: none"> - Student and teacher exchange with the Netherlands add value for both countries - Opportunity for Dutch institutes to gain practical knowledge of IWRM in ASALs - Research, academic teaching of universities and the hands-on experience of TVET institutes including the experience gained from attachments at farms or businesses are linked - Build on LIWA and PWG as a platform that brings together industry, academia and TVET (but not yet in agriculture) and involve alumni 	<p>Threats:</p> <ul style="list-style-type: none"> - Investing in "the wrong institute" that will not carry-on after the end of the project - Parallel effort of the government to create a centre of excellence on water.

Ad 4. Provide Fellowships in (water-smart) agriculture for individuals. The guiding principle should be to select individuals that are in a position to facilitate change whether from the private sector, from the (county) government or from the field of research and education. With regard to these fellowships it is important that the Dutch education institute is part of the assessment, as knowledge transfer and creation have to fit in the context of the work of the fellowship holder and quality is important. The acquired knowledge should not be available in Kenya. Ratio of male to female fellowship holders should ideally be 50-50.

<p>Strengths:</p> <ul style="list-style-type: none"> - Short way from fellowship to implementation of newly acquired knowledge - Creation of a strong strategic and thematic alumni network - Everybody who meets the criteria can apply - Very flexible, every deadline the EKN and Nuffic can reconsider where focus should be laid 	<p>Weaknesses:</p> <ul style="list-style-type: none"> - Potentially a high workload for the EKN, because of high number of expected applications.
<p>Opportunities:</p> <ul style="list-style-type: none"> - Sustainable linkages between Kenyan knowledge / key organisations and Dutch knowledge organisations - Knowledge creation also for NL relevant, win-win situation 	<p>Threats:</p> <ul style="list-style-type: none"> - Organisations who enabled their staff to follow a training can lose their staff to an organisation that is in a less optimal position to use the knowledge acquired through OKP training.

Ad 5. Strengthening of collaboration and institutional linkages between training institutions providing vocational training and universities in Kenya in integrating water-smart and climate-smart agriculture programmes (including the development of drought-resistant breeds, incorporating climate-change mitigation via earth observation sciences and GIS etc). OKP should provide capacity building support in strengthening productive interaction and institutional collaboration between these different educational levels through the assistance and offer of Dutch state of the art expertise, innovation and technology. Part of the project is that (international) research at university-level is translated into practice on TVET-level.

<p>Strengths:</p> <ul style="list-style-type: none"> - Short way from OKP project to results for farmers. - Results can help other Dutch partner countries with the same context 	<p>Weaknesses:</p> <ul style="list-style-type: none"> - Currently Kenyan universities and TVET institutions hardly collaborate and align with each other education programmes in a systematic way.
<p>Opportunities:</p> <ul style="list-style-type: none"> - EKN will launch a market study concerning business opportunities for companies working on Climate-Smart Agriculture - Opportunities to expand the Dutch expertise in these fields - Demand will grow in the coming years - Opportunities for export of Dutch equipment - Research, academic teaching of universities and the hands-on 	<p>Threats:</p> <ul style="list-style-type: none"> - Farmers may not have the financial mean to adopt technologies that prove best or may simply not want to adopt them - Other donors are already in the field (e.g. Israel)

<p>experience of TVET institutes including the experience gained from attachments at farms or businesses are linked</p> <ul style="list-style-type: none"> - Use PWG as a platform that brings together industry, academia and TVET (but not yet in agriculture) and involve alumni to create linkages - Huge potential of international funding that is available to counter (the effects of) climate change. 	
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V. Envisaged Theory of Change and outcomes

Based on the analysis of needs and the consultations with the stakeholders, a theory of change for Kenya for FNS and Water has been formulated. This ToC is based on the general [OKP ToC](#) and describes the way the OKP programme will contribute to the Dutch development cooperation policy as described [here](#). The OKP M&E framework is intended to make clear that all interventions within OKP should be geared to contribute coherently and measurably to common long term impacts, as defined by the Ministry of Foreign Affairs (<https://www.dutchdevelopmentresults.nl/theme/>).

The OKP programme in Kenya aims at the following outcomes and impacts:

The following **long-term impact** will be aimed at:

Contribute to End hunger (SDG 2) and ensure availability and sustainable management of water for all (SDG 6) through the strengthening of capacity, knowledge and quality of individuals as well as key organisations in the sector and organisations in the field of Technical and Vocational Education and Training and Higher Education (TVET/HE) in OKP partner countries.

In order to achieve this all interventions will have to aim at one or more of the following objectives (long-term impact at programme level):

1. **Reduce malnutrition** (Contribute to lifting 32 million people out of undernourishment by 2030);
2. **Promote agricultural growth** (Contribute to doubling agricultural productivity and/or income of 8 million family farms by 2030);
3. **Create ecologically sustainable food systems** (Contribute to converting 7.5 million of hectares of farmland to sustainable use by 2030);
4. **Water is used sustainably and equitably, ensuring the needs of all sectors and the environment** (Contribute to 20 million people having enough water of good quality by 2020);
5. **Water efficiency in agriculture increased** (Contribute to increasing crop yield per unit of water by 25% by 2020).

The following **medium-term impact** will contribute to this:

- (I) Education system (TVET/HE) is of good quality, relevant and accessible (SDG 4);
- (II) Partnerships between persons and organisations are inclusive and sustainable (SDG 17);
- (III) Organisations key to (sectoral) inclusive development of partner countries are strengthened by inflow of enhanced workforce.

This will be achieved by the following **outcomes**:

- A. TVET/HE organisations (in the selected partner countries and in NL) perform better their core tasks, firmly embedded in their environment (in line with country / regional specific labour market needs & aiming at inclusiveness);
- B. Enhanced knowledge and skills of individuals and organisations in line with country / regional specific labour market needs & aiming at inclusiveness (in partner countries and in the NL).

Annex 2 describes the Theory of Change for Kenya.

Annex 3 provides an M&E matrix presenting the expected outcomes and connected indicators for the OKP country programme.

VI. Articulation and calls

The OKP offers different kind of capacity building interventions (see Annex 1):

- 1. partnership projects between TVET and higher education institutions locally and in the Netherlands;
- 2. Tailor-Made Training (TMT) for groups;
- 3. individual scholarships for mid-career professionals;
- 4. Alumni events.

Nuffic will publish calls for institutional cooperation projects and group training. Based on those calls key organisations in [COUNTRY] and in the Netherlands are invited to submit proposals that are aligned with the CPI and contribute to the ToC outcomes and impact in annex 2 and 3. Please refer to the [policy framework](#) that underlies the OKP and an [explanation of the various modalities](#)

For scholarships, please consult the [OKP scholarship website](#). For updates on calls and other OKP information, please register via the [OKP updates website](#).

Preliminary planning of implementation:

Step	Date
CPI published on Nuffic website	31 July 2018
First call published	August/September 2018
Deadline call	October/ November 2018
Selection partners	November/ December 2018
Start of project in case joint proposals	December 2018 or January 2019

VII. Indicative budget for the programme*

As a general indication, the agreed budget over the term of the programme is as follows:

Food and Nutrition Security

<i>Period of implementation:</i>	<i>2018 – 2022</i>
Multi-year institutional cooperation	EUR 4,500,000
TMT, TMT+ and group training	EUR 500.000
Integrated scholarships for individual trainings	EUR 2,000,000
Total	EUR 7,000,000

Water for Food and Nutrition Security

<i>Period of implementation:</i>	<i>2018 – 2022</i>
Multi-year institutional cooperation	EUR 1,200,000
TMT, TMT+ and group training	EUR 200.000
Integrated scholarships for individual trainings	EUR 600,000
Total	EUR 2,000,000

* Note: The funds allocated to the programme as a whole and to each partner country's programme (including budget allocations per theme and financial projections for the respective modalities) may be subject to change, and this may affect the above indicative budget. The budget may also change in line with political decisions taken by the authorities. In consequence, Nuffic reserves the right to adjust this indicative budget and undertakes that, in this event, it will notify the relevant parties immediately.

OKP promotes co-funding and matching of funds. Kenya is classified by the OECD as an LMIC⁶ (Low Middle Income Country) with a prospering economy, a government capable and willing to invest in education and a strong urban middle class that values education. Proponents applying for Tailor Made Trainings and Institutional Partnership projects in Kenya are required to include co-financing in their proposals. This will contribute to reciprocity and ownership of results established within the collaboration between Kenyan and Dutch partners. Integration of co-financing in the breakdown of budgets will be one of the assessment criteria in the selection of proposals. For Kenya as a LMIC country Nuffic will introduce a minimum level of co-financing as mandatory for applications as follows:

% of Co-financing	In 2018	In 2019	In 2020	In 2021
LMIC	5%	10%	15%	15%

As climate-smart technologies will play a prominent role in some projects it is opportune to search for international climate funds for these projects.

