# **End Review of the "Entrepreneurship Development of the Youth"**

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Espen Villanger, CMI with contributions from Merima Ali, CMI, and Alberto X. M. da Barca, Consultant

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# **Final Report**

Espen Villanger, CMI with contributions from Merima Ali, CMI, and Alberto X. M. da Barca, Consultant

# TABLE OF ACRONYMS

ADIPSA	Support for Development of Private Initiative in the Agrarian Sector
CAPE	Academic Community for Entrepreneurs Practices
CTA	Confederation of Economic Associations
CMI	Chr. Michelsen Institute
DANIDA	Danish International Development Agency
DINES	National Directorate of Secondary Education
DPEC	Provincial Directorate of Education and Culture
ECP	Entrepreneurship Curriculum Programme
GoM	Government of Mozambique
INDE	National Institute for Development of Education
ILO	International Labor Organization
MINED	Ministry of Education
NCG	Norwegian Consulting Group
NOK	Norwegian Kroner (Norwegian Currency)
NORAD	Norwegian Agency for Development Co-Operation
NTWG	National Technical Working Group
OECD - DAC	Organization for Economic Co-Operation and Development –
	Development Assistance Committee
PTWG	Provincial Technical Working Group
ToR	Terms of Reference
TWG	Technical Working Group
UNIDO	United Nations Industry Development Organization
UP	The Pedagogical University

# **1. Executive summary**

### **Overview of the project**

The UNIDO has been supporting the Ministry of Education (MINED) in Mozambique in providing assistance for the introduction of the Entrepreneurship Curriculum Programme (ECP) under the UNIDO project "Entrepreneurship development for the youth". The main objective of the UNIDO assistance has been to "develop human resources with practical productive skills that will contribute to sustainable and broad growth of small and medium enterprises with improved productivity". The project started in 2007 and was funded by the Government of Norway with a total of NOK 16 million.

The main activities of the project have been:

- developing and making available the subject documentation and materials,
- organizing and financing the training of secondary in-service teachers that will teach the entrepreneurship course in accordance with the National Institute for the Development of Education (INDE) phasing-in in plan,
- training the staff who will take over the training of teachers and
- developing the monitoring of the course.

The project also trained the Technical Working Groups (TWG) in INDE and in the 11 Provincial Directorates of Education and Culture (DPECs) in supporting and monitoring of the project.

The organization of the project and the responsibilities of different units have been as follows:

The Steering Committee includes representatives from UNIDO, INDE and the Norwegian Embassy and meets and makes key decisions as necessary, organized by UNIDO Project Office.

The UNIDO Project Offices organize and implement the assistance in accordance with the Project Document and work plans as decided by the Steering Committee.

**The Implementing Counterpart, INDE** has the leading role in institutional coordination both with respect to the UNIDO support and the roll-out of the ECP. INDE ensures the implementation of the ECP and refining of the relevant policies.

The National Technical Working Group (TWG), which is hosted by INDE is responsible to monitor the progress of the project.

**The Pedagogical University (UP)** produces three year Bachelors and four year Licenciate that qualify graduates for positions as secondary school teachers. A short general entrepreneurship course (48 hours) intended to prepare candidates for teaching the entrepreneurship course is also conducted.

### **Objectives and methodologies of the review**

An evaluation team organized by CMI conducted the end review from August to October 2013 (see ToR in Annex 1). The following output indicators are used by the evaluation tem to evaluate the project.

- 1. National standard entrepreneurship teaching materials and instructor's manuals designed
- 2. Capacity of instructor-training institutions developed to produce the ECP instructors
- 3. Capacity of teachers developed to effectively teach entrepreneurship
- 4. Operational provincial technical working groups and schools to monitor and manage the ECP implementation.

5. Entrepreneurship course has been successfully introduced in all secondary and selected secondary schools

The aim of the review is to establish the relevance, effectiveness and sustainability of the entrepreneurship project and provide an overview of the literature on entrepreneurship development and recommendations for future strategies of the Government within the area of employment and job creation for youth.

The review applies the OECD-DAC Quality Standards for Development Evaluation and the OECD-DAC Criteria for Evaluating Development Assistance. The review makes use of a mixed methodology by relying on semi-structured interviews with relevant stakeholders and triangulating the findings from interviews with results of a document review and a results chain assessment (theory of change).

Review of the intervention logic applies a standard results chain approach that involves detailed mapping of what resources have been made available for the project (inputs), what these resources have been used for (activities), what these activities have produced (outputs) and how these outputs will result in impacts (higher level goals). This is used to assess the results of the project as specified by the project's output indicators outlined above but also in relation to other outputs that emerge from the result mapping. Desk review of project specific documents and country and context level information are further used to support the review of the intervention logic and for preparing the survey instruments used for interviewing stakeholders.

The data collection from interviews took place in three provinces – Maputo city, Nampula, and Sofala – covering the three main cities in those provinces (Maputo, Nampula and Beira) together with selected semiurban and rural areas. During 20 days of fieldwork in the three provinces, a total of 20 schools were covered out of the overall population of 331 schools in Mozambique that have received assistance through the project as of August, 2013. Interviews with school directors, ECP teachers and students were conducted. In addition, samples of all the most important stakeholders have been interviewed in the three provinces, including UNIDO project staff, the government counterparts and officials involved and the Norwegian donor's representatives.

In addition to these, the review includes a synthesis of the research literature on entrepreneurship development that provides policy implications and inputs for future development strategies of employment generation especially for the youth in Sub-Saharan Africa with similar labour market, education policy and demographic structure as Mozambique.

### Main findings of the review

The entrepreneurship courses are taught in 9<sup>th</sup> and 10<sup>th</sup> grade and are compulsory for all students in the general secondary schools and in the technical/vocational schools basic cycle. In general secondary 11<sup>th</sup> and 12<sup>th</sup> grade and in technical/vocational middle cycle the entrepreneurship courses are not compulsory and students may be allocated to other courses. Teaching is intended to be practical with exposure to real private sector operations and application of contents in business, community or school context. During a year, the courses are to be taught two lessons (90 minutes) a week in addition to four lessons (180 minutes) of practical activities. The latter is intended to expose the students to the world of business by visits to banks and companies, lectures by local entrepreneurs and business owners, games, group work, seeking out local business opportunities and the organisation of fairs where students engage in commercial activities. It is compulsory for students to prepare a business plan and the evaluation of their plan will be one component in the assessment of final graduation in the course in 10<sup>th</sup> grade.

Until August 2013, a total number of 128,000 students have graduated from the entrepreneurship subject both from the 10th and 12th grades. Moreover, half a million students have taken the course and 331 schools

are offering the ECP. Around 1,700 teachers nationwide have been trained to teach the subject so far, and 255 instructors of the UP campuses are trained to train pre-service teachers.

Despite these results, there were several challenges faced by the UNIDO in supporting the implementation of the ECP during the 6 years. Some of the challenges include lack of MINED budget for producing the teaching and student's materials; challenges in getting the UP to deliver candidates for teaching; unreliable and changing figures on the number of schools that should be included and the number of teachers to be trained; and a substantial upgrading of material and a shift in teaching and learning methods that were initiated in 2009, almost halfway through the project period.

The review team has made the assessment of the UNIDO project on its relevance, effectiveness and sustainability by putting into consideration the above challenges faced in the implementation of the project.

### 1. Relevance of the project

The relevance of the UNIDO project is assessed by analysing the extent to which the project suites the needs, priorities and policies of the target group (students) and the recipient government.

The team finds that the project's objectives are directly aligned to the Government's objectives and policies of both the education sector in general and employment creation in particular. Employment creation is one of the main development challenges of the country, where job creation in micro, small and medium enterprises is firmly embedded in the current Poverty Reduction Strategy of the country. Moreover, the UNIDO project also responded directly to the Strategic Plan for Education 2000-2005, which aimed to help the young that would end up in self-employment and to create capacities within the general education system to foster entrepreneurship.

The UNIDO project is also assessed based on its relevance for the learning attainment of the target group, i.e. the students. The team's review of the entrepreneurship development literature reveals that short term entrepreneurship courses (that usually last for one week) have little or no impact on actual learning of students. The UNIDO project, on the other hand, has contributed to a substantial entrepreneurship learning trajectory with four years of duration, initially six and four hours in the first and second cycle. The assessment of the curriculum also showed that it is broad and covers many relevant aspects of entrepreneurship. Interviews with school directors, teachers and students further confirmed the importance of ECP for the future of the students.

 $\Rightarrow$  All in all, the review team gives the UNIDO project high score on the relevance criteria.

### 2. Effectiveness of the project

The effectiveness of the project is assessed based on the degree to which the program's objectives were achieved and by analyzing the main factors that were responsible for the actual accomplishments. This was done for all the five outputs of the project outlined above.

*Output 1: The national standard entrepreneurship teaching materials and instructor's manuals designed and distributed:* The review team finds that the official and formal requirements for establishing the entrepreneurship course as a subject with equal status as the other subjects in secondary education is in place. The curriculum has also been approved by the parliament in the same way as the other curriculums of secondary education and the teaching materials have been designed in a suitable way for secondary education with substantial documentation and guidelines. With regard to the distribution of the teaching and student's materials, the lack of MINED budget to produce enough materials has resulted in limited availability of materials at schools for proper utilization both by teachers and students.

*Output 2: The capacity of teacher-training institutions developed to produce qualified ECP teachers:* Although the responsibility of training ECP teachers was given to the university (UP), the implementation of this has lagged for various reasons outside of UNIDO's control. Moreover, there is no specialization in entrepreneurship for the students at the UP and both the time devoted for teaching students and the preparations of the teachers was not sufficient for the requirements of the ECP curriculum. In general, the project was not successful in establishing the appropriate system for ensuring qualified ECP teachers to teach the ECP in the schools, but this stems from the general challenges of the education system in Mozambique and needs to be addressed at that level.

*Output 3: The capacity of teachers developed to effectively teach entrepreneurship:* The review team finds that although the basic capacity building of teachers have taken place, there were some shortcomings. The current capacity building is limited to a one week course of in-service teachers, usually conducted by the UNIDO project team with TWG members' ring-side. Moreover, even if the courses have been conducted, there were signs that the quality of the teaching was not in line with the standards. Much of the supplementary material was also not in use by teachers and students. Many of the teachers also complained that they did not understand parts of the syllabus. Despite these shortcomings, the UNIDO project still gets a good rating due to the fact that it is a MINED budget issue how much to spend on such capacity building and the fact that the initial design aimed for three times longer training of in-service teachers.

*Output 4: Operational provincial technical working groups and schools to monitor and manage the ECP implementation:* The provincial TWGs seem to have limited capacity to monitor and manage ECP implementation for a number of reasons. TWG members are often not instructors/teachers but administrative personnel without teaching experience, or they have teaching experience at an insufficient level. None of the TWG staff interviewed had any relevant specialization for the entrepreneurship subject and were merely trained on the issues during a week or two. Moreover, none of the TWGs had any budget to conduct training and they stated that it would thus not be possible to continue training after the UNIDO project closure. In addition, the TWG staff interviewed did not show a proper knowledge of the ECP implementation in the schools they were supposed to monitoring and support.

*Output 5: The entrepreneurship course has been successfully introduced in all secondary and selected secondary schools:* The ECP course was given to 331 schools out of the 650 schools that existed at the time of the end review. The number of schools covered under the project far exceeds the 188 schools that were initially planned to be covered in the project document due to the rapid expansion of schools in the country. The review team finds that the teaching is not conducted as intended in many of the schools where the ECP has been introduced. For example, according to project documentation, it was found that the share of students not attending examination was quite high – between 20 and 36 percent during the first years, although interviews with teachers suggest that the share of students who passed in the subject was higher for the entrepreneurship courses than the other courses taught. In addition, the responses from the interviews showed that most of the ECP tools such as notions of entrepreneurship cabinet, courier box, and monitoring and evaluation system were mostly not in use in schools. During the school visits, the review team also found that there were no visits to economic activates as part of the learning process due to either lack of budget to cover transportation cost or lack of time to include the practical side of the education due to the reduction of hours per week for the ECP course.

Summing up, the UNIDO project has added substantial value to the implementation of the ECP. Most of the requirements for success are in place for a well-functioning subject. Nevertheless, the final efforts to get the course to work as intended and implement a permanent institutionally sound solution to ensure well-qualified teachers are the main outstanding issues. The project was designed in a satisfactory way despite the fact that it was too ambitious. The UNIDO experience should be transferred to pedagogical technicians, and other officials specialized on education and school management.

 $\Rightarrow$  All in all, the review team concluded that UNIDO projects scores high on effectiveness.

### 3. Sustainability of the project

The fact that the UNIDO project has managed to get the entrepreneurship course approved as a subject in secondary education and the well-developed teaching and student's materials that are available electronically provided the foundation for the sustainability of the ECP course in secondary education. Moreover, the course is very popular among teachers, students and parents. Ownership of the program within the school in general also seems to be strong and the school directors are supportive. However, school budgets are reported to be very constrained and the ECP is a likely candidate to suffer from budget cuts. Lack of budget also prevented the duplication of teaching materials. Political commitment in the MINED also seems uncertain, where they pointed out the ECP course as one of the reasons for deteriorating marks of students in other subjects. This could definitely be an unintended impact, and if true, or if it becomes "an established truth", this could threaten to undermine the whole project.

 $\Rightarrow$  All in all, the UNIDO project gets a medium score on sustainability.

### Recommendations

The review report highlights the following recommendations to different parties; UNIDO, MINED and Donors.

In order to continue the roll-out and current momentum, UNIDO should develop a detailed expansion plan (schools, teachers, materials, budget); develop together with MINED a strategy to provide teaching and learning materials in a way that teachers and student will actually make use of those resources, initiate experience sharing across countries on the results of teaching entrepreneurship in secondary education; make the knowledge generated available for a wider audience and publish the documentation on the web.

MINED should also develop a detailed expansion plan to continue widening the coverage of ECP. For this, it is important that MINED earmarks a budget for in-service teacher training and a budget should be allocated for ensuring teaching and student materials are made available in new schools and are distributed at an affordable cost. Moreover, the capacities of TWGs has to be strengthened in order for them to undertake their responsibilities and MINED has to work with UP and other teacher training institutions to ensure the provision of qualified teachers for reaching entrepreneurship. Moreover, it is important for MINED to develop a strategy to ensure that candidates that specialize in teaching secondary schools are actually employed in secondary schools.

In order to cater for the practical parts of the ECP course, the number of hours thought should follow the initial design of 60/40 for practical and theoretical courses. The budget for the practical activities should also be made available to schools. MINED, together with UNIDO, should also work to refine the selection of teachers to make sure that teachers with the right interest and basic qualification for teaching the subject are selected for training. The teachers teaching the ECP also need refresher trainings both on content and methodology.

The ECP clearly requires a Phase II of support in order to function properly and to ensure the integration of the project into the relevant institutions. For this, it needs a clear financing plan that ensures donor exit and recipient take-over. This is urgent in order to maintain what has already been achieved and could counter the negative views related to decreasing grades in secondary education. In order to maximize the sustainability and the results of the funding, the donor should continue to follow up the implementation of the ECP through requesting progress reports, assessment and give feedback to main stakeholders. Given the

importance of employment creation for the youth, the donor could consider funding a new project focusing on supporting growth-oriented entrepreneurship development and with a clear target on the creation of jobs.

# **2. Introduction**

The UNIDO has been supporting the Ministry of Education (MINED) in Mozambique in providing assistance for the introduction of the Entrepreneurship Curriculum Programme (ECP) under the project "Entrepreneurship development for the youth". The project started in 2007 and was funded by the Government of Norway with a total of NOK 16 million. It was anticipated to be finalized in September 2013 and an end review was therefore commissioned by Norad in mid-2013. An evaluation team organized by CMI conducted the review in August and September 2013 and this report presents the main work and findings in accordance with the ToR for the assessment (Annex 1).

