Evaluation ORIO
“Ontwikkelingsrelevante Infrastructuurontwikkeling”

Final report

Nico van der Windt
Niek de Jong

Rotterdam, Erasmus University Rotterdam
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Preface

The team of consultants for the evaluation was led by Nico van der Windt (Erasmus University) and furthermore comprised Elena Gross (University of Bayreuth), Martin van der Linde (independent researcher), Niek de Jong, Dr. Ogenis Brilhante, Floris de Haan, Jan-Jelle Witte and Prof Dr. Geske Dijkstra (all of Erasmus University Rotterdam). Viviana Cordero Vinueza provided helpful research assistance. The following evaluators also contributed to the underlying case studies of this evaluation: Dr. Stephen Kirama from Tanzania, Mr. Ousseynou Diop from Senegal and Ms. Fannata Souleymane Mamdou Mari from Niger.

The evaluation includes the following four case studies:

- Enhancement of maternal Health and Paediatric Service in the Zanzibar archipelago, Mnazi Moja Hospital, Tanzania;
- Rehabilitation of Kilimanjaro International Airport, Tanzania;
- Development of the Port of Ziguinchor, Senegal;
- Satellite-Based Water Monitoring and Flow Forecasting System for the Niger River Basin, Niger.

A reference group provided comments and advice to the evaluation team for both this report and the case study reports. The group consisted of Prof. Dr. Ruerd Ruben (Wageningen University), Dr. Guus van Westen (University of Utrecht), Dr. Alexander Otgaar (IOB); Johan Veul (chairman; Ministry of Foreign Affairs), Joke Vroegop (Ministry of Foreign Affairs), Jan-Kees de Nooijer (Ministry of Foreign Affairs), Floor van Oppen (FMO) and Sylvie Sprangers (RVO).

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Executive Summary

A. Background of the evaluation

This evaluation assesses the achievements of the ORIO programme so far. Its main objectives are:

- To determine the relevance, effectiveness, efficiency, additionality and policy coherence of the ORIO programme;
- To learn from the assessment of the functioning and effects of the ORIO programme and the use of resources, in order to generate relevant information for the improvement of similar programmes.

These objectives are translated into 7 research questions that are addressed below, after a brief description of the ORIO Programme.

The evaluation focuses on the period from 2009 to the end of 2018 and addresses key issues at both the *programme level* and the *project level.* It combines qualitative research, based on a study of documents and interviews with stakeholders, with quantitative research, based on data from the portfolio of projects and data collected for the following case studies:

- Enhancement of maternal Health and Paediatric Service in the Zanzibar archipelago, Mnazi Moja Hospital, Tanzania;
- Rehabilitation of Kilimanjaro International Airport, Tanzania;
- Development of the Port of Ziguinchor, Senegal;
- Satellite-Based Water Monitoring and Flow Forecasting System for the Niger River Basin, Niger.

As far as available, it makes use of findings of six impact assessments being conducted by external consultants under separate contracts.
It should be noted that a full assessment of the success of the programme in terms of effectiveness and impact is not possible because most of the supported projects are not yet completed.

B. The ORIO programme

The ORIO programme aimed at supporting investments in public infrastructure in more than 50 low- and middle-income countries. It was the successor of the ORET programme, which was closed for new applications in 2007[1]. The principal difference with ORET is that ORIO dealt with co-funding of investments in public infrastructure projects that were initiated by central governments in beneficiary countries, whereas ORET subsidised Dutch exports of capital goods. In ORET, the exporter was the applicant of the subsidy.

ORIO was a very popular programme among potential beneficiaries, considering the large number of applications. It started in 2009 with 217 applications. This number declined to 31 in 2013. The ORIO window for new applications was closed in April 2014.

The proposal for the public infrastructure investment started with the preparation of the application by the beneficiary (the central government of the beneficiary country), in many cases supported by a so-called private initiator, mostly from the Netherlands. Before an investment proposal was rewarded with a grant, it went through a careful assessment process. The first part of the project cycle consisted of the following phases: (1) the application phase; (2) the first assessment; (3) the development phase; and (4) the second assessment. After acceptance, the project continued in (5) the implementation phase, and (6) the phase of operation and maintenance (O&M).

Initially, many proposals were refused at the gate, because they did not comply with the formal and administrative requirements. The proposals prepared with the assistance of a private initiator had a higher probability of being accepted in the application phase than those without such help. The number of refusals declined over time, both in absolute numbers and relative terms, indicating that

[1] ORET is the acronym of the programme 'OntwikkelingsRelevante ExportTransacties'.

applicants learned to adapt to ORIO's requirements. Staff of ORIO taught several potential applicants how to deal with the programme's formalities.

The subsequent assessment procedure involved ORIO staff, external experts and ACORIO, an independent advisory committee for ORIO. It started with a check on the project's financial and commercial viability, followed by an assessment of eligibility (consistency with national priorities, competency of the local authorities) and impact (such as contribution to economic growth, to private sector development, etc). Prior to 2012, the projects were given scores for these criteria. Projects with the highest score were selected for a grant for the development phase. This 'beauty contest' regime changed into 'first come, first served' in 2012. From then on, proposed projects with a 'satisfactory' score on the criteria Relevance, Effectiveness, Development impact, Efficiency, Sustainability and Economic return (estimated with help of a cost-benefit analysis) were ranked according to submission date and allowed to enter the development phase until the budget ceiling of the application round was reached.

Opinions about the two systems differed. Some participants in the programme preferred the 'beauty contest', because it provided them the opportunity to show they had the best offer. Others preferred the post 2011 approach, because they considered this regime more transparent. A comparison of the two systems did not show significant differences in the quality of project proposals, nor in the efficiency of the assessment procedure. It should, however, be noted that the time window for each approach (2-3 years after introduction) was insufficient to prove its relative advantages.

Overall, 73 projects qualified for an ORIO grant for the development phase. Most activities during this phase were executed by Dutch consultancy firms. The development phase was closed with a project plan for the implementation and O&M phases. This plan was assessed by applying similar criteria as the previous phase. By the end of 2018, 51 projects were considered ready for implementation or had already started implementation[2]. None had completed the O&M phase yet at that date.

C. Research Questions

1. Has the ORIO programme been relevant, effective, efficient and sustainable in terms of the outputs, outcome and impact formulated in the results chain? If not, what are the causes of that?

Relevance and policy coherence

Both theoretical and empirical studies suggest that the provision of adequate public infrastructure services is an important determinant of economic and human development. ORIO's target countries score unanimously low on the availability of infrastructure. These countries also show relatively low scores on the sophistication of financial markets, indicating that their governments have limited access to local financing of investments and therefore often depend on donor funding. From this point of view, a programme such as ORIO is relevant. At the micro-level, the relevance of the projects is confirmed by the case and impact studies which, with one exception, show that these projects are relevant in terms of the needs they address. The exception was the electrification project in Tanzania, which was partly overtaken by the expansion of the electricity grid in the area.
The programme also fitted well within the aid policies of the Netherlands government because of its focus on poverty reduction and private sector development. The coordination with other Dutch aid instruments is, however, limited.

The Dutch private sector was involved in the programme during several phases. Dutch consultancy firms participated in the preparation of proposals and in development phase activities. Dutch firms were involved in several projects as project managers and contractors. As such, the programme mobilised the knowledge and expertise from Dutch companies. Nevertheless, particularly Dutch

[2] The number was 45 on 1 September 2019.

exporters of capital goods felt marginalised, because the local governments were in the driver's seat and because the procurement was based on International Competitive Bidding. There is no clear evidence that the Netherlands in general benefited in terms of additional exports and/or direct investments from the (potential) goodwill created by ORIO in its target countries.

Effectiveness

Since most projects have not yet been completed, it is premature to draw strong conclusions on effectiveness. Nonetheless, there are several indications that the programme has not (yet) been as effective as planned at the level of the individual projects. Six of the seven case and impact studies reveal that the projects have not (yet) fully realised their predefined outputs and/or outcomes. For the case studies, it is too early to assess the long-term impacts of these projects. The impact studies do not show statistically significant contributions of the projects to their long-term objectives. In the seventh case (Electrifying Rural Tanzania), part of the investment is being used for different purposes. The ORIO programme supported the improvement of services provided by public infrastructure in these cases, but less than planned.

The commitments of the programme will not exhaust the budgets allocated by the Ministry of Foreign Affairs. Only about 50% of the total allocation will be spent, instead of the 65% assumed beforehand by the Ministry. The programme could have funded more projects than it actually did.

Efficiency

The average period to approve a project proposal, which included the formulation of, and agreement on, the terms of reference for the feasibility study, was slightly more than a year. This is considered reasonable, given the complexity of the investments and their contexts. The detailed design of the project during the development phase took, on average, another 2-2.5 years, also considered reasonable for investments between €5 million and €60 million in such complex environments.

About €7.7 million was spent on the development phase of projects that were ultimately cancelled. Projects were cancelled for two main reasons. In a limited number of cases, the development phase showed that projects were not feasible. In these cases, implementation did not take place and money was saved. In the other cases, the recipient government did not (could not) keep the (mostly financial) promises made earlier, also illustrating a lack of institutional capacity. In these latter cases, firmer financial and institutional commitments from the applicant officials prior to the development phase would have avoided spending time and money on projects that for these reasons did not continue.

Sustainability

With the inclusion of an O&M phase, the ORIO programme recognised the importance of sustainability. Mobilising enough funds to cater for maintenance is a problematic issue for most reviewed projects. Some reviews also mention that institutional weaknesses are bottlenecks for carrying out sufficient maintenance activities, threatening the effective functioning of the supported infrastructure in the future.

The assessment of the projects also focused on the social and environmental impact by applying the criteria described by IFC and OECD. If relevant, this also included a Social and Environmental Impact Assessment. This paid off, considering the positive (or neutral) contributions to the environment and labour conditions witnessed in the reviewed projects.

2. Can key success or failure factors for the programme as a whole be identified?

ORIO has not existed long enough to prove its full value. It is clear that the inclusion of a development phase has contributed to a selection of projects with a better design which could start the implementation phase. For the majority of projects, the O&M phase has not started yet. It is therefore too early to judge if financing this part of the project cycle has contributed to the effectiveness and impact of the projects.

3. What has been the effectiveness of the process design of ORIO?

Support to all phases of the infrastructure construction:
ORIO's rules for acceptance of projects were very strict, as indicated by the careful appraisal process of the projects, and by the inclusion of a project development phase. Moneywise, this process resulted in a reduction of budgeted project costs, illustrated by the fact that the value of the grants committed by ORIO was substantially lower than the amount requested in the proposals submitted by the recipient governments. The grants committed for the development phase were €38 million, against €40 million requested. The grants committed for the implementation and O&M phases reduced from over €800 million to slightly above €400 million. The main reasons for the reduction were the grants related to the cancelled projects (amounting to €220 million) and the re-design of the projects during the development phase, also saving €180 million.

At the same time, 22 out of 73 projects that had been approved failed to reach the implementation stage, implying a lot of effort preparing proposals for projects that ultimately were not implemented.

Despite the careful preparation of the projects, the case and impact studies show that the projects have realised the planned outputs, but have not (or not yet) fully achieved the formulated outcomes.

Institutionalised assessment by the independent committee ACORIO adding to the overall quality of the process of project appraisal
ACORIO played an important role as independent advisor to the staff of the ORIO desk in RVO. It asked the right critical questions at the right time in the project appraisal process, and added value in terms of recommendations for improvements in the projects. The multi-disciplinary composition of the committee was a guarantee that all quantitative and qualitative aspects of the projects were taken into account. During ORIO's first period, the committee scored the projects as well, applying the same criteria as the staff of ORIO and the external experts. Discrepancies in the scores were discussed and in the end a compromise was reached. In several cases, the committee asked for clarification about details of the project proposals, which generally was to the benefit of the projects.

4. How efficiently has the ORIO programme been managed?

Considering the volume and the complexity of most projects, the time needed from gate to start of implementation was reasonable. Similarly, the planned period for the implementation phase was reasonable as well. The case studies confirm that the projects were implemented accurately.
The operational costs per project accepted for the development phase is comparable with other agencies, although comparisons are difficult because of the differences in programme designs and the lack of clear financial information of alternative programmes. The operational costs as a percentage of, respectively, the costs of the projects in portfolio, the grants committed to these projects and the disbursements up to now are rather high. This percentage will further increase, since the executing organisation (i.e. RVO) will continue to be involved as manager of the O&M phase. The short life of the programme has resulted in a portfolio that is rather small and, consequently, in an upward bias in the above-mentioned ratios.

5. Has ORIO become more efficient and/or more effective due to changes of its policy rules in 2012?

ORIO's existence can be divided into two relatively short periods with different policy rules: 2009-2011 and 2012-2013. These periods are too short to make a deliberate conclusion about which policy rules were more efficient and/or more effective, simply also because most of the projects submitted in the second period are still in preparation or in an early stage of implementation. Answering this question is even more complex because the number of applications was significantly larger during the first period, without indications that this decline in the 2012-2013 period was related to the change in policy rules. Yet, up to now there are no indications that there were significant differences.

From interviews, it became clear that contractors prefer the 'first come, first served' approach of the post-2011 period, because they consider this procedure more transparent.

6. To what extent have the ORIO projects been additional in line with the DCED guidelines as used and adopted by RVO in the implementation of ORIO?

The picture regarding additionality is mixed. There are indications that funding would have been made available anyhow for projects with the highest priority, such as the Kilimanjaro International Airport in Tanzania. Though, such high priority is not a guarantee, as is shown in the case of the port of Ziguinchor in Senegal, which is delayed because the Government of Senegal cannot meet the local financial requirements. The two other case studies concluded it unlikely that the projects would have been implemented under similar conditions without ORIO. With the exception of the case study project in Niger, none of the case studies found indications of a catalytic role of ORIO. The impact study on the Water and Sanitation project in South Africa mentions that alternative finance could have been found through raising user fees, but at the expense of a smaller regional coverage, in particular leaving out the poorer regions. A similar conclusion was drawn in the impact study of the Vietnamese water project.

7. Has the programme been effective involving the knowledge and experience of (inter)national companies?

As previously mentioned, Dutch companies were heavily involved in the application phase as private initiators, and in the development phase as consultants. As such, Dutch knowledge was utilised during these stages of the project cycle. Dutch companies also played a role in the implementation of the projects, often as project manager, giving them the opportunity to introduce state-of-the-art technologies. Yet, discussions with some companies in the Netherlands revealed that they did not believe the programme sufficiently utilised the know-how and expertise of the Dutch business sector. These interviewees often represented exporters of capital goods who are more in favour of a trade promotion instrument, such as ORET, than of a programme which supports investments in local public infrastructure projects, such as ORIO.

D Lessons Learnt

1. The programme was flooded with applications, particularly during its early years. A large number of these were rejected at the gate, because they did not comply with the requirements of the programme. This was not only demanding for the staff of ORIO, but the applicants and the private initiators involved, who spent time and money preparing the (in this case) non-successful applications. In order to minimise such waste of time and money, programmes like ORIO should require very explicit, clear and easily accessible instructions regarding the requests for support.
2. The inclusion of a development phase – during which the project was prepared in detail, considering local needs and context – appeared to be a success. It is hence advisable to introduce such a preparatory phase in programmes like ORIO that support investments. The introduction of an O&M phase in investment-supporting programmes requires clear definitions of modalities on how to contract out critical maintenance tasks. These definitions need to be laid out early on in the design phase of an infrastructure development project.
3. To avoid a project being stopped for lack of counterpart funding from the recipient government after having fully determined its specifications in (for example) a development phase, requires firmer financial and non-financial commitments from the government prior to the start of a development phase.
4. All projects in ORIO were appraised by applying similar criteria independent of the sector. It would be reasonable to treat projects in the social sectors, such as Health and Education, different from the projects in sectors such as Transport, Ports and Water, by changing the weights of the various assessment criteria.

5. ORIO was open for applications for only 5 years, which is too short to mature. Consequently, the programme did not have sufficient time to prove its value nor to establish itself as a mature programme. As a result, its operating costs will be relatively high in comparison with the volume of its portfolio. It is recommended to allow such a programme sufficient time to run, learn and yield outcomes before undergoing final evaluation.
6. ORIO's commitments were much lower than its available budget. It is advisable to commit more funds at the start of the development phase than the available budget. Had ORIO been allowed more time, it could have learned how many projects would be stopped during the development phase.

1. Introduction

1.1 Background of this Evaluation

The Development Related Infrastructure Facility (ORIO: in Dutch, *OntwikkelingsRelevante InfrastructuurOntwikkeling*) is the successor of the so-called ORET programme, but differs from ORET in terms of procedures and focus.[1,2] ORIO started in 2009, was revised in 2012 and closed for new applications in 2014. ORIO's budget for new projects was set at €180 million per annum during the period 2009-2012. This was reduced to €90 million in 2013. The total committed budget was nearly €433 million on 31 December 2018. The disbursed amount adds up to close to €160 million.[3] To date, none of the 51 projects that were approved and that are executed has reached closure.[4] This can, to a large extent, be explained by the nature of the ORIO projects that (in addition to construction) also include operation and maintenance.

ORIO co-finances public infrastructure investments through grants. More than 50 countries qualified for support from the ORIO programme.[5] Supported projects are in principle divided into three different phases: the development phase, the implementation phase and an operation & maintenance (O&M) phase. The grants provided by ORIO vary from 50% to 100% for the development phase, and are between 35% and 80% for the two other phases, depending on the development status of the applicant countries. The programme's rationale is that adequate supply of public services contributes to private sector development and human development, the two main objectives of ORIO.

This evaluation assesses the achievements of ORIO so far, and the accountability of the resources used financially and otherwise, also in relation to the results of the supported investments. It also aims to generate lessons for future public infrastructure investment programmes and private sector development policies.

1.2 Purpose and Scope of the Evaluation[6]

The terms of reference for this evaluation (ToR) are rather comprehensive and include a detailed description of the programme and of the portfolio of projects that were approved and started during the period 2009-2013. The ToR also specify in detail the research questions for this evaluation at both the level of the individual projects and the level of the overall ORIO programme. They in particular pay attention to the process and the change in policy rules halfway through the programme.

The ToR define the following objectives of the evaluation:[7]

- To determine the relevance, effectiveness and efficiency of the ORIO programme, including the effectiveness of the process design;
- To learn from the assessment of the functioning and effects of the ORIO programme and the use of resources, in order to generate relevant information for the improvement of policy

[1] ORET is the acronym of the programme 'OntwikkelingsRelevante ExportTransacties'.

[2] See 'Work in Progress, Evaluation of the ORET Program: Investing in Public Infrastructure in Developing Countries', IOB Evaluation No. 402, The Hague, July 2015 (https://www.government.nl/documents/reports/2015/07/01/iob-work-in-progress-evaluation-of-the-oret-programme-investing-in-public-infrastructure-in-developing-countries).

[3] This refers to 73 projects that were accepted to enter the development phase.

[4] The information as of 1 September is that there are still 45 projects in portfolio with a total committed budget of approximately €450 million and a disbursed amount of €170 million.

[5] The list of countries that qualified for ORIO support is included as Annex 1.

[6] The evaluation methodology is described in detail in Annex 3.

[7] See "Terms of Reference; Evaluation ORIO: Ontwikkelingsrelevante Infrastructuurontwikkeling", Ministry of Foreign Affairs of the Netherlands, October 2018, page 13.

implementation for the remainder of ORIO, its successors DRIVE and Develop to Build (D2B) and other policies in the field of public infrastructure investments and private sector development in development countries.

Following the ToR, the evaluation focuses on the period from 2009to the end of 2018 and addresses key issues at two levels:

- At *programme level*, the evaluation assesses the development relevance, effectiveness and impact of the programme, including the efficiency of the programme's management and procedures.
- At *project level*, it assesses the effectiveness of the ORIO-projects in meeting their own formulated objectives and their outcomes, in order to be able to draw conclusions about whether the programme as a whole has met its objectives and conditions.

The ToR formulate 7 research questions, varying from a test of the evaluation criteria (Relevance, Efficiency, Effectiveness, Sustainability and Impact) to an assessment of the effects of the change in programme design halfway and the involvement of Dutch companies in the development and implementation of ORIO projects.[8]

Although the evaluation is focused on the projects that are approved, implemented and/or operational, it also refers to the projects that dropped out or were withdrawn. At programme level, the evaluation provides a policy reconstruction of ORIO. This reconstruction focuses on the two periods open for applications (2009-2011 and 2012-2013) and takes as such into account the policy changes of the programme in 2012. It studies the relationships between the Ministry of Foreign Affairs and RVO (Rijksdienst voor Ondernemend Nederland, the executing agency of the programme), the effects of the OECD/DAC ex ante notification rules, and the effects of the procedure of International Competitive Bidding (ICB). The policy reconstruction also covers the role and reactions of the main stakeholders of the ORIO-programme.

The evaluation combines qualitative research, based on a study of documents and interviews with stakeholders, with quantitative research on the basis of data collected for the following four case studies:

- Enhancement of maternal Health and Paediatric Service in the Zanzibar archipelago, Mnazi Moja Hospital, Tanzania;
- Rehabilitation of Kilimanjaro International Airport, Tanzania;
- Development of the Port of Ziguinchor, Senegal;
- Satellite-Based Water Monitoring and Flow Forecasting System for the Niger River Basin, Niger.

To the extent available, it furthermore makes use of the findings of the six impact assessments mentioned in Table 1.1 below that are or were executed by external consultants under separate contracts. Some of these studies are still in progress. Table 1.1 gives an overview of the state of affairs of these studies.

[8] See ToR, section 3.3.