In forthcoming calls, more information will be given on the specific demands for co-financing.

⁶ OKP countries are classified in accordance with the list of Development Assistance Committee (DAC list) of the OECD.

VIII. Harmonisation and coordination with (inter)national projects and programmes

During the identification process Nuffic also took into account national and regional interventions by local authorities, NGOs and other (inter)national donors on selected priority themes. Information from the EKN, other donors and stakeholders about existing projects/programmes in Kenya served as input for the priority setting of the 5 areas of interventions for OKP listed above. An overview of current support interventions in Kenya that address youth employment through the strengthening TVET provision and regulation can be found in the annex 6. Applicants for OKP support have to describe in their proposals which strategy they will adopt to ensure that OKP activities are being developed and implemented in coordination with programmes conducted by the EKN, national government, NGOs and technical and financial partners (TFPs).

Complementarity and coordination has to be sought with national policies and other donors to make sure goals are aligned and impact can be enhanced. A relevant initiative of international cooperation is the World Bank's Strengthening Higher Agricultural Education in Africa (SHAEA) that is currently being developed and in which the government of Kenya has indicated to participate. This programme focuses on 6 key gap areas: 1) Agribusiness and Entrepreneurship, 2) Agri-food Systems and Nutrition, 3) Rural Innovations and Agricultural Extension, 4) Agricultural Risk Management and Climate Change Proofing, 5) Agricultural Policy Analysis, and 6) Statistical Analysis, Foresight and Data Management. Both the World Bank and the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) are interested in working together with the Netherlands in this programme.

The added value of OKP will be the strengthening of capacity of local and regional higher education, training and research institutions to collaborate in a joint and coordinated development, maintenance and implementation of education, training and research programmes that are responsive to the key areas of the SHAEA programme. For OKP a key focus will be to support SHAEA initiatives in the quality development of professional education and vocational training through input of new knowledge and innovations relevant for agri-business development, extension services and agricultural skills training.

OKP could also support the regional offer of quality education, training and research programmes in agricultural value chains through:

- regional knowledge sharing;
- sharing of resources from country budgets for education and training;
- regional division and specialisation of education and training facilities;
- establishment of regional networks of excellence between universities, TVET institutes and research centres;
- comparative and interdisciplinary research programmes and creation of best practices.

In consultation with the embassy, Nuffic will organise monitoring missions during which meetings will be arranged with the relevant authorities and other stakeholders (TFPs, NGOs, the private sector, etc.), for the purpose of discussing any contextual changes that could impact the implementation of the OKP programme.

IX. Monitoring programme progress

The organisations taking part in the OKP programme are asked to report on the progress of their projects and scholarships using a Results Oriented Monitoring tool that will be provided by Nuffic. They will also record their successes and setbacks so that lessons can be learned from them as part of an organisational learning approach. Nuffic will monitor and evaluate the OKP at programme level and will regularly discuss progress with EKN and other stakeholders, especially regarding the progress achieved related to the outcomes indicated above and the successes and failures, together with suggestions for remedying setbacks and, if possible, redefining strategies and adjusting forecasts in line with the targeted outcomes. If necessary, for example in the event of major changes, Nuffic will discuss proposed adjustments to the CPI with the embassy and other stakeholders which may lead to an adjusted CPI.

Annexes

- Annex 1. Brief presentation of the OKP programme
- Annex 2. Theory of Change for the OKP programme in Kenya for FNS and Water
- Annex 3. Matrix of OKP programme outcomes and impact indicators
- Annex 4. Priority Value Chains in each County
- Annex 5. Development Partners Matrix in TVET
- Annex 6. Overview of NICHE and INNOCAP projects in Kenya
- Annex 7. Overview of results of the NICHE and NFP programme in Kenya

Annex 1. Brief presentation of the OKP programme

The Orange Knowledge Programme (OKP) is the successor to the Netherlands Fellowship Programmes (NFP) and the Netherlands Initiative for Capacity Development in Higher Education (NICHE). The Orange Knowledge Programme merges the two preceding programmes into a single integrated approach, with the addition of new elements including increased involvement of alumni, attention to cooperation between knowledge organisations, and communication focusing on the presentation of results.

The main objective is to contribute to sustainable and inclusive development through the strengthening of organisations key to sectoral development in OKP partner countries. This will be achieved by developing the capacity, knowledge and quality of individuals as well as organisations both in the field of Technical and Vocational Education and Training and Higher Education (TVET/HE) and in other fields related to the priority themes in the OKP partner countries.

In order to reach this vision, the programme will focus on the following medium and long term outcomes:

- education system (TVET/HE) is of good quality, relevant and accessible (SDG 4);
- organisations key to (sectoral) development of partner countries are strengthened by inflow of enhanced workforce;
- partnerships between persons and organisations are sustainable (SDG 17).

Reference is being made to the [Theory of Change for the OKP programme](#).

The programme will be implemented through three types of interventions:

- individual scholarships,
- group trainings and
- institutional projects.

In Kenya the three instruments will be offered in the form of an integrated approach.

The following basic principles govern the programme:

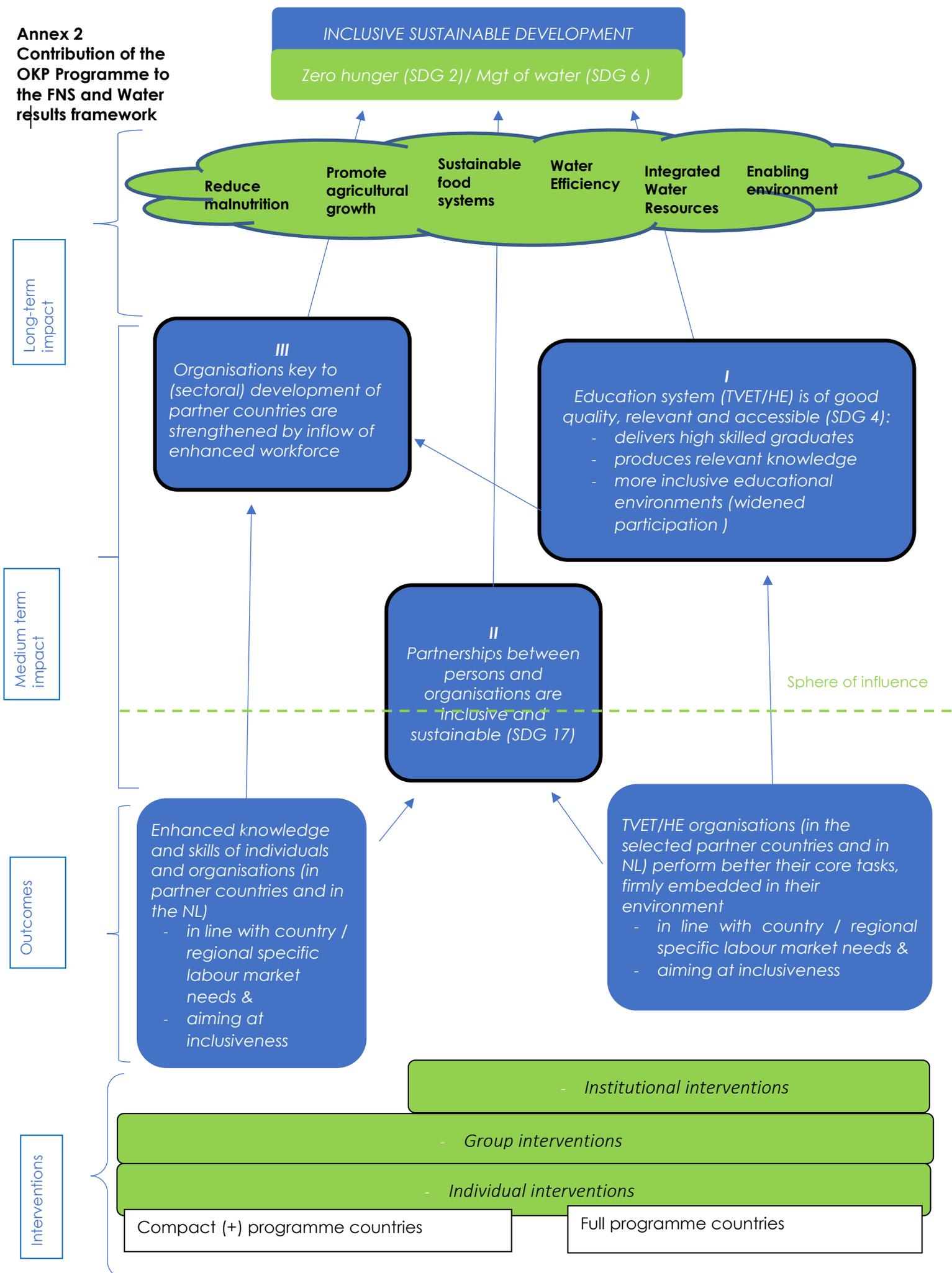
- *Innovation:*
Is key to the development and implementation of the programme and is incorporated in all aspects of the programme.
- *Reciprocity and equality:*
More attention should be devoted to reciprocity and ownership should shift to the Technical and Vocational Education and Training and Higher Education (TVET/HE) organisations in partner countries. This means that the Southern partners play an active role in the design of collaboration projects, both as submitters and as reporters of progress. The new programme will also provide more opportunities for the joint financing of scholarships, training programmes or projects with the Southern region partners, reinforcing ownership and involvement.
- *Flexibility:*
This concerns flexibility in implementing the programmes as far as themes, countries, duration and financing methods are concerned, depending on the demand and the context. Flexibility is also required in any modifications that need to be made in response to changes in the context within which the programme is implemented.
- *Demand-driven approach:*

Is key with regard to ownership, sustainability and the efficient use of resources. Important components include collaboration between Southern and Northern institutions, a comprehensive analysis based on available knowledge and reports, and the use of alumni.