An overview of Mozambique's development trajectory during the last decade indicates that there are several factors suggesting that stimulating entrepreneurship may be an important instrument in the country's development strategies. Although the economic growth has been high for many years, it has primarily been based on natural resource extraction, energy intensive manufacturing, and public sector investment projects like building schools, roads and power generation/ supply - all of which do not create much employment in relation to the capital invested.

High real unemployment and underemployment are increased by the demographic structure where large cohorts of youth enter the labor market while the cohorts of the retirement age are relatively small. Moreover, the investment in education has led to a situation where almost ten times more students are enrolled in the first cycle of secondary education in 2009 as compared to 1998 (Rebelo and Jørgensen 2010). As the job creation rate has not been anywhere near such a growth, most of the youth graduating from secondary education will not get salaried employment. Starting microbusiness may be the most appealing alternative and the dire need for non-farm employment suggests that entrepreneurship development could be important. Moreover, the continuous economic growth (8.5% in 2012) is an additional factor contributing to the relevance of entrepreneurship development since growing demand and economic activity in many areas in the country leads to economic opportunities for Mozambican entrepreneurs.

The main aim of the review has been to establish the relevance, effectiveness and sustainability of the UNIDO assistance. The donors expect that the Mozambique Government will fully take over the process of finalizing the introduction of Entrepreneurship Curriculum Programme in all secondary and technical/vocational schools. Hence, the sustainability of the project and the likelihood of its continued improvement and expansion have received particular attention during this review.

Moreover, the review provides lessons from the general literature on entrepreneurship development and recommendations for future strategies of the Government within the area of employment and job generation for youth. The empirical evidence that the assessments and conclusions are based on was collected through interviews with school directors, ECP teachers and students together with available project data, project reviews and project documentation (progress reports etc.). Moreover, during 20 days of fieldwork in three provinces in Mozambique samples of all the most important stakeholders have been interviewed including UNIDO project staff, the counterpart governments' involved officials and the Norwegian donor's representatives. A list of persons interviewed is presented in Annex 3.

Due to the limited time available for the review, only a small number of schools have been covered relative to the overall population of 331 schools that have received assistance through the project as of August 2013. Although both rural and urban general and technical-vocational schools in three different provinces have

been included, the schools selected are probably not representative for the overall population as travel time put restrictions on which schools were available for review. Hence, the likely influence of sample selection on the conclusions, and it implications, are also discussed.

Another limitation of the methodological approach is that much of the information comes from interviews with stakeholders of the project who has an own interest in providing a positive picture of the situation. This challenge received particular attention during the design of the survey instruments and during the selection of the stakeholders for interview and has been kept in mind when interpreting the responses to questions and statements in project documentation.

Taking the limitations and the mitigating measures into account together with the validation approach, the review provides useful insight into the relevance, effectiveness and sustainability of the project and the likelihood that the project will generate impacts as envisaged in the project documents. Moreover, the findings provide some clear recommendations for future policy in the area of youth employment and job creation.

# 3. Methodology and review design

The methodology of the review reflects the aim of providing sufficient empirical evidence to assess the relevance, effectiveness and sustainability of the entrepreneurship project, assess the program logic and provide an overview of the relevant research in the entrepreneurship development area. This review applies the OECD-DAC Quality Standards for Development Evaluation and the OECD-DAC Criteria for Evaluating Development Assistance (OECD-DAC 2010).

There are many diverging opinions about what entrepreneurship entails and who the entrepreneurs are, and this could influence the review of the "Entrepreneurship Development of the Youth" to such an extent that a clarification is useful.<sup>1</sup> An entrepreneur is defined by Merriam-Webster Dictionary as "someone who manages, organizes and assumes the risk of a business or enterprise". Other definitions would often add the innovative aspect and focus on innovation in the business realm - especially on starting up a new business or developing new products. However, there is also a broader understanding of being entrepreneurial that can apply to employees – a certain mind-set where the person is being innovative, searching for new ideas that can benefit the company, being creative and taking ownership of particular components of the company.<sup>2</sup> In order to capture the logic of the UNIDO project, both definitions need to be kept in mind, and we return to this point below.

### **Review of the intervention logic**

The review of the intervention logic will be conducted by using the Project Document to assess the results chain as defined in the design phase (i.e. the theory of change of the project) and discussed in relation to the design changes that have occurred during the project implementation. These changes are documented in the Project Progress Reports. The approach entails to apply a standard results chain to review the intervention logic of the UNIDO project - a mapping of all the main inputs and activities to understand the potential output of the project and the likely outcomes and impacts.

<sup>&</sup>lt;sup>1</sup> There is a research literature on defining "entrepreneurship" and "entrepreneurs", see for example Gartner 1990:

<sup>&</sup>quot;What are we talking about when we talk about entrepreneurship?", Journal of Business Venturing, vol. 5(1). <sup>2</sup> See for example "Defining Entrepreneurship Activity", available at <u>http://www.oecd.org/industry/business-</u> <u>stats/39651330.pdf</u>, or, in Norwegian, Spilling and Johansen 2011, available at

http://ue.aws.nxc.od.ua/content/download/3718/36829/file/Perspektiver%20og%20begreper.pdf.

This structure will then be used to assess the results of the project as specified by the project's output indicators outlined above, but also in relation to other outputs that emerges from the review. A desk review of project specific documents, country and context level information has been conducted in a way to support the review of the intervention logic and for preparing the survey instruments used for collecting empirical evidence (for the list of project relevant documents in Portuguese that have been reviewed, see Annex 5).

### **Collecting empirical evidence**

The empirical part of the results assessment is designed for collecting evidence on whether the outputs have been delivered in accordance with the written agreements and whether the program has worked as intended. As agreed with Norad, any considerations on outcomes or impacts will be based on stakeholders' views and likely changes as no rigorous approaches or measurement is feasible within the frame of this assignment. Documenting the outputs is nevertheless a useful approach as outputs of a sufficient quality are necessary conditions for delivering on the outcomes and impacts.

The review made use of a mixed methodology relying on semi-structured questionnaires for interviewing relevant stakeholders and the findings have been triangulated with the results of the document review and the logical assessment (theory of change). General discussions about some of our working hypotheses were coupled with guiding questions of varying detail developed specifically for each category of interview objects while other interviews were conducted through a more open discussion about the main issues (see Annex 2 for the questionnaires used). The initial part of the field work was conducted in a way to test the survey instruments, and subsequent revisions were conducted during the initial days of data collection.

We interviewed UNIDO project managers and project staff, involved staff from the Mozambique Government (Ministry of Education: National Directorate for Secondary Education, National Directorate for Teacher Training, National Institute for Development of Education), the Pedagogical University, the Norwegian Embassy, private sector representatives, pedagogical directors, ECP teachers and students (see Annex 3 for a list of people interviewed). The data collection took place in three provinces – Maputo city, Nampula, and Sofala – covering the three main cities in those provinces (Maputo, Nampula and Beira) together with selected semi-urban and rural areas. A total of 14 schools were covered (see Annex 6 for the names of the schools, locations and the date when they started ECP).

The selection of schools for the visits was done in two phases. During the first phase, the UNIDO project team selected six schools (in Maputo city and Sofala) and arranged the visits. In the second phase of the field work, we requested a list of ECP schools in the third province under scrutiny (Beira) and we selected randomly schools that were within a reasonable distance from the main city. The selection approach ensured the review team to cover a wide range of schools, both schools that had been included from the beginning in 2007 and schools that started later – in 2010 (see Annex 6). Many of those selected by UNIDO have received particular follow-up and our interpretation of this sample is that it could inform us about how the project would work with a close follow-up and support. In contrast, the random sample of schools would inform us about how performance would be under the standard support system of the Ministry of Education in conjunction with the ordinary UNIDO project support.

The empirical strategy to use schools as one of the prime units of investigation also has some disadvantages. The small sample of schools, the particular selection approach and the lack of coverage of most regions suggests that the results from the schools assessment should be taken as indicative and not as a representative picture of the situation. This review was never intended to provide a representative picture of the degree to which the schools have implemented the ECP. Moreover, the school assessment is only one part of the empirical foundation for the study. In a larger evaluation, one would select a representative sample of the schools that have introduced the ECP. With the resources available for this review it was necessary to limit the number of schools to what can physically be covered during the days available for field work.

The results assessment of the UNIDO project is facilitated through backward induction. Backward induction is a method where reasoning backwards in time from the final outcome or output to the previous step all the way to initiation will reveal the sequence of actions that led to the result of interest. The approach entails to start with assessing the result, in our case the outputs of the UNIDO project, and then tracing backwards in the results chain to assess how the outputs have been produced or the reasons for why they have not been produced. To exemplify in our setting: If the UNIDO project has been successful in achieving the aim of introducing the entrepreneurship subject in the secondary schools in Mozambique, then we should be able to observe the main outputs in schools that have been reported to introduce the subject: In any school where the entrepreneurship course has been successfully introduced as determined by the project data, we should be able to verify whether there is an adequate number of teachers with the required training, teaching the required courses, undertaking the required workshops/enterprise visits, the physical presence of the teachers' teaching material and the students' learning material etc. Then we look one step back to see what contributed to the different outputs, i.e. to assess the activities. Finally, we assess the initial phase and discuss how the planning and design led to the results.

There are two main implications that can be drawn from applying backward induction. First, the degree of success in delivering the outputs will indicate the degree to which the project has potential for achieving the outcomes. Second, if there are insufficient outputs produced, the approach can distinguish between project failures and outside factors and draw implications for project design (how it should have been designed, and how future projects should be designed). Based on the backward induction methodology, emphasis has been on covering different schools in different areas to collect experiences and suggestions for improvements from those who are closest to the delivery of outputs in the results chain.

The development of the guiding questions in Annex 2 has benefited from the initial document review that synthesizes the relevant information from the project specific documents, research on entrepreneurship development, country and context specific (vocational education, job creation, youth unemployment etc.). In addition, the questionnaires have benefited from our previous development and application of such instruments and they also build on the guiding questions in Annex 1 of the ToR. Some of the issues are reserved for the general discussion with the interview objects, so the guiding questions should not be taken as exhaustive of the issues addressed during the interview.

### **Review of the entrepreneurship literature**

In addition to the reviews of the country relevant documents (Section 5, below) and the review of the project documents, the review team provides a synthesis of the research literature on entrepreneurship development in Annex 4. This part has a specific focus on the literature with clear policy implications. Hence, it provides inputs to the future development of strategies for employment generation - especially for the youth in Sub-Saharan countries with a similar labor market, education policy and demographic structure as Mozambique.

The implications and findings from the triangulation of the results from the different methodologies applied in this review provide a sound analytical basis for lessons learnt and the recommendations for the Government's next steps under entrepreneurship support and job generation.

# 4. Country and project context

Mozambique is making steady progress in key human development areas and is likely to achieve 13 of the 21 Millennium Development Goals according to the latest Progress Report. Massive investment in education, health, transport and infrastructure resulted in progress across a range of non-monetary poverty indicators. Progress in education has led to a significant increase in enrolment and attendance rates over the past decade. Although economic growth continues at robust pace, poverty has remained unchanged for the

past six years, with over 55 percent of the population living below the poverty line. Slow growth rates in agricultural productivity (especially food crops), weather shocks affecting the harvests and an increase in international food and fuel prices have contributed to this stagnation. In order to counteract these negative trends, state allocations to social protection have continued to rise and it was expected to increase from \$37 to \$58 in 2013.

Mozambique now ranks among the top ten fastest growing economies in the world, with seven percent growth recorded over the last decade, and a continuing high growth rate predicted for the next decade. The country has recently attracted significant foreign direct investments with the discovery of vast natural resources, including coal, natural gas and other minerals. The government has recently approved the National Basic Social Security Strategy and the third Poverty Reduction Strategy (PARP) that attribute high importance to basic social security as a means to contribute to human and social development.

The ECP and the UNIDO project originates from the poverty-employment situation of the country coupled with the large youth cohorts entering the labor market. The concrete initiation stems from a workshop on experiences of entrepreneurship development in Uganda in 2003 that resulted in the MINED decided to pilot the curriculum (Project Document, p.7). The Provincial Directorate of Education and Culture (DPEC) in Cabo Delgado province established a technical working group (TWG) to adapt the Uganda curriculum, textbooks and teachers' manual to the local conditions and initiate a pilot. This work was nurtured by UNIDO and formally supported by them under the project "Micro and Small Scale Industry Development in Cabo Delgado Province (TF/MOZ/01/001)" from October 2004 to April 2005.

The piloting started in April 2005 in 4 schools with around 600 students. In May 2005, the officials of MINED and DPEC visited Uganda to learn technical aspects of designing, introducing and monitoring the curriculum. The TWG observed the pilot experiences in Cabo Delgado and concluded that the students had acquired positive and proactive attitudes towards the private sector businesses. Moreover, it was also stated that the students had acquired skills to identify business opportunities in their environment and were enabled to turn the identified opportunities into business operations within their means to access resources.

Based on the positive views of the school authorities, instructors, students, their families and the private sector representatives, MINED and DPEC decided in December 2005 to add four more schools with two more rural districts of Chiure and Montepuez in Cabo Delgado province onto the pilot programme. This increased the number of students of the ECP to around 2,600 per year in that initial phase. On the donor side, DANIDA contributed to the development of teaching material through ADIPSA-Cabo Delgado. Furthermore, MINED decided to expand the pilot operation to all provinces. This happened in anticipation of a formal approval and introduction of an entrepreneurship curriculum in secondary schools and vocational schools in Mozambique as a part of the on-going curriculum reform. The pilot provided key lessons and spurred the parties to develop the ECP with the support mechanism embedded in "The Entrepreneurship Development for the Youth" program. Moreover, UNIDO has experience from similar projects in other countries that have benefited the work in Mozambique; in Timor-Leste, Namibia and Nicaragua in addition to the already mentioned Uganda project.

# 5. Project description

**The main activities** of the project "Entrepreneurship Development of the Youth" consists of assistance to the Mozambique Government through the Ministry of Education and related institutions especially the National Institute for the Development of Education – INDE) for developing and implementing the

Entrepreneurship Curriculum Program (ECP) in all secondary schools and vocational schools in the country and ensure capacity is developed for its continuation. The main activities financed have been to contribute to the development and making available the subject documentation and material, organize and finance the training of secondary in-service teachers that will teach the entrepreneurship courses in accordance with the INDE phasing in plan, train the staff who will take over the training of teachers (National Technical Working Groups and provincial Technical Working Groups, all under INDE) and developing the monitoring of the course. The project also trained the Technical Working Groups in INDE and in the 11 Provincial Directorates of Education and Culture (DPECs) in supporting and monitoring of the project. In addition to the direct costs of financing these activities, the project has covered the costs of three UNIDO project offices (staff, vehicles and equipment and running costs) in the three main cities of Mozambique (Maputo, Beira and Nampula) with one international team leader, 5 national specialists and 3-4 secretaries/monitoring specialists.

The main structure of the project has been as follows:

- The Steering Committee with representatives from UNIDO, INDE and the Norwegian Embassy meets and makes key decisions as necessary, organized by UNIDO Project Office.
- The UNIDO Project Offices in Nampula (head office), Maputo and Beira organize and implement the assistance in accordance with the Project Document and work plans as decided by the Steering Committee.
- The Implementing Counterpart, INDE, has the leading role in institutional coordination both with respect to the UNIDO support and the roll-out of the ECP, ensuring implementation of the ECP and refining the relevant policies. The National Technical Working Group is hosted by INDE and consists of representatives from all involved MINED departments. This structure is mirrored in the eleven provinces with Technical Working Groups based in the Pedagogical Departments of the DPECs. These provincial TWG leads the same processes in their respective province and monitors the progress. Among the teachers teaching entrepreneurship, one is chosen as the subject head with responsibility to receive and keep all material submitted to the school.
- The Pedagogical University (UP) produces three year Bachelors and four-year Licenciate that qualify the graduates for positions as secondary school teachers. The Comunidade Academica de Praticas Empreendedoras (CAPE) within the UP has included a short general entrepreneurship course (48 hours) intended to prepare candidates for teaching the entrepreneurship course and there has been efforts to develop a Minor in entrepreneurship (around 200 hours).