Table 1.1: Six ORIO project impact evaluations - state of affairs

Inception	Baseline	End line	Cross-section analysis	Time series analysis
Sustainable Water and Sanitation Development Programme for Indigent Communities in eThekwini Municipality				
√	-	-	√ Survey 9/2016 – 3/2017 (three groups)	-
Realisation of two water treatment plants for rural areas in Ba Ria Vung Tau Province, Vietnam				
√	√	Steering committee & team decided to conduct no end line survey	-	-
Electrifying Rural Tanzania				
√	√	√	√ PSM (rural)	√ Before-after (urban)
Construction and Equipment of a General Hospital in Western Managua				
√	√	TBI	-	-
Boosting Maternal and Child Health in Wollega, Ethiopia				
√	TBI	TBI	-	-
"Accelerating TB case detection in Ghana".				
√	-	-	-	TBI

TBI =to be implemented

1.3 Organisation of this report

The remainder of this report is organised as follows. Chapter 2 provides a brief description of the ORIO programme, including its objectives, and the choice for countries and sectors that it supported. It also describes the process of the selection of projects prior to and since 2012. Chapter 3 analyses the portfolio of the programme. It is followed in Chapter 4 with the rationale of programmes that support investments in public infrastructure such as ORIO. It makes use of the indicators constructed by the World Economic Forum in the context of its annual research on global competitiveness. Chapters 5 to 10 discuss ORIO, at the level of the overall programme, as well as at the level of individual projects, using the following evaluation criteria: relevance, efficiency, effectiveness, sustainability, policy coherence and additionality. Conclusions are presented in Chapter 11, which also comes back to the research questions and presents some lessons learnt.

2. The ORIO Programme

This chapter describes ORIO's objectives and main characteristics. It starts with a comparison with its predecessor ORET and continues with a review of the appraisal and selection processes of the programme. The programme's country and sector choices are described in the sections 5 and 6.

2.1 Comparison ORET and ORIO

After ORET's closure for new applications in August 2007, ORIO started in 2009 as its successor, but was closed for new applications in April 2014.[9] The table in Annex 2 gives a detailed overview of the main differences between ORET and ORIO.[10] There are some fundamental differences between the two programmes. ORET was a subsidy programme, providing subsidies to exporters of capital goods. In contrast, ORIO is a government to government programme providing grants to recipient countries for investments in public infrastructure. A second fundamental difference is that ORET was promoting development-relevant export transactions with a view to strengthen sustainable economic development and improve the business climate in recipient countries. In comparison, ORIO supports the development of public infrastructure in the recipient countries, with a view to contribute to the development of the local private sector and human development. There were also significant operational differences between the two programmes. The initiative in ORET rested with an applicant company, which was in line with the subsidy character of the programme. In ORIO, the applicant is the national government of the recipient country, though in many cases supported by Dutch so-called private initiators.

ORET used the 'first come, first served' approach. As soon as the application met the criteria an ORET subsidy was provided, unless the annual budget ceiling was reached. In contrast, ORIO is not a subsidy programme, but a grant facility, which applied the 'beauty contest' approach for the larger part of its existence. The acceptance of the project proposals for ORIO's co-funding was changed into a 'first come, first served' approach in 2012. This change in ORIO's assessment procedures will be discussed below.

2.2 Objectives of ORIO

The primary objectives of ORIO are (a) to promote sustainable economic development and (b) to support human development. The programme also promotes the involvement of (Dutch) companies in the financed projects. This was formulated as follows in the Government's decision communicated to parliament in 2009:[11]

- ORIO contributes to the development, implementation (construction, and/or renovation, and/or extension) and exploitation of Public Infrastructure in developing countries.
- Deficiencies in infrastructure are bottlenecks for economic growth in many developing countries, whereas economic growth is an important prerequisite to eradicate poverty and to achieve the millennium development goals as formulated by the United Nations.
- Economic growth itself is not sufficient. The poor should benefit from economic growth. The societal benefits of the realised infrastructure should therefore be beneficial for the poorer segments of the population.
- ORIO aims at promoting the involvement of the (international) business community in the development and realisation of projects in the area of public infrastructure with a view to utilise the know-how, knowledge and development strength of the (international) private sector.

[9] A new programme 'DRIVE' has become operational by mid-June 2015.

[10] The table is copied from 'Work in Progress, Evaluation of the ORET Program: Investing in Public Infrastructure in Developing Countries', IOB Evaluation, The Hague, July 2015.

[11] Cit. from Decision of the Minister for Development Cooperation of 23 February, 2009, R-nr. 649, published in Staatscourant 2009, nr. 47, 10 March 2009. English language is ours.

ORIO was revised in 2012. This decision of the Minister of Foreign Affairs was communicated to parliament in his letter of 27 April 2012.[12] It describes the background of the programme, its objectives, target groups, the selection criteria and the modus operandi. In this revised version of ORIO, the focus was more on private sector development, in order to support sustainable economic growth and human development. Access to well-functioning public infrastructure services, in such fields as health, education, drinking water and energy, is considered a prerequisite for eradicating poverty. ORIO therefore pays great attention to improving access to, and use of, public infrastructure services. As in the 2009 version of the programme, the involvement of (international) private sector organisations in the preparation, development, implementation and exploitation of the infrastructure investments co-funded by ORIO is considered important. It is therefore focused on the promotion of cooperation with the private sector. An important operational change of the programme was the introduction of the 'first come, first served' approach instead of the 'beauty contest' applied during the 2009-2011 period.

2.3 Process for ORIO support

The trajectory of a typical ORIO-project consists of six stages: (1) the application phase; (2) the first assessment; (3) the development/design phase; (4) the second assessment; (5) the implementation phase; and (6) the phase of operation and maintenance. ORIO is a government-to-government programme, implying that, prior to the application, the government of the recipient country identifies the needs and the activities that address these needs. This stage is not an explicit part of the ORIO-project cycle, although in several cases the ORIO desk advised the applicant on the perfection of its application. The results of the needs assessment, including the definition of the required infrastructure investments, were an essential component of the application. The preparation of the application was often supported by an external, usually Dutch, company (in ORIO terminology the private initiator). The applications were submitted to the ORIO desk in RVO[13], the executing agency of ORIO. At this stage, the applications were checked on the formal and administrative requirements. If accepted, the assessment procedure started with a first assessment of the proposed project, involving the staff of RVO and in most cases external experts. The results of this step in the procedure were communicated to an independent advisory committee (ACORIO)[14] in the form of a report that included scores on the various criteria applied to assess the projects .[15]

The assessment reports of RVO staff with the contributions of the external experts were reviewed by ACORIO on the basis of the agreed criteria. As mentioned above, these criteria were adjusted in 2012. Considering the advice of ACORIO, it was decided whether a project in principle qualified for ORIO-support and could therefore proceed with the development phase or not. If accepted, a grant arrangement was agreed with the applicant government, which defined the conditions for the development phase, the budget, and who was going to pay what. Depending on the income status of the recipient country, ORIO covers between 50% and 100% of the costs of the development phase. After this agreement, a private party was contracted by the applicant government for the execution of the development phase.

During the development phase, the project was formulated in detail, including the main activities, the feasibility and costs from start to end of project. The result was provided in the form of a project plan and supporting studies. This plan was again assessed by staff of ORIO, supported by external experts and taking into account the advice of ACORIO. ORIO decided if the project indeed qualified

[12] Decision of the Minister of Foreign Affairs of 30 March 2012, Nr. DDE-41/2012, published in the Staatscourant 2012, nr. 8239, 27 April 2012.
[13] Netherlands Enterprise Agency. RVO is the abbreviation of the name in Dutch "Rijksdienst voor Ondernemend Nederland". RVO was formerly known as AgentschapNL and as EVD during the period 2009-2010.
[14] Abbreviation of Dutch name "Adviescommissie voor Ontwikkelingsrelevante Infrastructuurontwikkeling". ACORIO's composition and working methods are determined by the Ministry. See decision of the Minister in his letter to parliament.
[15] We come back to these criteria and the scoring methodology below.

for ORIO support. If so, a grant arrangement for the implementation and the O&M phases was agreed with the applicant government, which specified the conditions for implementation of the project. An important component of the project plan was the condition that the government guaranteed the availability of the non-ORIO grant part of the total project costs. After signing the grant arrangement, the project was internationally tendered by the recipient government according to the specifications of the project plan.

In order to enlarge the ownership of the projects co-funded by ORIO, including the assurance that the additional financing would be available, the applicant of the project was the national government of the eligible country. The local *executing* agency was what is called the competent authority. This could be one of the national ministries, a local government or an independent institution owned by the government. The national government could seek external support to prepare the application and support and guide the application process. As will be shown below, this was done in many cases. Often, the private initiator was a Dutch firm, which was well-informed about the local situation in the applicant country and had good contacts with the local government. In the policy documents that formed the basis for ORIO, the mediation of a private company was considered an advantage, because the programme intended to promote the cooperation between public and private institutions with a view to benefit from the knowledge, skills and development power of the private sector.[16]

2.4 Selection of projects

Before 2012

Two programme periods can be identified: the 2009-2011 period and the period after 2011. The main difference between these two periods was that before 2012, the approach to select projects was based on a 'beauty contest', but after 2012 it was on the basis of 'First Come, First Served' (FCFS). The submitted project proposals were ranked, applying a set of selection criteria during the first period. As a start, the projects were checked on commercial viability. This included also a check on the extent to which the project lead to market distortions. In case the submitted projects were commercially viable, they did not qualify for ORIO support, which is in line with OECD guidelines. It is no surprise that in several cases this criterion was debated, because it is not always clear which prices should be applied for the inputs and/or outputs of the project to determine its commercial viability.

A second check was on financial feasibility. The question here was whether the overall financing of the project was secured, and whether the project would generate sufficient cash flow to cover the operational costs and, if relevant, the interest costs and repayments. In most cases, the local government was committed to cover the operational losses made on the provision of public services provided by the public infrastructure investment. Alternatively, as is often proposed in water and energy projects, there was a feasibility check on whether the user fees could cover the operational costs of the facility. If both requirements – the project being both commercially non-viable and financially viable – were met, the selection process was followed by an assessment using impact criteria and criteria related to the feasibility and sustainability of the project. This assessment took place in several stages. The check on the more formal and administrative requirements at the gate was followed by a first appraisal by the staff of the ORIO desk. The staff of ORIO was often supported by an external advisory firm in this stage of the selection process. During this phase the following eligibility criteria were applied:

- Whether the project was consistent with the national and sector development priorities of the government in the recipient country;

[16] See section 3 of the letter to parliament of 27 April 2012.

- Whether the project proposal was in line with the national procurement rules, taking into account the OECD Good Procurement Practices for Official Development Assistance, the OECD Guidelines for Multinational Enterprises (2011 Edition) and different ILO conventions;
- Whether the parties involved in the implementation of the project were considered sufficiently competent to implement the project and run the facility. Here, a distinction is made between the applicant and the competent authority. A national ministry is usually the applicant authority, which should clarify that it supports the project and, if needed, that it will financially support the operations of the public infrastructure project. The competent authority is the local party that is responsible for the operation of the project.

The impact (evaluation) criteria of the assessment were:
- The extent to which the project contributes to *economic growth*. This criterion was substantiated by the calculation of the Economic Internal Rate of Return of the project (eIRR). The cut-off rate of the eIRR was set at 10%. In practice, this rate was calculated for the most likely scenario as well as the optimistic and pessimistic (worst and best case) scenarios.
- The extent to which the project contributes to *private sector development*. Here, it was important to show that the project would positively impact the access to markets and the local business climate.
- *Pro-poor* nature: The extent to which the project benefits the poor in the region and/or the country.
- The extent to which the project involves *local SMEs* in the implementation of the project and in the operation and maintenance of the public infrastructure and, if relevant, the extent to which SMEs benefit from the future public infrastructure services.
- *Social and Environmental impact*: The extent to which the project contributes to an improvement of the social and environmental conditions in and around the project.

The assessment on Social and Environmental impact required a division of the projects into three categories (A, B, and C), according to the OECD classification of projects with an environmental and social impact. Projects with labels A and B needed a Social and Environmental Impact Assessment. These assessments were part of the development phase and were checked by external experts – often the Netherlands Commission for Environmental Assessments – on procedures followed and quality.

The Environmental Impact was based on the following sub-criteria:
- Legal compliance (IFC standards; OECD Common Approaches and national legislation)
- Management system (an environmental management plan to be communicated to stakeholders)
- Pollution prevention and waste management
- Biodiversity protection
- Sustainable resource management
- Greenhouse gas emissions
- Community health and safety
- Supply chain management.

The Social Impact used the following sub-criteria:
- Legal compliance (IFC standards; OECD Common Approaches and national legislation)
- Management system (for consultation with stakeholders, mitigation measures, raising awareness amongst communities, etc.)
- Child and forced labour
- Right to organise and collective bargaining
- Non-discrimination and equity ‘Working conditions
- Security personnel
- Land acquisition/land use/resettlement/change of livelihood
- Indigenous people/cultural heritage/community cohesion

– Supply chain management (promotion of working conditions to suppliers and consultants).

Before 2012, the criteria had scores between 0 and 5. If a project scored 0 on one or more of the criteria, it was rejected. Scores were added, and projects were ranked according to their overall score.

The criteria were prescribed by the Netherlands government and explicitly mentioned in its proposal to parliament.[17] The six impact criteria received equal weights, indicating that government did not make a distinction between economic and social criteria. Since the social and environmental impact was taken together, these sub-categories received a lower weight than, for example, economic development. Another observation is that there was an indication of double counting. For example, private sector development and economic growth were treated separately and, as such, had together a weight of one third in the overall score, whereas they reflect to a large extent the same impact. During the period considered here, this was recognised and discussed in ACORIO, but it did not lead to a change in the weights of the scores.

The next step in the appraisal trajectory was that the proposals that scored sufficiently high (in practice a total score of above 10) were presented to ACORIO for advice. In this committee, the scores were checked again and occasionally adjusted. The projects that received the highest score in the respective tranches qualified for ORIO support for the development phase of the project, provided that the budget allocated for that particular application round was not exhausted.

Table 2.1 presents the results in terms of number of projects that qualified for ORIO grants for the development phase. The table shows the number of projects that were presented to ACORIO with their scores after discussion in the ACORIO. There were two rounds per year. In total, 156 project proposals were presented to ACORIO during this period. Fifty-eight of these projects were already given a relatively low score by staff of the ORIO desk. The majority of these low-scoring projects were presented to ACORIO in 2009. Because of the limits on the annual budget made available for ORIO, 43 projects were not accepted due to their relatively low score, although they in principle did qualify for support. Here, we see a rather peculiar phenomenon related to a selection procedure, which gives scores to projects and rewards the highest-scoring projects by round.[18]

Table 2.1: Scores of assessment of projects submitted to ACORIO during the 2009-2011 period

	2009		2010		2011		Total
	1st round	2nd round	1st round	2nd round	1st round	2nd round	
Selected							
Average score	22	17	15	18	15	16	17
Maximum score	24	20	16	19	18	17	24
Minimum score	19	14	13	16	13	15	13
# projects	9	10	8	9	8	11	55
Not selected because of budget limitation							
Average score	17	11	12	14	16	14	14
Maximum score	18	13	13	16	18	15	18
Minimum score	16	10	10	10	14	13	10
# projects	13	6	7	8	2	7	43
Rejected							
# projects	12	29	8	2	2	5	58
Total	34	45	23	19	12	23	156

In 2009, the average score of the projects that (because of reaching the budget ceiling) were not selected in the *first* round was higher than the minimum scores of the projects that were accepted during the *second* round in 2009. In other words, in the second half of 2009, a lower-scoring project

[17] See Letter to Parliament, published in Staatscourant 2009, nr. 47, 10 March 2009.

[18] This is also the case in the 'First Come, First Served' approach when a higher-scoring project is submitted after that the budget ceiling for that round has been reached.

was accepted for ORIO support, while a higher-scoring project in the first half of 2009 was not rewarded. We see a similar result in 2010: a project with a score of 13 was accepted in the first round, while a project with a score of 16 in the second round was rejected, because of a limitation in the overall budget. In other words, the division in tranches per year resulted in acceptance of low-scoring projects at the cost of higher-scoring projects in the same or later years.

After the finalisation of the development phase, a similar trajectory of substantive assessments took place, starting with an assessment of the RVO-ORIO desk in consultation with the external advisor, after which the project proposal was submitted to ACORIO. This committee then advised on rewarding the project with a grant for the implementation and Operation and Maintenance phases. Quite often ACORIO asked for clarification of details of the project plans.

After 2011

The regime changed in 2012, ranking the projects according to 'First Come, First Served', provided they were judged as 'satisfactory' for each of the criteria (i.e. relevance, effectiveness, impact, efficiency, and sustainability). In the 'Beauty Contest' approach applied before 2012, one of the explicit criteria was whether the projects were pro-poor. After 2012, this criterion was no longer applied explicitly. It was considered to be covered by the other criteria, among these economic and social criteria. The check on eligibility criteria was similar to the procedure before 2012. Yet, in addition, the principle of 'First Come, First Served' was applied, meaning that as soon as the proposal met the formal requirements, it was ranked on the basis of the date and time of arrival. These formal requirements included administrative and substantive requirements,[19] such as that the national government should be the applicant, the project size should not exceed €60 million, the application should describe the full project cycle, etc. They also required that the project should not be commercially viable and be financially feasible.

The indicators for the assessment of the projects changed in 2012. As of that year, the projects were judged on the basis of relevance, effectiveness, development impact, efficiency, sustainability and economic return. The latter was assessed through a societal cost-benefit analysis. Provided that the projects scored 'sufficient' on each of these criteria they were accepted for the development phase in the order in which they were submitted, until the budget ceiling was reached.

2.5 ORIO Country Choice

At the start of ORIO in 2009, it was open for 35 Least Developed Countries (under ORIO-A) and some 22 non-LDCs (under ORIO-B).[20] For the A-countries, ORIO could provide a grant of 100% for the development phase of a project and a maximum of 50% for the Implementation and the Operation & Maintenance phases. For the other countries, the percentages were respectively 50% and 35%. Table 2.2 presents the number of countries by main region. It shows the strong focus on Africa, with almost half of the number of countries eligible for the support. The majority of these African countries are classified as Low-Income Countries (LICs). Asia is also well represented, with 9 eligible countries, of which 7 lie in the category of Lower-Middle Income Countries (LMICs). The 9 Central & Eastern European and 6 Latin-American countries are more or less equally distributed across Lower-Middle Income and Upper Middle-Income countries.

Not all countries were successful in attracting funding from ORIO. Almost two-thirds of the 51 projects running on 31 December 2018 were implemented in Africa. Ten out of the 15 eligible African LICs benefited from ORIO funds at that date, with a total of 22 projects. The LICs in the other continents were less successful, with only 1 project granted in Asia and none in the Middle East. 34

[19] See the Staatscourant 2012, nr. 8239, 27 April 2012, section 6 on requirements (in Dutch 'Formele eisen'). In practice ORIO-A was never used.

[20] The country list is added as Annex 2.

out of a total of 53 countries are classified as middle-income countries. About 45% of the December 2018 project portfolio was implemented in these countries.[21]

Table 2.2: Countries selected for support from the ORIO Programme[a)]

	Africa	Asia	Central & Eastern Europe	Latin America	Middle East	Total
LIC						
# eligible countries	15	2			2	19
# active countries	10	1				11
# active projects	23	6				29
LMIC						
# eligible countries	9	7	5	3	1	25
# active countries	3	2	1	2	1	9
# active projects	6	2	1	2	2	13
UMIC						
# eligible countries	2		4	3		9
# active countries	1		2	1		4
# active projects	4		4	1		9
Total						
# eligible countries	26	9	9	6	3	53
# active countries	14	3	3	3	1	24
# active projects	33	8	6	3	2	51
of which fragile states						
# eligible countries	4				1	5
# active countries	1				1	2
# active projects	1				2	3

a) ORIO classification: LIC = Low-Income Countries; LMIC = Lower Middle-Income Countries; UMIC = Upper Middle-Income Countries

2.6 ORIO Sector Choice

Prior to the start of ORIO, both the Netherlands' Embassies and the local governments were requested to list the priority sectors for the countries. The result was that preferences regarding sectors were presented for most countries.[22] To a large extent, these sector preferences fitted with the sectors in which the Netherlands have a competitive advantage. These included Water & Sanitation, Energy & Environment, but also Transport & Logistics, Health and Education. This list of priority sectors was indeed used as a guidance for the selection of projects prior to the revision of ORIO in 2012. After 2011, the list of priority sectors by country was no longer in use, but the overall sector distribution was hardly affected.

Table 2.3 gives an overview of the ORIO portfolio by country income group and sector. Measured by the number of projects, the table clearly shows the dominance of Water & Sanitation. Twenty-two projects (over 40% of the total) are in this sector, with more than half of these projects in Low-Income Countries, mainly in Africa. Water & Sanitation is followed by Health and Transport & Storage, with respectively 11 and 10 projects. Water & Sanitation is particularly overrepresented in the category of Low-Income Countries, mainly because of the relatively large number of water-supply projects being executed in Vietnam. The presence of a local representative office of one of the largest Dutch consulting and engineering companies, which often acted as private initiator, explains

[21] During the period January – August 2019, another 6 projects were cancelled, 3 in Africa, and 1 in Asia, Latin America and Middle East, leaving a total portfolio of 45 projects.

[22] The priority sectors by country are also presented in the table in Annex1.

these activities in the Water sector in Vietnam. The majority of Health sector projects are currently ongoing in African Low-Income countries. Africa also takes most of the projects in Transport & Logistics. Agriculture and Education are hardly represented in ORIO's portfolio, with respectively only 1 and 2 projects.