- *Complementarity:*
The Knowledge Development Programme must be closely aligned with other centralised and decentralised programmes.
- *Co-financing:*
Where worthwhile and possible, the programme must stimulate co-financing.
- *Inclusion:*
The programme provides opportunities for marginalised and discriminated groups and integrates a gender perspective.
- *Focus on results:*
The programme focuses on presenting results stemming from knowledge development at individual, institutional and group levels.
- *Alumni:*

The programme creates a connection between knowledge professionals in the Southern region and the Netherlands. The new programme therefore places greater emphasis on alumni policy in all instruments.

Annex 2
Contribution of the
OKP Programme to
the FNS and Water
results framework



Annex 3. Matrix of OKP programme outcomes and impact indicators in Kenya

- This matrix is intended to make clear that all FNS and Water interventions within OKP should be geared to contribute coherently and measurably to common long term impacts, as defined by the Ministry of Foreign Affairs of the Netherlands (<https://www.dutchdevelopmentresults.nl/theme/>);
- It is important to be aware that this matrix is subject to adjustments, in line with the Dutch development policy;
- When designing an FNS intervention, projects have to **contribute at least to one long term impact**;
- The **indicators in bold** are compulsory;
- Nuffic is currently developing an online instrument based on this matrix intended to facilitate the monitoring and evaluation of OKP projects;
- When calls for proposals will be published per country, this matrix can be made more specific by focussing on a specific long-term impact or choosing more compulsory indicators, depending on the country focus.

Objective: Contribute to: <ul style="list-style-type: none"> - end hunger, achieve food security and improved nutrition and promote sustainable agriculture (SDG 2) and - ensuring availability and sustainable management of water for all (SDG 6) through the strengthening of capacity, knowledge and quality of individuals as well as organisations in the fields of Technical and Vocational Education and Training and Higher Education (TVET/HE) in OKP partner countries.			
Long-term impact at programme level (link with FNS and Water ToC)			
Long term impact	Long term impact indicator	Medium-term impact indicator	Outcome indicator (project level)
1) Reduce malnutrition	Number of people lifted out of undernourishment	<ul style="list-style-type: none"> - Number of undernourished people with improved food intake (indirectly**) - Number of undernourished people with improved access to healthy/diverse food (indirectly**) - Number of undernourished people whose nutritional situation became more resilient to shocks (indirectly**) 	<ul style="list-style-type: none"> - Number of undernourished people with improved food intake (directly*) - Number of undernourished people with improved access to healthy/diverse food (directly*) - Number of undernourished people whose nutritional situation became more resilient to shocks (directly*)
2) Promote agricultural growth	Number of family farms (sub-sector, male/female, age: % < 35) that doubled their productivity and/or income	<ul style="list-style-type: none"> - Number of family farms (sub-sector, male/female, age: % < 35) with increased productivity and/or income (indirectly**) - Number of family farms (sub-sector, male/female, age: % < 35) with improved access to input and/or output markets (indirectly**) - Number of family farms (sub-sector, male/female, age: % < 35) whose farming enterprise became more resilient to shocks (indirectly**) 	<ul style="list-style-type: none"> - Number of family farms (sub-sector, male/female, age: % < 35) with increased productivity and/or income (directly*) - Number of family farms (sub-sector, male/female, age: % < 35) with improved access to input and/or output markets (directly*) - Number of family farms (sub-sector, male/female, age: % < 35) whose farming enterprise became more resilient to shocks (directly*)
3) Create ecologically sustainable food systems	Number of hectares of farmland	<ul style="list-style-type: none"> - Number of hectares of farmland used more eco-friendly (indirectly**) 	<ul style="list-style-type: none"> - Number of hectares of farmland used more eco-friendly (directly*)

	converted to sustainable use	<ul style="list-style-type: none"> - Number of hectares of farmland that became part of improved watershed/landscape management (indirectly**) - Number of hectares of farmland that agro-ecologically became more resilient to shocks (indirectly**) 	<ul style="list-style-type: none"> - Number of hectares of farmland that became part of improved watershed/landscape management (directly*) - Number of hectares of farmland that agro-ecologically became more resilient to shocks (directly*)
4) Water is used sustainably and equitably, ensuring the needs of all sectors and the environment	Number of people having enough water of good quality throughout the year	<ul style="list-style-type: none"> - number of river basin delta organizations supported on water management (indirectly) - number of professionals trained in water management (indirectly) - number of people benefitting from operational plans for integrated water resources management of basins (indirectly) - area of basins with an operational plan for integrated water resources management (indirectly) - number of people supported for protection against floods (indirectly) - number of people supported for improved irrigation and drainage (indirectly) - number of people supported for improved watershed protection (indirectly) - number of people supported for safe drinking water and adequate sanitary facilities (indirectly) 	<ul style="list-style-type: none"> - number of river basin delta organizations supported on water management (directly) - number of professionals trained in water management (directly) - number of people benefitting from operational plans for integrated water resources management of basins (directly) - area of basins with an operational plan for integrated water resources management (directly) - number of people supported for protection against floods (directly) - number of people supported for improved irrigation and drainage (directly) - number of people supported for improved watershed protection (directly) - number of people supported for safe drinking water and adequate sanitary facilities (directly)
5) Water efficiency in agriculture increased	Change of crop yield per unit of water used over time (SDG 6.4.1)	<ul style="list-style-type: none"> - number of institutions indirectly benefiting from innovative and efficient water allocation methodologies which increase crop yield - Number of associations, water users organisations and number of their professionals indirectly trained in applications in water-efficiency ranging from crop selection to irrigation scheduling etc., - Number of institutions that use the FAO AQUASTAT database to measure water productivity (indirectly). - Number of 'ready-to-use' applications for farmers and policy officers are developed and distributed (indirectly) - Number of farmers with a higher yield with the same amount of used water (indirectly) 	<ul style="list-style-type: none"> - Number of associations, water users organisations and number of their professionals directly trained in applications in water-efficiency ranging from crop selection to irrigation scheduling etc., - Number of institutions that use the FAO AQUASTAT database to measure water productivity (directly). - Number of 'ready-to-use' applications for farmers and policy officers are developed and distributed (directly) - Number of farmers with a higher yield with the same amount of used water (directly)

* Direct: target group who have been reached during project period by the new or revised outreach programme or have followed the new or revised curricula/short courses.