A key output indicator is that by the end of the project, Entrepreneurship Notions will have been successfully introduced in all schools throughout the country (Project Document, p.11).<sup>3</sup> The following output indicators are outlined in the ToR for the review of the UNIDO project, summarized in Table 1 below.

Table 1. Key output indicators as specified in the ToR for the End Review.

Output Output indicators
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<sup>&</sup>lt;sup>3</sup> It is stated that the number of First and Secondary Level Education schools in 2005 were 188 (Project Document p. 5).

National capacities established for the introduction and implementation of the discipline Entrepreneurship Notions in the National System of the General Secondary Education and the Technical, Vocational and Professional Education.	<ol> <li>National standard entrepreneurship teaching materials and instructor's manuals designed</li> <li>Capacity of instructor-training institutions developed to produce the ECP instructors</li> <li>Capacity of teachers developed to effectively teach entrepreneurship</li> <li>Operational provincial technical working groups and schools to monitor and manage the ECP implementation.</li> </ol>
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**The main counterpart** for the UNIDO project is the Ministry of Education, through the National Institute for Educational Development (INDE) and the National and Provincial Directorates of Education in Mozambique.

**The budget** as stated in the Project Document (p. 23) from 2007 is as follows:

Project Budget (USD and share of total)			
Technical Assistance	677 000	32%	
Support Staff	242 000	12%	
Vehicles and Equipment	163 000	8%	
National Consultants	514 000	25%	
In-service training/workshops	320 000	15%	
Running costs	180 000	9%	
Total	2 096 000	100%	

Table 2. Project budget as stated in the Project Document 2007.

In addition, UNIDO received 11 per cent as overhead so the total amounts to approximately USD 2.3 million.

**The entrepreneurship curriculum.** Since the UNIDO project aim has been to support the introduction of the ECP, a key output indicator is the actual functioning of the courses in the schools. Thus, a brief description of the curriculum is useful to the empirical verification. The entrepreneurship courses that are taught in 9<sup>th</sup> and 10<sup>th</sup> grade are compulsory for all students in the general secondary schools (1<sup>st</sup> cycle) and in the technical/vocational schools (basic cycle). In general secondary 11<sup>th</sup> and 12<sup>th</sup> grade (2<sup>nd</sup> cycle) and in technical/vocational (middle cycle) the entrepreneurship courses are not compulsory and classes may be allocated to other courses.

Each of the grades has a specific manual for teachers and an adjoining text book for students. Teaching is intended to be practical with exposure to real private sector operations and application of contents in business, community or school context. The courses aims at promoting the development of entrepreneurial skills and to equip the youth with the necessary tools to identify business opportunities in their community and to elaborate business plans in order to start up their own business activity. A specific template is developed to facilitate the students work to develop their own business plans.

During a year, the courses are to be taught two lessons (90 minutes) a week in addition to four lessons (180 minutes) of practical activities. The latter is intended to expose the students to the real world of business by visits to banks and companies, lectures by local entrepreneurs and business owners, games, group work, seeking out local business opportunities and the organisation of fairs where students engage in commercial activities.

Several tools have been developed to support implementation of the subject, such as Notions of Entrepreneurship Cabinet, a Courier Box, a Monitor System and an Evaluation System. It is compulsory for students to prepare a business plan and the evaluation of their plan is one component in the assessment of the final graduation in the course in 10<sup>th</sup> grade.

The expectations of providing this entrepreneurship education, as stated in the project documents, is to foster the development of a dynamic and innovative private sector which in turn will contribute to employment creation and poverty reduction.

## 6. Project design

### The project design phases

The design of the project originates from a UNIDO project in Uganda aiming to introduce the entrepreneurship curriculum in secondary and vocational schools that ended in 2002. Based on the positive experiences with that project, UNIDO initiated discussions with the Government of Mozambique on implementing a similar program – including inviting them for workshops in Uganda (2003-2005) sharing experiences. Initially it was the Governor of Cabo Delgado province who decided to launch an entrepreneurship curriculum program in his province. According to the UNIDO staff involved at the time there were substantial discussions with the Government and stakeholders about the employment situation in Mozambique and on whether entrepreneurship in secondary education could be an effective instrument in mitigating the challenges. The positive experiences from Cabo Delgado and the fact that the MINED was in the process of an educational reform contributed to the decision to expand the project to the national level.

The documentation of the project design does not include any systematic review of experiences of entrepreneurship in education or available research on the subject.<sup>4</sup> The design seems to originate from a common understanding of the challenges and solutions: The GoM Strategic Plan for Education 2000-2005 specifically aimed to prepare the young for self-employment and stated the need to develop entrepreneurial capacities within the education system. The government had at the time recognized that secondary education was too academic and did not produce graduates with the skills required by the labor market (Project Document, p.5). In addition, including entrepreneurship in education was on the agenda of most of the donors countries at that time (see Annex 4), so the design seems more to be based on the current trend and a shared understanding of what should be done with the employment situation and less on independent analysis of likely benefits of such a program in Mozambique.

In the initial phase of designing the project a pilot in Cabo Delgado generated useful evidence of how the entrepreneurship program could work in practice and what it would take for a technical assistance program to support its implementation. Several of the involved stakeholders pointed out to the review team that the project design benefited very much from the substantial efforts in preparation from 2005 and until formal project start in 2007. The piloting established a TWG and the program was introduced in 6 schools in 2005-2006. These experiences were reviewed by MINED, INDE and DPEC Cabo Delgado and strongly influenced the decision of expanding the ECP and requesting for UNIDO's assistance in implementation.

Another important dynamic in the design is embedded in the project strategy to "create the self-sustaining national capacity that will be able to continue operating and evolving the ECP on their own". In order to

<sup>&</sup>lt;sup>4</sup> However, it is fair to point out that at the time of developing the project, most likely the available evidence and research on entrepreneurship in education were limited due to the fact that these programs were still in its initial phase in most countries (see the literature review in Annex 4).

achieve this, the UNIDO project would take the major role in training the ECP teachers in the initial phase while it would increasingly shift to assist the UP in developing their capacity to train ECP teachers. This design feature reflected the fact that the UP is the institution in Mozambique with the responsibility to educate candidates for secondary teaching positions.

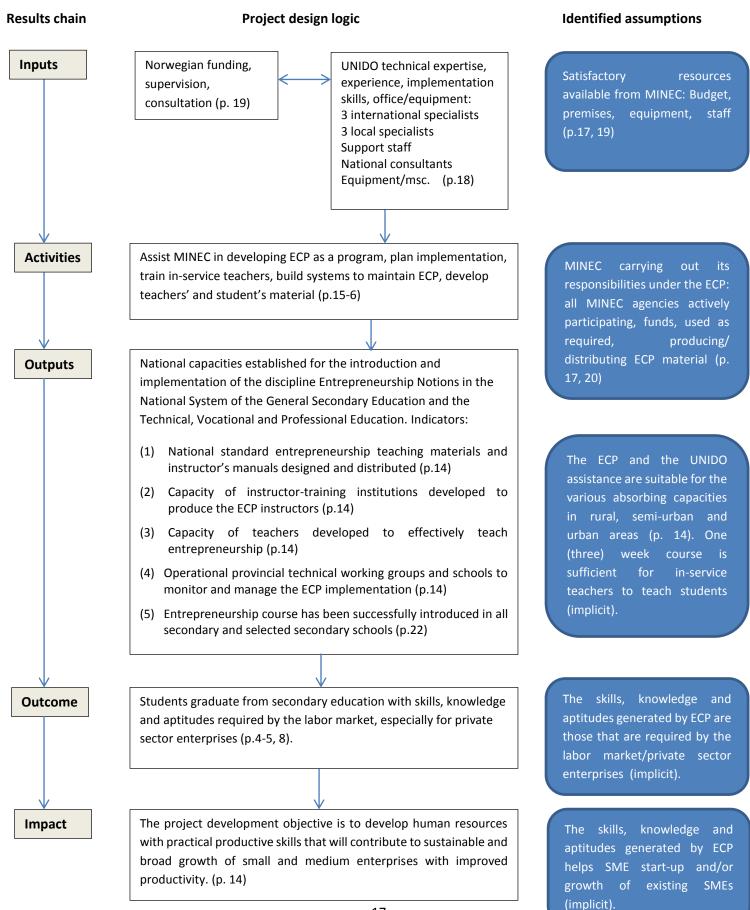
There has been two study visits as part of the learning from others – one early visit to Uganda to visit a similar project and inform initial project design, and a later trip to Brazil aiming to focus on next rounds of entrepreneurship development design and the role of the universities in this endeavor.

#### Project design logic

Taking the project description and the design elements as the starting point, we can systematize the intended project design logic by applying a standard results chain. The results chain is a stylized representation, or a logic model, of what resources has been made available for the project (inputs), what these resources have been used for (activities), what these activities have produced (outputs), what these outputs have influenced and how these outcomes will result in impacts (higher level goals, typically behavior or welfare related indicators). The main objective of the entrepreneurship project as stated in the Project Document would typically be classified as an impact, i.e. the goal to "develop human resource with practical productive skills that will contribute to sustainable and broad growth of small and medium enterprises with improved productivity".

The results chain refers to the causal links from inputs to impacts with regards to the UNIDO project, and not for other contributions. Whenever factors outside the project are required for successful delivery, these are listed under assumptions or explained as outside contributions, see Figure 1 below. Reference in Figure 1 is made to the specific page in the Project Document where the relevant information has been found, and the classification of information follows the OECD/DAC standards and is not necessarily identical to the labeling used in the Project Document. More detail can be found in the Project Document to supplement Figure 1, although that is not necessary to identify the main project logic.

Figure 1. The results chain and the UNIDO project logic.



# 7. Project Implementation

**The actual expenditures** as recorded by UNIDO at the time of the review shows that from the project start in mid-2007 and until mid-2013, the average yearly cost over the six years of implementation has been quite stable around USD 400.000. The detailed breakdown in Table 3 shows a steady activity level commensurate with activities carried out to introduce the ECP. The higher expense on international experts in 2009 arose due to the assistance to UP by an international expert on the ECP curriculum development.

Category	2007	2008	2009	2010	2011	2012	<b>2013</b> (to Aug. 26 <sup>th</sup> )	Total 2007-Aug 2013
International Experts/ Consultants	47 842	88 460	159 920	96 547	101 664	91 592	73 004	659 030
Travel of project staff	8 744	36 027	47 477	14 804	31 015	10 924	6 407	155 399
Other Personnel Cost		6 786	-142	9 826	5 184	-2 260	341	19 736
National Experts/ Consultants	20 044	123 718	131 062	97 150	147 214	148 918	64 809	732 914
Subcontract s		21 915					43 256	65 171
Trainings/ Fellowships/ Study Tours			21 075	44 103	96 645	105 195	49 608	316 626
Non-UNDP meeting	7 242		172	13				7 427
Premises	5 429	0		-2 726				2 702
Equipment	77 504	79 546	-1 880	-51 801		-67	50 582	153 882
Sundries	22 683	64 471	61 239	56 571	50 160	43 263	15 184	313 572
Sum	189 487	420 924	418 922	264 488	431 883	397 563	303 192	2 426 460

Table 3. Project expenditures 2007 to August 2013 in USD.

The shares spent on each category are provided in Figure 2 below:

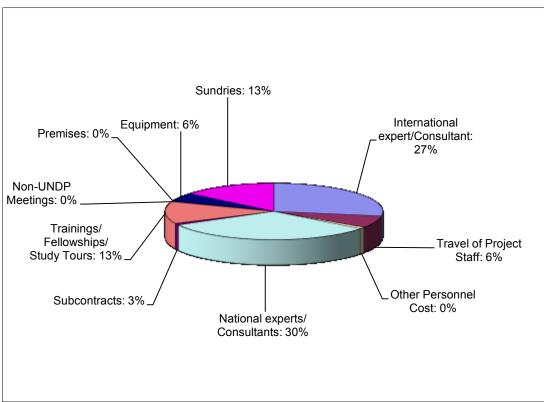


Figure 2. Expenditure by category 2007 to August 2013.

The UNIDO project management has been hands-on and proactive during most of the implementation. Several challenges have occurred during these six years, which is as expected, and these challenges have been handled as they have arisen. Several examples could be highlighted, but to keep it brief we only mention five:

(1) Lack of MINED budget for producing the teaching and student's material induced UNIDO to photocopy and distribute a copy of all the material so that each school would at least have one version that could be photocopied further or shared among the teachers and students.

(2) The challenges in getting the UP to deliver candidates for teaching led UNIDO to continue and expand the in-service teacher training.

(3) Unreliable and changing figures on the number of schools that should be included and the necessary number of teachers to be trained led UNIDO to change work plans to accommodate the much larger numbers than what was planned for.

(4) A substantial upgrading of material and a shift in teaching and learning methods were initiated in 2009 to improve the effect of the ECP (updating training content, including revision of the manual on evaluating/grading the students' business plans and training schools in how to conduct such assessments, produce reference material on key subjects).

(5) The Project Document did not include support to monitoring and evaluation of the ECP, but UNIDO addressed the issue and got acceptance for including that part in the project (Progress Report 2008-2009).

In a USD 2.3 million project aiming to have nation-wide coverage there are clear limitations on how much one can spend to develop a project specific monitoring system. The UNIDO project has relied on basic project data and monitoring has been carried out based on a needs assessment by the project management team. This monitoring and assessments has mainly been documented through the Progress Reports and the

references therein. From 2007 to 2009 there were own-assessments where samples of students were assessed through a qualitative analysis basically finding that the objectives were met.<sup>5</sup> A survey in November 2007 covered 11.300 students provided encouraging results even though the ECP had only been operational for some months and a survey in May 2009 reconfirms that the program is working as intended (some shortcomings are addressed). Moreover, the ECP examination process of 2008 was assessed and shortcomings pointed out.

The first group of youth graduated from a full cycle of ECP in 2008. Until August 2013, a total number of 128.000 students have graduated from the entrepreneurship subject (10<sup>th</sup> and 12<sup>th</sup> grades).<sup>6</sup> Moreover, half a million students have taken the course and 331 schools are offering the ECP. Around 1.700 teachers nationwide have been trained to teach the subject so far, and 255 instructors of the Pedagogic University campuses are trained to train pre-service teachers. The Ministry of Education is at the time of the review conducting an internal evaluation of the ECP.

UNIDO designed the Teacher Training in Service Program with a content that would require 84 hours (11 working days) and the actual teaching of the teachers would be undertaken during a three week period. However, due to financial constraints, the course duration was reduced from to 54 hours and a two week training period and then to 30 hours which was then normally conducted over one week.<sup>7</sup> The contents of the training program for in-service teachers for 54 hours were distributed as follow:

Contents	Hours	%
Teaching entrepreneurship	6	12
Work dignity	5.5	9
Entrepreneurship	4.5	7
Identify opportunity	6	12
Entrepreneur plan (business plan)	10	19
Management methodology	6	12
Lectures (from outsiders)	4.5	8
Others (activities)	4.5	8
Interval	7	13

Table 4. Contents and duration of In-service Teachers Training Program

**The project has focused on the consolidation** in the final phase of the national and provincial capacities by coaching National and Provincial Technical Working Groups in teacher training, teacher onsite support, monitoring and evaluation, consolidating capacities of provincial delegations of the Pedagogical University for pre-service teacher training and implementation of an impact study and consultation process.

<sup>&</sup>lt;sup>5</sup> See UNIDO, Projecto UNIDO/INDE – TF/MOZ/07/003, Relatório de Análise de Resultados Preliminares da Implementação do Projecto, Moçambique, Junho 2007 – Dezembro 2008.