Table 2.3: Active projects per 31 December 2018 by main sector and income group

Countries:	Low Income	Lower Middle Income	Upper Middle Income	Total	As % of Total
Education	1		1	**2**	4%
Health	8	3		**11**	22%
Water & Sanitation	13	3	6	**22**	43%
Transport & Logistics	4	4	2	**10**	20%
Energy	3			**3**	6%
Agriculture	1			**1**	2%
General Environment		2		**2**	4%
Total	**30**	**12**	**9**	**51**	100%
As % of Total	59%	24%	18%	100%	

2.7 Conclusions

ORIO is primarily a tool to promote sustainable economic development in 53 low- and middle-income countries through financially supporting investments in public infrastructure. It further aims to promote the involvement of the (international) business community in the development and realisation of projects with a view to utilise the know-how, knowledge and development strength of the (international) private sector. While its predecessor (ORET) subsidised exports of capital goods, ORIO is a government-to-government programme providing grants for investments in public infrastructure. The local government is in the lead for requesting the ORIO grant, often supported by a Dutch private initiator. A typical ORIO project includes three phases: the development phase, the implementation phase and the Operation & Maintenance phase.

The selection of projects started with a check on non-commercial and financial viability. The selection process continued with an assessment of the project's impact, and feasibility and sustainability. Before 2012, these criteria were scored. Proposals that scored sufficiently high were presented to ACORIO for advice. Projects with the highest scores qualified for support for the development phase, provided the budget allocated for that particular round was not exhausted.

As a result of the scoring methodology, the individual social and environmental topics received a lower weight than, for example, economic development. Another observation is that there were indications of double counting.

Because of the annual budget limits, a number of projects were not accepted, although they in principle qualified for support. In some years, the use of tranches led to a situation in which a project was not accepted in one tranche, while it would have been accepted in another tranche considering its scores. In other words, because of the division in tranches per year, low scoring projects were accepted at the cost of higher scoring projects in the same and later years.

The regime changed in 2012, ranking the projects according to 'First Come, First Served', provided they were judged as 'satisfactory' for each of the criteria of relevance, effectiveness, impact, efficiency, and sustainability.

After finalisation of the development phase, a similar trajectory of assessments took place, starting with an assessment of the RVO-ORIO desk in consultation with the external advisor, followed by advice by ACORIO on ORIO's assessment document. In a number of cases, ACORIO asked for clarification of details of the project plans.

3. ORIO Portfolio

This chapter reviews the number of project proposals submitted, and how many of these were rejected and withdrawn during the various stages of the appraisal process. It discusses the main characteristics of the projects and of the portfolio. The date of reference is 31 December 2018.

3.1 Intake of Applications

In 2009, ORIO's first operational year, the programme was flooded with applications from more than 40 countries. In total, 217 applications were submitted with a requested grant amount of over €3 billion, exceeding by far the financial capacity of ORIO, which was set at €180 million for that year. Most of the applications (77) were from African countries, with Ghana in the lead with 15 applications, followed by the Democratic Republic of the Congo with 8 proposals, and Senegal, South Africa and Tanzania with 7 each. The 10 Central & Eastern European countries were well represented that year, with a total of 66 applications. Among these, there were 26 applications from Macedonia, 22 from Bosnia and Herzegovina, 7 from Albania and 5 from Montenegro. Most of these applications were rejected at the gate. The main reasons for that were that applications were incomplete, project costs exceeded the maximum of €60 million set by ORIO, the central government of the beneficiary country was by-passed, or because they did not meet other administrative or programme requirements.[23] Over the years, the number of applications declined to 120 in 2010, 86 in 2011, 47 in 2012 and to 31 in ORIO's final year. Table 3.1 presents the figures for five regions. It shows that during the period that the ORIO desk was open, 198 out of the 501 applications were rejected immediately and 303 (or 60%) were accepted to enter the selection process. It should be noted that a number of the rejected projects (53) were submitted for a second time, with some presented three times. Since these were administered as new submissions, they contributed to the total number of projects. The non-acceptance rate declined during the period, from 53% in 2009 to about 40% in 2010 and 2011, and to only 21% and 6% in respectively 2012 and 2013. It points to a learning curve among the applicants. They became increasingly aware of the requirements of ORIO regarding the submission of applications. It helped that ORIO staff put in effort to explain the programme requirements to the potential applicants. The low non-acceptance rates in 2012 and 2013 cannot be explained by the regime change from 'beauty contest' to 'first come, first served' in 2012, because this did not affect the application requirements at the gate.

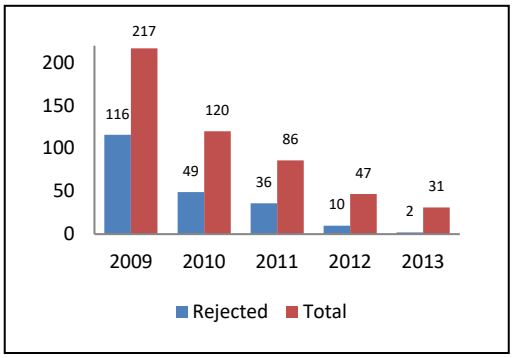


Table 3.1: Number of projects accepted and rejected at the gate

	Africa		Asia		Latin America		Central & Eastern Europe		Middle East		Total	
Accepted	161	69%	44	64%	29	55%	51	46%	18	56%	303	60%
Rejected	74	31%	25	36%	24	45%	64	54%	20	44%	198	40%
Total	235	100%	69	100%	53	100%	115	100%	38	100%	501	100%

There were substantial differences between regions and countries in terms of the overall number of applications and rate of acceptance. The African region was rather successful, with 69% of the proposals accepted at the gate, but differences within the group of African countries were large. The Low-Income countries, Ghana, Ethiopia, Kenya and Senegal, managed to enter the programme with

[23] If the application did not meet these requirements, the applicant was given the opportunity to complete the application within 14 days.

respectively 23, 16, and 11 applications. South Africa, an Upper-Middle Income country, was also very active, with 16 project proposals. The Democratic Republic of the Congo entered the programme with 9 projects. Together these 5 countries counted for 50% of all African projects accepted at the gate. There are different explanations for these (relative) successes. First, these countries had built up ample experience with donor-funded projects, among these ORET projects. Secondly, private initiators were very active in these countries, supporting the governments with the preparation of the project proposals. Thirdly, the embassies in for example South Africa and Ghana actively promoted ORIO.

The overall score for Asia is similar to that of Africa, but here as well it varies substantially between the individual countries. [24] For instance, Bangladesh submitted 16 proposals, of which 11 were not accepted; Pakistan submitted 9 proposals, but 7 were rejected immediately; and the Philippines sent in 9 projects, of which 5 were refused. In contrast, Vietnam was very successful, with only 4 rejected at the gate out of a total of 21 applications.

In total, 64 project proposals submitted by the Central & Eastern European countries were not accepted, which is over 50% of the total number of proposals submitted by these countries. Bosnia and Herzegovina were not very successful, with 29 out of a total of 47 applications (over 60%) being refused. In Macedonia, 20 out of 30 proposals were not allowed to enter. For Albania, 6 of the 8 submitted applications did not meet the formal requirements. The difficulties facing the European countries to pass the first hurdles were a reason for concern among ORIO staff and among the members of ACORIO. Therefore, ORIO staff visited the local authorities, for example in Bosnia and Herzegovina, to familiarise them with the formal requirements of the programme.

Almost half of the Latin American proposals were rejected at the gate. Bolivia was the least successful with 14 out of 19 applications that were not accepted, followed by Colombia, with 11 rejected out of 21. The Palestinian Territories and Yemen show a similar picture, with 10 out of 17 proposals refused from the former and 3 out of 5 from the latter.

Table 3.2: Number of projects submitted, accepted and selected by main sector

	Total					With private initiator				
	projects	accepted		selected		projects	accepted		selected	
	#	#	%	#	%	#	#	%	#	%
Civil Works	16	10	63%	1	10%	11	9	82%	1	11%
Communication	4	1	25%							
Energy	65	26	40%	3	12%	24	16	67%	3	19%
Environment	18	13	72%	1	8%	10	9	90%	1	11%
Social Services	115	77	67%	19	25%	56	44	79%	13	30%
Transport	91	48	53%	13	27%	28	22	79%	7	32%
Water & Sanitation	192	128	67%	36	28%	78	69	88%	25	36%
Total	**501**	**303**	**60%**	**73**	**24%**	**207**	**169**	**82%**	**50**	**30%**

There are large differences between sectors. Communication and Energy scored rather low, both with and without private initiators. An explanation is that projects in these sectors are often commercially viable. Since non-commercial viability was one of the conditions for a project being eligible for ORIO support, they were therefore not accepted. Projects that were submitted with support of a so-called private initiator were often more successful in entering the ORIO selection process. Out of a total of 207 projects initiated with intervention of a private initiator (in most cases a Dutch private company), 169 were accepted, or over 80%. This is significantly higher than for the

[24] Here Asia includes also Afghanistan and Pakistan. In the files of RVO, these countries are included in the region of the Middle East.

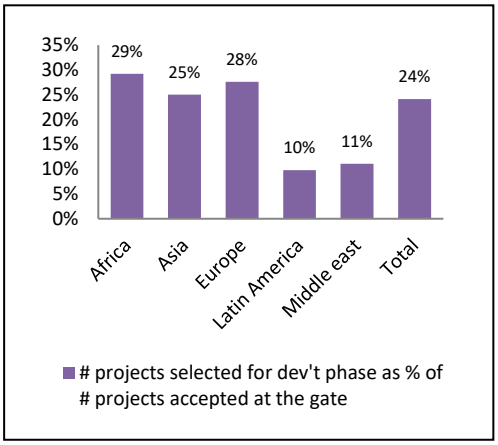
projects proposed without intervention of a private initiator (see Table 3.2). The (mainly Dutch) private sector was apparently better informed about the requirements of ORIO.

This picture is confirmed by the rates of acceptance by sector. For all sectors distinguished here, involvement of a private initiator raised the probability of being accepted considerably, from 46% without mediation to 82% with help of the private initiator. In Water & Sanitation, the most important sector, the success rate increased from 52% to 88%. For Social Services, the second important sector, it increased from 56% to 79%.

Summing up: 40% of the applications were not accepted because they did not meet the basic requirements. Eastern European countries in particular lacked the accuracy needed when applying for ORIO support. The countries that were familiar with foreign aid programmes, with in addition active private initiators and an embassy which promoted the ORIO programme were much more successful. Examples are Ghana, South Africa, and Vietnam.

3.2 Second Stage in the Selection Process

During the 2009-2011 period, 156 project proposals were presented to ACORIO. One third (51) of these were allowed to enter the development phase. For the whole period, out of the 50 countries that submitted one or more applications, 32 countries were still in the race after this selection process, with a total of 73 projects accepted for the development phase: 47 for Africa (64%); 11 for Asia (15%); 5 for Latin America (7%); 8 for Central and Eastern Europe (11%); and 2 for the Middle East (6%). Once accepted at the gate, there was on average a 24% probability that the applicant was invited to formulate the project with all the details during the development phase. There existed again large differences between regions. The African region was again the most successful region: almost 30% of the accepted projects made it to the development phase. Latin America and the countries in the Middle East performed rather poorly with only around 10% of the applications that were approved at the gate entering the development phase. For the other two regions, Asia and Central & Eastern Europe, slightly more than one quarter of the projects accepted at the gate were allowed to enter the development phase.



The picture differs per sector (Table 3.2 above). Although Environment scored high at the gate, it was hardly successful in the next stage. Two-thirds of the applications in Social Services (dominated by Health projects) and in Water & Sanitation were allowed to enter ORIO's selection process, which is high in comparison to other sectors. One-quarter of these projects were selected for the development phase of the programme, which is a relatively good score as well. Transport was less successful at the gate, but relatively successful in the remaining part of the process, with 1 out of 3 selected for the development phase. Participation of a private initiator increased not only the chance of acceptance of the proposals at the gate, but also the chance on selection for the development phase.

The success of applications differed significantly by country also in the second phase of the selection process.[25] Some countries were successful in absolute terms, but not as a percentage of the presented proposals. Examples are Ghana, South Africa and Mozambique. Ghana proposed 27 projects, of which 7 were selected; South Africa submitted 24 proposals, but only 6 were continued, whereas Mozambique brought in 12 project ideas, of which 5 were accepted. Other countries, such

[25] Annex 5 presents the data by individual country in pictures.

as the Democratic Republic of the Congo (DRC) were absolutely and relatively unsuccessful. DRC presented 32 proposals, but only 2 were allowed to enter the development phase. Similarly, Burkina Faso submitted 12 proposals, of which 1 was rewarded with a follow-up in the development phase. The picture is similar for Ethiopia. These examples clearly show the interest from African countries to make use of the programme, but at the same time that the proposals were not prepared well given ORIO's requirements.

There were also large differences in success for Asian countries (see Annex 5, figure 2). Vietnam was by far the most successful, with 7 approvals out of 21 proposals. Most of these approved projects are in the Water & Sanitation sector in which a Dutch private initiator is very active in the country. The Netherlands Embassy acted as a promoter of the programme in the country as well. The results for Bangladesh, Indonesia and Pakistan were rather poor, with respectively 1, 1 and 0 successes, while they submitted respectively 16, 13, and 9 project proposals.

In Europe, Bosnia and Herzegovina, Macedonia and Montenegro proposed a large number of projects but only 4, 1 and 1 respectively were approved for the development phase, implying a lot of effort for a rather limited result. The same can be concluded for the countries in Latin America: Bolivia and Colombia presented a large number of projects, of which only a few were approved (resp. 2 out of 19 for Bolivia, and 1 out of 21 for Colombia). Peru and Suriname performed poorly as well, with only 1 success for Peru and no success for Suriname.

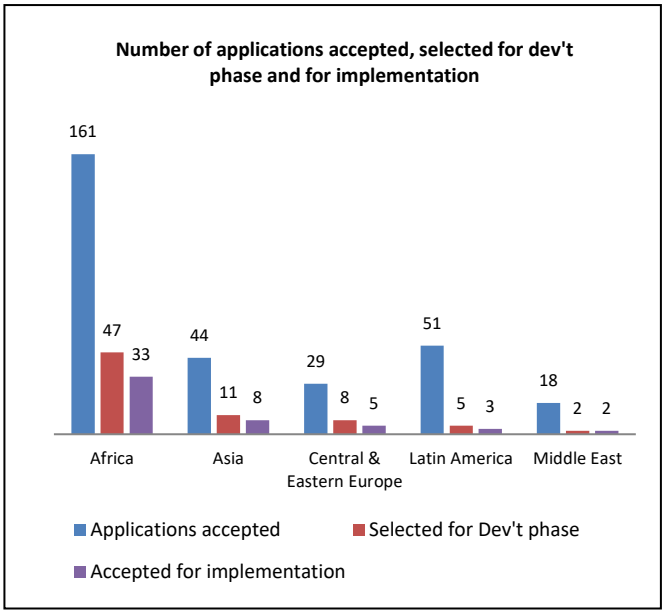
The above shows that there existed a lot of interest for participation in the ORIO programme. But particularly in the first couple of years of the programme, many project proposals were rejected because they did not meet the minimum requirements of the programme, indicating the lack of knowledge about the basic formats of the proposals. This situation improved somewhat over time. Involvement of a so-called private initiator implied a higher probability of both entering into the programme and being allowed to enter the development phase. The programme was particularly popular in lower income and lower-middle income countries. Table 3.3 gives the regional distribution of projects by income category. It shows the popularity of the programme among the Middle-Income countries. About 30% of the applications came from upper-middle-income countries, in particular from Central and Eastern Europe. The average number of projects submitted by the countries in the different income categories shows that the higher income countries and the non-LDCs score higher than the lower income countries and LDCs. This is particularly the case in the first years of the programme. Obviously, the higher income countries were better prepared for a programme such as ORIO than the other countries.

Table 3.3: Number of applications per income category by region

	Income group						**Country status**					
	UMI		**LMI**		**LI**		**LDC**		**non-LDC**		**Total**	
	#	%	#	%	#	%	#	%	#	%	#	%
Africa	25	11%	55	23%	155	66%	159	68%	76	32%	235	100%
Asia			41	52%	38	48%	24	30%	55	70%	79	100%
Central & Eastern Europe	91	81%	21	19%					112	100%	112	100%
Latin America	31	58%	22	42%					53	100%	53	100%
Middle East			17	77%	5	23%	5	23%	17	77%	22	100%
Total	**147**	**29%**	**156**	**31%**	**198**	**40%**	**188**	**38%**	**313**	**62%**	**501**	**100%**

3.3 Approved projects

The results of the development phase were used for a second assessment. Projects that then scored satisfactory were selected for the implementation and O&M phases. Per 31 December 2018, 51 out of the 73 projects that were selected for the development phase were accepted for the preparation of the implementation phase. This preparation included, among others, the drafting of the grant arrangement to secure the counterpart funding of the project. The procurement of the investment goods and works required in the project was part of the implementation phase and was organised by the recipient government. A relatively large number of European projects were not approved. As a result, the regional distribution of accepted projects differs significantly from the regional distribution of the applications.[26] Africa is by far the most important region for ORIO with 33 projects, i.e. 65% of the total number of projects. It is followed by Asia with 8 projects, or 16% of the total number of projects. Within the African region, Ghana is with 5 projects the most important country, followed by South Africa with 4 projects. In Asia, Vietnam is the main client with 6 active projects (see below for the distribution by country).



The total estimated costs of the 73 project proposals accepted for the development phase amounted to approximately €1.9 billion. The total amount of (requested) ORIO grants related to these projects was close to €850 million. Table 3.4 shows the projects by country groups and by main sector. It illustrates the dominance of Low-Income countries. The table also shows the dominant position of the Water & Sanitation sector, with 31 projects or 42% of the total number of projects. Transport & Storage and Health are relatively important as well.

Table 3.4: Project costs in the proposals allowed to enter development phase in € mln.

	# projects	Dev't phase	Implementation	O&M phase	Total project cost
Countries					
Low Income	42	27.06	875.34	144.51	1,046.91
Low Middle Income	17	9.24	390.18	39.07	438.49
Upper Middle Income	14	14.99	317.78	76.45	409.22
Total	**73**	**51.30**	**1,583.30**	**260.03**	**1,894.63**
Sectors					
Education	3	3.03	48.92	31.53	83.49
Health	16	9.60	297.62	65.11	372.34
Water & Sanitation	31	25.64	750.02	94.54	870.20
Transport & Storage	13	6.34	298.94	43.73	349.01
Energy	3	1.83	48.47	15.70	66.00
General Environment	4	2.54	70.32	7.72	80.58
Agriculture	3	2.31	68.99	1.69	72.00.
Total	**73**	**51.30**	**1,583.30**	**260.03**	**1,894.63**

[26] Annex 5 presents the detailed tables.

The average costs proposed for the development phase amounts to approximately €700 thousand, varying between over €1 million in Education and an average of €600 thousand in Health. ORIO's contribution requested for the development phase adds up to an average of €550 thousand or 78% of the total. The average project costs proposed for the Implementation and the O&M phases are estimated at €25 million, varying between €19.5 million for General Environment and €27.2 in the case of Water & Sanitation.

Twenty-two projects were cancelled or withdrawn during or after the development phase.[27] The number of projects in Low Income countries allowed to start with the implementation phase declined to 29 projects and to 22 in Middle Income countries. After the reduction of the number of projects from 73 to 51, the sector distribution is roughly the same, with Water & Sanitation accounting for over 40% and Health and Transport for over 20% each.