** Indirect: target group reached beyond the project period by graduates of the new or revised curricula/short courses.

Medium-term impact	Indicator
<p>I. Education system (TVET/HE) is of good quality, relevant and accessible</p> <ul style="list-style-type: none"> - delivers high skilled graduates - produces relevant knowledge - more inclusive educational environments (widened participation) 	<ul style="list-style-type: none"> ➔ <i>Education</i> <ul style="list-style-type: none"> - number of knowledge institutions that perform better - number of graduates (self) employed (male/female) - number of jobs supported/created - number of revised/newly developed curricula in NL and/or Southern partner organisation that integrate research results - number of knowledge institutions with an increased participation of students from minorities - education system represents needs of labour market/gender - graduate satisfaction (employed/non employed/self-employed) (male/female) - employers' satisfaction over the graduates' skills and knowledge ➔ <i>Research</i> <ul style="list-style-type: none"> - number of research results/contributions translated into policy advice at national, regional or local level ➔ <i>Society</i> <ul style="list-style-type: none"> - number of beneficiaries reached with knowledge, skills and techniques (indirectly**) - number of services to community (indirectly**) - number of businesses co-investing in activities - number of improvements in (inter)national policies/laws (indirectly**)
<p>II. Partnerships between persons and organisations are inclusive and sustainable</p>	<ul style="list-style-type: none"> - number of MoUs or other types of formal collaboration agreements exist 1, 3, 5 years after end of project - number of joint (research) proposals submitted and financed - number of joint publications - number of joint/double degrees offered - number of academic staff of partner country still cooperates with academic staff of other education organisation(s) - number of scholarship holders that became members of the alumni association of their host university (of applied sciences) (male/female) (NL/other) - number of Dutch training education organisations that have improved their training methods - number of staff of Dutch training education organisations that have gained new insights and ways of working
<p>III. Organisations key to (sectoral) inclusive development of partner countries are strengthened by</p>	<ul style="list-style-type: none"> ➔ <i>Individual</i> <ul style="list-style-type: none"> - % of alumni who state that they have implemented in their workplace the knowledge and skills gained from the interventions - % of alumni promoted to more strategic positions within their own organisation or other organisation - narratives from alumni on policy and procedural changes, inclusive development, and innovations as a result of interventions

inflow of enhanced workforce	<ul style="list-style-type: none"> → <i>Organisational</i> - % employer satisfaction on suitability of the training for the organisation - % of alumni still employed by the organisation that nominated them - % employers that states that their department/organisation has become more effective because of OKP intervention - testimonials from employers on organisational changes (implemented procedure/techniques, work ethic etc. due to trained staff (critical mass))
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* Direct: target group who have been reached during project period by the new or revised outreach programme or have followed the new or revised curricula/short courses.

** Indirect: target group reached beyond the project period by graduates of the new or revised curricula/short courses.

Outcomes at project level	
Outcome	Indicator
A. TVET/HE organisations (in the selected partner countries and in NL) perform better their core tasks, firmly embedded in their environment, in line with country/regional specific labour market needs & aiming at inclusiveness	<ul style="list-style-type: none"> → Education <ul style="list-style-type: none"> - number of knowledge institutions supported directly - increased participation of students from minorities - number of teachers/ trainers have gained qualitative and relevant knowledge and skills to develop and offer the revised/developed study programmes (# trainers trained, male/female/minorities/PhD/MSc/short training) - number of graduates delivered (male/female/minorities degree/non-degree) (directly*) - number of curricula for degree, non-degree and short courses revised/newly developed - number of students enrolled in revised/newly developed study programmes (male/female) - student satisfaction (male/female) → Research <ul style="list-style-type: none"> - number of research strategies/agenda/methodologies revised/strengthened and implemented - number of relevant publications (level, gender, inclusion) - number of relevant innovations → Society <ul style="list-style-type: none"> - number of beneficiaries reached with knowledge, skills and techniques (directly*) - number of MoUs or other types of collaboration agreements signed (education, private, public, surrounding community) (in NL, own country, other country) - number of students performing an internship or practical work (male/female) - number of SMEs supported - number of improvements in (inter)national policies/laws (directly*) → Organisational <ul style="list-style-type: none"> - improved gender equality and gender awareness in the knowledge institution - number of organisations revised/developed and implemented a strategic plan - number of organisations revised/developed institutional mechanism for quality assurance - number of organisations with a revised/developed system to register and monitor its alumni

	<ul style="list-style-type: none"> - number of organisations have developed and implemented a system to regularly survey the satisfaction of students, short courses participants, graduates and/or employers - number of laboratories established/strengthened - number of libraries/resource centres established/strengthened - % of men and women in management of faculty/department - % of men and women of teaching staff of faculty/department - number of organisations with improved policies or procedures to encourage access to education of minorities - diversity in participation of project activities for management and teaching staff (i.e. balance junior/senior staff, women/men, minorities) - number of organisations with policies and procedures to ensure an environment which is gender sensitive - number of organisations with policies and procedures to ensure an environment which is conducive for minorities
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<p>B. Enhanced knowledge and skills of individuals and organisations (in partner countries and in the NL) in line with country/regional specific labour market needs & aiming at inclusiveness</p>	<ul style="list-style-type: none"> → <i>Individual</i> <ul style="list-style-type: none"> - number of scholarship holders that have successfully completed course/training (level/male/female/minorities) - % scholarship holder's/alumni satisfaction - % of scholarship holders/alumni employed post-study within region and same employer (men/women) - % of scholarships awarded to women - % of scholarships awarded to minorities - % of quota for scholarships for women - % of quota for scholarships for minorities - number of stimulating measures/extra facilities aimed at preparation, supervision and aftercare of female candidates - number of stimulating measures/extra facilities aimed at preparation, supervision and aftercare of minorities - % alumni who state that they have acquired new knowledge and skills; e.g. problem solving, effective communication - % alumni who are promoted/ upgraded to a more senior position post-study - changes in personal, academic and professional attitudes and attributes through training and education programmes - improved gender equality and gender awareness in the workplace → <i>Organisational</i> <ul style="list-style-type: none"> - number of organisations strengthened by individual and/or group training (private/public) - alumni implement the acquired knowledge and skills within their working environment - employers satisfaction on the added value of return scholars to the initial working environmental - number of organisations with institutional mechanism for quality assurance - number of organisations developed and implemented a gender strategy
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* Direct: target group who have been reached during project period by the new or revised outreach programme or have followed the new or revised curricula/short courses.

** Indirect: target group reached beyond the project period by graduates of the new or revised curricula/courses.

Annex 4. Priority Value Chains in each County

County	Priority value chain			County	Priority value chain		
Bungoma	Dairy	Ind. Chicken	Tomatoes	Meru	Dairy	Bananas	Ind. Chicken
Baringo	Goat meat	Dairy and	Honey	Mandera	Goat meat	Camel milk	Tomatoes
Busia	Ind. Chicken	Ground nuts	Fish	Migori	I/ Chicken	Dairy	S/ potatoes
Bomet	Dairy	Potatoe, maize	Ind. Chicken	Marsabit	Meat goat	Camel milk	Kales
E/Marakwet	Dairy	Ind. Chicken	I/Potato	Mombasa	Ind. chicken	L.Vegetables	Fish
Embu	Dairy	Bananas	Ind. Chicken	Muranga	Dairy	Bananas	French Beans
Garissa	Camel milk	Beef	Tomatoes	Nairobi	Dairy	Kales	Broilers
Homa Bay	Watermelon	Fish	Sorghum	Nakuru	Dairy	Pyrethrum	Fish
Isiolo	Beef	Camel milk	Tomatoes	Nandi	Dairy	Maize	Ind. Chicken Fish
Kajiando	Cowmilk	Tomatoes	Beef	Narok	Dairy	Beef	Maize
Kakamega	Dairy	Maize	Ind. Chicken	Nyamira	Dairy	Banana	L. Vegetables
Kericho	Ind. Chicken	Dairy	Tomatoes	Nyandarua	Dairy	Irish Potato	Fish
Kiambu	Dairy	Ind. Chicken	Bananas	Nyeri	Dairy	Beef	Irish Potatoes
Kilifi	Cassava	African Bird Eye Chili	Ind. Chicken	Samburu	Beef	Honey	Maize
Kirinyaga	Dairy	Bananas	Rice	Siaya	Mangoes	Fish	Ind. Chicken
Kisii	Dairy	Bananas	Ind. Chicken	T/Taveta	Dairy	Bananas	Ind. Chicken
Kisumu	Ind. Chicken	Fish	Cotton	T/River	Mangoes	Beef	Fish
Kitui	Ind. Chicken	Green grams	Sorghum	T/Nithi	Dairy	Bananas	Ind. Chicken
Kwale	Chillies	Ind. Chicken	Passion Fruit	T/Nzoia	Dairy	Maize	Ind. Chicken
Laikipia	Maize	Dairy	Meat goat	Turkana	Fish	Sorghum	Meat Goats
Lamu	Fish	Ind. Chicken	Cashew nuts	U/Gishu	Cow milk	Passion	Poultry
Machakos	Dairy	Ind. Chicken	Mango	Vihiga	Dairy	Bananas	Ind. Chicken
Makueni	Green grams	Ind. Chicken	Mangoes	Wajir	Camel milk	W/ melon	Ind. Chicken
West Pokot	Meat goat	Honey	Ind. Chicken				