<sup>&</sup>lt;sup>6</sup> The figures are provided by UNIDO. The review team requested detailed information from DINES on several indicators but were only provided with figures up until 2012.

<sup>&</sup>lt;sup>7</sup> Different documents indicate different lengths of the in service teacher training actually conducted: The Progress report 2008-2009 states that it "...is conducted for six full days, consisting of 35-40 hours."

Nevertheless, the push to continue the training of the in-service teachers and expand to new schools has been maintained.

### 8. Assessment

### 8.1 Relevance

The OECD/DAC criterion for assessing the relevance is to establish the extent to which the aid activity is suited to the priorities and policies of the target group and the recipient government.<sup>8</sup> Starting with the broad economic challenges described above, the review team notes that Mozambique recorded a steady economic growth in the post-civil-war period and during the rehabilitation after 1992 the economic growth was inclusive - especially in rural areas. Employment and household livelihoods in non-farm activities increased as a share of the total economy and this growth trajectory has been the major factor behind the large poverty reduction up to 2003 (Fox et al, 2009; World Bank 2011). Taking a birds view of the Mozambique development trajectory during the last decade raises several factors that suggest that stimulating entrepreneurship has been, and continues to be an important instrument in the country's development strategies.

After 2003 the economic growth has been based primarily on natural resource extraction, energy intensive manufacturing, and public sector investment projects like building schools, roads and power supply - all of which do not create much employment in relation to the capital invested. Recognizing the limits the previous trajectory, and the dire need to continue the transformation out of subsistence agriculture and reduce poverty, the Government of Mozambique has developed a new Poverty Reducing Strategy (GoM 2011) in 2011 that focuses much more on job creation in micro, small and medium enterprises. Entrepreneurship development is hence firmly embedded in the overall government strategy.

The large investment in education since the mid-1990s has led to a situation where ten times more students are enrolled in the first cycle of secondary education in 2008 as compared to 1997 (Rebelo and Jørgensen 2010). As the job creation rate has not been anywhere near such a growth, most of the youth graduating from secondary education will not get salaried employment – and developing their own business may be the most appealing alternative. Moreover, investment and productivity gains have lagged in the sectors where the majority of the population is employed (agriculture, small scale services; see World Bank, 2012). This is reflected in a slowdown in the movement of labor out of agriculture since 2003 and limited diversification of household sources of income. There is hence a need to re-vitalize non-farm employment (8.5% in 2012) and increased domestic demand. Hence, an additional factor contributing to the relevance of entrepreneurship development is the fact that growing demand and economic activity in many areas in the country leads to economic opportunities for Mozambican entrepreneurs.

Introducing entrepreneurship as an obligatory subject in secondary school seems to be an important contribution to one of the main developing challenges of the country (employment creation), is firmly embedded in the government's main strategy (GoM 2011), is an important part of the government's effort to prepare students for working life and is institutionalized to a high degree within the government structures. The project objectives are directly aligned to the Government's objectives and policies in the education sector and the UNIDO project responds directly to the Strategic Plan for Education 2000-2005

<sup>&</sup>lt;sup>8</sup> It is also stated that one should assess the relevance for the donor, but that is not a part of this end review and hence not included.

aims to help the young that will end up in self-employment and to create capacities within the general education system to foster entrepreneurship.

So, to what extent is the project relevant for the learning attainment of the target group, i.e. the students? Teaching entrepreneurship has often been perceived among donors as a quick endeavor. The research literature suggests that donor induced entrepreneurship training in developing countries outside of the formal education have training content for a duration of around one week, and sometimes a bit longer. These courses have been for adults, many of them with experience in doing microbusiness and the target group would often have a higher probability of not having completed secondary education. In education, and as documented in our literature review, there is a general consensus that it takes a long time to learn the basics in most subjects including entrepreneurship. Hence, it is perhaps not surprising that the research literature suggests that the impacts of week-long entrepreneurship courses usually are low or even absent. The UNIDO project, on the other hand, has contributed to a substantial entrepreneurship learning trajectory with four years of duration, initially six and four hours in the first and second cycle. The curriculum is broad and covers many relevant aspects of entrepreneurship, and especially the business plan development part is comprehensive. Based on what we know from the research literature, and from basic requirements of learning attainment in school, the review team would give the UNIDO high score on the relevance criteria when it comes to the entrepreneurship curriculum.

Market opportunities are important for entrepreneurship, and this triggers the question of whether the UNIDO project is more relevant in areas with more economic activity - as was suggested to the review team during the field work. It is often harder to develop a new business if the market is saturated and characterized by fierce competition in the segments where there is little demand, such as typically found in poor rural areas with a limited monetized economy (Villanger 2012). In such areas newcomers in microbusiness and self-employment will only replace others and hence not contribute to changes in employment or poverty levels unless the entrants are more productive than the ones replaced (which is seldom he case in microbusiness and self-employment). This suggests the ECP might be less relevant for those who will enter subsistence farming in rural areas in Mozambique or becomes self-employed in stagnant markets. Nevertheless, it could still be important for students in those areas with an ambition to migrate in strengthening their likelihood of generating a living in their destination. At the same time, those who complete secondary education are less likely to end up in subsistence farming as compared to the average in their cohort. Moreover, the GoM and the UNIDO project seem to be of a different opinion and state that there is a higher potential of the ECP in rural areas (Progress Report 2008-2009). The evidence to check which assumptions are more correct cannot be established under a short review and we hence do not put much emphasis on this aspect in the assessment of the relevance of the project.

The field work confirmed that project is relevant for the needs and priorities of the target group, and especially the school directors, teachers and students emphasized the importance of ECP for the future of the students. Stakeholders argued that the project is very relevant both with regards to helping students to develop their livelihood if they do not get a job through learning how to change the traditional way they use to do small business and for getting out of the passive mindset believed to prevail in Mozambique. With this project, the main beneficiaries (students) may have a chance to start their business based now on the opportunity they may be able to identify.

The overall aim and rationale for the project - as it was formulated initially in the Project Document - was to provide the private sector with candidates that are more suited for the work requirements of companies. The UNIDO project team also confirmed that this has continuously been part of the aim. The rationale, as explained to us, is that the private sector requires human resources (employees, managers, owners) with creativity, personal initiative and who are able to identify new opportunities - virtues that are taught through the entrepreneurship course or implicitly embedded in the way ECP works. In assessing this aim, it is important to acknowledge that it is challenging even for well-resourced research projects to test the

assumption that entrepreneurship courses are useful for individuals in the formal private sector as those who enter that segment are usually different along many important dimensions as compared to those who are not admitted into the private sector.<sup>9</sup>

The practice in schools of how to choose which students will enter the non-obligatory entrepreneurship courses in the second cycle reveals the schools position on what is more important in that phase: The students that has the highest likelihood of not getting a job, as seen from the schools perspective (the A students) are the ones prioritized into entrepreneurship in 11<sup>th</sup> and 12<sup>th</sup> grade, while those who are likely to get a job (the B students) are entered into other subjects during those two final years of secondary education. Hence, as seen from the schools, there are other subjects that are more important for students in the second cycle if the aim is to strengthen the qualifications for those that will get a job. Nevertheless, as the literature review shows, those designing the educational systems in countries where most of the students will get a formal sector job (in OECD 88% of the labor force has a formal job) agree that entrepreneurship should be an integrated part of the general education.

During interviews, most of the students said that their plan is to continue studying at the university and get a formal job. However, many recognized that they had learnt that graduates from secondary education in general cannot expect to get a job and that being entrepreneurial can be an alternative solution. The review team found that the students were very vocal and active in explaining and visualizing their business ideas and to the extent that this creativity and business-mindset has been developed by the ECP, it seems to work well. Moreover, assessing the curriculum suggests that much of ECP is less relevant for being a good employee in a permanent job as compared to developing a business – which is particularly reflected through the emphasis on the development of a business plan and the scoring of the students based on that work. The virtue of this emphasis is that it is relevant for most of the students ranging from those who will be selfemployed to those who attempt to develop a business employing others.

All in all, the UNIDO project scores very high on relevance.

### 8.2 Effectiveness and results

OECD/DAC defines the "effectiveness" criteria in development evaluation as a measure of the extent to which an aid activity attains its objectives and poses the following accompanying questions:

- To what degree were the program's objectives achieved, or are anticipated to be achieved?
- What chief factors were responsible for the achievement or failure of the objectives?

In order to assess the results it is necessary to follow the results chain in Figure 1 above and inquire into whether the project has delivered accordingly. The main focus has to be on what can be credibly verified in a short review with limited data collection, i.e. to assess the activities carried out and outputs delivered through limited samples and logic deduction. Recall that a key output indicator for the project was to support MINED in introducing the ECP in all secondary schools. As indicated in the results chain, the degree to which this has been achieved is instrumental in achieving the outcomes and impacts of the project. Hence, our fieldwork covered as many schools as possible to see if this link in fact is established in reality. The main verifiable results are the outputs as specified in Figure 1. These are assessed below, from Output 1 to Output 5.

<sup>&</sup>lt;sup>9</sup> To exemplify: identifying the effect of ECP on the likelihood of getting a job, or on job performance, requires the establishment of the counterfactual: would the candidates have gotten the job without the ECP? Would their work performance have been different without the ECP? Inherently difficult to establish as the individual abilities would influence who gets a job and their job performance.

# Output 1: National standard entrepreneurship teaching materials and instructor's manuals designed and distributed

**The official and formal requirements** for establishing the entrepreneur course as a subject with equal stature as the other subjects in secondary education are in place. The curriculum has been approved by the parliament with the other curriculums of secondary education, which is a major achievement under Output 1.

The teaching material and instructors' manuals have been designed in a comprehensive manner and much of it distributed to the schools visited in a way that could be verified (basically asking to see all teaching material and course documentation in each school). The trained teachers received a teacher's guide and the schools and the provincial libraries have been provided with two kits of a compilation of all materials for the ECP, in printed and in digital form. Much of the material was produced with easy replication in mind (photocopying). The government textbook policy for secondary education implies that such material should be produced by the private sector and then purchased by students/ parents. The project document states that it is the responsibility of the government to make the material available.

We found that the distribution, or storing, is inadequate for proper utilization by teachers. Most schools only had one electronic version of the compilation – available on a memory stick – but almost none of the teachers had access to a computer. Many schools had one photocopied version of the teachers' and students' manuals, often deposited in the library and not used in any direct way apart from teachers browsing it upon need. Sharing did not work in practice for students and seldom for teachers. Student manuals were not used in an active way. Some teachers thought the student material were for teachers and were basing lectures on them, and very few teachers knew about the teacher's guide. In most schools the student material were kept at the library. Entrepreneurship students assembled by the school for the purpose of explaining to the review team how the course have functioned typically stated that the student books were available at the school library. When probed, very few had actually used it, and they would explain this by stating that one set of the four books was not enough for so many students.

**Summing up on output 1**: The teaching and student materials have been designed in suitable way for a secondary education curriculum and there is substantial documentation and guidelines. With respect to the distribution and availability of the materials the result is more mixed: although more could have been done from UNIDO's side to ensure adequate distribution and availability of materials to teachers and students, this falls under the MINED's and the schools' own responsibility. Schools pointed to lack of budget, but photocopying material for teachers is not likely to be a major cost and all schools have a budget for such expenses.

### **Output 2: Capacity of teacher-training institutions developed to produce the ECP teachers**

**The ECP chose the logical design of institutional arrangements for the teacher training:** The responsibility for training ECP teachers was given to the university that is responsible for the education that leads to a qualification to become secondary teachers, i.e. the Pedagogical University. The implementation of this responsibility has lagged for various reasons outside of UNIDO's control. Moreover, at the time of the end review there is no specialization in entrepreneurship for the students in the UP, only a general introduction of 48 hours for all students.<sup>10</sup> In addition, the UP teachers were only given one week of training to get into the ECP issues. Neither the time devoted for teaching students nor the preparations of the teachers are sufficient for the requirements of the ECP curriculum. Adding to these challenge is the fact that very

<sup>&</sup>lt;sup>10</sup> According to UNIDO, the UP has decided to implement a 100 hours program instead of the 48 hours program as of 2013.

few graduates from UP enters secondary education because they have better alternatives. Last year, only 200 out of 5000 graduates went to secondary schools. So even if the UP responsibility to integrate the ECP in the teaching would work as intended, the secondary schools are not able to attract the teachers. This is a general problem for secondary education in Mozambique and hence, alternative solutions to make the ECP work were considered under the project.

**In practice, however, there is no convincing structure for training teachers**. Up until the end review, the approach has been that the UNIDO project team has trained the in-service teachers, often side-lined by TWG with the aim of teaching these members how to conduct the teacher training. During the last three teachers training workshops the National TWG conducted the training while the UNIDO project staff had a coaching role. After project closure it is envisaged that the TWG will take over training of teachers. However, when asked, they say there is no budget for even the most low-cost version of such training. Moreover, the TWG visited seems not to have qualified personnel to do conduct such training.

**Summing up on output 2,** the project was not successful in establishing the appropriate system for ensuring qualified ECP teachers to teach the ECP in the schools. The main reason, however, that graduates from UP does not become teachers in secondary schools lies outside of control of the project and is a much bigger, general challenge for education in Mozambique and needs to be addressed at that level. The project attempted to establish an alternative, but the quality of that output is likely to be below standard.

### **Output 3: Capacity of teachers developed to effectively teach entrepreneurship**

The current capacity building of teachers to enable them to teach entrepreneurship is limited to a one week<sup>11</sup> course of in-service teachers as described above. Most of the ECP teachers had participated in the course. However, the selection of who would become ECP teachers is likely to influence the capacity building of that personnel: Usually the teachers with some spare time would be selected. Hence, if the Portuguese teacher had some hours a week that was not covered, she would be assigned the ECP even if she had no prior experience or interest in that direction. Taking into account that entrepreneurship is a completely new content for all teachers encountered with a practical and student oriented methodology, and that some of the syllabus contains quite advanced material, especially in 12<sup>th</sup> grade but also in 10<sup>th</sup>, there is no reason to assume that the one week course has capacitated the teachers to teach the courses as intended.

In order to assess whether the capacity of teachers have been developed as intended it is instrumental to inquire into how they teach in practice. Most of the schools visited had given the entrepreneurship course for the four grades. However, although the teachers generally knew the key elements of the material for the courses, very few had been using it as intended. Those who had used it had consulted the single copy available when preparing the lectures. So even if the courses have been conducted, there were signs that the quality of the teaching was not in line with the standards. Much of the supplementary material was not in use (the 25 student experiences, the template for developing the business plan etc.). Moreover, many of the teachers complained that they did not understand parts of the syllabus. Practical workshops, games, apprenticeships, company visits were usually not undertaken and very few had ever invited anyone from the outside to contribute to the teaching (company representatives, local entrepreneurs, chambers of commerce or others).

**Summing up on output 3**, the basics of capacity building has taken place, but the selection of teachers and their background coupled with the challenges of delivering a new subject indicates that much more effort should go into developing the capacity of the teachers. The project still gets a good rating due to the fact that it is a MINED budget issue how much to spend on such capacity building and the fact that the initial design aimed for three times longer training of in-service teachers.

<sup>&</sup>lt;sup>11</sup> Initially a two week course, but it was reduced to one week due to the Government's budget limitations.

# Output 4: Operational provincial technical working groups and schools to monitor and manage the ECP implementation

The provincial TWGs seem to be relative weak structures to monitor and manage ECP implementation. The members of the groups have many different responsibilities outside of ECP, many are primary school teachers and thus at a lower competency level as compared to the education structure they are meant to manage and monitor. The TWG staff assumes their duties in the same way as they do for other subjects. Some of them referred that they do not see any reason to consider ECP as a special subject with priority compared to other subjects.