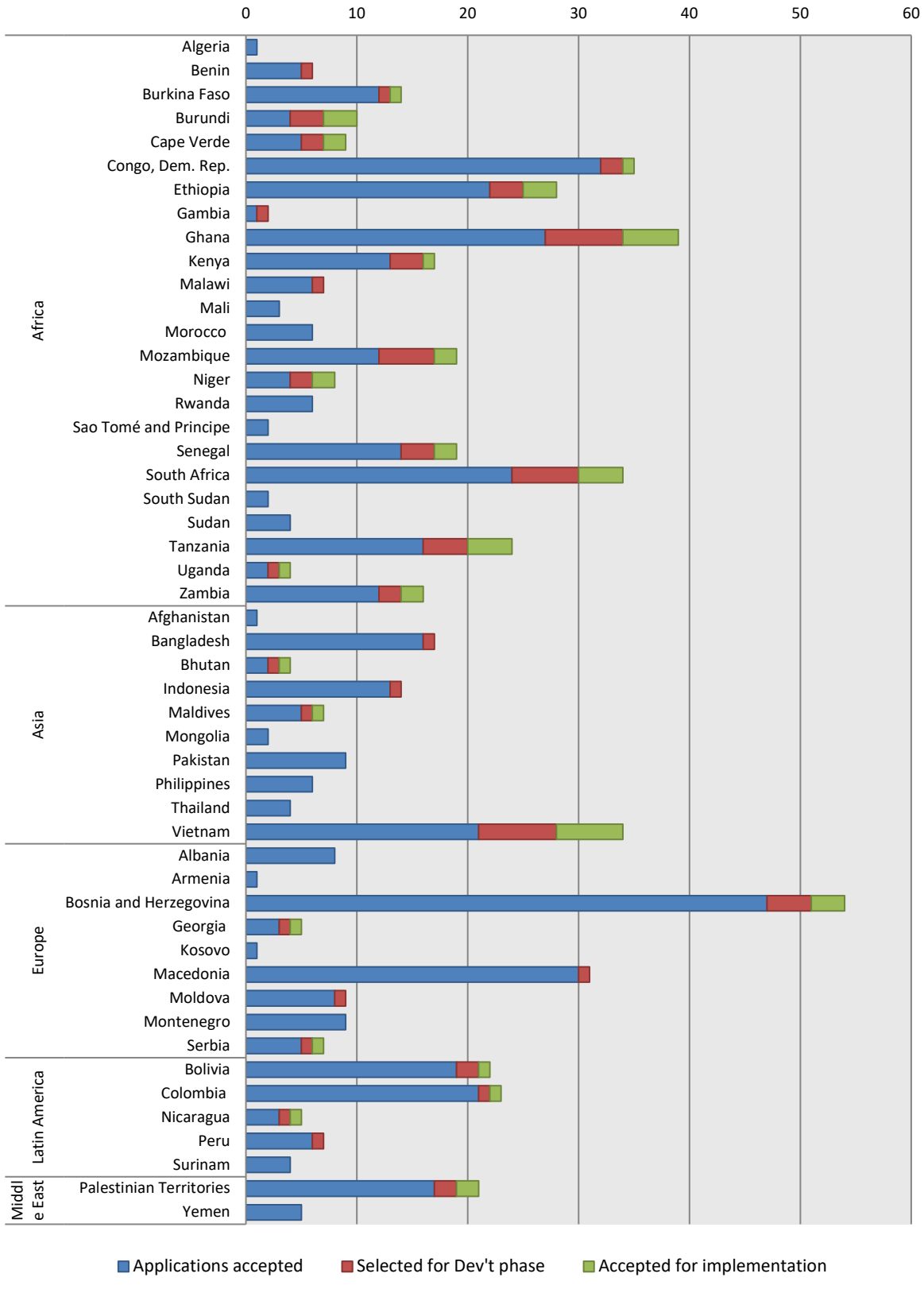
The grants committed by ORIO to the three phases are substantially lower than the grants requested in the proposals submitted by the recipient governments. The grants committed to the development phase were €38 million against €40 million proposed. The grants committed to the implementation and O&M phases reduced from above €800 million to slightly above €400 million. The main reasons for this reduction are the costs related to the cancelled projects (amounting to €220 million) and the re-design of the projects during the development phase (also saving €180 million). The main reductions can be observed in the O&M phases of the projects, particularly in Water & Sanitation, Transports & Storage and in General Environment. At the same time, about €7.7 million had been committed to and spent on the development phase of the projects that were cancelled during the process.

Table 3.5: Project costs of active projects per 31 December 2018, by income group and sector, € mln

	# projects	Development phase	Implementation	O&M phase	Total project cost
Countries					
Low Income	29	17,10	613,43	104,61	735,14
Lower Middle Income	13	8,03	317,86	31,75	357,64
Upper Middle Income	9	11,78	205,03	58,16	274,97
Total	**51**	**36.90**	**1,136.31**	**194.53**	**1,367.75**
Sectors					
Education	2	2.62	28.78	28.16	59.55
Health	11	6.30	205.75	39.42	251.47
Water & Sanitation	22	19.27	537.94	66.92	624.13
Transport & Storage	10	5.48	249.78	40.54	295.79
Energy	3	1.83	48.47	15.70	66.00
General Environment	2	1.05	23.34	2.380	26.77
Agriculture	1	0.35	42.26	1.42	44.03
Total	**51**	**36.90**	**1,136.31**	**194.53**	**1,367.75**
Of which: ***Total Grants committed***	***51***	***28.44***	***506.32***	***83.92***	***618.68***

[27] This is the situation at 31 December 2018. At 1 September 2019, 45 projects are in preparation for the implementation phase (grant arrangement, procurement and contracting) or in the Implementation or O&M phase.

Figure 1: Number of projects Accepted, Selected for Dev't phase and Accepted for implementation by country



3.4 Counterpart funding

On average, 43.5% of the total project costs has been financed from the ORIO grants. The remaining part has been (or will be) funded from other sources. Table 3.6 shows three remaining sources of financing for a selection of 65 applications. It shows that own sources of the recipient government are most important. About 30% of the required funding is from either other donors or commercial loans, with the group of low-income countries (mainly in Africa) showing the highest share (more than one-third) of non-grant financing from commercial loans. In contrast, projects with donor financing of the non-grant part make up more than 40% of the applications in the group of Middle-Income countries (mainly in Europe and Latin America).

Table 3.6: Financing of non-grant part by main region, number of projects

Countries:	Commercial loan		Donor financing		Funds recipient government		Total	
Low Income	15	34%	10	23%	19	43%	44	100%
Lower Middle Income	2	22%	4	44%	3	33%	9	100%
Upper Middle Income	2	17%	5	42%	5	42%	12	100%
Total	**19**	**29%**	**19**	**29%**	**27**	**42%**	**65**	**100%**

3.5 Status of the projects

On 31 December 2018, 73 projects had finalised the development phase. About 80% of the committed grants made available for the development phase had been paid (Table 3.7). The table also shows that 22 out of the 73 projects were stopped or withdrawn. The total amount paid by ORIO on the development phase of these projects adds up to €7.7 million. The average grant committed to the projects is approximately €500 thousand, but the range between the lowest and the highest is wide, between €63 thousand and €2.2 million.

Table 3.7: Expenses on Development Phase per 31 December 2018

	Unit	Ongoing projects	Projects stopped/withdrawn	Total
# projects		51	22	73
Total Commitments	€ mln	27.4	10.4	37.7
Total paid	€ mln	21.8	7.7	29.5
% paid of commitments	%	80%	74%	78%
Payments to Dutch companies[a)]	€ mln	17.0	6.1	23.1
% of payments to Dutch companies	%	78%	79%	74%

a) This includes payment to a branch office of a Dutch company in Vietnam

Many projects started the implementation phase only recently, which is illustrated by the disbursement rates, defined as the payments made as a percentage of the total commitments. On 31 December 2018, 10 projects were still preparing the implementation phase and therefore no commitments were made yet. In total, 35% of the committed grants had been paid. It varied between 24% for the group of Upper-Middle Income countries to about 50% for the Lower-Middle Income countries (Table 3.8). The implementation phase was almost finalised for 7 out of the 26 projects in the group of Low- Income countries. In the group of Lower Middle-Income countries, 10 out of the 13 projects had not yet begun implementation, while two-third of projects had just started with the implementation phase.

Table 3.8: Expenses on Implementation Phase per 31 December 2018

	Unit	Low Income countries	Lower-Middle Income Countries	Upper-Middle Income countries	Total
Project costs	€ mln.	613.4	317.9	205.0	1.136.3
ORIO grants committed	€ mln.	243.7	61.0	58.6	363.3
Grant %	%	40%	19%	29%	32%
Total paid	€ mln.	79.9	31.4	14.2	125.6
O/w to Dutch companies [a)]	€ mln.	57.2	18.5	0.4	75.9
Grants paid as % of grants committed	%	33%	51%	24%	35%
Share of payments to Dutch companies	%	72%	59%	2%	61%

a) This includes payment to a branch office of a Dutch company in Vietnam

3.6 Share of Dutch companies in ORIO co-funded investments

Involvement of Dutch companies in the Development Phase of the projects is substantial. Approximately three-quarters (€22 million) of the total disbursed ORIO grants for this phase is paid directly to Dutch companies. For the implementation phase, the corresponding share is 55% (Table 3.8). It should be realised that the shares reported in the table reflect the payments by ORIO up to 31 December 2018 as a percentage of the ORIO grants. Since the average contribution from ORIO for the Development Phase varies between 50% for the Upper-Middle income countries (for example in Central & Eastern Europe) and 100% for the Low-Income countries (mostly in Africa), the share of Dutch companies in total costs of the Development Phase can be estimated at approximately €27 million, which is equivalent to 80% of the ORIO grant. ORIO's share in total payments to Dutch companies for the Implementation and O&M phases of the projects is now 61% (€76 million.). Assuming that the recipient governments pay a similar percentage to Dutch companies, the total amount would be approximately €550 million, which would be more than the committed grants from ORIO. But it should be realised that this is the very maximum, because in several projects the local government is responsible for local payments and ORIO for the payments of Dutch companies. Yet, the amount destined for Dutch companies is substantial.

This does not mean that all this money is spent in the Netherlands. Investments in infrastructure often involve local construction works, which are usually carried out by local construction firms. Both case studies in Tanzania and the study in Senegal show that a substantial part of the total project budget is used for local construction or works being executed by local firms sub-contracted by the Dutch contractor. A similar situation is reported in the impact study for Vietnam.

3.7 Some Conclusions

With a total of 501 applications, ORIO was flooded with applications from more than 40 countries. The requested grant amount far exceeded its budget of €180 million per annum. Most of the applications were from low-income African countries. Over the years, the number of applications declined from 217 in 2009 to 31 in ORIO's final year. A large number of applications was already rejected at the gate, because they did not meet the formal requirements. There were large differences between countries with experience with donor-funded projects and active Netherlands embassies on the one hand, and countries without such experience on the other. The involvement of a private initiator raised the probability of being accepted. From the project proposals accepted at the gate, 73 (24%) were allowed to enter the development phase. Out of these 73 projects, 5 were withdrawn by the national governments and another 17 were stopped, either because they were judged as not feasible during the second appraisal round, or because local governments were not able to meet the financial and institutional obligations agreed upon at the start of the development phase. As a result, per 31 December 2018, 51 projects were selected for, or had started, the

implementation phase.[28] For 10 of these projects there were no commitments made yet, while another 21 projects were in a start-up phase of the implementation. The payment ratio, which is the payments as a percentage of the commitment, was about 35% for the 51 projects. These figures indicate that quite a number of activities has still to be carried out.

ORIO finances up to a maximum of 50% of the project costs. The remaining part should be funded by the local government. ORIO's database shows that 30% of this remaining share is covered by a commercial loan, another 30% from financing by other donors and the remaining 40% by own funds of the local government.

Dutch consultancy firms were very active as private initiators prior to the development phase, and as consultants during this phase. The share of Dutch firms in ORIO's grants for the development phase can be estimated at 80%. The Dutch share of ORIO's payments so far for the Implementation and O&M phases, which amounts to one-third of the grants committed, can be calculated at 55%.

[28] This number declined to 45 during the first 8 months of 2019.

4. Rationale of country and sector selection of the ORIO programme

4.1 Introduction

It is widely recognised that an adequate supply of public infrastructure services is one of the essential requisites for growth of production and employment, and therefore in the fight against poverty. A lack of infrastructure is considered a serious bottleneck for further development, resulting in lower levels of production capacity, underutilisation of resources, and scarcity of goods (see Box 1 for some findings from the literature on this topic). The relationship between (access to) public infrastructure services on the one hand, and private sector development and human development on the other hand, is explicitly formulated as the rationale of the ORIO programme by the Netherlands' government. As cited in section 2.2 above, the first presentation of ORIO of the Government to parliament explicitly mentioned that deficiencies in infrastructure limit economic growth. In its presentation to parliament of the revised version of ORIO in April 2012,[29] the government stated that the private sector is the engine for economic growth, provided it has access to well-functioning public infrastructure. This refers not only to 'hard' infrastructure, such as energy, water, and roads, but also to what we call here 'soft' infrastructure, that can impact human capacity and skilled manpower, such as schools and hospitals (see Srinivasu and Rao, 2013).

Box 1: Some examples from the literature on the importance of public infrastructure

Scholars generally agree that the impact of infrastructure on economic growth exists in the following cases:

- Public infrastructure is part of a country's physical stock of capital (Aschauer, 1993; Gramlich, 1994); its expansion increases labour productivity and reduces per unit costs of output, positively impacting economic growth and profitable investment opportunities (Calderón and Servén, 2002, Barro, 1990, 1991);
- Infrastructure impacts trade competitiveness and export diversification, and cross-border capital flows, being drivers of economic growth (Kodongo & Ojah, 2016);
- Empirical studies show that improved health through better infrastructure and services positively impacts economic growth (Fogel, 1994, 1997; Sohn, 2000; Agénor, 2010). This concerns not only hospitals but also access to safe water, sewerage and other hard infrastructure that have a major impact on the prevention of death and disease;
- Education has traditionally been regarded as important for economic growth. Numerous studies show a significant impact of both quality of schooling and years of attainment on economic growth (see for a summary of literature on this issue, M.S. Oosterbaan et al. 2000: Chapter 1: '*Recent developments in endogenous growth theory*', Robert J. Barro; Chapter 6: '*Human Capital and Growth: the cost of rent seeking activities*', Jean-Claude Berthélemy, Christopher Pissarides, and Aristomene Varoudakis; and Chapter 7: '*Recent advances in economic growth: A policy perspective*', Robert Lensink and Gerard Kuper);
- Infrastructure improves the access of the poor and under-developed regions to the core business activities, and public communications, which can raise the value of their assets, and increase human capital (Palei, 2015).
- Infrastructure reduces transaction costs and facilitates trade flows within and across borders (see for example M.S. Oosterbaan et al., 2000: Chapter 2: '*The joys and sorrows of openness: A review essay',* William Easterly;
- Infrastructure enables economic actors, individuals, firms, governments to respond to new types of demand in different places;
- Infrastructure enhances human capital, for example by improving access to schools and health centres; and improves environmental conditions, which link to improved livelihood;
- Infrastructure provides better health and reduces vulnerability of the poor." (Srinivasu and Rao, 2013, p.87).

But just as "economic growth is widely considered as a necessary (though not sufficient) condition for poverty alleviation",[30] investment in public infrastructure is widely considered to be a determinant of economic growth and competitiveness, but not on its own. For example, the Global Competitiveness Index (GCI) published by the World Economic Forum (WEF) in its annual report is based on twelve pillars of competitiveness, infrastructure being one of these. Another pillar relevant for this evaluation is human capital. The latter cannot be fully developed if there is no investment in sectors such as Health and Education. Countries within the top-ten of the GCI list, such as Singapore,

[29] See Letter to Parliament, published in Staatscourant 2009, nr. 47, 10 March 2009 and the Letter to Parliament, published in Staatscourant 2012, nr. 8239, 27 April 2012.

[30] Oosterbaan et al. (2000).

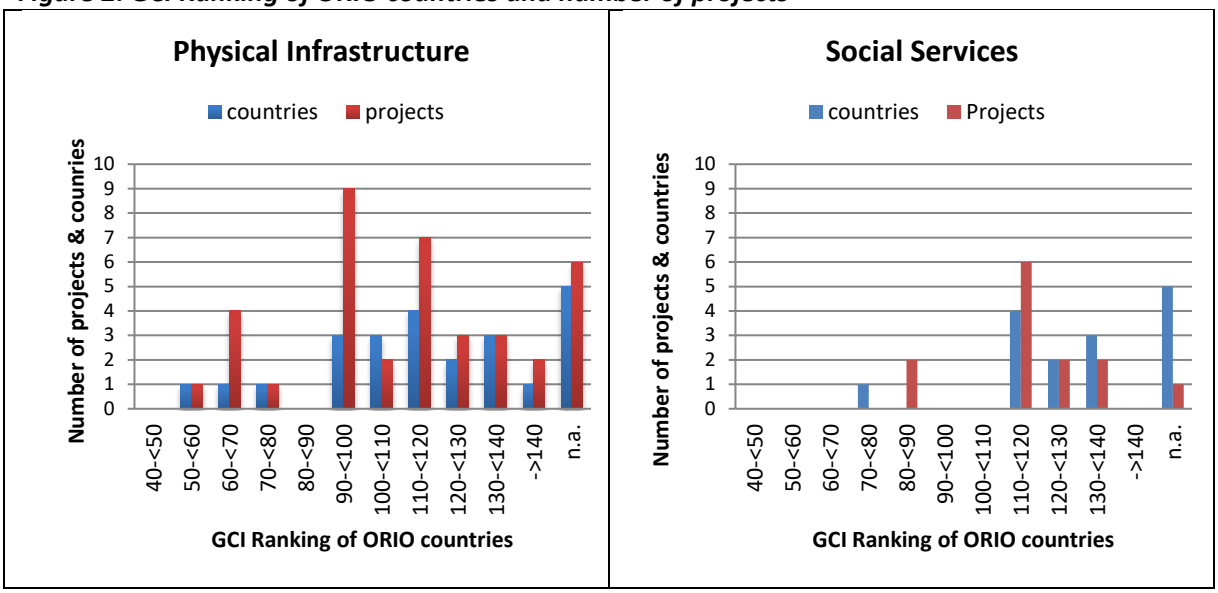
Hong Kong and the Netherlands, also score highest in economic and social infrastructure. In this chapter we analyse to what extent ORIO was instrumental in meeting the need for public infrastructure and the need for finance.

4.2 ORIO and the need for public infrastructure

An important source of information about the need for public infrastructure is the annual survey organised by the World Economic Forum (WEF) during the last decade. In this section, we report on two main determinants of the GCI, namely 'Infrastructure' and 'Health and Primary Education'.[31] Both reflect the need for public infrastructure as defined in the context of ORIO.[32]

Figure 2 shows a rightward bias of the GCI ranking of the countries targeted by ORIO for which the information is available (representing 42 countries out of a sample of 144 countries). For physical infrastructure, more than 50% of the ORIO countries rank 100 or higher and 80% rank above 80th place, indicating that the countries targeted by ORIO perform poorly in comparison with other countries in the sample of 140 countries. A similar picture can be observed for the project portfolio of Health and Education (Social Services), with 10 of the 13 projects in countries ranking between 110th and 140th place. The GCI sample clearly indicates that the large majority of countries in which the ORIO co-financed projects are implemented score low on physical infrastructure and on Health and Primary Education. In comparison, the Netherlands ranks 10 or higher.

Figure 2: GCI Ranking of ORIO countries and number of projects

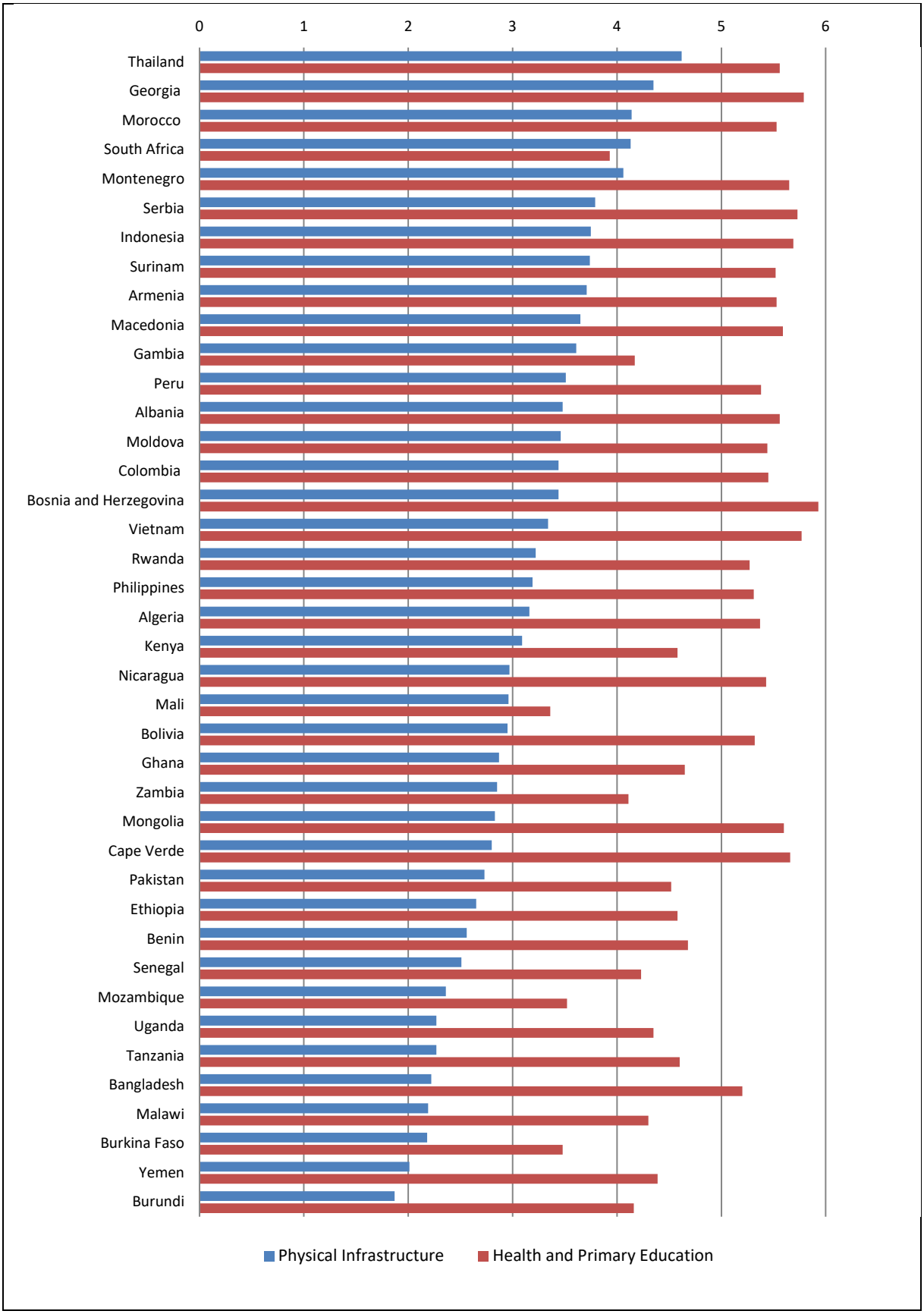


Source: The Global Competitiveness Index 2012-2013; World Economic Forum 2013

[31] Annex 4 gives a brief description of the methodology used to construct the GCI and the results by ORIO region.