Annex 5: Development Partners Matrix in TVET

DEVELOPMENT PARTNERS MATRIX - YOUTH Employment and TVET IN KENYA												
Development Partner	Program Name	Budget (\$ Million)	Start Year	End Year	Implementing Ministry/Entity	Focus / Activities	Focus Areas	Key focus Areas			Target Group	Target County
								TVET Capacity	Employment	Training		
AfDB	Technical Vocational Education Training (TVET)	\$62,000,000	2015	2020	MoEST (Directorates of TVET and Youth Training and TVET Authority)	<p>This project will play and important role in supporting the emerging oil, gas and mining industry.</p> <ol style="list-style-type: none"> 1. The project aims to improve access and equity, improve quality and relevance of TVET in line with Kenya TVET Act of 2013. 2. Strengthen faculties of engineering and applied sciences in the 33 target TVET institutions through engineering infrastructure and faculty development. These include 4 TVET institutions for hearing and visually impaired students. 3. TVET Tutors (at least 600) capacity building - diploma and degree/industrial attachment 4. 3000 youths (50% female) in relevant skills to increase their employability. 5. Construct hostels in some of the target TVET institutions, rural and marginalised regions 					All	

DfID	Kuza	\$8.240.000	2014	2017	Adam Smith International – in coordination with Mombasa County executive departments (Notably: Youth, Education, Trade and Finance)	Facilitate skills training for marginalised youths; establish labour market and information training centres in low-income constituencies (including mentoring); establish Sector Education and Employment Platforms (SEEPs) to bridge the private sector-labour market mismatch; facilitate investment in key job-creating industries; support the County's youth employment policymaking.						Mombasa
DfID & GIZ	Skills for Oil & Gas Africa (SOGA)		2015	2019	Ministry of Industrialization & MoEST - Directorate of TVET	Create employment and income generation through technical skills development in Oil & Gas and supply chain related occupations Master Teachers Training in two technical universities and training of students in polytechnics.					Total target: 8,000 40% youth	Nairobi, Mombasa and Lamu
JICA	AFRICA-ai-JAPAN (African Union - African Innovation - JKUAT PAUSTI Network	\$5.616.000	2014	2019	MoEST	Capacity development of JKUAT and Pan Africa University for Science Technology & Innovation (PAUSTI) professors / students in the department of Agriculture, Engineering, Science & Technology						JKUAT (Kiambu)
JICA	Human Resource Development for Industrial Development		2015	2018	MoEAC, Commerce & Tourism (KIBT)	Employment opportunities are created through expansion and improvement of SME business activities						Nairobi and surrounding counties
Sweden	Natural Resources Management Facility		2015	2018	Ministry of Environment and Natural Resources	Support to Kenyan innovations in the field of energy, agriculture value chain, water and sanitation and general environmental issues, mostly to young entrepreneurs who are in the main bracket of developing innovations						National

Sweden	Civil Society Urban Development		2015	2018	CSUDP	Support to organizations in urban areas, many of which support youth programs in water, sanitation and land ownership						National
UNDP	Economic Empowerment Program	\$5.390.000	2013	2018	Ministry of Agriculture, Livestock & Fisheries Ministry of Education, Science & Technology Ministry of Industry, Trade and Cooperatives Micro and Small Enterprise Authority Youth Enterprise Development Fund Kenya Association of Manufacturers Kenya Investment Authority Kenya National Chamber of Commerce & Industry Kenya Private Sector Alliance Housing Finance Foundation County Governments (various)	1. Enhance and mainstream inclusiveness of the poor and vulnerable in institutional and policy frameworks and private sector participation in job-rich and pro-poor growth; 2. Empower the poor and vulnerable (in particular women and youth) as economic agents						Kwale, Taita Taveta, Marsabit, Turkana
USAID	Generation Kenya	\$4.000.000	2014	2019	McKinsey & Company Social Initiative	Accelerate learning and place youth unemployed/under employed youth in jobs and give them the skills and support they need to achieve lifelong personal and professional success					19-29 years Youth who have completed secondary school education Total Target: 50,000	Nairobi, Nakuru, Nyahururu, Kisumu, Mombasa

USAID	Kenya Youth Employment and Skills Program	\$21.917.718	2015	2020	RTI International County Governments Land O Lakes McKinsey & Company Social Initiative	Enhance the employability of Kenyan youth for increased wage and self-employment, especially for underemployed youth who have not completed secondary school. The KYWP will result in increased workforce competitiveness and private sector involvement in the sectors targeted through: 1. Business skills improved for youth participants 2. Improved technical and vocational skills training 3. Improved youth awareness and utilization of financial services 4. Improved effectiveness of market and employment information, career counseling, mentoring and job placement			19-35 years Youth who have not completed secondary school education Total Target: 30,000	Phase 1 Nairobi, Kwale, Bungoma, Kericho, Garissa Phase 2 Migori, Nyeri, West Pokot, Kisii
USAID	Young African Leaders Initiative	\$16.781.830	2015	2019	Deloitte & Touche East Africa	Provide young african professionals with leadership training in three main tracks 1. Civic Engagement 2. Business and Entrepreneurship 3. Public Management				Regional Program (East Africa)
World Bank	Kenya Youth Employment and Empowerment	\$150.000.000	2016	2021	National Industrial Training Authority Ministry of Public Service, Youth & Gender Micro & Small Enterprises Authority Ministry of EA Affairs, Labor and Social Protection	Improve employment and earnings for youth who are experiencing difficulties in finding employment or who are working in vulnerable employment. Project proposes to support: 1. Training and Work Experience 2. Support for youth entrepreneurs to start a business or increase productivity mainly by facilitating access to business development services and finance; 3. Improving labor market information 4. Strengthening youth policy development and project management			18-29 years Youth who are unemployed/under employed or working in vulnerable jobs with upto Form 4 level education Total Target: 280,000	All Counties

Government of Canada (Global Affairs Canada)	Kenya Education for Employment Program (KEFEP)	\$20,600,000 CDN	2016	2021	<ul style="list-style-type: none"> • Ministry of Education • CDACC • TVET Authority • The Kabete National Polytechnic • The Nyeri National Polytechnic • The Meru National Polytechnic • The Kisii National Polytechnic • The Sigalagala National Polytechnic • The Kisumu National Polytechnic • The Eldoret National Polytechnic • The Kitale National Polytechnic • The Kenya Coast National Polytechnic • The North Eastern National Polytechnic • KATTI • Kenya Technical Trainers College (KTTC) • KUCCPS • Key Industry Representatives : KEPSA, KNCCI,LIWA 	<p>KEFEP will develop institutional partnerships between Kenyan TVET Institutions and agencies and Canadian colleges and institutes to:</p> <ol style="list-style-type: none"> 1. Improve the quality and relevance of skills training programs at Kenyan TVET Institutions 2. Increase the effectiveness of Kenyan TVET institutions in delivering accessible and gender-responsive skills training programs that meet industry needs 3. Increase the effectiveness of Kenyan agencies in implementing TVET reform 4. Increase economic opportunities for male and female graduates from TVET institutions in Kenya. <p>These efforts are intended to create a supply of skilled workers to respond to the needs of in-demand sectors in Kenya and to ensure that graduates benefit from related economic opportunities either as employees or entrepreneurs.</p>	<ul style="list-style-type: none"> • Civil engineering • Agricultural engineering • Mechanical engineering • Building technology • Renewable energy • Agriculture • Agro-processing • Mechatronics • Automotive • Electrical • Hospitality 			Total Target: 1,200 Kenyan youth	<ul style="list-style-type: none"> • Nairobi County • Nyeri County • Meru County • Kisii County • Kakamega County • Kisumu County • Uasin Gishu County • Trans Nzoia County • Mombasa County • Garissa County
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KFW	CoE for cooperative Training	€ 20.000.000	2017	2022	Ministry of Education TTIs - Technical Training Institutes	Approach: Boost youth employment by offering industry-oriented technical and vocational training in close cooperation with the private sector Areas: industrial mechatronics, automotive mechatronics, automotive bodybuilding/ welding. Impact: TTIs upgraded (Infrastructure, Equipment etc.)to Centers of Excellence incl. assessment center „dual“ cooperative training for 800 students per year (phase 1)	industrial mechatronics automotive mechatronics automotive bodybuilding / welding			TTI Students 800 per Year	Nairobi
KFW,GIZ	Skills Initiative for Africa	€ 38.000.000	2017	2021	African Union Comission NEPAD	Criteria based, competitive application process for Financing Facility to fund innovative practical skills development programs by public and private institutions. Key: Participation of private sector/employers. Funding large investment projects, international projects and smaller innovative/pilot projects. Goal: Strengthen occupational prospects Replicate best practice and innovative approaches on a regional scale					South Africa, Tunisia, Nigeria, Cameroon, Kenya
KfW	Wings 2 Fly Phase III	€ 4.000.000	2017	2020	Equity Group Foundation Secondary Schools TVET Institutes	'Wings to Fly' – an Equity Group Foundation program, co-financed by KfW, provides scholarships and mentorship to academically promising students from disadvantaged backgrounds New KfW project phase: sponsoring of TVET courses, besides secondary school for graduates from 2016				Needy Secondary School Wings 2 Fly graduates	All Counties