Most of the schools visited in Sofala province, and even in Beira city very close to the TWG office, stated that they have never heard about the TWGs.<sup>12</sup> Moreover, the TWGs were asked about their main responsibilities under the ECP, but very few responsibilities were mentioned. Leaving the teacher training responsibility to the TWGs seems not to be a proper solution for several reasons. Many of the TWG are not instructors/teachers but administrative personnel without teaching experience, or teaching experience at an insufficient level. None of the TWG staff interviewed had any relevant specialization for the entrepreneurship subject and were merely trained on the issues during a week or two. Moreover, none of the TWGs had any budget to conduct training and they stated that it would thus not be possible to continue training. In addition, those TWG staff interviewed did not show a sound knowledge of the ECP implementation in the schools they were supposed to monitoring and support. The teachers interviewed stated that even if there were no budget for training and materials, the TWG should at least show up and provide guidance and moral support.

# Output 5: Entrepreneurship course has been successfully introduced in all secondary and selected secondary schools

**The coverage of schools gives an indication** of how far the program came in supporting the introduction of the ECP in the schools in relation to the aims at the outset. The project document set out that the entrepreneurship course would be introduced at all the 189 schools believed to be in existence at the time of document preparation. However, due to the large expansion of secondary schools, the total number of schools at the time of the end review is around 650. Still, they have reached 331 schools as of August 2013. The ECP introduction was seemingly designed as a relatively small intervention while in reality it is an enormous undertaking.

The number of schools that requires follow-up is a crucial condition that has changed a lot since the design of the project.<sup>13</sup> Although the expansion of schools was well recognized by UNIDO at the time (Project Document p. 19), the risk to implementation due to capacity constraints from school expansion was not adequately handled.

The rating on this output is also dependent on the ratings of output 1, as the successful introduction hinges on whether the ECP material was developed and distributed as intended, and on output 3 as the successful teaching is indicative of the successful introduction. Other indications on successful introduction are as follows:

<sup>&</sup>lt;sup>12</sup> The TWGs stated that they had visited the schools, but this was denied by the school administrators.

<sup>&</sup>lt;sup>13</sup> During the development of the project document, available statistics indicated that there were 188 schools that should be included in the ECP. That figure was then revised upwards to 270 around the start of the UNIDO project, and continuously growing. Around 2010 there were 380 secondary schools and this increased in 2011/2012 to more than 460 and there are now (October 2013) around 650 schools.

**Exam attendance.** If students do not show up for examination it may be a sign that the courses are not functioning as intended. Going further down the results chain (see Figure 1 above) we see that a key link between the outputs and impacts is that the students actually learnt something from the course. During our fieldwork, we got the feedback from teachers that the passing rate (the share of students who passed in the subject) was higher for the entrepreneurship courses than the other courses taught. Nevertheless, some of the project documentation suggests that the share of students not attending examination was quite high – between 20 and 36 percent during the first years (Table 5 below).

Year	Students enrolled	Students attended examination
2008	7 933	5 072 (64%)
2009	5 327	4 270 (80%)
2010	23 872	15 786 (66%)

Table 5. Students enrolled and examination attendance.

Around 8 000 students attended the last year of the cycle but did not prepared the business plan, which is the main practical work and a key element in grading the students. This needs a particular attention from the Ministry of Education, INDE and the teachers/schools. The main reason appears to be that the change of the Assessment Regulation for Secondary School implies that all professional subjects such as entrepreneurship are no longer required to include an exam. However, a likely other factor is the fact that after the cut of the practical part of the ECP the students finds it harder to develop a proper business plan.

**Application of ECP tools.** The ECP is supposed to provide several tools to support implementation of the subject. During our fieldwork we asked whether these were in use and the response was mostly negative as identified in Table 6 below.

ECP tool	Findings
Notions of Entrepreneurship Cabinet	Only on one school
Courier box	Not seen
Monitor system	According to the interviews the system is very
	weak or do not exist at all.
Evaluation system	According to the interviews, the system is very
	weak.

Table 6. ECP tools in use, sample schools.

During the school visits the review team found a lack of creativity, innovative behavior and competences from school directors and teachers to implement the ECP in accordance with the documentation. With regards to visits to economic activities as part of the learning process, directors and teachers indicated that there were no companies in their area which could be visited, there was no budget or transport facilities for such visits and there was no time to include the practical sides of the education due to the reduction of the hours per week for the entrepreneurship courses.

**Gender issues** seem to have received attention during project implementation and are relatively well embedded in the project design and implementation. During discussions with students we got the clear impression that the ECP is perceived as a very useful and interesting subject that helps them developing microbusiness or help them prepare for doing so. Moreover, adding to its popularity is probably the fact that the ECP also works as a legal permission for many girls to bring to schools the cookies, biscuits, rings, textiles flowers, etc. and thus provides a direct source of income. In addition, many students and teachers indicated that women are more suited for microbusiness and that they are more vulnerable and very often in a weakest position compared to men in regard to the chance of taking advantage of the few job opportunities that are available. Hence, it was viewed that the ECP is more suitable for girls.

**Summing up on Output 5**, the UNIDO coverage of schools exceeded by far the number of schools that was believed to be the target from the outset. Moreover, the UNIDO also states that the project include support to MINED to plan the outreach properly and get reliable figures on number of schools and what would be a reasonable number of teachers to cover those schools including replacing drop-out teachers. For the overall assessment of the UNIDO project it is of more concern that many of the schools were the ECP is introduced the teaching is not conducted as intended.

To what extent does the project contribute to the objective of poverty reduction, competitive broad based growth of small and medium enterprises and employment creation? As mentioned above, saturated markets for traditional microbusiness products, displacement effects and fierce competition has already been highlighted as factors reducing the likely impact on poverty and employment of the "develop your own business" part of ECP. Hence, slight improvements of one person's microbusiness can run another person out of business with ambiguous effects on poverty. Student exhibitions suggest that they will be doing similar activities as the self-employed in the neighbourhood of the school and any productivity gains are almost not visible. Nevertheless, in areas with expanding opportunities, increasing demand will provide opportunity for entry without necessarily displacing others. If the ECP has been successful in teaching the students how to develop more productive enterprises, for example through economies of scale or innovative products, then there seems to be potential for poverty reduction especially through the employment of others.

Similarly, little can be expected when it comes to impacts on developing businesses larger than the selfemployed or microbusiness with few employees. Very few people in any country have the combination of ability, the resources and the willingness to develop a small or medium enterprise. There is no theoretical or empirical or logical evidence as far as we have found that suggests that teaching all students in secondary schools some basics information about entrepreneurship will impact on this segment of enterprises. The likely counterfactual to the ECP on this segment is that a similar number of small and medium level businesses would have been developed without the ECP and that the growth of existing enterprises would be similar.

Where the ECP has its strengths are in the change of mindset and in developing growth aspirations, a competitive attitude and an entrepreneurial spirit. This, in turn, could contribute to poverty reduction in the longer run since these attributes also influence their choices in the future and their behavior of seeking opportunities. For example, if the savings part of the ECP is successful, this could enable them to invest in the future and thus a myriad of links to growth can be discussed. Another example could be in formal jobs in the private sector: Even if the ECP does not change the number of jobs available, or who gets one of these jobs, the work behavior of the employees could change and enable them to do a better job than what they would do without the entrepreneurship course.

### **Factors responsible for the achievements**

In order to establish factors responsible for the achievements a note on the planning phase is useful. The shared understanding of the challenges and the solutions as described above probably led to less effort to analyze the situation, plan the intervention and elaborate on the project strategy. The Project Document is thus brief and lacks essential components and has a top-down design that would likely have benefited from more technical people in the MINED being involved in an early phase. There is for example no discussion about whether introducing ECP to all students in secondary schools responds to the employability in the private sector. Of the labor force of 10 million people, only 8% are employed in the formal sector but there is no discussion of how the curriculum responds to the different likely trajectories for the graduates (self-employed, versus salaried employment versus developing a business with employees, etc.), whether a

Uganda-based<sup>14</sup> curriculum is the best approach as compared to that of other countries and assessments of the requirements for the roll-out are almost absent. Moreover, the project was intended to last for three years, but there is still a lot of unfinished tasks way into the sixth year of operation. The relatively long duration of the project has nevertheless been beneficial the implementation.

Although the UNIDO states that the project has been developing and discussing scenarios for teacher training in line with the evolving increases, the project seems to have suffered from lack of proper planning throughout the project period. Even in the last phase, the number of teachers required is not dealt with in a convincing manner. In the Technical Report 2011 (UNIDO, Technical Report of Implementation of the Subject Notions of Entrepreneurship', Moçambique, Abril de 2010 a Maio de 2011) shows the situation on 2011 and the needs for 2011 and 2012 and the plan for 2012 in regard to teachers to be trained and schools to be reached. It states that the situation expected till the end of the project is that the program has covered 119% in relation to 320 schools planned. But on the page 6, in regard to the teachers, they refer that according to the situation found in the beginning of the school year, there is an urgent need to train more teachers in order to reach the adequate ratio of 44 students per teacher. In another words, they consider that the system should had on 2011 about 3100 trained teachers instead of just 1048. The point is that even after the issue was raised in the Mid-Term Review a proper planning of the requirements in terms of number of teachers needed in the future was never conducted.

The project design was very ambitious with respect to the resources required to make the entrepreneurship course work as intended. Each in-service teacher were to be trained for three weeks in a location that often required accommodation, and the curriculum required 4 hours per week of teaching in the first cycle of secondary education while 6 hours per week was required for the second cycle. Moreover, the ambition to take the students of entrepreneurship to visit companies and private sector institutions requires funds for transport and meals. Moreover, the aim of having a 60/40 division between practical approaches (case studies, lectures from private sector, role play, etc.) and standard lecturing was also something that requires much more resources and initiative on part of the teachers and schools as compared to other subjects.

Although UNIDO and MINED had a close relationship during the design phase, the program could have benefited from a broader collaboration with the technical people in the ministry responsible for the support and follow up of the school's performance, teacher training, and other pedagogical and didactic issues.

Summing up, the UNIDO project has added substantial value to the implementation of the ECP. Most of the requirements for success are in place for a well-functioning subject. Nevertheless, the main outstanding issues are to ensure the final efforts to get the course to work as intended and to implement a permanent institutionally sound solution to ensure well-qualified teachers are teaching the course. The project was designed in a satisfactory way despite the fact that it was too ambitious. The UNIDO experience should be transferred to pedagogical technicians, and other officials specialized on education and school management in Mozambique.

All in all, the UNIDO projects scores high on effectiveness.

### 8.3 Sustainability including post-project follow up

Several project achievements have provided the foundations for the sustainability of the entrepreneurship course in secondary education. Among the milestones to ensure sustainability the following achievements should be highlighted:

<sup>&</sup>lt;sup>14</sup> The current curriculum is substantially revised and adapted to Mozambican conditions.

- 1. The UNIDO project has ensured that the formal foundation of entrepreneurship as a subject in secondary education has been approved in the same way as the other subjects in secondary education.
- 2. The material is available electronically across the country and duplication in a nearby city is feasible if the budget and logistical support are provided.

**Moreover, the ECP benefits from strong local support**. The course is very popular among teachers and students interviewed, and we were told that parents are very pleased that their children learn something that is directly applicable and useful. Ownership of the program within schools in general seems to be strong and school directors are supportive. The support from these stakeholders contributes to the sustainability as they will maintain a pressure towards continuing the course.

**School budgets are reported to be very constrained** by the principals, teachers and school administrators. In this situation, the ECP is a likely candidate to suffer from budget cuts. Indeed, in one of the schools the course was only given in 10<sup>th</sup> and 12<sup>th</sup> grade due to budget constraints. The lack of budget prevented the duplication of the teaching material and the practical parts of the course (no funds for transport etc.). Nevertheless, the two-hours a week of theoretical training is still sustainable in its current form with the deficiencies as spelt out above.

**Political commitment in the MINED seems uncertain**. The DINES is taking over responsibility for the ECP and the discussions with them pointed in the direction of less sustainability. They were stating that the reason for the deteriorating marks of students in the other subjects is because the introduction of the entrepreneurship course led to less hours of teaching in the other subjects while the curricula were not reduced. This could definitely be an unintended impact, and if true, or becomes "an established truth", this could threaten to undermine the whole project.

For training of teachers there is, as far as this review has been able to establish, no budget available for continuing that part once the UNIDO project closes. The MINED consider their co-financing as the salaries paid to teachers and technicians involved, premises/classrooms, teacher's and student's materials provided as photocopies during these 6 years the project has last. No figures are available for documenting the share of co-financing.<sup>15</sup>

All in all, the UNIDO project gets a medium score on sustainability.

# 9. Recommendations

The following table summarizes the recommendations from this review. Although the project is closing and the project funds have been spent, there are several recommendations that nevertheless should be tabled. The first recommendation to all parties is that it is counter-productive for the results, achievements and the sustainability of the UNIDO project not to follow up with additional resources as indicated concretely below.

Table 7. Recommendations, by institution.

Entity	Recommendations	
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<sup>&</sup>lt;sup>15</sup> According to the UNIDO, the MINED has had budget provisions for the ECP including in the 2014 budget. However, we have not got any comments from MINED.

UNIDO	1 In order to continue the roll out and current momentum UNIDO
UNIDO	1. In order to continue the roll-out and current momentum, UNIDO
	should develop a detailed expansion plan (schools, teachers,
	materials, budget) together with MINED.
	2. In close collaboration with MINED the UNIDO should develop a
	strategy to provide teaching and learning materials in a way that
	teachers and student will actually make use of those resources in
	accordance with intentions.
	3. The UNIDO should initiate an experience sharing across countries on
	the results of teaching entrepreneurship in secondary education. This
	can benefit from cooperation with similar efforts in donor countries
	and also be interesting and useful for bilateral donors. This
	experience sharing could then form basis for revisions and updates of
	the curricula in this area.
	4. The UNIDO should make the knowledge generated available for a
	wider audience and publish the documentation on the web.
	5. The lessons from the planning phase should be developed in more
	detailed manner and made available for others. This part could
	include a risk assessment.
MINED	1. MINED should develop a detailed expansion plan (schools, teachers,
	material, budget) to continue expanding the coverage of ECP.
	2. It is urgent and of highest importance that MINED earmarks a budget
	for in-service teacher training in order to support the expansion of
	ECP to other schools.
	3. A budget has to be allocated for ensuring teaching material and
	student material are made available in new schools.
	<ol> <li>The capacity of TWGs has to be strengthened in order for them to</li> </ol>
	undertake their responsibilities.
	*
	6
	order to ensure the provision of qualified teachers of the subject
	Notions of Entrepreneurship. Providing a minor in entrepreneurship
	at the UP is strongly encouraged.
	6. The number of hours taught of ECP should follow the initial design
	of 60/40 practical/theoretical and the available number of lessons
	should be reverted back to the initial design to cater for the practical
	parts of the teaching. A budget for the practical parts should be made
	available to the schools.
	7. MINED should solve the issue of distribution of the student material
	so that it is available at an affordable cost and actually used in
	practice.
	8. It is important that MINED develop a strategy to ensure that
	candidates specialized for teaching in secondary schools (including
	the ECP) are actually employed in the secondary schools.
	9. MINED should work with UNIDO to refine the process of selecting
	teachers to attend teacher training programs to ensure teachers with
	an interest in ECP and with basic qualifications for teaching that
	subject are selected for training.
	10. The teachers teaching the ECP needs refresher training both on
	contents and methodology
Donor	1. The ECP clearly requires a Phase II of support in order to function
	properly and to ensure the integration of the project into the relevant
	institutions. Key topics for a second phase would be institutionalizing

	teacher training and building a system to ensure the ECP is taught in
	line with its intentions and should have a clear financing plan that
	ensures donor exit and recipient take-over. This is urgent in order to
	maintain what has already been achieved and could counter the
	negative views related to decreasing grades.
C	
Ζ.	In order to maximize the sustainability and the results of the funding,
	the donor should continue to follow up the implementation of the
	ECP through requesting progress reports, assessment and give
	feedback to main stakeholders. This should be done without any
	time-lag.
3.	The donor could use the experiences and to support international
5.	experience exchanges (conference, seminars, study visits etc.) and
	check in what extent the positive lessons are learned and are being
	adopted. Once the results of the impact evaluation are available, the
	dissemination of that work could be taken as part of initiating a
	broader experience sharing.
4.	Given the importance of employment creation for the youth, the
	donor could consider funding a new project focusing on supporting
	growth-oriented entrepreneurship development and with a clear target
	on the creation of jobs. A review of the research literature on the best
5.	Given the difficulties of getting feedback from the GoM on this
	report, and the useful findings documented, the donor should
	contribute to its dissemination (translate it to Portuguese, conduct a
	•
5.	instruments to support job creation should be conducted as a foundation for such a decision. Given the difficulties of getting feedback from the GoM on this

# Annex 1. Terms of Reference: End Review of MOZ-3049 MOZ-06/032 "Entrepreneurship Development of the Youth"

# I. BACKGROUND

UNIDO project "Entrepreneurship development for the youth" (UNIDO's project reference TF/MOZ/07/003) has been supporting the Ministry of Education (MINED) in introducing entrepreneurship as a discipline in secondary schools since 2007. The project is funded (NOK 16 mill.) by the Government of Norway, though the Royal Norwegian Embassy in Maputo (donor's project reference MOZ-3049 MOZ-06/032). The Project Document (PD) was signed in June 2007, following a pilot experience in Cabo Delgado province (also funded by Norway). The project will come to an end on September 30th and it is expected that national capacities will fully take over the process of finalizing the introduction of Entrepreneurship Curriculum Programme (ECP) in all schools with their capacities.