[32] Annex 4 provides a table, which summarises the ranking and the scores regarding the state of affairs of infrastructure as published in GCI for the 5 regions distinguished in this report. It reports these scores for the three years that reflect the lifetime of ORIO: 2009/10 the first year of ORIO; 2012/13 the year of the revision of ORIO and 2015/16 just after closure of the window of ORIO. For reasons of comparison, the last column of the table gives the figures for the Netherlands. In total around 40 countries out of the 53 potential ORIO client countries are included in the sample of the competitiveness index.

Figure 3: GCI Scores on Physical Infrastructure and Health and Primary Education by ORIO Country



Source: Global Competitiveness Report of the World Economic Forum 2012/2013

Among the ORIO countries, Thailand scores highest, ranking around 45th place, followed by South Africa, the rank of which declined from 45th to 68th. On the other end of the spectrum, Bangladesh, Mongolia and Bosnia & Herzegovina score the lowest regarding the state-of-affairs of their public infrastructure.

These observations are confirmed in Figure 3, which presents the scores for Infrastructure and Health & Primary Education for the ORIO countries in 2012/2013.[33] It shows that most ORIO countries score less than 3.5 of a maximum 7 for the availability of physical infrastructure. Only 11 of the total 53 countries score higher. In Africa, three countries (the Gambia, Morocco and South Africa) show a relatively high score, though their scores are still less than 60% of the maximum score.

Figures 2 and 3 also present the scores and rankings of countries regarding their performance of Social Services (i.e. 'Health and Primary Education'). Overall, scores are higher than for Infrastructure, although they still lag behind most other countries in the GCI sample.[34]

4.3 Access to funding for investments

ORIO was a financing facility aiming at providing grant finance for investments in public infrastructure, with a view to alleviate the shortages in investment funds. It is not easy to analyse to what extent the ORIO countries were confronted with a lack of funding for the projects, for which they applied for support from ORIO. There are indications that the domestic capital market in the ORIO countries did not function adequately to cater for the needs for sufficient finance and therefore these countries were dependent on external finance to address their most urgent investment needs. Table 4.1 gives an overview of the rankings of ORIO's target countries on what in WEF's GCI terminology is called 'Sophistication of the local financial markets'. It is assumed that it reflects the ease of access to funding for investments in public infrastructure as well.

Table 4.1: Financial Market Sophistication, rankings of ORIO countries for different years

	Low Income	Lower-Middle Income	Upper-Middle Income	Total
2009/2010				
Average	90	93	73	87
Maximum	127	133	132	133
Minimum	37	49	5	5
Number of countries	16	12	9	37
2012/2013				
Average	88	95	78	88
Maximum	143	144	142	144
Minimum	24	43	3	3
Number of countries	18	14	9	41
2015/2016				
Average	88	92	66	85
Maximum	126	140	135	140
Minimum	28	39	12	12
Number of countries	16	15	8	39

The rankings show large differences. Upper-middle income ORIO countries ranked on average higher than ORIO countries in the low-income and lower middle-income categories. The average ranking of

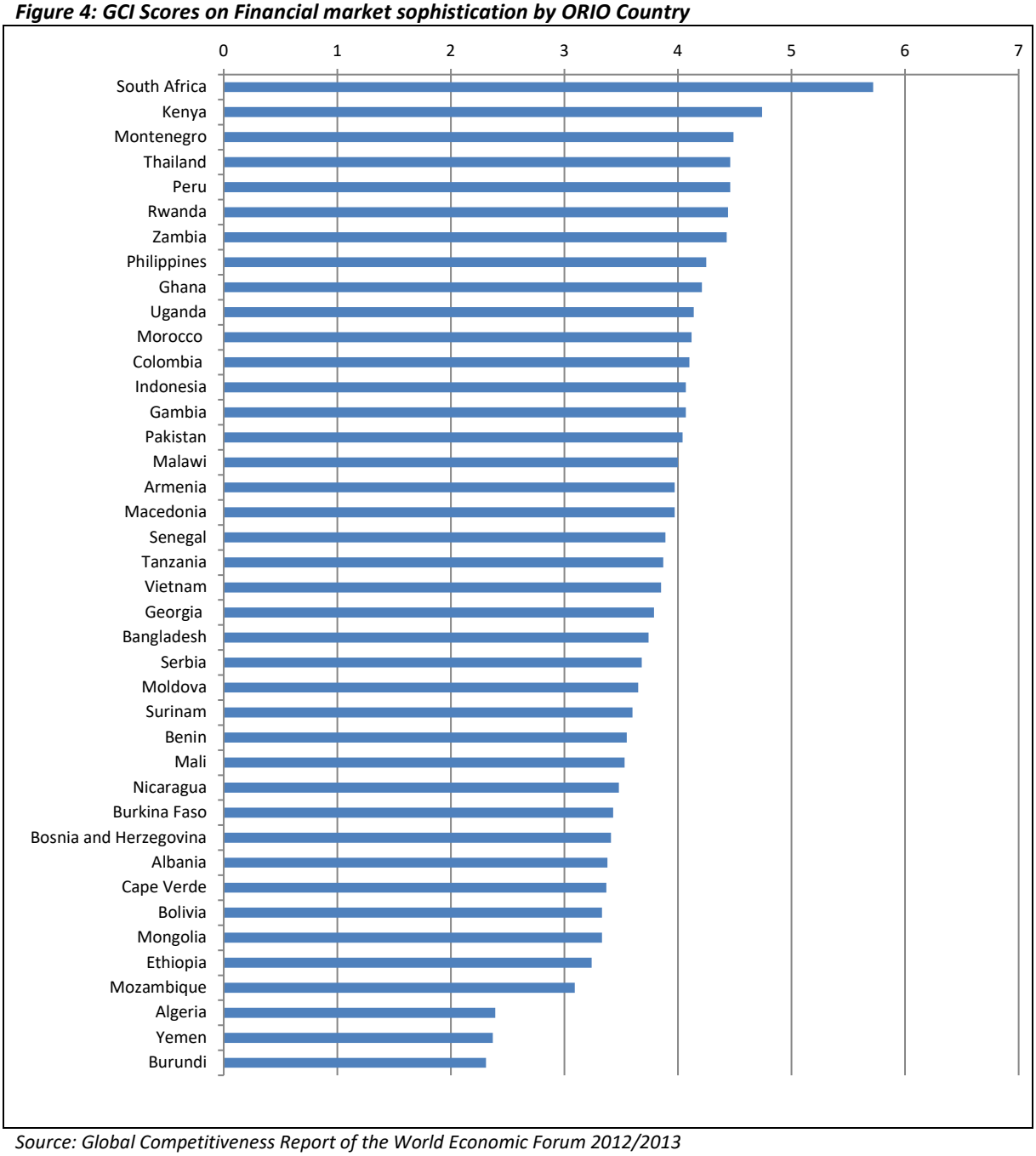
[33] Information is not available for all countries eligible for ORIO support.
[34] Regional average scores and rankings are presented in Annex 4.

the latter two categories did not change much over time, while that of upper-middle income countries was 66 in 2015/2016 as compared to 73 in 2009/2010.

As shown in Annex 4, the average ranking of the African target countries was 86 in 2012/2013. The ranking in that year varied from 3 (South Africa) to 144 (Burundi). Obviously, access to finance is very easy in South Africa, whereas it faces serious difficulties in Burundi. The other regions also show wide disparities among countries, but not as extreme as in Africa. Latin America is the only region which shows significant progress. For the region of the Middle East, the World Economic Forum only presents the indicator for Yemen in its report of 2012/2013.

Figure 4 presents the scores on the 'Financial Market Sophistication' also on a scale from 0 to 7 for the individual countries. It shows that half of the countries (21) for which information is available score below 50% of the maximum score of 7.

Figure 4: GCI Scores on Financial market sophistication by ORIO Country



Source: Global Competitiveness Report of the World Economic Forum 2012/2013

The indicator could not be calculated for 21 countries for lack of information, which in itself is an indication that the local financial markets do not work as required. Taking a score of 5 as a minimum, it can be concluded that, with South Africa as the exception, all 53 countries that qualified for ORIO support are confronted with a capital market which does not perform adequately. For these countries, it is a rational approach to rely on concessional aid for investments in public infrastructure.

4.4 Conclusions

There is broad consensus that there exists a large need for investment in public infrastructure. This need is most urgent in low- and middle-income countries. ORIO was oriented at these groups. At the start of programme, 53 countries were selected that qualified for support from the programme, the large majority in Africa. Most of the 53 countries score relatively low on the quality and quantity of public infrastructure. The scores on service performance of physical infrastructure, which is one of the indicators of the Global Competitiveness Index (GCI) of the World Economic Forum, show that 80% of the ORIO countries rank 80 or higher out of 140 countries sampled for the period of ORIO. There are a few exceptions, such as Thailand and South Africa. These figures show that ORIO targeted countries which were most in need of improvements in public physical infrastructure.

This can also be concluded regarding the need for support of the social services provided from Health and Education. The same source scores on the state of affairs for Primary Education and Health. Here as well, the ORIO countries score relatively low, with most ranking above 80.

Financing can be a serious bottleneck for investment in public infrastructure. Domestic financing is often hindered by a capital market which does not function adequately. The GCI also ranks countries on Financial Market Sophistication which, among others, includes scores on the ease of access to loans and soundness of banks. The conclusion from these indicators is that the majority of ORIO countries did not scored well on this index.

The overall conclusion is that ORIO indeed focused on countries that need support for investments in public infrastructure and that have difficulties in the domestic capital market with accessing funding for these investments.

5. Relevance

Relevance can be defined at the level of the ORIO programme and at the level of its projects. The Minister of Foreign Affairs defined relevance in his decision on ORIO communicated to parliament in 2012 as the extent to which the results of the project contribute to the solution of the identified problems and the extent to which they address the needs of the ultimate beneficiaries.[35] This definition is particularly focused on an individual project. We approach relevance in this evaluation also at the level of the programme. Although not specified explicitly as an objective of ORIO, promoting the involvement of Dutch companies in ORIO projects is considered important. Relevance of the programme regarding this topic will be discussed in section 3 of this chapter.

5.1 Relevance at the programme level

There is a large worldwide need for investments in public infrastructure[36], also in the countries targeted by the ORIO programme, as is illustrated in Chapter 4 by the scores and ranks of this group of countries. The programme's relevance is also validated by the needs assessments for infrastructure done by the Netherlands Embassies in consultation with local governments. They identified the main local sectors on which the programme should be focused.[37]

The sector distribution of ORIO's current portfolio can be compared with the GCI scores and ranking on Infrastructure and Health & Primary Education of the countries in which ORIO is active. The large majority of the African countries targeted by ORIO rank 100 or above on the global ranking of countries in both categories: physical and social infrastructure. The exceptions are the Gambia and South Africa, which show a relatively high score on physical infrastructure. The selection of ORIO projects is dominated by African countries and shows the strong representation of the Water & Sanitation, Transport & Storage and Energy sectors. In Africa, 26 countries qualified for ORIO support, 15 of which are low-income countries and 11 lower middle-income countries, of which 4 are so-called fragile states. Algeria and South Africa were the only upper middle-income countries in Africa that were eligible for the ORIO programme. On the basis of the needs assessments, the programme focused in this region in particular on the Transport, Water & Sanitation, and Energy sectors. In 10 African countries, the social sectors and in particular Health were also selected as eligible sectors. The focus on these sectors is not surprising given the relatively poor situation regarding public infrastructure.

The sector orientation of the applications is generally consistent with the identified needs, which is also the case regarding the 33 projects in Africa that were in the portfolio by 31 December 2018. These projects are currently being implemented in 14 African countries and are focused indeed on the identified sectors. As such, they are in line with the rather poor performance in infrastructure in comparison with other countries, evidencing that ORIO is relevant in the case of these African countries.

The picture for Asia is more diverse. Nine countries qualified for ORIO support. Because the GCI does not give data on infrastructure performance in the case of Bhutan and the Maldives, it is not possible to determine on the basis of external data if ORIO indeed targeted the sectors most in need for support. There is a list of eligible sectors based on the national needs assessments. Both the project proposals and the projects currently being implemented are consistent with the advised sectors on this list. Eight projects are being implemented in 3 countries, of which 6 are in Water & Sanitation in Vietnam. According to the GCI, the countries in Central & Eastern Europe score on average highest in

[35] See Letter to Parliament published in Staatscourant 2012, nr. 8239, 27 April 2012.

[36] See for example *"Bridging Global Infrastructure Gaps"*, McKinsey Global Institute, June 2016; "*Bridging Infrastructure Gaps: has the world made progress?",* McKinsey Global Institute, October 2017; *"Global Infrastructure Outlook, Infrastructure investment needs 50 countries, 7 sectors to 2040*", Oxford Economics, July 2017; and *"Fostering Investment in Infrastructure. Lessons learned from OECD Investment Policy Reviews"*, OECD, January 2015.

[37] Annex 1 presents the countries that qualified for the support with the selection of sectors for each country.

infrastructure performance in comparison with the other countries targeted by ORIO. In line with the local preferences, 4 of the 5 projects that are currently being implemented are in the Water & Sanitation sector. The 5th project is in Transport & Storage. Three projects are at the moment being implemented in Latin America, including 1 in Education, 1 in Health and 1 in Water. Only 2 projects are ongoing in the Middle East. These are projects in the Palestinian Territories in the Health and Transport sectors.

5.2 Relevance at the project level

The introduction already noted that the evaluation will also be based on the results of the 4 case studies and where possible on the information provided by the impact studies executed separately.

Enhancement of maternal Health and Paediatric Service in the Zanzibar archipelago, Mnazi Moja Hospital, Tanzania (ORIO09/TZ/21)

Investing in Zanzibar's health system is a constant challenge for local authorities. Especially the maternal and child health services are necessary, because mothers and children belong to the most vulnerable groups of the population. The new infrastructure and the long O&M phase can be regarded as highly relevant for the beneficiaries. According to Zanzibar's Ministry of Health, a clear current challenge for the health system is the lack of technical specialists like biomedical engineers and technicians. The ORIO project contributes to both needs, infrastructure improvements and building capacities, and strengthening the capabilities of technical medical staff.

Satellite-Based Water Monitoring and Flow Forecasting System for the Niger River Basin, Niger (ORIO10/NE/22)

The ORIO-SATH project is very relevant for the Niger Basin Authority (NBA) and for its member countries. It has introduced at NBA a climate satellite system, which allows NBA to provide timely and accurate climate data and issue early alerts that help to reduce the physical damages and save life of communities settled in vulnerable areas related to water extremes effects.

It is relevant for the Niger River basin to produce climate data and products that provide key information to improve the planning and management of the water resources within the river basin. The improvement of the water resource management is a key issue present in the planning and economic development policies of the countries of the Niger River basin. The deliverables of the SATH project are part of the mandate of NBA and complement the activities of many NBA's partner organisations, such as Niger's Ministry of Hydraulics, Hydrology, Meteorology and Catastrophes among others.

Development of the Port of Ziguinchor, Senegal (ORIO10/SN/01)

The project is relevant for solving the immediate problems of (i) the deteriorating accessibility of the Port of Ziguinchor, (ii) the obsolete infrastructure at the commercial port and the old fishery port, and (iii) inadequate management of both the commercial port and the old fishery port. More in general, at impact level, the project is expected to be also relevant for promoting economic development and creating employment in the Casamance region. However, relevance at that level cannot yet be proven because it is too early for impact level effects to have materialised.

Rehabilitation of Kilimanjaro International Airport (KIA), Tanzania (ORIO10/TZ/21)

The Kilimanjaro International Airport (KIA) would have lost ICAO certification if the airport's infrastructure would not have been rehabilitated. Given the importance of KIA as a point of entry for international tourists and as a gate to the rest of the world, its activities are also relevant for the horticultural sector in Northern Tanzania.

Sustainable Water and Sanitation Development Programme for Indigent Communities, South Africa (ORIO09/SA/01)

Given the poor quality of water supply and sanitation in the area in which the project was implemented, the investments in the improvements of this situation are considered ex ante

extremely relevant. However, according to the impact evaluation, the intensity of use of the services provided as a result of the project was estimated to be less than foreseen.

Realisation of two Water Supply Plants for rural areas in Ba Ria Vung-Tau province, Vietnam (ORIO09/VN/04)

The supply of good quality water in the rural communities in which the project was implemented matched the identified needs in these rural areas, which shows its relevance. This is confirmed by the study on the impacts. This project was one in a series of projects that all focused on the adequate provision of water in rural areas in the country.

Electrifying Rural Tanzania (ORIO10/TZ/01)

Although ex ante the project was seen as relevant, because it would provide the particular rural area with reliable supply of electricity, it was to a large extent overtaken by other technical developments and grid expansion. Since the start of the project the government also started to enlarge the electricity grid. As a result, the generators supplied are now treated as back-up for the supply of electricity.

In conclusion, since local relevance is one of the criteria being used in the assessment of the project proposals, the ex-ante relevance of all approved projects, among these the case study projects, was judged as satisfactory. The case and impact studies partly confirm the local relevance of these projects considering the issues at hand in the respective countries and regions. An exception might be the rural electrification project in Tanzania. The renovation of the local hospital and primary health centres at Zanzibar in Tanzania meets the lack of adequate care for pregnant mothers and newly born children at the two islands of the region. The infrastructure established in Niger is a welcomed monitoring and forecasting tool to be used in the early alert mechanism. Both the development and renovation of the port in the south of Senegal and of the airport in the north of Tanzania are relevant for the further development of these regions.

5.3 Relevance for the Dutch business community

Although ORIO was designed as a programme focused on the development relevance in the recipient countries, it also tried to promote the involvement of the business community with a view to benefit from the knowledge, skills and innovative character of the private sector, and implicitly also to promote Dutch activities in the beneficiary countries. The promotion of the participation of the (Dutch) private sector in the identification of the investments, the participation in the preparation of the applications, the execution in the development phase and in the implementation of the project was considered a way to make use of the expertise of private sector parties.[38] Against this background, a specific role was reserved in ORIO for so-called private initiators, who played a role in the identification of the most relevant projects. The background of that was that the expertise available in the private sector should be utilised to the largest possible extent. Elsewhere in the report, we already pointed at the role that (mainly Dutch) firms played in the identification and the application for ORIO support. We also showed there that mediation of private sector companies resulted in a higher success rate of the applications.

The role of (Dutch) private sector entities in the Implementation Phase of the programme was significant as well. As shown in Chapter 3 of this report (Table 3.8), about half of the grant money paid so far for the implementation of projects was paid to Dutch companies. Applying the same percentage on the committed grants for the 51 projects would imply that in total about € 180 million would be channelled to Dutch companies, or about 15% of total project costs. Since Dutch companies also benefit from the non-ORIO financed part of the investments, this percentage could increase to a maximum of 50%. Although substantial, it is lower than in the case of ORIO's predecessor. In contrast

[38] See for example section 12 'Private Initiatieven' in the Letter to Parliament, published in Staatscourant 2009, nr. 47, 10 March 2009 and section 3 'De rol van Infrastructuur' in the Letter to Parliament, published in Staatscourant 2012, nr. 8239, 27 April 2012.

to ORET, ORIO was a Government-to-Government programme focused on investment in public infrastructure, whereas ORET was basically an export subsidy programme with Dutch companies in the lead of the application process. In ORIO, the local government is in the lead of the process. During this evaluation, this issue was often discussed in the meetings with the Dutch business community. The opinions about this aspect of the programme differed depending on the role the various actors could play. Those who were active in the preparation (private initiators) and in the development phase of the projects were quite satisfied with the design of the programme, which is no surprise given the relatively large share of the budget channelled to Dutch consultancy firms. Particularly exporters of capital goods saw a role for themselves in the implementation of the projects and they were generally disappointed about their chances to play this role in the programme. They decided to stay away from an active role in the identification and/or preparation of the projects because they considered this a waste of time and money. Reasons for that are that involvement in both the formulation and in the implementation of a project was considered a conflict of interest and that, after approval, the projects were internationally tendered by the local government. Both groups of companies shared the opinion that the programme was rather complex and time-consuming.

5.4 Conclusions on Relevance

A reliable and accurate provision of public infrastructure services is widely recognised as a necessary condition for economic and human development and as such a valuable tool in the fight against poverty. There exists also strong indications that there is a need for investments in public infrastructure in ORIO's target group of countries. This group of countries perform relatively poorly regarding access to and quality of physical and social infrastructure. They also show serious limitations in the field of financing investments in infrastructure. Against this background, ORIO is considered a relevant programme. Its relevance is also partly confirmed at the project level as shown in the case studies conducted in the context of this evaluation and some of the impact studies.

The Dutch private consultancy sector was very active in the promotion and formulation of projects that qualified for ORIO support. The Dutch private sector was (or has been) less active in the implementation of projects co-funded by ORIO, but its involvement was (is) still substantial. Nevertheless, interviewed exporters of capital goods complained about the programme. They argued that the programme made less use of their expertise because the implementing contractors were not eligible to participate in the formulation and the design of the projects, and that the supplies of goods, works and services were procured through International Competitive Bidding.

6. Efficiency of the Programme

The efficiency of the programme is assessed at different stages in the project cycle. It starts with an analysis of the efficiency of the approval process, including the time spent on the different phases, from submission of the proposal up to the respective ends of the development, implementation and the O&M phases. It should be noted that since none of projects has ended the O&M phase yet, we use the proposed end-date of this phase rather than the actual end-date.

6.1 The Efficiency of the Approval process

Programme documentation shows that there was often extensive communication between the ORIO desk and the applicant government about virtually all aspects of the application procedures. These varied from the administrative issues regarding applications, to discussion of procurement requirements and financial contributions. Interviews with Dutch consultancy firms involved in the preparation of the projects (private initiators) and with the contractors active in the implementation phase also revealed that the administrative procedures and requisites were not always known by the recipients, such as the requisites that the applicant should be the national government and that the total project costs should not exceed €60 million. According to these programme participants, this had a negative influence on the efficiency of the process.