Netherlands Embassy/Nuffic	The Netherlands Initiative for Capacity Development in Higher Education (NICHE)		2011	2020	<ul style="list-style-type: none"> • Commission for University of Education, • TVETA, • Pwani University, • Southern Eastern Kenya University, • Kenya Water Institute, • Technical University of Kenya, • Kenya School of Agriculture, • Thika Practical Training Centre, • Dairy Training Institute-Naivasha, • Egerton University, • Baraka Agricultural College Molo, • Bukura Agricultural College, • Maseno University, • University of Eldoret, • LIWA Kenya, • Latia Resource Centre 	Each program runs for 4 years. A set of 16 different projects - Aim is to sustainably strengthen higher education and technical and vocation education and training (TVET) capacity, hence contributing to economic development and poverty reduction. Main activities: <ul style="list-style-type: none"> • to improve quality of TVET training and courses making them relevant to the labour market needs (curriculum development, capacity building,) • strengthen the link to industry • improve infrastructure – teaching equipment • strengthen entrepreneurship & practical training • Make the institutions and course gender sensitive 	Agriculture & 'Agribusiness - Dairy, Aquaculture, horticulture -water resource management - Spatial Planning (urban development)		<ul style="list-style-type: none"> • Trainers • Youths • System organizations – TVETA, CUE & LIWA 	<ul style="list-style-type: none"> • Mombasa • Machakos • Nairobi • Nyeri • Nakuru • Kakamega • Kajiado • Kisumu
EU										
IT										
UNICEF										
South Korea										
Spain										
China										

Annex 6. Overview of NICHE and INNOCAP projects in Kenya⁷

Project	Project Name	Policy Themes	Grant Amount €	Project Outcome	Start Date	End Date	Provider	Provider Consortium Partners	Requesting Organisation
NICHE-KEN-124-134	Capacity building for improving dairy and horticulture programmes to meet the requirements of the labour market and to contribute to food security and the commercialization of the sector	Food security (80 %), Private Sector Development (20 %)	749984	<ul style="list-style-type: none"> • BAC strengthened its organizational capacity in the promotion of the college, M&E, risk management, finance management, governance, gender mainstreaming, revenue generation and information management including ICT. • BAC offers education programmes in horticulture and dairy that are practically oriented, entrepreneurial, gender sensitive and have technical capacity to meet the needs of the labour market. • Strengthened collaboration with universities, research institutions and the labour market for research, learning and quality improvement of the training programs and extension services. Gender Objective • BAC has significantly reduced gender disparities through affirmative action in staffing and student enrolment, staff and student sensitization and training on gender, a reviewed curriculum that comprehensively addresses gender concerns. Labour Market: • BAC is able to produce graduates who have the relevant skills that meet the demands of the labour market. 	16-11-2011	30-9-2017	Q-Point B.V.	Delphy; Egerton University; HAS Den Bosch; Radboud University Nijmegen	Bukura Agricultural College
NICHE-KEN-126-140	Development and improvement of demand-driven horticulture training to contribute effectively to	Food security (80 %), Private Sector Development (20 %)	1499486	<ul style="list-style-type: none"> • HPTC, KARI and JKUAT enhanced their organizational capacity in leadership, change management/ management, gender, fundraising, advocacy and monitoring and evaluation. 	1-1-2012	31-12-2018	Wageningen UR	Aeres Group; Delphy; React Africa Limited	Horticulture Practical Training Centre Kenya

⁷ For more detailed information about deliverables, successes and impact of specific education and training support through NICHE contact should be sought with the engaged beneficiary organisations.

	commercialisation, including value addition, quality improvement and extension services			<ul style="list-style-type: none"> To run cost-effective programmes at certificate, diploma, graduate and post graduate level at HPTC and JKUAT that meet the needs of the labour market and contribute to commercialization of the sector. Specific objective 3: HPTC, KARI and JKUAT reviewed, developed and engendered research processes and data information management system for horticulture in Kenya. 					
NICHE-KEN-127-139	Build capacity to deliver competent graduates for enhanced competitiveness in the dairy value chain	Food security (80 %), Private Sector Development (20 %)	1148527	<ul style="list-style-type: none"> EGU and DTI organizational, technical and training capacity strengthened and gender equity enhanced and mainstreamed to women empowerment and advancement. EGU and DTI offer curricula that are entrepreneurial, gender sensitive, practically oriented and include life skills to meet the needs of the DVC at certificate, diploma and BSc and MSc Levels. EGU and DTI have undertaken best practices research in the DVC and strengthened their collaboration with other dairy training institutions and stakeholders for improved technologies, and quality education. 	1-1-2012	31-12-2018	Wageningen UR	Aeres Group; SNV	Egerton University
NICHE-KEN-130	Strengthening polytechnics to enhance delivery of quality education programmes in integrated water management	Water (100 %)	995220	<ul style="list-style-type: none"> KPUC strengthened its organizational and management capacity in finance, gender, human resources and ICT. KPUC offers comprehensive, gender sensitive IWM curricula at certificate, diploma, BSc and MSc level, that are practically oriented, relevant to the needs in the labour market and contribute to entrepreneurship in the sector. KPUC strengthened its outreach, partnerships and research to improve the training programmes and to influence the IWM agenda in the country. 	1-1-2012	1-9-2018	Mott MacDonald	MDF Training & Consultancy; Unesco-IHE Institute for Water Education; University of Twente; University of Western Cape	Technical University of Kenya
NICHE-KEN-141	Capacity building to deliver competent technical graduates in integrated water management who	Water (100 %)	893034	<ul style="list-style-type: none"> Specific objective 1 (outcome): KEWI's management and implementing capacity on governance, quality control, finance, administration, management, HR and ICT is enhanced. 	1-8-2012	1-12-2019	MDF Training & Consultancy	Mott MacDonald; Unesco-IHE Institute for	Kenya Water Institute

	can effectively apply latest technologies and contribute to the growing water sector in Kenya			<ul style="list-style-type: none"> • Specific objective 2 (outcome): KEWI reviewed, developed and delivered innovate and gender sensitive curricula for short and long term training programmes related to Integrated Water Resource Management. • Specific objective 3 (outcome): Partnerships between KEWI and Universities and Technical Colleges, industry players and NGOs are established and strengthened. 				Water Education	
NICHE-KEN-158	Capacity building to deliver competent human resources in IWRM and aquaculture for equitable and sustainable livelihood in Kenya's arid and semi-arid lands and beyond	Water (60 %), Food security (40 %)	1194950	<ul style="list-style-type: none"> • SEKU has enhanced its institutional and organizational capacity to support and develop programmes and knowledge sharing in IWRM and aquaculture. • SEKU runs programmes on IWRM and aquaculture at various levels. • SEKU has established and strengthened partnerships with other institutions, communities, private sector and labour market stakeholders. 	1-12-2012	31-7-2019	Q-Point B.V.	Delft University of Technology; Egerton University	South Eastern Kenya University
NICHE-KEN-168-181	Enhancing the Capacity of H-PTC to produce high quality graduates to manage and improve productivity of the potato value chain in Kenya	Food security (60 %), Private Sector Development (40 %)	599121	<ul style="list-style-type: none"> • PTC has enhanced organisational capacity for production of high quality and relevant graduates. • PTC runs high quality and relevant training programmes on potato value chain. • PTC facilitates research, and information management and sharing among stakeholders of potato value chain. 	1-1-2013	31-12-2017	Royal Tropical Institute	Wageningen UR	Horticulture Practical Training Centre Kenya
NICHE-KEN-189	Enhancing the Capacity of the University of Eldoret to run labour market responsive and gender sensitive curricula in seed technology and agribusiness management that leads to graduates and trainees that meet labour market needs and	Food security (60 %), Private Sector Development (40 %)	1231674	<ul style="list-style-type: none"> • School of Agriculture and Biotechnology (SAB) and the central management of the University of Eldoret have enhanced organisational capacity in leadership, gender mainstreaming, resource mobilization, financial management, quality assurance and monitoring & evaluation. • SAB offers education that produces gender balanced and sensitive graduates who are innovative and capable of developing and applying new technologies that address problems in the agriculture sector and contribute to food security. • SAB undertakes demand driven research 	1-1-2014	31-3-2018	Royal Tropical Institute	International Centre for development oriented Research in Agriculture; Wageningen UR	University of Eldoret