### **Counterparts**

The main counterpart is the Ministry of Education, through the National Institute for Educational Development (INDE) and the National and Provincial Directorates of Education in Mozambique.

### Main objectives, outcomes, main outputs

The <u>project development objective</u> is to develop human resources with practical productive skills that will contribute to sustainable and broad growth of small and medium enterprises with improved productivity.

The <u>project immediate objective</u> is to assist the Ministry of Education in introducing the ECP in all the secondary schools. *The target indicator is that by the end of the project, Entrepreneurship Notions will have been successfully introduced in 381 schools throughout the country* 

Output	Output indicators
National capacities established for the introduction and implementation of the discipline Entrepreneurship Notions in the National System of the General Secondary Education and the Technical, Vocational	<ul> <li>(5) National standard entrepreneurship teaching materials and instructor's manuals designed</li> <li>(6) Capacity of instructor-training institutions developed to produce the ECP instructors</li> </ul>
and Professional Education	<ul> <li>(7) Capacity of instructors developed to effectively teach entrepreneurship</li> </ul>
	(8) Operational provincial technical working groups and schools to monitor and manage the ECP implementation.

### Main activities and current progress:

The project has built technical capacities of various entities of the Ministry of Education to develop, manage and monitor the implementation of the ECP, in particular National Institute for Educational Development (INDE), the National and Provincial Technical Working Groups established by the Ministry, the National Directorate for Secondary Education (DINES) and the Pedagogical University (UP). Entrepreneurship has been introduced as a discipline in 255 schools in Mozambique nationwide and still expanding.

Entrepreneurship is taught in 9<sup>th</sup> and 10<sup>th</sup> grade (1<sup>st</sup> cycle) as obligatory stand alone subject, and in 11<sup>th</sup> and 12<sup>th</sup> grade (2<sup>nd</sup> cycle) on optional basis. Teaching is practical and learner centred, and with exposure to real private sector operations and application of contents in business, community or school context. The discipline aims at promoting the development of entrepreneurial skills and to equip the youth with the

necessary tools to identify business opportunities in their community and to elaborate business plans in order to start up their own business activity. Entrepreneurship education is expected to foster the development of a dynamic and innovative private sector, thereby contributing to the creation of employment and poverty reduction.

The first group of youth graduated from a full cycle of ECP in 2008. Until 2011, a total number of 52,300 have graduated from the entrepreneurship subject (10<sup>th</sup> and 12<sup>th</sup> grades). Currently, there are 240,000 taking the entrepreneurship subject in 255 schools. 1,521 teachers of 303 schools nationwide have been trained to teach the subject so far, and 255 instructors of the Pedagogic University campuses are trained to train preservice teachers. The Ministry of Education is preparing for the full roll out under their responsibility based on an assessment of the development and implementation so far and with the capacities created.

The project is focusing on the consolidation of the national and provincial capacities by coaching National and Provincial Technical Working Groups in teacher training, teacher on site support, monitoring and evaluation, consolidating capacities of provincial delegations of the Pedagogical University for pre-service teacher training and implementation of an impact study and consultation process.

### **Prior reviews:**

The project has been subject to reviewed by Norway (NCG) in 2010 and by UNIDO in the context of a country evaluation. A thematic evaluation on contributions to MDGs included also an analysis of the project. The review will be able to draw on findings of an impact study and will be conducted in April/ May 2013 for the final report.

# **II. PURPOSE OF THE REVIEW**

The purpose of the review is to enable the Government, the donor and UNIDO to:

- (a) Assess the *relevance* to Mozambique as an emerging economy but still a developing country, the main counterparts and the target group, and assess prospects of development impact, including contributions to rural entrepreneurship development and gender equality;
- (b) Assess the *effectiveness* of the project, i.e. the extent to which the outputs were produced and outcomes achieved as compared to those planned;
- (c) Assess the *efficiency* of implementation: quantity, quality, cost and timeliness of UNIDO and counterpart inputs and activities;
- (d) Assess the prospects for *sustainability*, i.e. the extent to which the positive effects of the project will continue after the external assistance has concluded;
- (e) Provide an analytical basis for *recommendations* for the Government's post-project strategy and actions, and policy implications;

Employment growth has yet not accelerated to a satisfactory level in most of the emerging Sub-Saharan Africa. There are currently some 200 million youths (aged 15-24) living on the continent, a number which is expected to double by 2045. During the next 10 years, a total of 10-15 million young Africans will enter into the workforce each year. Several recent studies are arguing that the majority of employment must take place through the establishment and growth of micro and small enterprises, sometimes emphasizing the need to combine both entrepreneurship and skills development, to address both supply side and demand side issues. Hence, the purpose of the review is also to enable the donor and UNIDO to:

(f) Increase its understanding of the evidence based impact of youth entrepreneurship training, in particular on entrepreneurship as a discipline in secondary education, and youth entrepreneurship training in a south Saharan context.

(g) *Draw lessons* of wider application for the replication of the experience (lessons learned and success factors) gained in this project in other projects/countries - with emphasis on South Saharan Africa.

Annex 1 provides guidelines to facilitate the assessment of the above mentioned dimensions of the project; Annex 2 provides a suggested outline for the report.

# **III. SCOPE OF WORK AND METHODOLOGY**

The review will use a mixed method approach, collecting and analysing information from a range of sources. The review will encompass the following steps:

# **Document review**

A desk review of different sets of documents, including:

- Project specific documents, i.e. the PD, progress reports, work plans, technical reports, project reviews/ evaluation reports, the impact study etc.;
- Country relevant documents, i.e. literature and publications on Mozambique's country context, current national development plans, the education system/reforms etc, entrepreneurship in Mozambique;
- Context relevant documents, i.e. literature (reviews/evaluations/research) on entrepreneurship development, in particular on entrepreneurship as a discipline in secondary education;

# Review of the intervention logic of the ECP

Based on the desk review the Consultant will seek analyse the *intervention logic (or "theory of change (TOC)")* of the project. This will map out how inputs and activities will (or should have) logically led to outputs, outcomes and impacts. This will enable the review to determine in how far the design of the project is adequate for the country's development needs.

There will be a clear focus on the OECD "DAC Criteria for Evaluating Development Assistance", with specific focus on *sustainability*, *relevance* and *effectiveness*.

# Interviews and field visit

### UNIDO staff, experts

- Semi-structured interviews with UNIDO project managers in Vienna (by phone/ skype), UNIDO Head of Operations in Maputo
- Semi-structured interviews with UNIDO project staff and counterparts and site visits in three project sites: Maputo, Nampula, Beira.

#### Donor representatives

• Semi-structured interview with representatives of the Norwegian embassy in Maputo.

#### Counterparts and beneficiaries

- Semi-structured interviews of key staff in the Ministry of Education
- Focus group discussions with final beneficiaries
- Semi-structured interviews with private sector representatives (e.g. associations)

It is estimated a need for less than two weeks fieldwork in Mozambique, including fieldwork connected to Nampula, Beira and Maputo. If necessary, the amount of field days may be extended prioritizing within the Assignment, by splitting up the Consultant Team to conduct different field activities, and through possible assistance from Norad

personnel resources. The field work shall be closely coordinated with the UNIDO project management. The project manager will support the Consultant Team by liaising with counterparts and preparing the review missions.

# Estimated workload and tentative timeframe

The below workload estimation of maximum of 410 man hours is based on a 35 % input from the Team Leader (senior consultant) and a total of 65 % input form a junior consultant and a national/local contracted consultant. The actual amount of man hours will depend on the actual division of labour between these, as well as the rate of the local consultant. Traveling is included.

The inception work and planning of the field work should take place as soon as possible, and one should seek to be in the field before August 26<sup>th</sup>, ideally. The draft report will be finalised and submitted for comments before the last week of September (i.e. 23.09.13), whereas the final report should be submitted by mid-October for Norad's final no-objection. The Assignment will be finalised no later than October 30<sup>st</sup> 2013.

Components	Tent. timeframe	Est. man hours
The inception work, including literature review and preplanning of the fieldwork	August	≤ 90
<ul> <li>Collect and study project/country/concept relevant documents</li> <li>Prepare review mission programme: liaise with the UNIDO project manager in Vienna, UNIDO office in Maputo to set up meetings/interviews</li> <li>Prepare interview guides</li> <li>Prepare and conduct phone/skype interviews with UNIDO and</li> </ul>		
donor representatives		
<ul> <li>Prepare and conduct the inception report</li> <li>The fieldwork</li> <li>International travel (one person) and domestic travels (two persons)</li> <li>Inception meeting (if not held before departure)</li> <li>Carry out meetings, visits and interviews of stakeholders according to the mission.</li> <li>Prepare findings and conclusions for debrief and draft report</li> <li>Debrief, presenting the preliminary findings and conclusions (the meeting shall be organized through the Norwegian Embassy).</li> </ul>	August → primo September	≤ 170
<ul> <li>Report writing and presentation</li> <li>Filling information gaps as necessary.</li> <li>Prepare the draft review report according to ToR.</li> <li>Quality assurance.</li> <li>Review feedback received on draft report and prepare final report.</li> <li>Submit the final report for Norad's no-objection</li> <li>Presenting the final report in Oslo <u>or</u> Maputo (organized by donor or Norad)</li> </ul>	September → primo October.	≤ 150
Total		≤ 410

# **IV. REPORTING AND CONSULTANT OUTCOME**

# The inception report and meeting

After the Consultant Team has been constituted and tentatively before a first set of interviews and review of key documents has been carried out, and at least before the other review activities start (including especially the field visits), the Team Leader will present an inception report, in which the review approach outlined here is operationalized.

As a minimum, the inception report should consist of the following:

- Outline/table of content/structure of the report, based on the suggested outline in Annex II.
- List of references for the literature review.
- Methodology and research design for the review
- Draft/outline of the interview guides
- Final implementation plan for the fieldwork and timeline for the Assignment.
- Final detailed budget for the Assignment, decomposed to the following components:
  - (i) Inception work.
  - (ii) Field work.
  - (iii) Report writing and finalisation of the Assignment.

The inception report should be submitted to Norad for no-objection as soon as possible before the fieldwork start-up, and least two working days before the inception meeting. The inception meeting may take place as a skype/telephone meeting with Norad and the donor, or as soon as possible after Team Leader's arrival in Maputo.

# The report

The main deliverable of the review exercise is the final report with an executive summary. The report should cover the key review issues outlined in section II and Annex I. It should describe the methodology used and highlight any methodological limitations, identify key concerns and present evidence-based findings, conclusions, recommendations and lessons learned, as further described in Section III.

The review report may follow the structure given in Annex II. Reporting language will be English. The executive summary will be in Portuguese and English. The report should not exceed 35 pages (excluding executive summary and annexes)

The Consultant Team will share the draft report with UNIDO, the main counterparts and the donor (with Norad copied) no later than September 23<sup>rd</sup>, with a minimum of 7 working days for comments. Any suggested errors will be integrated and any comments will be taken into consideration in preparing the final version of the report

The final report is subject to Norad's quality assessment and no-objection. UNIDO's quality assessment criteria (Annex III) will be used.

Norad will be the sole owner of the report and its content, and will hold the right to share and publish it. The Consultant will not have the right to publish the report, nor any of its content, without Norad's permission in writing.

# Debriefing and presentation

Upon completion of the visit to Mozambique, the Team Leader will debrief the donor by presenting the preliminary findings, assessments and conclusions. The debriefing meeting will be held at the Norwegian Embassy in Maputo. The donor may invite other stakeholders. A written debriefing note shall be submitted to the donor upon the meeting (with Norad copied).

As part of the Assignment, the findings and conclusions will be presented by the Team Leader to Norad in Oslo, <u>or</u> by the local consultant to the donor in Maputo. To whom and at which date will be decided later, but it is likely to take place before the finalisation of the Assignment and should be included in the overall

budget. If the event takes place in Maputo, there will be an option for Norad to have the Team Leader to hold the presentation in Oslo in any case, covered over and above the overall budget.

# **V. BUDGET AND COST ESTIMATION**

The maximal total budget for the Assignment is NOK 450.000,-. This includes work hours by the Consultant Team, international and national traveling and accommodation/diet. UNIDO has confirmed cars and drivers will be made available in Maputo and Nampula. The budget should include "general expenses" to some limit, whereas Norad will consider to cover unexpected and necessary expenditures beyond this.

# **VI. QUALIFICATION REQUIREMENTS**

The team of consultants should be a mix of local-based and international experts with advance university degrees. The Consultant Team should have:

- Extensive knowledge related to industrial and private sector development, entrepreneurship and education systems;
- Experience with reviews/evaluations of development projects;
- Portuguese language skills (fluency with at least one team member as a minimum requirement) and experience with development cooperation in Mozambique.

Team members should not have been involved in the preparation, implementation or supervision of the project subject to this Assignment.

# ToR Annex I. Guiding questions/ criteria for assessment:

### Relevance

- How aligned are the project objectives to the Government's strategies and policies?
- Is the project relevant to the needs and priorities of the target group, counterparts and beneficiaries? What benefits are generated via the project?
- Specifically, what is the relevance with respect to rural entrepreneurship development and gender equality?
- Are the activities and output of the project consistent with the overall goal, intended impact and effects of the project?
- To which extent has the project been responsive/flexible to changes and needs (i.e. in the labour market, the economic development etc.)?

# Effectiveness

- Have relevant stakeholders taken part in the project's planning, design and development?
- Could the project have been designed differently in order to increase effectiveness?
- Has the M&E system managed to make results visible?
- Have the outputs been produced as planned?
- Are the outputs being used by the target population? Do users consider the outputs useful?
- Have the main outcomes (improved access of policy makers to know-how and increased level of investments) been achieved or are they likely to be achieved?
- What are the major factors influencing the achievement or non-achievement of the project?

• How is UNIDO adding value to the project?

### Sustainability and perceptions of impact

- Which long-term institutional and developmental changes (economic, environmental, social) have occurred or are likely to occur via the introduction of ECP?
- To what extent has the project generated co-financing from the host country? Is co-financing ensured for the time period after project closure? Are there financial structures in place after exit?
- To what extent do the national counterparts given the project priority, assume ownership of the ECP and have the capacities and willingness to continue?
- To what extent does the project contribute to the objective of poverty reduction, competitive broad based growth of small and medium enterprises and employment creation?
- Have there been any unintended (positive or negative) effects of the project?