One indicator of the efficiency of the process is the length of the project cycle. Several steps can be identified in the process developed for ORIO. As described earlier, it started with the submission of a project proposal, which was allowed to enter the assessment process if it met the standard requirements. Then the project proposal was assessed on the basis of the criteria discussed in Chapter 2. Several actors were involved in this stage of the process. This included the staff of the ORIO desk, which did an early assessment and (in most cases) an external party that analysed the project, the results of which were reflected in an assessment report. The findings of both the ORIO staff and the external consultants were presented to ACORIO, which before 2012 again ranked the projects on the basis of the agreed criteria. Starting in 2012, the process changed into the earlier discussed 'first come, first served' approach, but the same actors were involved in the approval process of the projects. After a positive recommendation of ACORIO, which was in virtually all cases consistent with the findings of the external party, the project was allowed to enter the development phase.[41] As shown in Table 6.1, the period between the official announcement of the ORIO desk to the applicant that the project has passed the first hurdle and the start of the development phase took on average 14 months. This seems long for the approval of a project, but it should be noted that this period also included the time-consuming drafting and signing of a grant arrangement with the official representatives of the applicant, the formulation of the Terms of Reference for the study during the development phase and the selection of the consultant responsible for the development phase. During this appraisal process, ORIO, the external consultant and ACORIO often requested additional information about content and context of the proposed project from the applicant. In several cases the applicant needed much time to respond to this question for additional information. In several cases, ACORIO often advised on conditions regarding specific elements of the project to be clarified during the development phase. There were a few proposals for which the approval process was extremely long, with two outliers of 41 months. The distribution of time of this phase in the project cycle is shown in Figure 5, which shows a close to normal distribution with a thick and long tail from above say 15 months.

The development phase took an average of 29 months. The mode is equal to the mean, indicating that most of the projects needed a period of 25 to 30 months to prepare the project plan, which

[41] The Carnegie report in particular criticises the process, which in their view included too many checks and balances resulting in rather long bureaucratic processes, see '*Review ORIO, Eindrapportage'*, Carnegie Consult, 14 October 2013.

detailed the project in preparation for implementation. Outliers can be witnessed here as well, but they are not as extreme as in the case of the appraisal period (see Figure 5).

Since so far only a few projects have finalised the implementation phase, we calculated the length of this phase and of the Operation & Maintenance phase on the basis of the planned periods.

Table 6.1: Length different phases accepted project proposals in months

	Period between selection and start Dev't phase			**Length Development phase**			**Planned length implementation phase**			**Planned length O&M phase[a)]**		
	private initiators			private initiators			private initiators			private initiators		
	With	Without	Total	With	Without	Total	With	Without	Total	With	Without	Total
Average	12	17	14	30	27	29	67	65	66	125	108	119
Max	41	41	41	54	48	54	150	108	150	199	224	224
Min	2	5	2	14	12	12	12	18	12	36	29	29
# Projects	50	19	69	33	12	45	25	13	38	18	9	27

a) ORIO's contribution is limited to a maximum period of 120 months

Source: own calculation on the basis of project documentation

Table 6.1 also presents the length of the different phases in the project cycle with and without involvement of private initiators in the preparation of the project. It shows that involvement of a private initiator reduced the average period between acceptance of the proposal to the moment of the start of the development phase to 12 months, against 17 months in case private companies were not involved in the preparation of the project proposal. The variation is also smaller, as can be concluded from the standard deviation (7 against 11 months).[42] This difference can most likely be explained by the fact that the proposal meets more accurately the required formats and content for the assessment, plus that in most cases, the private initiator also conducted (or took part in) the development phase, eliminating the time needed to contract an external consultant. The involvement of a private party in the preparation of the projects was, however, no guarantee that the development phase required less time than in the case of a project without a private initiator.

The duration of the phases in the project cycle also differed between sectors, as is shown in Table 6.2. The period to prepare investments in Transport & Storage was rather long. It took an average of 20 months for the period between the first selection and the start of the development phase and, subsequently, another 31 months to prepare the approved project plan during the development phase, hence in total 51 months. These projects are usually rather complex; a clear example is the case study project in Senegal which includes several different components. It should be mentioned that the average length of the development phase is about the same for all sectors discussed here.

Table 6.2: Average length in months of the different phases by main sector

	Period between selection and start Dev't phase		**Length Development phase**		**Planned length implementation phase**		**Planned length O&M phase**		**Total**	
Number of:	*projects*	months	*projects*	months	*projects*	months	*projects*	months	*projects*	months
Health & Educ.	*19*	14	*16*	29	10	60	*9*	92	*9*	194
Water & Sanitation	*29*	13	*19*	30	18	62	*13*	135	*13*	240
Transp. & Storage	*11*	20	*5*	31	6	79	*4*	127	*4*	257
Other sectors [a)]	*10*	9	*5*	28	4	82	*1*	120	*1*	239
Total	***69***	**14**	***45***	**29**	**38**	**66**	***27***	**119**	***27***	**228**

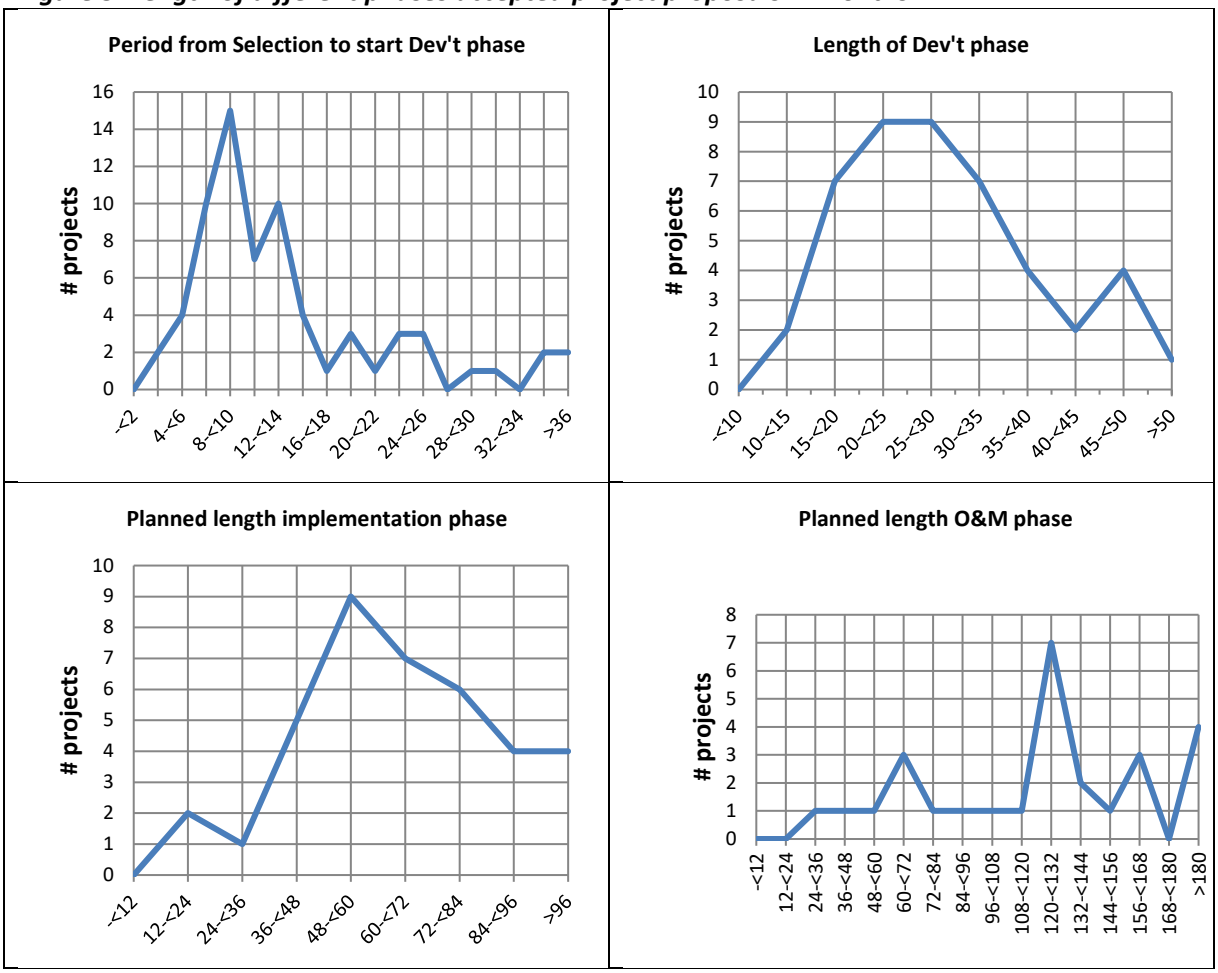
a) Agriculture, Energy and General Environment

Source: own calculation on the basis of project documentation

[42] The two outliers are left out in the calculation of the standard deviation.

Given that at the moment of writing this report most projects have not finished the implementation phase, it is impossible to calculate the actual period which includes the O&M phase. The average period from acceptance of a project proposal at the gate to closure of O&M phase of the project is estimated to be 20 years. Excluding the O&M phase, this period can be estimated at approximately 100 months (or between 8 and 9 years), including a preparation period of 2.5 years on average and an implementation period of 5 to 6 years. These are reasonable periods for these rather complex public infrastructure investments. It should, however, be realised that because ORIO also includes an O&M phase with an estimated length of about 10 years, the books on that phase of ORIO projects cannot be closed for a long time, requiring administrative, logistical and monitoring inputs with a negative impact on the efficiency of the programme.

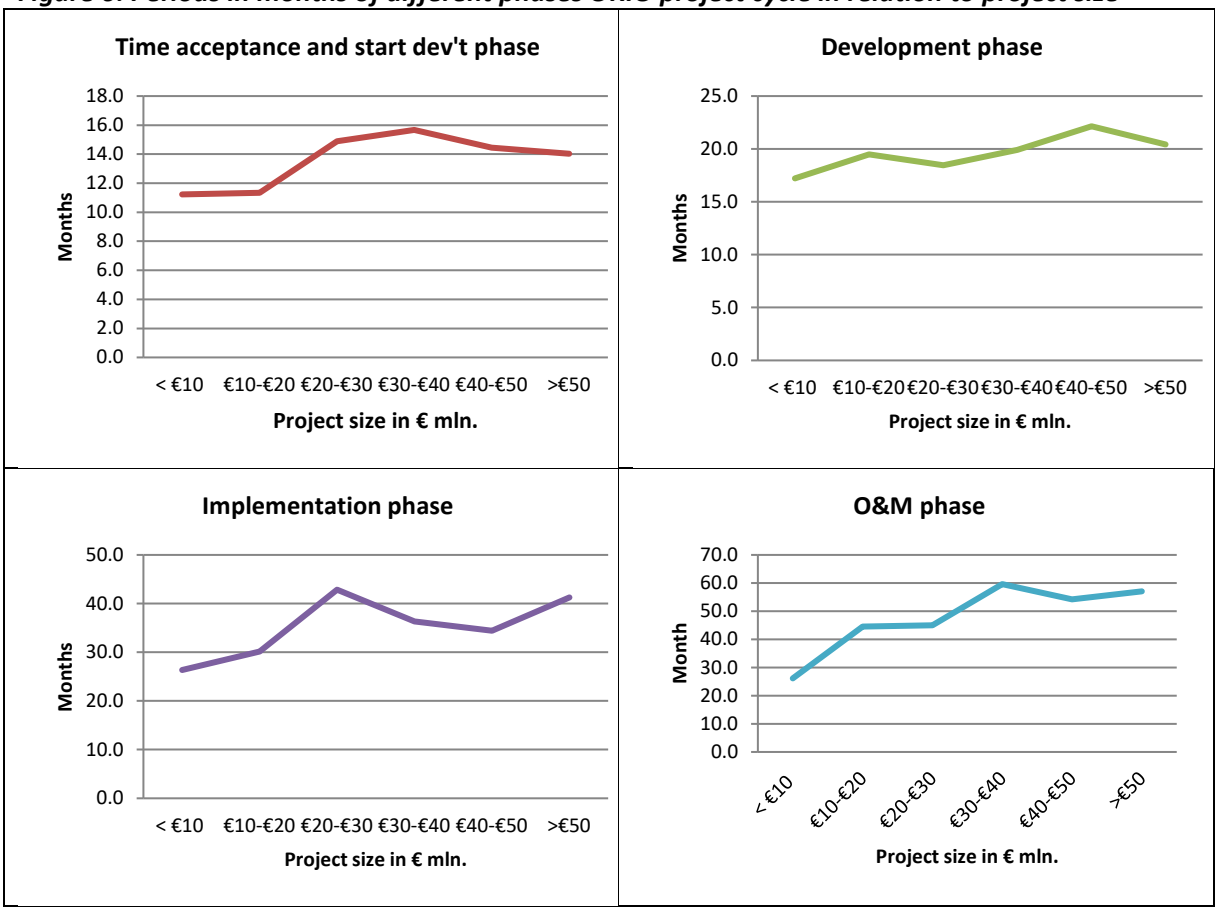
Figure 5: Length of different phases accepted project proposals in months



Source: own calculation on the basis of project documentation

The size of the projects affected the length of the periods of the various phases in the project cycle. Figure 6 shows the lengths of these phases in months in relation to the size of the projects. The period prior to the development phase was indeed shorter for projects with a size of less than €20 million. The period increased to 14 to 16 months for projects with a size of €20 million or more. The length of the other phases is also positively correlated with the size of the project. The length of the development phase increased from about 16 months for small projects (<€20 million) to over 20 months for projects with a budget of more than €50 million. The length of the Implementation period increased with the project size up to a budget of €25 million and stabilised for projects with a larger budget. A similar trend can be witnessed for the O&M phase: an increase from 20 to 50 months was shown in relation to the size of the project budget and stabilisation thereafter at approximately 60 months.

Figure 6: Periods in months of different phases ORIO project cycle in relation to project size



Source: own calculation on the basis of project documentation

6.2 Efficiency of the programme design

With the inclusion of three phases, ORIO was different from many other aid programmes. For example, ORIO's predecessor ORET could in some specific cases also finance (part) of the O&M phase, but this was an exception rather than a rule. It also did not have a phase similar to the development phase in ORIO.[43] Instead, in ORET, the applicant, in that case the exporter of capital goods, could apply for support from the so-called PESP programme under a separate contract. In ORIO, between 50% and 100% of the costs for the development phase, and between 35% and 50% for the implementation and O&M phase, were granted. This draws on the total budget made available for the ORIO programme. For the development phase, we can determine a rather accurate picture of the costs of this part of the programme. A budget was allocated to be spent on the development phase for 69 out of the 73 projects that were allowed to enter that phase (see Table 3.7). The total budget for the development phase committed to these projects amounted to €37.7 million, of which approximately 80% has been disbursed, indicating that most activities under the development phase have been finalised. The average budget for the detailed formulation of the projects amounted to € 550 thousand with a maximum of € 2.2 million and a minimum of €60 thousand. Approximately 25% (€7.7 million) spent on project preparation went to projects that for different reasons were stopped or withdrawn. One reason is that the applicant government failed to generate the co-funding from loans or own resources.

[43] According to the Carnegie report the inclusion of the development phase affected not only the length of the procedures, but also led to wrong incentives and a reduction of local ownership. See '*Review ORIO, Eindrapportage'*, Carnegie Consult, 14 October 2013.

The main question in this section is whether the ORIO programme, from a value for money point of view, suffered or benefited from the introduction of the development phase. Spending €7.7 million on projects that did not materialise looks like a waste of money. This is particularly the case for projects that were stopped because the local counterparts were not able to meet ORIO's criteria, although they had confirmed these with signing of the grant arrangement for the development phase. Out of the 22 projects that were stopped prematurely, 19 passed the development phase. The local government faced difficulties in co-financing the projects in at least 16 cases; others had administrative and organisational problems and/or did not show sufficient commitment. Only a few were considered no longer feasible, judged on the basis of the revised project design submitted for support for implementation. In these cases, the development phase was useful in screening the right projects and scrapping the bad projects and saving money.

It would have saved money if the lack of local resources to finance the counterpart share of the project costs would have become clear at an earlier stage in the project cycle. Admittedly, it is not easy to identify the gaps in funding at an early stage in the process, but it would be advisable to demand a firmer commitment from the local authorities before the grant arrangement for the development phase was agreed upon.

6.3 The efficiency of the individual projects

The efficiency of individual projects can be assessed at two levels. The first level discusses whether the project is prepared and implemented efficiently, i.e. at reasonable cost and in a realistic period. At the second level, the question is whether the services of the newly installed public infrastructure are provided efficiently, i.e. at reasonable costs and without queuing. This section will as far as possible give an answer to these questions for the four case studies being conducted in the context of this evaluation. We will further consider the findings as far as available from the impact studies executed separately.

Table 6.3 presents the length of the different phases of the project cycle of the individual projects described in the impact and case studies. With the exception of the South African project, the period between the date which the projects were selected and the starting date of the development phase is shorter than average in the overall project portfolio. The difference is substantial in the case of the health projects in Ghana, Nicaragua, Tanzania and Ethiopia. The development phase of these projects is shorter as well. The time spent on implementation and Operation & Maintenance does not differ much from the average of the overall portfolio.

As a rule, ORIO requires international competitive bidding (ICB) regarding procurement. For a number of countries, national competitive bidding is allowed as well, taking into account the OECD Good Procurement Practices for Official Development Assistance and OECD Guidelines for Multinational Enterprises (2011 Edition). Direct negotiations with only one supplier were allowed if the recipient government could show that there was only one supplier who could deliver the required goods or services. In several projects, it was allowed that the project management or technical advice was directly procured from a consultancy firm, often a Dutch one. The procurement process is monitored by the RVO-ORIO desk with assistance from external procurement experts and before contracts are settled it provides a 'no objection'. In cases of direct procurement, prices were checked by external and independent experts. In most of the studies reported here, ICB was applied for the procurement of goods and works in the implementation and the O&M phases. Direct negotiation was the rule for the development phase. But here as well, prices were in most cases checked by an external procurement expert.

Table 6.3: Efficiency Indicators individual projects, length of different phases in months

Length of period	Selection start dev't phase	Dev't phase	Total preparation	Impl. phase	O&M phase	Total Impl. + O&M
IMPACT STUDIES						
Accelerating TB Case Detection in Ghana	6	19	25	84	60	144
Sustainable water and Sanitation Development Programme for Indigent Communities, South Africa	15	37	52	56	135	191
Realisation of two Water Supply plants for rural areas in Ba Ria Vung Tau province, Vietnam	11	20	31	52	144	196
Construction and Equipment of the General Hospital in Western Managua, Nicaragua	4	24	28	68	36	104
Electrifying Rural Tanzania	6	17	23	70	120	190
Boosting Maternal and Child Health in Wollega, Ethiopia	2	14	16	39	72	111
CASE STUDIES						
Enhancement of maternal Health and Paediatric Service in the Zanzibar archipelago, Mnazi Moja Hospital, Tanzania	8	26	34	54	29	83
Satellite-Based Water Monitoring and Flow Forecasting System for the Niger River Basin, Niger	7	17	25	62	60	122
Development of the Port of Ziguinchor, Senegal	16	37	53	58	142	200
Rehabilitation of Kilimanjaro International Airport, Tanzania	9	28	37	76	No O&M	76

Table 6.4: Efficiency of procurement and provision of services

	Procurement methods	Efficiency Service provision
IMPACT STUDIES		
Accelerating TB Case Detection in Ghana	ICB	No information
Sustainable water and Sanitation Development Programme for Indigent Communities, South Africa	NCB	improved
Realisation of two Water Supply plants for rural areas in Ba Ria Vung Tau province, Vietnam	Partly direct appointment partly NCB	Services provided more accurately
Construction and Equipment of the General Hospital in Western Managua, Nicaragua	ICB	No information
Electrifying Rural Tanzania	ICB + Direct appointment	To some extent provision of services has improved
Boosting Maternal and Child Health in Wollega, Ethiopia		No information
CASE STUDIES		
Enhancement of maternal Health and Paediatric Service in the Zanzibar archipelago, Mnazi Moja Hospital, Tanzania	ICB	Service provision improved
Satellite-Based Water Monitoring and Flow Forecasting System for the Niger River Basin, Niger	Direct Negotiations	More adequate service provision
Development of the Port of Ziguinchor, Senegal	ICB	no information yet
Rehabilitation of Kilimanjaro International Airport, Tanzania	ICB + Direct appointment	to some extent service provision improved

ICB = International Competitive Bidding; NCB = National Competitive Bidding

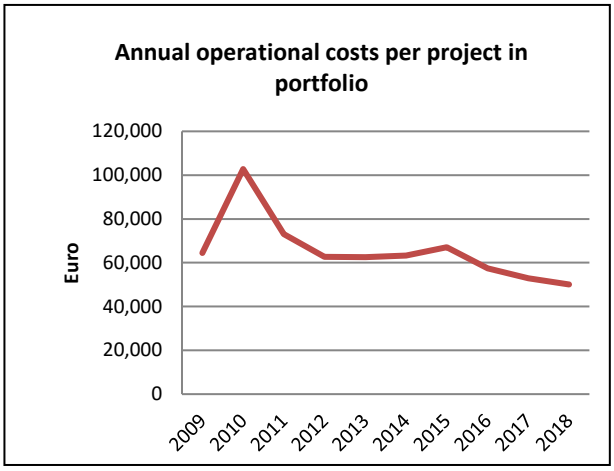
The health project at Zanzibar in Tanzania was also not standard. Three international operating firms tendered for this turnkey project. The contracted implementing agency went, however, bankrupt after about a year, creating a lot of problems regarding the continuation of the project and its financing. The firm which ended second in the original tender took over and managed to implement the project quickly and successfully.