	contribute to food sec			and shares results with stakeholders contributing to enhanced food security.					
NICHE-KEN-200	Capacity building of the Commission for University Education to improve the quality and relevance of university training and research so as to enhance employability of graduates	Other (60 %), Private Sector Development (40 %)	1484389	<ul style="list-style-type: none"> • CUE has enhanced its internal capacity to perform expanded functions. • CUE has developed and implemented strategies, standards and procedures to ensure the quality, gender sensitiveness and relevance of all aspects of education, training and research at the universities. 	1-1-2014	31-12-2018	University of Groningen	Erasmus University Rotterdam	Commission for University Education
NICHE-KEN-211	Capacity building for improved linkages between the private sector and universities and TVETs in Kenya	Private Sector Development (60 %), Food security (20 %), Water (20 %)	637867	• LIWA (Linking Industry with Academia Kenya Trust) will have the organisational capacity to inspire and inform relevant and productive private sector – academia linkages, and is recognized and supported as an essential institution in the gender sensitive, social and economic development of Kenya.	1-2-2015	31-1-2019	Maastricht School of Management (MSM)	East African Business Council; Q-Point B.V.	LIWA Kenya trust
NICHE-KEN-212	Innovative ways of learning, demonstration farming and water management for enhanced food security and income generation in coastal regions	Water (60 %), Food security (40 %)	1304650	<ul style="list-style-type: none"> • Pwani will have the academic and organisational capacity to: <ol style="list-style-type: none"> 1. Develop, implement and maintain innovative educational programmes in food security that deliver competent graduates who are gender sensitive, entrepreneurial and relevant to labour market needs; 2. Run a sustainable demonstration farm in livestock and crop production and water management for training, research, outreach and supply of quality genetic materials to stakeholders 	15-10-2014	14-10-2018	Q-Point B.V.	Delft University of Technology; DLV Rundvee Advies BV; Egerton University; KI Samen BV	Pwani University
NICHE-KEN-213	Development of of Latia Resource Centre and its Agricultural Training	Food security (80 %), Private Sector Development (20 %)	547927	<p>At the end of the project, the requesting organisation will have the organisational and academic capacity:</p> <p>To develop and maintain entrepreneurial agriculture training and programs in an innovative, market driven and gender-</p>	15-10-2014	14-10-2018	Maastricht School of Management (MSM)	Dairy Training Institute; Wageningen UR	Faraja Latia Resource Center

				sensitive manner and adaptive to changing circumstances					
NICHE-KEN-214	BAC-Institutional Capacity Development for sustainable agricultural improvement (BAC-ICD)	Food security (80 %), Private Sector Development (20 %)	894705	BAC acts as a centre of excellence in Sustainable Agriculture and Rural Development (SARD) delivering entrepreneurial, gender sensitive hands-on graduates and farmers, applied research, and products and services of high quality standards in a consistent and sustainable manner.	1-1-2015	31-12-2018	CINOP Global	Aeres Group;SNV	Baraka Agricultural College
NICHE-KEN-271	Capacity Building for Strengthening the Livestock Value Chain	Private Sector Development (55 %), Food security (45 %)	1099138	1. At the end of the project, the requesting organisation has the (academic and organisational) capacity to manage and operate a Centre of Excellence for Livestock Innovation and Business (CoELIB) with regional scope that is labour market oriented and gender sensitive; 2. At the end of the project, the requesting organisation has the (academic and organisational) capacity to manage and operate a successful agribusiness incubator in the livestock value chain (LVC) with an international scope that benefits young graduates and innovative entrepreneurs.	1-10-2016	30-9-2020	Q-Point B.V.		Egerton University
NICHE-KEN-274	Functioning Dairy Agribusiness Incubator	Food security (50 %), Private Sector Development (50 %)	24900	Functioning Dairy Agribusiness Incubator at Egerton University	1-11-2015	30-4-2016	Wageningen UR		Egerton University
NICHE-KEN-281	Enhancing the Capacity of Kenya School of Agriculture for improved practical and labour market oriented agricultural TVET education	Food security (100 %)	1399831	At the end of the project the Kenya School of Agriculture (KSA), including Satellite campuses and strategic ATCs, is a well-known and respected agricultural school, with the organisational and educational capacities to function as a learning organisation and to produce competent graduates and agribusiness entrepreneurs, both men and	1-1-2017	31-12-2020	Q-Point B.V.	MICAS Limited	Kenya School of Agriculture

				women, with practical and labour market oriented skills.					
NICHE-KEN-282	Organisational Capacity building at UNESCO Groundwater Center Cat.2		0						
NICHE-KEN-283	Strengthening the capacities of TVETA for enhancing the performance of the TVET education system in Kenya	Private Sector Development (50 %), Other (50 %)	1135077	At the end of the project, the requesting organisation will have the organisational and institutional capacities to develop and implement, in close collaboration with the private sector, strategies, standards and procedures ensuring the quality, gender sensitiveness and relevance of all aspects of TVET education in Kenya.	1-7-2017	30-6-2020	MDF Training & Consultancy	Cadena international development projects; University of Eldoret; Hanze University of Applied Sciences Groningen	TVETA (Technical and Vocational Education and Training Authority)
NICHE-KEN-284	Building Stronger Capacities to link Spatial Planning to Agribusiness and Public Policy Development in Greater Western Kenya	Food security (50 %), Private Sector Development (50 %)	1780622	1. At the end of the project, the requesting organisation will have the academic and organisational capacities to deliver graduates and interdisciplinary research that contribute to gender sensitive and labour market responsive spatial planning in Greater Western Kenya. 2. At the end of the project, the requesting organisation will have the academic and organisational capacities to deliver tailor made training and counselling services to planning departments of County Governments in Greater Western Kenya in the operationalisation of county/town spatial plans with a focus on catalysing agro industrial chains and facilitating agri-business, agri-logistics and agro-processing	1-1-2017	31-12-2020	VU University Amsterdam		Maseno University
NICHE-KEN-300	II - Use of blended learning in training programs in dairy	Food security (100 %)	196515	• Group of competent trainers able to implement CBL training programs using the ELP and practical training facilities available at the University of Eastern Africa, Baraton;	14-10-2016	13-10-2018	Aeres Group		Geen

	farm management in Kenya			<ul style="list-style-type: none"> • Updated curricula which are designed in line with CBL principles and which are available on line in the ELP and which are responsive to labour market needs identifies in the dairy value chain in Kenya; • Training infrastructure available at the University of Eastern Africa, Baraton, meeting DTC technical standards and allowing for practical training in real life situations in dairy farm management; • Franchise contract signed by DTC and the University of Eastern Africa, Baraton, for continued cooperation after the end of the project period. 					
NICHE-KEN-303	II-Introducing the Triple Helix approach as a Catalyst for Skills Development for Mega Projects to support Economic Growth in Eastern Africa	Security and the rule of Law (100 %)	99950	<ol style="list-style-type: none"> 1. Senior/management staff of TU-K, LIWA, RMPCC and AA-TVET-Agency will have the capacity to deliver enhanced TVET skills development models based on training on customised Triple Helix model 2. Awareness and Feasibility of Triple Helix approaches in neighbouring countries and regions are established 	14-10-2016	13-10-2018	Maastricht School of Management (MSM)		Geen

Annex 7. Overview of results of the NICHE and NFP programme in Kenya

In 2017 NICHE and NFP continued to support the development agenda of Kenya (laid down in the [Kenya Vision 2030](#)) by strengthening knowledge and skills at the level of individual professionals, at organizations involved in development issues and at higher education and vocational education institutions.

The Kenya Vision 2030 is the national long-term development policy that aims to “transform Kenya into a newly industrializing, middle-income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment”. The programmes worked on the intersection between the Kenyan goals and the [Dutch policy priorities](#), with most activities targeting food and nutrition security and integrated water resource management.

NICHE

Nuffic continued to finance 17 projects and officially started three new NICHE projects in 2017 (see also list of NICHE projects below). 13 of those projects aim at improving food and nutrition security by among other things developing curricula with Kenyan universities and colleges and by helping them to improve their financial and organisational management and their teaching skills and infrastructure. Recently, special focus is given to employability, entrepreneurial skills and innovation which is achieved through collaboration with the private sector and the development of incubators for entrepreneurs. In projects with TVET colleges focus was laid on the practical aspects of teaching which is in line with the ambitions of the Kenyan government to improve the quality of the TVET education system leading to a better qualified work force and hence to higher productivity.

The first four NICHE projects (which started between 2011 and 2013) ended in 2017, but teaching staff who received a fellowship under NICHE in order to improve their academic and teaching skills are yet to conclude their studies.

Given the long duration of the studies on Bachelor, Master and PhD level which are followed alongside the usual teaching tasks 21 of the 104 fellowship holders within NICHE projects graduated so far. Most fellowships will be concluded by 2022. By then NICHE will unfold its full impact. The projects with two universities on the nexus between IWRM and food and nutrition security (aquaculture) were finalised in 2017 as well - as was the project which supported the Kenya Water Institute (KEWI). With the help of Dutch-lead consortia 79 curricula and courses on dairy, horticulture, aquaculture, agriculture and integrated water management were improved and newly developed.