# Efficiency of implementation

- Were UNIDO and counterpart inputs provided as planned?
- Have project management and implementation modalities been adequate?
- Have recommendations of previous reviews/evaluations been followed up?

# ToR Annex II. Suggested template of the report

## i. Executive summary

- Must be self-explanatory
- Not more than five pages focusing on the most important findings, conclusions and recommendations
- Overview showing strengths and weaknesses of the project

# ii. Introduction

- Information on the review: why, when, by whom, etc.
- Information sources and availability of information
- Methodological remarks and validity of the findings
- Project summary ("fact sheet", including project structure, objectives, donors, counterparts, timing, cost, etc.)

# iii. Country and project context

*This chapter provides evidence for the assessment under chapter VI ( in particular relevance and sustainability)* 

- Brief description including history and previous cooperation
- Project specific framework conditions; situation of the country; major changes over project duration
- Positioning of the UNIDO project (other initiatives of government, other donors, private sector, etc.)
- Counterpart organisation(s); (changes in the) situation of the

# iv. Project Planning

This chapter describes the planning process as far as relevant for the assessment under chapter VI

• Project identification (stakeholder involvement, needs of target groups analysed, depth of analysis, etc.)

- Project formulation (stakeholder involvement, quality of project document, coherence of intervention logic, etc.)
- Description of the underlying intervention theory (causal chain: inputs-activities-outputs-outcomes)
- Funds mobilization

#### v. Project Implementation

This chapter describes what has been done and provides evidence for the assessment under chapter VI

- Financial implementation (overview of expenditures, changes in approach reflected by budget revisions, etc.)
- Management (in particular monitoring, self assessment, adaptation to changed circumstances, etc.)
- Outputs (inputs used and activities carried out to produce project outputs)
- Outcome, impact (what changes at the level of target groups could be observed, refer to outcome indicators in prodoc if any)

#### vi. Assessment

The assessment is based on the analysis carried out in chapter III, IV and V. It assesses the underlying intervention theory (causal chain: inputs-activities-outputs-outcomes). Did it prove to be plausible and realistic? Has it changed during implementation? This chapter includes the following aspects:

- Relevance (evolution of relevance over time: relevance to UNIDO, Government, counterparts, target groups)
- Ownership
- Efficiency (quality of management, quality of inputs, were outputs produced as planned?, were synergies with other initiatives sufficiently exploited? Did UNIDO draw on relevant in-house and external expertise? Was management results oriented?)
- Effectiveness and impact (assessment of outcomes and impact, reaching target groups)
- Sustainability including post-project follow up
- If applicable: overview table showing performance by outcomes/outputs

#### vii. Recommendations

- Recommendations must be based on review findings
- The implementation of the recommendations must be verifiable (indicate means of verification)
- Recommendations must be actionable; addressed to a specific officer, group or entity who can act on it; have a proposed timeline for implementation
  - Recommendations should be structured by addressees:
    - o UNIDO
    - o Government and/or Counterpart Organisations
    - o Donor

#### viii. Lessons learned

•

• Lessons learned must be of wider applicability beyond the evaluated project but must be based on findings and conclusions of the review

# **Annex 2. Questionnaires**

#### A2.1 Questionnaire for teachers

Name:	Date:
Education/specialization:	
Gender:	
Name of the school:	Rural or urban:

#### **General introduction**

Explain our assignment. Start asking about their experiences with teaching the course. What has been good, what has not been good.

#### **Teaching material checklist**

Have you...

- Your own copy of the Manual for teachers for the level you are teaching (Teacher Manual 1 for 9<sup>th</sup> and 10<sup>th</sup> grade OR Teacher Manual 2 – for 11<sup>th</sup> and 12<sup>th</sup> grade)?
- If "no" Do you have a copy of the relevant content from the manual at the level you are teaching (some teachers copy from an electronic version the material they need, or copy from one paper copy available with the school)? If no, ask how they prepare the lectures, how do they know what to teach.
- 3. Copies of manuals for ECP students? (Modulo 1, Modulo 2, Modulo 3 or Modulo 4) Each student is

supposed to have one of these for each grade!!!

- 4. Is there a manual on the 25 experiences of students' businesses (one manual for each school)?
- 5. Is there any educational ECP posters in the school?
- 6. Are they in use? Do they know about the document on its pedagogical application?
- Applied practical methods in teaching entrepreneurship? (do not reveal any answer, start by probing about what the teacher does in addition to lecturing)
   If yes, which?

- 8. What is a business plan? (If the teacher explains in an ok way, state "yes":\_\_\_\_\_
- 9. A copy of the Business Plan Student Manual (should be given out in 10<sup>th</sup> and 12<sup>th</sup> grade) Distributed to schools after the mid-term review)?
- 10. What is the purpose of the Business Plan manual? Explain:

Have you used it for the students (every student should have one such copy and use it to develop their own business plan)

#### Training for teachers

- 1. How were you selected as a trainer?\_\_\_\_\_
- 2. When did you start teaching the course? Year \_\_\_\_\_\_
- 3. Were the training materials for teachers
  - 1. Easily understandable? 2. A bit complex? 3. Complex? 4. Cannot understand at all?
- 4. What was the quality of the teacher training?
  - 1. Excellent 2. Good 3. Fair 4. Poor
- 5. Is the course sufficient to get enough knowledge about entrepreneurship? 1. Yes 2. No
- 6. Do you needed to undergo refresher training? 1. Yes 2. No
- 7. What improvements would you like to see in the training materials and the teaching approach for teachers?

.....

.....

#### **Teaching students**

- 8. Do you think the content of the training was sufficient for the students? 1. Yes 2. No
- 9. Were the course materials easy the students? 1. Yes 2. No
- 10. Is two hours a week enough time for teaching? 1. Yes 2. No
- If no to Q11, how much time would be required per week?
- 12. Did the students understand the content of the course? 1. Yes 2. No
- 13. If no to Q13 why? Explain!
- 14. Do you get frequent on- job supervision about the course? Yes/No.

- 15. Have any of the graduated students you trained contacted you again for any Business DevelopmentSupport? 1. Yes 2. No
- 16. If yes to Q21, what kind of support do they generally want?
- 17. What challenges have you faced while teaching students?

18. What recommendations would you make for improving the program?

#### **A2.2 QUESTIONNAIRE DINES**

- 1. After about 5 years of implementation of the pilot project 'Entrepreneurship development of the youth', how MINED/DINES evaluate the outcome and impact?
- 2. What are the main constraints in DINES perspective?
- 3. How DINES articulate and monitor the implementation with the other partners (INDE, UNIDO)?
- 4. What can be improved in the project to achieve the main goals?
- 5. What is the financial contribution of MINED for the project?
- 6. The project has lost about 300 trained teachers who got another jobs. What are the main reason why they drop out?
- 7. How DINES evaluate the relationship between the project and the private sector?
- 8. Is this the right time to formally incorporate the subject on the curriculum of the secondary schools? Why?

- 9. Teachers were trained for 2 weeks (in the beginning) and 1 week later as a preparation to teach the subject. What is DINES's perception considering that the project aims to graduate students that can become entrepreneurs?
- 10. Are there success story DINES would consider relevant in the context of fighting unemployment and poverty?
- 11. What DINES would consider as being strength and weakness of the project?
- 12. Is the project sustainable?
- 13. Has DINES any strategy, or plan to publish the teacher guide and the students books?
- 14. Is there any possibility in the near future to count on teachers that just teach entrepreneurship?
- 15. MINED would be prepared to finance refreshment workshops for teachers and/or increase the duration of the training?
- 16. What are the main lessons learned with the project so far?
- 17. What DINES would like to comment, suggest or recommend to the donor, executive agency at this end review of the project?
- 18. ...
- 19. ...
- 20. ....

### A2.3 Questionnaire for students

#### **Business Particulars**

- 1. When did you finish high school? (year)
- 2. Did you take the final exam of the entrepreneurship program? (Yes/No)
- 3. If no to Q2, what are the reasons for not taking the final exam?
- 4. Were you undertaking any business activity before the training?

1: Yes 2: No

- 5. If yes to Q4, in what ways did the training helped your business?
- 6. If No to Q 4, have you started a business since the training?

1. Yes 2. No

7. If yes to Q6, what kind of business have you started?

1. trade 2. consultancy 3. agribusiness 4. manufacturing

5. Services (e.g. education, health, tourism, clearing etc.)

6. Others (specify.....

8. How has the new business that you started after the training performed?

1. closed 2. declined 3. stagnated 4. just expanded 5. more than doubled expansion

9. Which part of the course did you find most useful? The classroom lecture or the activities that were done outside of the class room?

10. Are there other benefits of the course that you can attribute beyond your own business?

#### **Training Materials**

- 11. Were the training materials
  - 1. Easily understandable? 2. A bit complex? 3. Complex? 4. Cannot understand at all?
- 12. What was the quality of the training/facilitation skills of the teacher?

1. Excellent 2. Good 3. Fair 4. Poor

13. What improvements would you like to see in the training materials and the teaching technique?

.....

14. What other comments would you like to make?

# Annex 3. List of people interviewed

Date (s)	Name	Position and name of institution	Comments
15.08.13	Jaime Comiche Leonildo Munguambe Artur Cherindja	Head of Operations/UNIDO National Officer/UNIDO National Officer/UNIDO	Debriefing
16.08.13	Ivaldo Quincardet	MINED/National Director	Interview
	Gina Longamane	Head of Department/DINES, MINED	Interview
	Ismael Nheze João Litsuge	Deputy Director/INDE NTWG Coordinator/INDE	Interview
	Ângelo Mauria Eduardo Machava Brígida	CEPE Deputy Director/UP CAPE Coordinator/UP	Interview
19.08.13	Rosa Mazive	Pedagogical Director Escola Secundária da Zona Verde	Interview
	Felizberto Cople Henrique Cumbane Alice Macamo	Head of Subject Group and teachers Escola Secundária de Zona Verde	Teachers interviews ( focus group)
	Aida Alberto	Head of Subject Group and teachers Escola Secundária de Laulane	Teachers interviews (focus group)
	TBC	Deputy Director/DPEC	Interview
	TBC	PTWG/DPEC	Interview
20.08.13	Salinhas Cassecasse Caetana Cunhete Guilherme Casse Rosalina Artur Fernando Marino	PTWG Coordinator/DPEC	Teachers interview (focus group)
	Zambula	Pedagogical Director Escola Secundária 12 de Outubro	Interview
	Celestino	Head of Subject Group and teachers Escola Secundária 12 de Outubro	Teachers interviews ( focus group)
	Molide Cesar	School Director Escola Secundária de Muatala	Interview
	Orlando Óscar Gina Rosa Estêvão César Silva Carlos Felizardo Masseko	Head of subject Group and teachers Escola Secundária de Muatala	Teachers interviews ( focus group)
	Kadir Omar	ACIANA Coordinator/CTA North	Interview
	Hassane Mussagy	ACIANA Executive Director/CTA North	Interview
21.08.13	Judite Mussacula Francisco Ambasse	School Director Escola Secundária de Nampula	Interview
	Joaquina	Head of Subject Group and teachers Escola Secundária de Nampula	Teachers interviews (focus group)
	Arusse Anli Lacima Iaúba	Pedagogical Director Instituto Comercial 3 de Fevereiro	Interview
	Cesar Mendes Assane Amurane	Head of subject and teachers Instituto Comercial 3 de Fevereiro	Teachers interviews (focus group)

	João Chivara		
	TBC	Student graduate	Interview
	TBC	Student graduate	Interview
22.08.13	Samuel Samcura	School Director	Interview
	Carlos Siveleque	Escola Scundária de Murromone	
		Pedagogical Director	
	Belmiro Mace	Head of subject and teachers	Teachers interviews (focus group)
	Anastácia Mateus	Escola Secundária de Murromone	
	Maiquil Luciano		
	Eusébio Saíde		
	Dulce Tavares	Permanent Secretary of Ilha de Moçambique	Interview
23.08.13	Oscar Pino	Project Team National Coordinator	Group discussion
24.08.13	Carlos R. Mate	Embassy, Norad, UNIDO	Field work Phase I Debriefing/
	Mr. Moreno	Director/INDE	Informal meeting
	Feliciano Mahalambe	National Director of Teacher	Online interview/
		Training/MINED	
02.09.13	Marta Chilaule	Sofala Province/DPEC/PTWG	Interview
03.09.13	Maria Bernardete	Directora	Interview
	Roque	Instituto Industrial e Comercial da Beira	
	Nemane Aygy	Head of subject Group and teachers	Interview/questionnaire
		Instituto Industrial e Comercial da Beira	
04.09.13	Emília Cuamba	Pedagogical Director	Interview/
	Octávio Lima	Escola Secundária da Manga	
	Ângelo Niquice	Head of subject Group and Teachers	Teachers interview (focus group)
		Escola Secundária da Manga	
	TBC	Pedagogical Director	Interview
		Escola Industrial e Comercial 25 de Junho	
	Helena Canetane	Head of Subject Group and teachers	Teachers interview (focus group)
	Maria Noreno	Escola Industrial e Comercial 25 de Junho	
	José Saraiva		
	Tato Gabriel	Deputy Pedagogical Director	Interview
		Escola Secundaria de Mafambisse	
		Head of Subject Group and teachers	Teachers interview (focus group)
		Escola Secundaria de Mafambisse	
04.09.13	Gabriele Ott	Project Manager, UNIDO	Head Office, phone interview
	Johannes Dobinger	Evaluation Officer, UNIDO	Head Office, phone interview
05.09.13		Pedagogical director	Interview
		Escola Secundária do Matadouro	
	Carlitos Viano	Head of Subject Group and teachers	Teachers interview (focus group)
		Escola Secundária do Matadouro	
06.09.13	TBC (Susana)	Pedagogical director	Interview
		Escola Secundária Sansão Mutemba	
	Zeferino Historia	Head of Subject Group and teachers	Teachers interview (focus group)
		Escola Secundária Sansão Mutemba	
	TBC	Directora/Escola Secundária do Estoril	Interview
	Meque Augusto	Head of subject and teachers	Teachers interview (focus group)
		Escola Secundária do Estoril	

## **Annex 4 Literature Review**

#### 1. Introduction

Entrepreneurship, and particularly the abundance of small firms, is seen as a driving force for economic growth (Baumol, 2007). Studies show that the proliferation of small firms is associated with a subsequent increase in employment growth (see for example Glaeser et al. 1992; Acs and Armington, 2010; Glaeser et al., 2012). These findings are taken as evidence for the importance of entrepreneurship for the success of a nation both in terms of generating employment but also catalyzing and shaping the diffusion of innovation, technologies, products and services. The positive role of entrepreneurship for overall development and poverty reduction is particularly linked through job creation. A recent study by IFC shows that some 200 million people are currently unemployed, many of them young people, and it is estimated that by 2020, some 600 million jobs need to be created, mainly in Africa and Asia (IFC 2013).

Africa has the youngest population in the world. And it keeps growing rapidly. Youth in Africa (those between 15 and 24) are projected to cover over 75% of the total population by 2015. And many of them will be living in Africa's cities. Studies show that with increasing urbanization rate of as high as 10% per annum in some African countries; keeping ahead of the need for jobs for new entrants in the labor market requires annual economic growth rates close to 20% annually (IFC 2013).

The situation in Mozambique is also not that different from the rest of Africa and the pattern of large youth groups entering the labor force with a low probability of getting a job is also prevalent here. The young people between the age of 15-24 comprise about 21% of the total population in Mozambique, which in absolute figures comprises more than 2 million individuals (World Fact Sheet). Moreover, it is estimated that around 75% of the labor force operates in the informal sector in Mozambique. Another 17% is unemployed, with only 8% having jobs in the formal labor market (OECD/AFDB, 2008). With the large youth cohorts there is thus a huge mismatch between the available number of jobs, including those that are made available from retirement, and the number of jobseekers. The challenge for Mozambique, as with other African countries, is to identify policies to improve the productive skills of young people that results in improved earnings and reduced vulnerability from being unemployed.