The extent to which the newly installed infrastructure provides the services more accurately and effectively than before ORIO's intervention will be a topic dealt with in the section on effectiveness below.

The project in Niger was an exception in the selection of case study projects. In this project, the preparation of the project proposal was supported by a Dutch technical institute, which was also responsible for the development phase and for the implementation of the project. The main reason for that is that it was the only institute in the world with the expertise needed for these investments (software mainly). The training component was provided by a Dutch training institute in the required field of expertise, being recruited through direct negotiations.

6.4 The cost effectiveness of the executing organisation

The operation of ORIO was not tendered, but awarded directly to EVD, nowadays RVO.[44] Since this institution did not have any experience with managing international programmes of investments in public infrastructure, it had to build up the expertise from scratch. Despite this lack of experience at the start, the programme has been executed smoothly. Nevertheless, several interviewed users of the programme complained about the many changes in staff and therefore about the lack of institutional memory within the executing agency. They also mentioned the lack of expertise, in particular related to the financial aspects of overseas investments. The impression is that this has improved over time. The installation of a smoothly operating apparatus, which can act as investment banker, resulted in additional costs. The costs included the costs of the staff who ran ORIO and the separately reported cost of external advisors.



The character of the programme contributed to relatively high operational costs. In general, investments in public infrastructure are complex and require careful preparation. Many studies show the complexity of the decision-making process of investments in public infrastructure, but also of the ex-ante miscalculations in investment costs. The approval process of the submitted projects is being done very carefully, with different steps involving different actors, internal and from outside RVO. Such a careful approach has its price, both in terms of time as shown above and in terms of operational costs. Table 6.5 below summarises the operational costs of ORIO over the period 2009-2018. It shows that the operational costs added up so far to close to €28 million. The figure shows the average operational costs of the projects in each year of the portfolio. It varies between €100,000 in 2010 and €50,000 in 2018. Another feature of the ORIO programme which contributed to additional operational costs is that the projects include an Operation & Maintenance phase, which in practice, as shown in Table 6.3, can take a period of several years, implying a continuation of management and monitoring activities by the staff of ORIO.

The costs to date of executing the programme can be estimated at close to 2% of the total costs of the projects in portfolio per 31 December 2018. Given ORIO's design, it is virtually impossible to

[44] In contrast, the management of ORIO's predecessor ORET was tendered.

compare this figure with the performance of other funds. The documentation on DFID's Caribbean Infrastructure Partnership Fund (UKCIF) mentions a management fee of 3.75%,[45] but it is not clear if this fee can be compared with ORIO's operational costs. In case of the EU-Africa Trust Fund, the lead financiers' costs related to preparing and implementing projects can be estimated at 1.5% of the committed grants,[46] which would compare to over 6% in the case of ORIO. The operating costs per project accepted for the development phase amounted to €366,000, which is less than the average costs per selected project in FMO's Infrastructure Development Fund (IDF). The costs per project in portfolio is substantially higher (i.e. €524 thousand). It should further be realised that the total costs per project in portfolio will increase, considering the period still needed to monitor and manage the implementation and the operation and maintenance phase of the current projects.

Table 6.5: Operational costs of the ORIO programme[a] ; total in period 2009-2018 in Euros

Total costs of the programme	27,698,623
idem, excl. Costs not directly related to execution of the programme	26,715,127
Total fixed costs	6,683,411
Total variable costs	20,031,716
Cost per approved project (73 projects)	365,961
Cost per project in portfolio per 31-12-2018 (51 projects)	523,826
Operational costs as % of total costs approved projects	1.95%
Operational costs as % of total committed grants	6.18%
Operational costs per selected project in FMO's Infrastructure Development Fund[b]	479,070

a) source: annual reports RVO to the Ministry of Foreign Affairs
b) source: Report of Carnegie Consult

6.5 Conclusions regarding efficiency of the ORIO Programme

ORIO not only co-finances large investments in public infrastructure, but also the preparation of these investments and for a limited period of time the costs related to the operation and maintenance of the infrastructure. These investments take place in developing and transition countries that usually do not excel institutionally, managerially and financially. Against this background, these investments required a careful preparation, which is reflected in the rigorous appraisal processes in RVO, the executing agency, also involving external experts. The average period to approve a project proposal including the formulation and the agreement of the terms of reference for the detailed technical, institutional and financial design of the project took slightly more than a year. Given the complexity of the investments and their environments, this is considered reasonable, although it should be admitted that there were some extreme long periods as well. The detailed design of the project during the development phase took on average another 2-2.5 years, which is also considered reasonable for an investment of between €25 million and €60 million in such a context. Here we disagree with the conclusions on this issue formulated in the Carnegie Consult report, which criticises the long decision-making processes in the ORIO programme, in particular pointing at the inclusion of the development phase.[47] It should however be realised that such complex projects require careful preparation, which in the case of the ORET programme was done by the exporter itself, sometimes supported by a PESP-supported study.

About €7.7 million has been spent on the development of projects that were cancelled or withdrawn. In some cases, it would have been possible to require firmer financial and institutional commitments from the applicant officials before the start of the development phase, in order to avoid spending time and money on projects that for these reasons would not continue. In other cases, the

[45] http://www.caribank.org.
[46] http://www.eu-africa-infrastrcuture-tf.net.
[47] *Review ORIO, Eindrapportage*, Carnegie Consult, 14 October 2013.

development phase of the projects showed that they would not be feasible, which saved the money on the implementation.

In interviews with Dutch participants in the programme, it was mentioned several times that they considered the procedures burdensome and that the communication with the executing agency was hindered by the lack of institutional memory, as a result of change in staff and by a lack of financial and technical knowledge. It should, however, be admitted that the agency learned by doing. Unfortunately, the programme stopped just at the moment the organisation was fully equipped to run the programme. The short life of the programme also affected the operational costs of running the programme in comparison with the value of the total portfolio. The start-up costs of a programme as ORIO are high because it requires time to build up a healthy portfolio and five years is too short.

7. Effectiveness

ORIO focused on improving public service provision in the target countries to the benefit of economic and human development, through co-financing public infrastructure investments. An informal objective was to promote the involvement of the (Dutch) private sector. This chapter analyses to what extent ORIO has been successful in achieving these objectives. Effectiveness of the programme can be assessed at different levels. A first level concerns the extent to which the design of the programme contributed to the success of the investments. The second level involves analysing the extent to which the individual projects supported by ORIO have achieved their intended objectives. This section starts with a discussion of effectiveness related to the design of the programme, followed by a discussion about the effectiveness of the process of selecting projects. It ends with a review of the results of the case and impact studies regarding the individual projects.

7.1 Effectiveness of the programme design

In ORIO projects, the local government is formally in the lead. The main question here is to what extent local government ownership of projects has contributed to the success of the programme and of the supported investments. The proposed projects were in virtually all cases on the list of priority projects of the local governments, which was one of the criteria in the approval process of the project proposals. During the development phase of the project, local commitment was one component of the assessment, with the belief that local ownership is a necessary condition for effectiveness. This included an assessment of local capabilities to manage the investment and to run the public infrastructure. During this phase, a number of projects were not continued because the local governments could not follow up on the conditions required for a successful project.

Another feature of the programme was that it (co-)finances three phases: Development, Implementation and Operation & Maintenance. A lot of attention was given to the development of the projects. This has contributed to the improvement of the project proposals and therefore most likely to a more effective project portfolio. It should be mentioned the difficulty of establish a direct link between the inclusion of a development phase and the effectiveness of an individual project. Some of the interviewed Dutch firms mentioned that because the development phase of the projects was executed by external consultants, rather than by these Dutch firms themselves, the proposed solutions were not optimal, simply because external experts were not always aware of the most recent and/or suitable solutions for the problems. This might be valid, but no evidence was found in the case studies to support these views.

The fact that the development phase focused not only on the technical aspects of the projects, but also on the context, institutional and environmental and social aspects of the investments, likely contributed to effective projects. Both the case and impact studies and the progress reports reveal that the projects being implemented contribute to the formulated objectives of the projects, but occasionally less than expected (see also section 7.3 below).

Dutch consultancy firms played an important role in the studies conducted during the development phase. Often, they were involved as private initiators in promoting ORIO to the local governments. The programme supported Dutch companies moneywise, but it was not very successful in promotion of the Dutch presence in the recipient countries. There are only a few examples of Dutch companies that were invited to participate in projects that are not co-financed by ORIO. As shown earlier, Dutch companies also played a role in Implementation and the O&M phases, which is reflected in the share of ORIO payments to Dutch firms. During interviews with Dutch exporters of capital goods, the interviewees made clear that since procurement in the projects is as a rule based on ICB and organised by the local governments, they were not very interested in spending a lot of effort tendering for the projects, because they estimated the chance of winning such a tender as very limited. Nonetheless, the case studies show that in all four cases Dutch companies were responsible for the implementation of the projects.

7.2 ORIO budgets

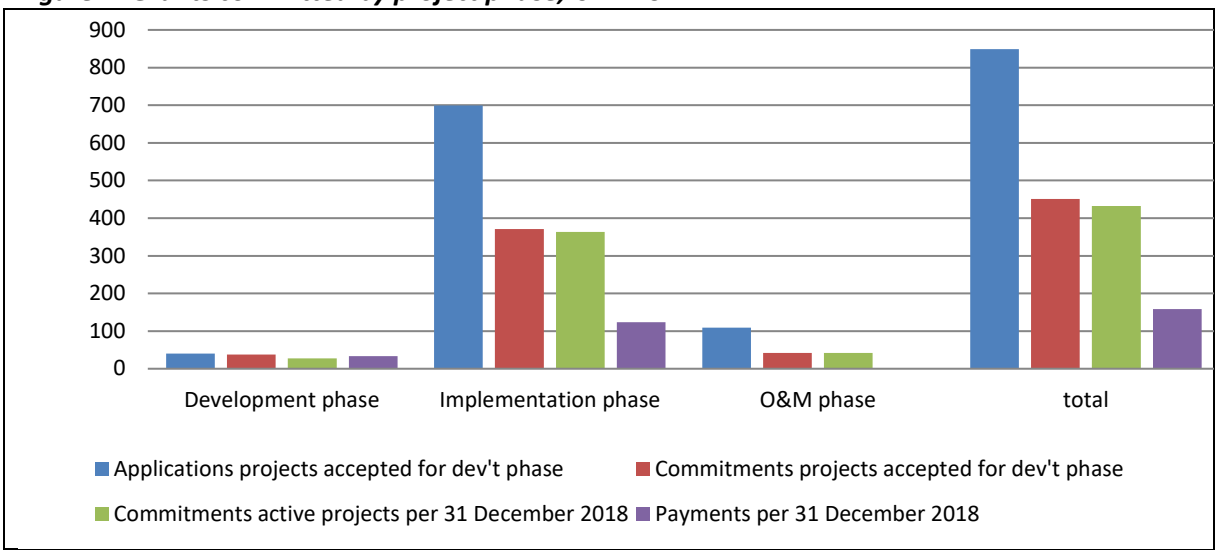
Given the budget made available for the programme, there would have been more capacity for supporting projects. The main reason that the budget was not exhausted was not that certain projects were discontinued. Budget allocation decisions were made in an early stage of the selection process, namely, just before the start of the development phase. However, 22 of the 73 projects were either rejected or withdrawn during or after the development phase, because these projects did not meet the criteria applied or because local governments did not manage to secure the counterpart funding. Table 7.1 presents the budgets made available from the start in 2009 to the year that the window was closed in 2013.The Ministry of Foreign Affairs expected that in reality only about 60% or approximately €100 million per year would be spent.

Table 7.1: Budget made available for ORIO in € million.

2009	2010	2011	2012	2013	Total
180.0	189.4	192.8	180.0	90.0	832.2

Figure 7 shows the value, in millions of Euro, of the grants requested for the 73 projects that passed the first stages in the selection process. The total proposed project value was estimated at almost €1.9 billion. The share allocated for the development phase was estimated at 3%, or €51 million, of which €40 million qualified for a grant from the ORIO programme. Total grants in the applications were estimated at slightly less than €850 million, which is about the same as the budget made available for the ORIO programme. It shows that it was the selection procedure, and not the allocated budget, that formed the limit for the number of project proposals accepted.

***Figure 7: Grants committed by project phase,* € million.**



The total commitments added up to €451 million, or 53% of the total grants requested in the 73 proposals. In the case of 69 applications, a study was conducted in the context of the development phase, formulating and designing the projects in detail, at a committed budget of €37.7 million. About one-fifth (€7.7mln.) of the amount had been committed for projects that for various reasons were rejected or withdrawn by the applicant. At the date of 31 December 2018, 51 projects were active, of which the large majority were in the implementation phase. For a few projects, the grant arrangement for this phase was in preparation.

7.3 Effectiveness at the project level

The large majority of projects have not ended yet. It is therefore premature to draw strong conclusions on effectiveness. There are several indications that programme effectiveness has been

mixed at the level of the individual projects. Below, the findings regarding the effectiveness of the case and impact studies are summarised. The case studies are, in general, positive about the (expected) achievement of the formulated objectives of the projects. The picture from the three completed impact studies is somewhat mixed, but overall not so positive. In one of these cases (Electrifying Rural Areas in Tanzania), the results deviate considerably from what was planned at the start. The other two, both in Water and Sanitation, show some success in terms of effect, but less than expected.

Enhancement of maternal Health and Paediatric Service in the Zanzibar archipelago, Mnazi Moja Hospital, Tanzania

The project aimed to improve the referral health system with a focus on maternal, neonatal and child health services on the two islands of the Zanzibar archipelago. The project components include the improvement of the maternity, child and emergency departments of the Mnazi Mmoja Hospital (MMH) in Stonetown, and the construction and renovation of maternity wards in 15 Primary Health Care Units (PHCUs). Besides supplying the hospital and PHCUs with medical devices and equipment, the project included profound construction works, maintenance and technical assistance.

The number of childbirths increased at Mnazi Mmoja Hospital. Most of the PHCUs do not (yet) offer obstetric care because of lack of staff. At Mnazi Mmoja Hospital, obstetric and emergency care improve and save the lives of people in need. With renovating and extending the Primary Health Care Units, people can get better health service access in rural areas of the islands, but at the moment of visiting the islands, the Primary Health Care Units lacked staff to offer high quality services.

In conclusion, the project contributed to a certain extent to the achievement of the objectives formulated, in particular regarding the supported hospital. As a result of renovating the PHCUs, particularly the poor people in the rural areas of the islands can get better access to health services, although the service level is not yet optimal due to a lack of staff. It should, however, be taken into account that the project was completed only very recently.

Satellite-Based Water Monitoring and Flow Forecasting System for the Niger River Basin, Niger

The Project aimed to install a Satellite-Based Water Monitoring and Flow Forecasting System for the Niger River Basin at the Niger Basis Authority (NBA). This involved both technical and non-technical parts. The technical components consisted of satellite receivers, computers, software and their calibration and validation. The non-technical parts included the preparation of manuals to operate and maintain the installed systems, the development of a website to disseminate the information collected by the systems and to implement training for NBA operators in running the EWBMS-LSHM system and NBA's partner organisations in understanding and using the information provided by the system.

The project's objectives regarding the installation of the soft- and hardware and the related training have been achieved. As a result, NBA has acquired skills on climatic forecast conditions and learned to use the newly-generated data to prepare good-quality river basin monitoring bulletins, while the new forecast data is easily accessible to NBA members. It is, however, too early to assess the extent to which the project has informed the beneficiaries and how this information is being used.

Development of the Port of Ziguinchor, Senegal

The specific objectives of the project were (i) to improve marine access to the port of Ziguinchor, (ii) to rehabilitate the physical infrastructure of the port and to "install missing basic equipment", and (iii) to restructure and strengthen port management. This was expected to result in an increased flow of cargo through the port, and secondly to a higher efficiency of port operations. The envisaged long-term impact was to strengthen economic development in the Casamance region.

At the moment, part of the activities has been executed and part of the objectives has been achieved. In particular, access to the port has improved as a result of the dredging. It is expected that the other objectives will be achieved as well, although there are no decisions made yet about the more institutional aspects related to the management of the port.

Rehabilitation of Kilimanjaro International Airport (KIA), Tanzania
The project aimed to rehabilitate and expand the airport facilities (aprons, taxiways and terminal building), with a view to continue safe operation for the coming 20 years in order to facilitate the expected growth in passenger numbers over this period. The project included new lighting systems for the aprons and taxiways, as well as water works to improve storm water discharge, wastewater treatment and the water supply system. Finally, the project provided technical assistance with the aim of institutionalising a maintenance culture and environmental consciousness in the organisation of the Kilimanjaro Airport Development Company (KADCO).

The grant arrangement with ORIO did not include support for the Operation & Maintenance phase of the project. It was agreed that KADCO would be responsible for this phase. The project objectives have been achieved. The facilities have been improved and it is therefore virtually certain that KIA will continue to be certified as international airport. It is, however, too early to analyse to what extent this has resulted in increased air traffic.

Sustainable water and Sanitation Development Programme for Indigent Communities, South Africa
The target of the ORIO-supported project was to deliver 400 Community Ablution Blocks (CABs) in more than 100 informal settlements in the municipality of eThekwini. It was in addition aimed at building pipelines for wastewater and reducing Non-Revenue Water. The project was implemented by the eThekwini Water and Sanitation Department (EWS), which runs a programme aimed at meeting water and sanitary needs of mostly poor people in informal settlements. The ORIO project (known as "SAN3") was additional to earlier interventions SAN1 and SAN2.

The ORIO supported project delivered 348 CABs out of the 400 originally planned. The communities make use of the services provided through the project, but so far less than foreseen in the project proposal. The average number of users of the CABs is estimated at half of the targeted number of users. The numbers of both male and female users per day and the number of times that households fetch water per week are lower in SAN3 than in SAN2 and the differences are statistically significant. As a result, the number of end-users is significantly lower (approx. 80,000) than the intended 180,000 beneficiaries. At the same time, the condition and cleanliness of the facilities and the perceived safety around the CABs during the day is better in SAN3 CABs as compared to those in SAN2. Depending on the model specification, the impact study also found some evidence of time saving.

The regression results of the impact study do not show a statistically significant effect of the project on health (incidence diarrhoea in past 2 weeks; #days affected). According to the qualitative case studies, the CABs made a difference to health and hygiene: users washing their hands more often after toilet use, and surroundings are reported cleaner. There is no evidence of private sector development beyond employment creation (construction workers, caretakers). The effect on the fraction of CABs used by small businesses for their water needs was not statistically significant.

The overall conclusion is that the location and design of the CABs is suitable and that the project has been only partially effective.

Realisation of two Water Supply plants for rural areas in Ba Ria Vung Tau province, Vietnam
The project's main objective was to improve water supply and water quality by building two new water treatment plants and extending the distribution network. It aimed to provide 121,700 rural and poor people with reliable and sustainable water through installation and operation of the Da Bang and Song Hoa Water Treatment Plants (WTPs). The project was implemented by the Centre for Rural Water Supply and Sanitation of Vietnam (CERWASS) in cooperation with a Dutch consultancy firm.

Targets for the number of connected households and firms have been met. The connection rate (households plus firms as a percentage of all households) increased from 70 percent in 2014 to 84 percent in 2017. The percentage of households experiencing supply interruptions decreased by more

than half. Since the improvements in water supply already started before completion of the WTPs, these can only partly be attributed to the project.

The evaluation finds significantly positive effects on water quantity used by households: daily per capita household water consumption increased in both Da Bang and Song Hoa.

In terms of water quality, no effects are found, due to the fact that water quality was already at a high level before the operation of the treatment plants. This is one reason that no observable health benefits were found from using tap water from the project. Another reason for that is that Vietnamese households tend to treat their water before consumption.

Time saving of using new water-supply connections is only minimal, because unconnected households need only a few minutes to collect water from a source. There are some indications of cost savings.[48]

A positive, unexpected effects is that households now pay for the water and are therefore more conscious of their water use and waste less water. This, according to users, also results in less water being wasted. Another unexpected effect is that power-supply interruptions do no longer affect water supply. This effect can lead to money saving for some businesses.

In conclusion, the supply of safe and clean water has increased and more households benefit. But, the improved reliability of the supply of water and the improved quality of the water cannot be attributed to the project.

Electrifying Rural Tanzania

The aim of the project was to replace existing diesel generators by two state-of-the art generators in three district towns in northern and western Tanzania each. With the higher capacity of the new generators, the project allowed to extend the local electricity grid to surrounding rural areas.

The design of the project did not seem to be sufficiently aligned with recent developments in policies and strategies. The main outcome indicator of the project of 24,000 new and improved connections as a basis of the value-for-money relation of the project was problematic from the outset. Among others, the low-voltage lines funded by ORIO were clearly insufficient to achieve the envisaged connection figures.

The generators and distribution lines have been installed in accordance to planning. The set of two generators at one location is in full operation. The other two sites were connected to the central national grid in 2015 and 2018, respectively. As a consequence, these two generators are only used as back-up, which currently implies that they are used about 20 percent of time. Upgrades of the national grid in the area are expected to decrease the need for back-up capacities in the future.

Quantitative difference-in-difference and PSM analysis of effects of electrification on rural households show some statistically significant positive effects on, for instance, number of hours of electrical light, TV consumption and study time of girls, but the majority of other identified possible effects are either zero (or negative) or statistically insignificant. Similarly, few expected effects are found for rural enterprises. Before-after estimates for urban households and enterprises also show few expected effects.