Now that projects are further in their life-cycles results begin to show. While 830 students attended the improved or newly developed curricula and training programmes in 2016, this number rose to almost 4000 in 2017. With 70 curricula and training programmes still under development this number will increase exponentially in the coming years equipping graduates with the up-to-date knowledge they need in their careers.

Above the projects with education institutes two projects worked with semi-government authorities in the education sector: one with the Commission of University Education, which concluded its first audit of universities in 2017 and one project that started in 2017 with TVETA (Technical and Vocational Education and Training Authority) the governmental body that regulates TVET education. By improving the quality of education and education institutes as well as their grading practices they ensure that Kenya will have a well-skilled workforce in the near future. The planned management information system will unlock valuable information for the private sector about TVET education and its graduates and will be functional in aligning education and demand from the labour market.

The project with LIWA, the organisation that plays a key role in linking the needs of the labour market with government policy, structures of the TVET system and training institutes continued. LIWA was one of the organisers of the 1st The Hands on the Future National Technical & Vocational Education

and Training (TVET) Conference in Nairobi in January 2017 that formed a great momentum in promoting the currently unprestigious TVET among future students and their parents. An agreement was signed between the Kenyan government and representative bodies of the private sector to intensify collaboration. LIWA also implemented an innovative initiative project which involves TVET institutes in the implementation of infrastructure mega projects.

The project with Maseno University will ensure that the university will have the capacities to deliver training and counselling services to planning departments of County Governments. Maseno University will be able to support County Governments with the operationalisation of county and town spatial plans with a focus on catalysing agri-industrial chains and facilitating agri-business, agri-logistics and agri-processing. Indirectly the project is expected to contribute greatly to increased agricultural productivity and improved processing and distribution of food.

NFP

The Netherlands Fellowship Programmes (NFP) develop the capacity, knowledge and skills of professionals who are in a position to improve Kenya's situation in all four policy priorities of the Dutch Government by awarding fellowships for programmes and trainings at Dutch education institutes. In 2017, 174 scholarships were awarded to professionals; 4 to attain a PhD degree, 53 to pertain a Master degree, and 117 to attend short courses. Half of the scholarships went to employees of (semi) government institutions like ministries and county governments. 36 owners or employees of small businesses were trained, 34 researchers, teachers or managers of education institutes and research centres and 18 employees of national NGO's. Professionals who are in a position to contribute to improving food and nutrition security and water received most scholarships, see table (PhD row shows thesis topics).

Discipline	Food Security	Food Safety	IWRM or Land & Water Management	Earth Observation Sciences
PhD	0	Development of combined in vitro-in silico methods to assess mixture toxicity of food and water contaminants	Creating viable systems for effective local level participation in sustainable management of Kenya's major wetlands.	Advancing crop water productivity by assimilating satellite based rainfall and evaporation products and water balance mapping in Naivasha
MSc	7	2	15	11
SC	62	11	16	2

Interestingly, food and water insecurity are tackled at quite a high level, which can be seen in the number of courses, especially Master studies and PhD research in earth sciences and resources management at ecosystem-level. This connects well with the NICHE project with Maseno university, which will make this demanded know-how available in Kenya.

The courses in land and water management and earth observation were mainly given by UNESCO-IHE and University Twente, courses in agriculture mostly by Wageningen University and PTC+.

Next to scholarships in food and nutrition security and water management courses on urban management and planning were popular with 19 scholarships and courses in security and rule of law, for example on anti-terrorism and anti-corruption (12 short course scholarships). Three **NFP Tailor-made Training projects** improved the overall functioning of two NGOs and one private enterprise by training a selected group of their staff. Herewith an overview of the TMT's regarding subjects and the organisations and Dutch institutes involved:

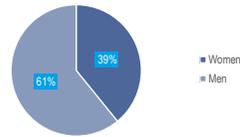
Discipline	Requesting organisation	Dutch institute	Title	Objective
Water	Wetlands International Kenya Office	CREM BV	Sustainable landscape management by private sector engagement	The Kenyan staff of Wetlands International was trained on searching for cooperation opportunities with the private sector
Food security	Kenya Biologics Ltd	Jan de Bont Bioconsultancy	Production of Bacillus subtilis as bio-fungicide	Kenya Biologics Ltd produces green and cost-effective farm inputs that help farmers to grow crops in a responsible manner. By being trained on biological fungicide they improved their sustainable food production and the safety of food and drinking water
Food security	Emo Community	Delphy BV	Empowering women & youth in horticulture	Staff of Emo was taught how to train farmers in good crop management skills

NICHE

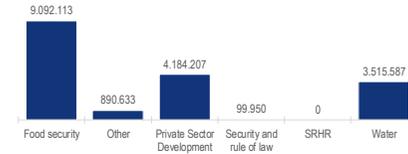
Staff training (# students)



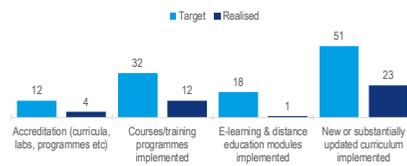
Staff Training



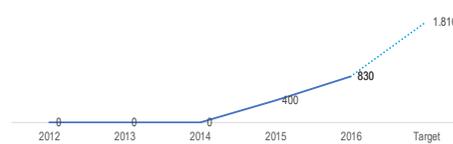
Policy Themes (EUR)



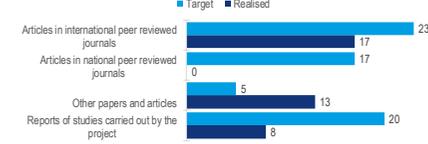
Education and Training Development



Students attending newly developed course



Publications

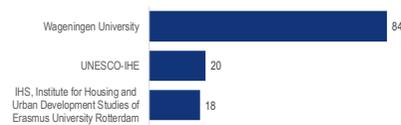


NFP

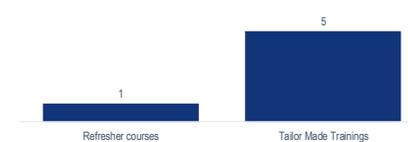
Individual scholarships



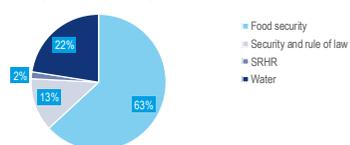
Top 3 Dutch institutions (# scholarships)



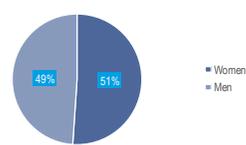
Group trainings



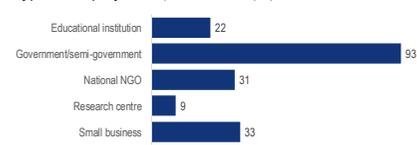
Policy Themes (# scholarships)



Women / men



Type of employment (# scholarships)

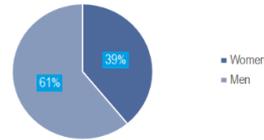


NICHE

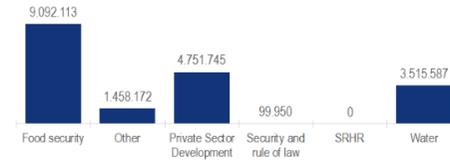
Staff training (# students)



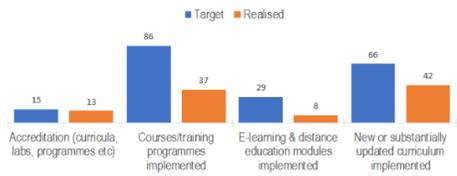
Staff Training



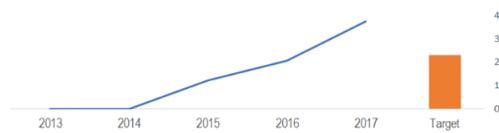
Policy Themes (EUR)



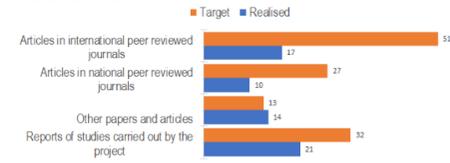
Education and Training Development



Students attending newly developed course



Publications



NFP

Individual scholarships



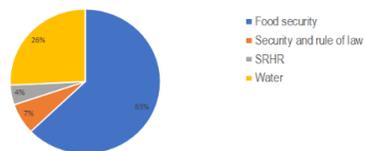
Top 3 Dutch institutions (# scholarships)



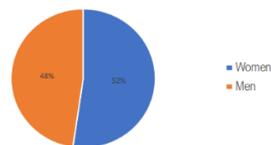
Group trainings



Policy Themes (# scholarships)



Women / men



Type of employment (# scholarships)