One solution to the imbalance in the labor market has been to stimulate entrepreneurship to help the young generation to create their own employment, often in the form of self-employment, but to support growth-oriented people with a desire to grow their business in a way that can create employment for others as well. Following this line of thinking for employment creation, various interventions were undertaken in developing countries to promote entrepreneurship. These interventions vary by objectives and target groups. The interventions usually range from trainings in technical and vocational skills such as business, management, and financial education to interventions that focus on financial support, counseling and advisory services and business incubation. While most of these interventions target young people that are already in the labor force, few organizations and governments have also focused

in promoting entrepreneurship curricula as part of primary and secondary education. In this section, we will look at the impact of these two different types of interventions and draw some lessons and recommendations for countries like Mozambique that just started expanding entrepreneurship education in the formal education.

## 2. Interventions to support entrepreneurship for those already in the labor market

Evidences of existing impact evaluations on entrepreneurship promotion programs in developing countries are widely heterogeneous. The interventions are also of different types. While some focus mainly on basic business trainings, others provide combinations of financial and advisory support. The evaluations so far have also looked at the impacts at different levels; whether entrepreneurship programs encourage start-ups; promote performance (by increasing employment and earnings); and enhances survivorship for already established businesses.

Some studies find that entrepreneurship training encourages starting up of businesses. Klinger and Schündeln (2011) find that Technoserve's business plan competition in Central America increases startups one year after taking part in the program. Premaud et al. (2012) also find that entrepreneurship training increases self-employment in Tunisia after one year, and the effect is higher for males than females by two fold. Although training results in some success in generating short-run impacts on business start-up, this does not always translate into increased earnings and employment. Premaud et al. (2012) and de Mel et al. (2012) find that the net employment effect from a short-run increase in selfemployment is insignificant. On the other hand, others find that vocational and life skills training combined with internship in private firms increased employment in Latin America (Attanasio et al, 2011; Card et al, 2007). Besides employment, several studies also find a positive impact of business training on earnings. Giné and Mansuri (2011), de Mel et al. (2012), and Valdivia (2012) find a significant impact on revenue due to business training. The evidence on survival of existing businesses is very scant, however, and varies across studies. While Giné Mansuri (2011) finds an increase in the likelihood of survival 18 to 22 months after training for male business owners in Pakistan, and no change for female owners. Vildivia (2012) on the other had finds that training leads to a significant reduction in the likelihood of survival for female firm owners in Peru.

The impact of business supports in financing through microcredits or grants also vary widely across studies. A series of studies in Sri Lanka suggested that grants increases significantly the returns to capital and improved labor market (business) outcomes especially for women (De Mel et al. 2008a; 2008b; 2008c). However, evidence from Mongolia, Bosnia and Herzegovina, India, South Africa, Morocco, and the Philippines suggest that providing more access to credit did not necessarily improve entrepreneurial activity (Banerjee et al. 2009; Karlan and Zinman, 2010; Gine and Karlan, 2009).

The findings from various studies suggest that the impacts of the different entrepreneurship support programs vary by the outcome of interest and target groups, the type of trainings provided and depend

on the specific country and context. In general, improved labor outcomes, such as employment and earnings seem to be more difficult to achieve in the short run than business knowledge and practices.

Business training and access to finance also tend to have larger impacts than other interventions. Access to credit is found to provide the largest impact for the youth and those with higher education. However, the impact generated from access to finance varies by the size of the businesses and it does not appear to be effective to improve labor market activity when the beneficiaries are small business owners. Access to credit also tends to work better when combined with training, than other arrangements. Strong evidence is also found on programs that intend to help individuals to start new businesses. The evidence on survival of those already established, is however scant. Among the few studies that looked at the impact on survivorship of existing businesses, there is some evidence of a positive effect for male owned businesses and zero or a slightly negative effect for female-owned businesses.

# 3. Interventions to promote entrepreneurship curricula as part secondary education

Integration of entrepreneurship education into existing curricula, especially in secondary schools, is a new phenomenon in most countries. In Europe, it was first with the establishment of the Lisbon Agenda around 2000 that entrepreneurship in education was included as an core part of national education policies (Johansen 2011a). Moreover, implementation of these policies was slow and only 3 countries had introduced entrepreneurship education by 2004. Norway was an exception in this case, where entrepreneurship was introduced in the education system relatively earlier than other European countries in the 1990s. Japan officially announced its plan to launch entrepreneurship education for the first time to high school students in January, 2001. In China, the state council introduced measures to support graduated students to pursue an entrepreneurial career in 2005.

An assessment the literature on entrepreneurship education programs reveals some gaps in our knowledge about the impact of entrepreneurship education in secondary education. The first research challenge is the lack of studies in secondary schools. While there are many studies on entrepreneurship education in higher education (see for example Solomon et al., 2002; Souitarus et al., 2007; Rodrigues et al., 2010), little attention has been given to primary and secondary education. The second gap is that most of these programs have never been properly evaluated, making it difficult to draw conclusive policy implications. Despite these gaps, in the next section, we attempt to synthesis some of the suggestive evidences found from various studies on entrepreneurship education.

One should also be careful to generalize findings across countries with different labor market structures. The incentives for starting your own business can very different in a situation where the alternative is unemployment and poverty (for example in Mozambique) as compared to where the alternative could be a well-paid permanent job (for example in Norway). Hence, the willingness of students to transform what they learnt during entrepreneurship training into operational businesses is likely to depend on the local labor market and the economic opportunities.

#### Can entrepreneurship be taught successfully in schools?

Various studied have looked at how entrepreneurship education can promote business start-up on at least two levels: firstly, at the attitudinal level directing students towards certain career choices; and second, at the practical level where it increases the propensity of students to start a business. Several studies (Athayde 2009; Dickson et al., 2008; Frank et al., 2005; Henry, et al., 2005a, 2005b) indicated that entrepreneurship, or at least some aspects of entrepreneurship, can be taught successfully in general education. Some empirical findings (for example, Athayde 2009; Lewis 2005; Peterman & Kennedy, 2003) also suggest that early entrepreneurship education at primary and high school level has a positive correlation on the potential for entrepreneurial activity. By measuring the perceptions of a sample of secondary school students who were enrolled in the Young Achievement Australia (YAA) enterprise program, Peterman and Kennedy (2003) concluded that student's perceptions of the desirability and feasibility of entrepreneurship has increased. In a similar study, Lewis(2005) find that the Young Enterprise Scheme (YES) program in New Zealand influenced, at least to some extent, the choices made by students about future studies and work opportunities. These results were also found to be more pronounced among students who are exposed to enterprising role models among their family and friends. The evaluation of Young Enterprise Company Program (YE) based on the American Junior Achievement model in six secondary schools in London also produced similar results (Athayde, 2009). The results indicate that the enterprise program increased the student's inclination towards selfemployment (Athayde 2009). These results are echoed in a study of the Norwegian Young in Entrepreneurship Program – those who participated in secondary education have a higher share indicating that they would like to run their own company in the future and that they have the capacity to be entrepreneurial (Johansen 2011b).

There are also few studies that suggest that entrepreneurial attitudes that developed at school level can also encourage actually entrepreneurship. Do Paco et al., (2008) suggested that early formal education that affects the attitude of students towards entrepreneurship can also direct them towards certain future careers. The early simulation of these attitudes can also encourage entrepreneurship. Lewis (2005) supports this link by maintaining that while technological skills can be attained during tertiary education, the attitudinal and motivational aspects of entrepreneurship need to be developed at the primary and secondary school levels. However, studies that followed young graduates of entrepreneurship programs for a longer time to depict the results on employment status and survival ship are very scant. A study by Matlay (2008) who followed graduates students for 10 years after they finished the courses in the UK concluded that entrepreneurship education had a positive impact upon entrepreneurial outcomes related to the career aspirations. He found that over the ten years period under study, none of the graduates became unemployed. Furthermore, for a large proportion of the sample, there was a relatively speedy progression from self-employed status to micro- and small business ownership. Another similar study by Johansen (2011b) traces Norwegian students six to seven years after they completed the entrepreneurship training in secondary education and compared their labor market outcomes with a comparable group that did not receive the training. The study finds that a significantly higher share of those who participated has a job with leadership responsibility and a

similarly higher share with entrepreneurial experience. Moreover, the program seems to influence the share of people starting a business as 17% of former entrepreneurship students started or considered to start a business compared to 13% of a comparable group that did not participate in entrepreneurship. However, there are no differences between the groups when it comes to owning an established enterprise, growth ambitions or to see entrepreneurial opportunities.

## 3. Recommendations from the literature

What can we learn from the literature for countries like Mozambique to contribute to employment creation and to promote entrepreneurship? The suggestions found in the academic literature are wide ranging and needs to be carefully scrutinized in the context that they will be used. The most relevant points to our setting are summarized below.

#### Specifying duties and responsibilities and coordinating policies of different stakeholders

Success in implementing entrepreneurship education is influenced by whether the specific duties and responsibilities are assigned to the proper institutions from the national to the local level. A commonality for some of the success stories was that they had managed to construct a responsible system that defined the specific duties to different bodied starting from the ministry of education and down to the teacher. This avoided diffusion of responsibility, duplication of effort, and enabled the programs to be sustainable and replicable.

#### Promoting teachers' capacity of entrepreneurship guidance

Some studies that have looked at the implementation of entrepreneurship education as part of formal schooling emphasized that teachers do not possess enough knowledge of how to implement entrepreneurship education practices (see for example, Seikkula-Leino; 2011 in Finland and Xu; 2012 in China). It is recommended in these studies to give due emphasis in constantly building teachers' capacity in entrepreneurship training. The success of such type of entrepreneurship programs depend on teachers' ability to reflect, imagine alternatives and learn new approaches and putting them in practice in class rooms. Securing and understanding teachers' conceptual and practical knowledge of entrepreneurship in general and the specific curriculum in particular could provide a means for assessing the success of such kind of programs.

#### Complimenting entrepreneurship training with other competencies

To have successful entrepreneurship programs where students have positive attitudes towards entrepreneurship and be able to pursue their career in the future, it is suggested for entrepreneurship education to be coupled with other competencies such as social and civic skills; communication in a foreign language; mathematical and accounting capacities, creative and artistic skills and cultural awareness (Do Paco et al. 2008: 17). Teaching entrepreneurship can be integrated with other subjects, especially those that provide the students with technical skills and knowledge that can form the basis for product development of the start-up enterprise (Johansen 2011b). The complementary competencies can be taught directly in the entrepreneurship courses or through other courses given to students at the different levels.

#### Improving the investment climate and building supportive service systems

Entrepreneurship education alone cannot guarantee that a larger share of students would become successful entrepreneurs after they graduate. The entrepreneurship program should be coupled with various support services for students that want to extend their business or start a new one. At the higher level, improving the investment climate could also affect the opportunities for young entrepreneurs through demand linkages. Hence, the development of 'hard' infrastructure such as road and electricity and provision of crucial 'soft' infrastructures such as supporting institutions could also be important instruments in this setting. The economic opportunities in the students' community may be a decisive factor in whether they will be able to be entrepreneurial. In a poor rural village with a low degree of monetized economy and mostly based on subsistence agriculture, the demand for any new products may be close to zero. Under such circumstances entrepreneurship is likely to fail. Such factors should be taken into account in policies to stimulate entrepreneurship education and development.

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# Annex 5. Project documents in Portugese reviewed

# DOCUMENTOS/MATERIAIS SOBRE A DISCIPLINA DE NOÇÕES DE EMPREENDEDORISMO

FACULTADOS AOS CONSULTORES DA AVALIAÇÃO FINAL DO PROJECTO

N⁰	AUTOR	ΤΊΤυιο	
1	UNIDO	Relatório de análise de resultados preliminares da implementação do projecto, Moçambique, Junho 2007 – Dezembro 2008	
2	INDE	Dossier sobre a implementação da disciplina de noções de empreendedorismo/ESG-ETP, Namaacha, Novembro de 2001	
3	UNIDO	Experiências de Alunos, Material de apoio suplementar,	
		Março 2012	
4	MINED - DINESG	Regulamento de avaliação do ensino secundário geral	
		Maputo 2010	
5	MINED/INDE	Plano curricular do ensino secundário geral	
		Documento orientador	
6	MINED/INDE	Noções de empreendedorismo	
		Programa da 12ª classe	
7	MINED/INDE	Noções de empreendedorismo	
		Programa da 11ª classe	
8	MINED/INDE	Noções de empreendedorismo	
		Programa da 10ª classe	
9	MINED/INDE	Noções de Empreendedorismo	
		Manual do professor para leccionar empreendedorismo no ESG e TPV	
10	UNIDO	Cartaz – Noções de empreendedorismo	
		Alunos empreendedores revelam as suas experiências	
11	UNIDO	Cartaz – Noções de empreendedorismo	
		Planear um negócio	
12	UNIDO	Cartaz – Noções de empreendedorismo	
		Funções da gestão	
13	UNIDO	Cartaz – Noções de empreendedorismo	
		Características do empreendedor	

## 1. DOCUMENTOS (FÍSICOS) FACULTADOS PELA UNIDO (NAMPULA)

14	UNIDO	Cartaz – Noções de empreendedorismo	
		Aplicar competências empreendedoras	
15	UNIDO	Folheto – Estratégia para Desenvolvimento Rural	
		Promoção de comportamento empresarial na juventudo de Moçambique	
16	UNIDO	Folheto – Moçambique Investindo na nova geração	
17	UNIDO	Relatorio Tecnico Implementação da disciplina de NE	
		Moçambique, Abril de 2010 a Maio de 2011	
18	UNIDO	Mapa c quadro: Escolas obertas pelo programa-2013	
19	UNIDO	Mapa c quadro: Alunos no programa em 2012 por provincia	
20	UNIDO	Mapa c quadro: Professores capacitados até dezembro - 2012	
21	UNIDO	Supplementary notes to progress report	
		A. Statistic of entrepreneurship	
		B. B. Program components	

# 2. DOCUMENTOS (ELECTRÓNICOS) FACULTADOS PELA UNIDO (MAPUTO)

1	UNIDO	Programa curricular de formação de Empreendedores	
2	UNIDO	Programa de formação de empreendedores	
3	UNIDO	Programa de reactivação de grupos técnicos de trabalho proviniais	
4	UNIDO	Proposta de programa para capacitação de GTT Nacional	

## 3. DOCUMENTOS FACULTADOS PELA UP

1	UP	Proposta de programa do seminário de empreendedorismo	
		Quelimane 10 e 11 de Dezembro de 2012	
2	UP	Relatório da visita ao Brasil	
3	UP	O empreendedorismo na UP no ano acadêmico 2011	
4	UP	Relatório de empreendedorismo na Universidade Pedagógica – Delegação de Maputo - 2012	

#### 4. DOCUMENTOS FACULTADOS PELO INDE

1	MINED/INDE	Noções de empreendedorismo
2	MINED/INDE	Kit do professor para leccionar empreendedorismo no ESG e no ETP

# Annex 6. Names of schools visited, province and ECP start year

PROVINCE	NAME OF SCHOOL	YEAR ECP STARTED
Maputo Province	Escola Secundária Zona Verde	2010
Maputo City	Escola Secundária de Laulane	2007
Sofala Province	Instituto Industrial e Comercial da Beira	2007
	Escola Secundária da Manga	2010
	Escola Secundária de Mafambisse	2010
	Escola Secundária do Matadouro	2010
	Escola Secundária Mateus Sansão Mutemba	2010
	Escola Secundária do Estoril	2010
	Escola Industrial e Comercial 25 de Junho	2010
Nampula Province	Escola Secundária 12 de Outubro	2010
	Escola Secundária de Muatala	2010
	Escola Secundária de Nampula	2007
	Escola Secundária de Murromone	2010
	Instituto Comercial 3 de Fevereiro	2007