In conclusion, the project did not fully meet the objectives formulated at its start. The specific rural area is electrified because of the expansion of the electricity grid to the area, and as a result the provided generators are now being used as back-up, rather than as main source of electricity.

Scores on effectiveness of the projects

[48] The impact evaluation report mentions that "the willingness of households to pay for their water indicates that the tap water provides benefits to them compared to alternative water sources. For some people the water supply has led to costs savings while for most participants it has primarily led them to use water more efficiently" (PwC and AIGHD 2018:59).

Table 7.2 summarises the judgements of the evaluators regarding the effectiveness on a scale of 0 to 5. It shows the exceptionally low score of the electrification project in Tanzania for reasons described above. It also shows that the other projects score just sufficient, simply because they did not yet fully bring what was planned at the start. It should be mentioned that the projects in Senegal and Niger are not fully completed yet.

Table 7.2: Scores on effectiveness on a scale of 0-5

Project title	Country	Scores
Case Studies		
Enhancement of maternal Health and Paediatric Service in the Zanzibar archipelago, Mnazi Moja Hospital	Tanzania	3.5
Satellite-Based Water Monitoring and Flow Forecasting System for the Niger River Basin	Niger	3.0
Development of the Port of Ziguinchor	Senegal	3.0
Rehabilitation of Kilimanjaro International Airport (KIA)	Tanzania	3.5
IMPACT STUDIES		
Accelerating TB Case Detection in Ghana	Ghana	n.a.
Sustainable water and Sanitation Development Programme for Indigent Communities	South Africa	3.0
Realisation of two Water Supply plants for rural areas in Ba Ria Vung Tau province	Vietnam	3.0
Construction and Equipment of the General Hospital in Western Managua	Nicaragua	n.a.
Electrifying Rural Tanzania	Tanzania	1.0
Boosting Maternal and Child Health in Wollega	Ethiopia	n.a.

7.4 Conclusions on Effectiveness

Given the budgets allocated to the programme by the Ministry of Foreign Affairs, the ORIO programme could have financed more projects than it ultimately did. Its selection process of projects used the given budget ceiling as a threshold for entering the development phase, while about 30% of the projects were rejected or withdrawn after this point in time. Projects that scored relatively high were not accepted because of budget restrictions, while in hindsight they could have been accommodated from a financial/budget point of view. As such, the procedures made the programme less effective in terms of number of projects actually being implemented. In the end only about 50% of the total allocation will actually be spent.

The development phase of the programme was supposed to enhance the effectiveness of the projects. From the 73 projects that started a development phase up to 31 December 2018, 22 were stopped or withdrawn. A number of these projects were expected to be not sufficiently effective and were therefore stopped. For the 51 projects that were accepted for implementation, it is quite difficult to conclude on their effects, because the large majority are still not finished.

In the ORIO programme, local governments were in the lead in the application, as well as in the implementation of the projects. The background of this was the assumption that such ownership would increase effectiveness. The accepted projects were indeed priority projects for the local governments. The case and impact studies show a rather mixed picture regarding effectiveness. None of these projects has fully achieved the expected results (yet).

The programme was, to some extent, effective regarding its promotion of the involvement of Dutch companies in the implementation of the programme. Dutch consultancy firms were heavily involved in the development phase of the projects selected, but budget-wise this was only less than 10% of the total ORIO budget estimated to be spent for the whole programme. The share of Dutch companies in the expenditures on the implementation of the projects was smaller.

8. Sustainability

The ORIO programme paid great attention to the sustainability of the projects it supported. This included aspects of technical, institutional, financial, and social and environmental sustainability. The attention to sustainability was reflected in the appraisal of project proposals, which included a separate assessment of the social and environmental impacts of the project. It is also visible in the co-funding of the operation and maintenance activities of the project for a certain period. This section discusses this sustainability issues for the programme as a whole, as well as for the selected individual projects.

8.1 Sustainability at the programme level

An important indicator in the ranking of projects is 'Total Feasibility and Sustainability', which is composed of indicators reflecting the technical feasibility of the project, the capacity of the responsible authority in the recipient country (the so-called competent authority), and the institutional, governmental, financial, and legal context of the project. The environmental impacts are assessed according to the IFC and OECD standards, often substantiated with a Social and Environmental Impact Assessment. Most of these assessments were reviewed by external experts (e.g. the Netherlands Commission for Environmental Assessments). Their advice was treated as inputs for the decision on acceptance of the project proposal.

These indicators did not only play a role prior to the development phase, but also in the second round of the assessment, when the results of the development phase (i.e. the Project plan) were presented. In addition, the assessment of the social and environmental impact was an essential impact indicator. After 2011, 'sustainability' was one of the five criteria used to assess the project proposal and the project plan. With the co-financing of the Operation & Maintenance phase of the investments, ORIO tried to enhance the sustainability of the project. Through this phase, a long-term perspective was given to the support of the public infrastructure from a technical and financial point of view. Unfortunately, we cannot yet assess the effects of this project phase, because only recently a start was made with the O&M phase in some of the projects.

8.2 Sustainability at the project level

With respect to sustainability, the proof of the pudding is in the eating, which can only be determined at the level of individual projects. This section reviews the appraisal of sustainability and subsequently reports on the sustainability aspects based on the case and impact studies.

Sustainability during Appraisal phase

Table 8.1 presents the percentage contribution of the sustainability indicators in each project's total score given to the proposed projects when they were assessed by ORIO. The impact study of the project in Ethiopia, titled 'Boosting Maternal and Child Health in Wollega' is not included in the table, because the scoring methodology was changed in 2012. This project's sustainability was rated 'satisfactory'. The table shows that the contribution of the sustainability indicators to the overall score of projects varied between 30% in the case of the health project in Zanzibar and 19% in the case of the Water & Sanitation projects in respectively South Africa and Vietnam. The explanation for the relatively large contribution of sustainability to the overall score of the hospital project in Zanzibar is that the scores given to the impact indicators of this project were rather low. The table also shows that most projects scored higher on 'Total Feasibility and Sustainability' than on environmental impact. The contribution of 'Environmental Impact' to the total score is for most cases half of the contribution of 'Total feasibility & Sustainability'

ORIO does not take part in the O&M phase of the Kilimanjaro International Airport. It was agreed that the operator of the airport will take care of these activities itself after finalising the renovation of the airport. The relatively high contribution of 'Total Feasibility & Sustainability' is the result of the

relatively high scores on the different components of this indicator, such as capacity of the competent authority, the institutional environment and the technology applied. In the other three case studies, O&M is part of the ORIO co-funded activities and therefore an essential part of sustainability. In the case of the health project at Zanzibar and in the case of the water monitoring project in Niger, the implementation phase is finished or close to finalised. The impact study of the electrification project in Tanzania concludes that for this project the O&M phase was not formulated well.

Table 8.1: Contribution of sustainability indicators to the overall scores of the case and Impact studies

	Country	Sector	Total Feasibility & Sustainability	Environmental Impact	Total
Case Studies					
Enhancement of maternal Health and Paediatric Service in the Zanzibar archipelago, Mnazi Moja Hospital	Tanzania	Social services	20%	10%	30%
Development of the Port of Ziguinchor	Senegal	Transport	19%	9%	28%
Rehabilitation of Kilimanjaro International Airport	Tanzania	Transport	21%	8%	29%
Satellite-Based Water Monitoring and Flow Forecasting System for the Niger River Basin	Niger	Water	18%	9%	27%
Impact Studies					
Accelerating TB case detection in Ghana	Ghana	Social services	14%	8%	22%
Sustainable Water and Sanitation Development Programme for Indigent Communities	South Africa	Water & Sanitation	12%	7%	19%
Project for Construction of Water Supply Plants for Rural Areas in Ba Ria Vung Tau Province, Vietnam	Vietnam	Water & Sanitation	15%	4%	19%
Electrifying Rural Tanzania	Tanzania	Electricity	18%	9%	27%
Construction and Equipment of the General Hospital in Western Managua	Nicaragua	Social services	17%	8%	25%

Review of sustainability on the basis of the case and impact studies

Enhancement of maternal health and paediatric service in the Zanzibar archipelago, Mnazi Mmoja Hospital, Tanzania

The O&M phase of this project started only recently. During this phase, the contractor has a permanent biomedical engineer in Mnazi Mmoja Hospital (MMH), who also visits the primary health care units (PHCUs) for maintenance issues. The contractor and the Ministry of Health negotiated an O&M phase of 4.5 years for MMH and 3.5 years for the PHCUs. However, all parties involved in O&M on the ground admitted that the staff of MMH and PHCUs would not be able to keep the technical equipment running without the permanent presence of the contractor's representative and other external assistance. There is a clear lack of medical-technical staff on the islands that can take care of the maintenance and repair of the equipment and buildings. This requires constant control of maintenance activities that are currently part of the O&M phase.

The project plan did not discuss environmental issues. The appraisal document identified waste management as a potential risk. The newly-installed waste system requires strict separation of the different types of waste. Unfortunately, the staff of the hospital often did not adhere to these rules and the recycling did not work.

The other challenge concerns the PHCUs after the O&M period. Most of the PHCUs do not have any plan for maintenance after the O&M period yet. And for the maintenance, PHCUs will depend on the allocation for maintenance in the district budget.

In general, one clear challenge for offering health services in Zanzibar is their financial viability, as basic health services are provided for free. The budget of the hospital has increased in 2019 to cover increased recurrent expenditure (i.e. operational costs, including salaries). The hospital management attributes the budget increase also partly to the expansion of the hospital under ORIO (comprising an additional oxygen plant and one additional building with operational costs (electricity, etc.)). However, the health system needs constant support and subsidies.

Satellite-Based Water Monitoring and Flow-Forecasting System for the Niger River Basin

The technical components and capability for operating, managing, exploiting and disseminating climate data are currently present and operational at the Niger Basin Authority (NBA). The sustainability of the installed technical infrastructure depends on regular maintenance and replacement of mainly ICT equipment. Maintenance is a crucial element for the long-term sustainability of the benefits of the project. NBA operators reported that they were not yet able to conduct the maintenance of the systems. As the O&M phase of the project will be focused on this issue, it is important that the Dutch contractors sit together with the NBA manager and the operators to discuss and prepare a roadmap on how maintenance should be delivered, by defining tasks, responsibilities and the level of maintenance that the NBA operators will be able to conduct in the SATH systems after the Dutch partners are phased out.

The sustainability of the technical infrastructure also depends on finding a solution to key staff leaving the project to be able to carry out the operational, maintenance and logistical tasks related to the installed systems.

The continuation of the benefits of the project in the mid- and long-term relies heavily on the capacity of NBA to finance its operation, maintenance and logistical costs. At present, the financial arrangement of NBA is fragile. It does not have financial autonomy and relies completely on country member payments that are not made regularly. A study is in progress to design new financial schemes for NBA. GIZ is working with NBA on the development of a water charter that will provide a legal framework to allow NBA to sell climatic data and charge big water users for the acquisition of SATH data. NBA hopes to have this charter in place before 2021.

NBA's institutional arrangement is complex and makes it a slow organisation. This causes delays in the communication chains and the decision-making process. The legal requirements and long chains of communication reduce one of the most important benefits of the project, namely, its capacity to generate climatic data and measurements.

After completion of the project, the continuation of its benefits depends on the solution of important identified problems, such as the fragile financial structure of the NBA, its capacity to retain its trained staff, the simplification of its bureaucratic and long decision structure and, finally, its ability to develop and embed a new legal framework in its current institutional arrangement which allows NBA to be financially autonomous, and to charge private and public water resources for using climatic data products.

Development of the Port of Ziguinchor in Senegal

The improvement of marine access to the port by dredging and the new buoying system can only be maintained if there will be a reliable financing system for maintenance. The project documents suggest setting up a maintenance fund, but, so far, no clear ideas and plans have been developed as to what kind of fund should be established and how it will be financed and managed. This endangers the sustainability of port accessibility. Moreover, it should be realised that annual maintenance costs will be in the order of €1million. It is unlikely that this amount can be raised from the ships mooring at the Port of Ziguinchor, which means that other sources of revenue have to be sought out.

The project is being implemented by the *'Agence nationale des Affaires maritimes'* (ANAM) on behalf of the government. It is well advanced with developing a new port management model, but no final decision has yet been taken at the ministerial level. This issue has to be solved soon, in order to

provide a good basis for sustained results regarding the profitability and handling capacity of the port.

Sustainability of the profitability and increased handling capacity of the new fishery port presently being constructed requires also professional and competent management. So far, little attention has been paid to this issue and thinking about what the best approach and model could be has yet to start. This issue has to be tackled urgently, because the new fishery port will be ready within half a year.

Environmental sustainability has been the subject of a detailed and elaborated 'Environmental and Social Impact Study'. The study was structured according to standardised terms of reference of the Senegalese Ministry of Environment and supervised by a Committee of Experts of the same ministry. Although the study was approved by the Supervisory Committee, it was noted that a "Danger and Risk Study" was missing and that further work needed to be done on that subject. The revised final version of the document was approved by the Supervisory Committee in February 2019. Implementation of the Environmental and Social Management Plan, including a long and detailed list of mitigating measures, is now being supervised by the Ministry of Environment.

Rehabilitation of Kilimanjaro International Airport, Tanzania

As mentioned above, in consultation with the executing agency of the airport Kilimanjaro Airport Company (KADCO), the co-financing of operation & maintenance is not a part of the project funding from ORIO. It has been agreed that KADCO will itself take full responsibility for the maintenance of the airport, including the parts co-funded by ORIO. However, regarding the technical sustainability, KADCO has not yet prepared maintenance plans for the rehabilitated facilities. Given the importance of maintenance for the functioning of the airport and therefore for its certificate of the International Civil Aviation Organisation (ICAO), it is expected that the agency will indeed do anything in its power to sustain the facilities. The site visit made clear that facilities are operational and that no signs of deterioration have been identified.

Given the stable aircraft movement numbers over the recent years, combined with a solid structure of airport charges at KIA, there are no indications of declining revenues. The airport charges should be able to provide KADCO with the necessary funds to pay for the operational expenditures, including salaries of workers and maintenance costs of the infrastructure.

Given that KADCO is a private entity, though fully owned by the government, it is treated differently than the other airports in Tanzania. KADCO reports directly to the Ministry of Works. It is unknown to what extent this provides an advantage or disadvantage when it comes to the sustainability of managing Kilimanjaro airport.

Water Supply Plants for Rural Areas in Ba Ria Vung Tau Province, Vietnam

The Centre for Rural Water Supply and Sanitation of Vietnam (CERWASS), the executing agency of the project, is an experienced organisation, which has been shown to effectively and relatively autonomously manage water supply in Ba Ria Vung Tau. The organisation is expanding to meet larger water needs and staff capacity is sufficient to meet these needs. Financial sustainability is the main challenge and is inherent to supplying water in a rural area. While current water tariffs charged to households and firms cover operating costs, they are not sufficient to maintain, and in the long run replace, CERWASS' current installations. This could create a problem when the privatisation of the company goes forward, because private ownership could create an incentive to limit the number of low-margin connections, which in the case of Ba Ria Vung Tau province particularly means ethnic minority households located in remote rural locations.

The project's impact evaluation finds that users consider current water tariffs acceptable, but would be less willing to pay tariffs if they are increased further, which may weaken the financial sustainability of the project.

The direct environmental effects from the construction and operation of the water treatment plants appear to be limited. It was stated that in the longer term, the use of surface water facilities will hold a benefit over the alternative of exploiting ground water resources.

Sustainable Water and Sanitation Development Programme for Indigent Communities in eThekwini Municipality South Africa

eThekwini Water and Sanitation Department (EWS) is the local executing agency of the project. EWS is a capable organisation with skilled staff and is well equipped to manage the project in the near future. A team manages the maintenance of the project, directing the contracted private maintenance companies. EWS is responsible for the management and maintenance of a large pool of assets, which creates high costs for the organisation. There are indications that it will be difficult for EWS to guarantee sufficient funds for these tasks in the future. At the same time, a programme has started to reduce the Non-Revenue Water. The programme should lead to a reduction to 30% in 5 years and to 20% in 10 years. This should generate sufficient funds to continue the project activities.

As in the case of Vietnam, the direct environmental effects from the construction and operation of the facilities appear to be limited.

Electrifying Rural Tanzania

The O&M phase of this project did not materialise, implying that one of the objectives of the ORIO project was not achieved: maintenance and sustainability have not been anchored accurately. In part, this is due to an omission in the project plan formulated during the development phase, since it remained unsolved how to arrange for a maintenance stage, while the grant arrangement establishes that no operational costs can be covered by the ORIO grant.

The environmental impact of the replacement of the generators is estimated at a saving of around 800,000 litres of generator fuel per year or 500 tons of CO_2.

Scores on sustainability of the projects

Table 8.2 summarises the scores on sustainability on a scale of 0 to 5 given during the appraisal phase of the projects, in comparison with the scores given on the basis of the evaluation of the case and impact studies.

Table 8.2: Scores on Sustainability on a scale of 0 to 5 for the case and impact studies (Ex ante is at appraisal phase; Ex post is on basis of case and impact studies)

	Social & Environmental Impact		Feasibility & Sustainability		Average score	
	Ex ante	Ex post	Ex ante	Ex post	Ex ante	Ex post
Enhancement of maternal Health and Paediatric Service in the Zanzibar archipelago, Tanzania	3.0	2.9	3.0	2.8	3.3	3.2
Rehabilitation of Kilimanjaro International Airport, Tanzania	3.0	3.1	3.0	2.8	3.0	2.6
Development of the Port of Ziguinchor, Senegal	3.0	3.0	3.0	3.0	2.3	2.7
Satellite-Based Water Monitoring and Flow Forecasting System for the Niger River Basin, Niger	3.0	3.0	2.0	1.8	2.3	2.3
Electrifying Rural Tanzania	2.5	2.5	3.0	2.4	2.8	2.3
Sustainable water and Sanitation Development Programme for Indigent Communities, South Africa	3.0	3.0	3.0	3.0	3.7	3.7
Realisation of two Water Supply plants for rural areas in Ba Ria Vung Tau province, Vietnam	2.0	2.5	3.0	3.0	3.3	3.2

With the exception of the port development project in Senegal, the ex-post scores are lower than the scores given during the appraisal of the projects. The benefits of this project for the poor are expected to be greater than foreseen during the appraisal. The generally lower scores for the other projects given on the basis of the case and impact studies reflect the difficulties that the projects have to organise the operation & maintenance phase in an accurate way. The largest discrepancy between ex ante and ex post scores is shown for the electrification project in Tanzania. The main reason for that is that part of the generators provided through the project are used as back-up from the start because the accelerated expansion of the electricity grid by the Government of Tanzania.

8.3 Conclusions on Sustainability

ORIO included the funding facility for operation and maintenance of the projects that it co-financed, with a view to enlarge the sustainability of these projects. Nevertheless, the case and impact studies show that financial sustainability is still a relatively weak component of the projects. Most of the reviewed projects show difficulties in raising sufficient funds to cater for the required maintenance activities. Some of the project evaluations mention the organisational and institutional weaknesses (for example the projects in Senegal and Niger) or lack of skilled labour (as in the case of the Health project in Zanzibar) as bottlenecks for sufficient maintenance activities, threatening the efficient functioning of the supported infrastructure in the future. The main conclusion is that, although ORIO pays a lot of attention to operation and maintenance, this is no guarantee for sustainable operations.

One reason that the effect of ORIO on the sustainability of the projects is relatively limited is that the O&M phase would have required clearer definitions of modalities on how to contract out critical maintenance tasks, a definition that needs to be laid out early on in the design phase of an infrastructure development project. This issue was brought forward in a number of studies, such as those of the projects in Tanzania, Senegal and Niger. Against this background, the impact study of the electricity project in rural Tanzania noted that the ORIO team of RVO experienced the grant agreement increasingly as a straitjacket in its management of the programme, restricting its flexibility to adapt to circumstances.

The assessment process of the projects that qualify for support includes, among other, things a focus on the environmental and social impact. This clearly pays off, considering the positive contributions to the environment and mitigation of potential environmental damage witnessed in the projects reviewed in the context of this study.

9. Policy Coherence

Policy coherence can be analysed in relation to the policies of the recipient country, as well as regarding the policies of the Netherlands. Below, it starts with a discussion of the relation with the local policies and continues with the relation with the Netherlands policy context.

9.1 Policies of recipient countries

For recipient countries, the concepts of 'policy coherence' and the earlier discussed 'relevance' overlap to a large extent. Yet, policy coherence at the local level is reviewed here, because one of the requirements of ORIO support to a project was that it should fit well with the development plans of the local governments. Coherence with local policies was considered important, because it would create ownership for the supported investment. Consistency with local policies should be addressed in a separate paragraph of the application, showing that the project was indeed consistent with the national and sector development policies. Although no guarantee, the fact that the national government was responsible for the submission of the application, and that it should arrange the non-ORIO part of the funding was considered an indication of local commitment. A review of the documents of the projects in ORIO's current portfolio shows that, on paper, the projects fit with local priorities. At the same time, quite a number of projects were cancelled for lack of counterpart funding, showing that although there was a statement by government that the project was on its priority list, it was obviously not high enough on this list to guarantee local financial contribution. The issue of policy coherence has been checked for the case studies and the findings are as follows.

Enhancement of maternal health and paediatric service in the Zanzibar archipelago, Mnazi Mmoja Hospital, Tanzania

The health sector has been given key priority in the national Tanzanian policies. The national development programmes provide direction and a philosophy for long-term development. They both aim at achieving a high-quality livelihood for its people, including the specifically access to primary health care for all and a reduction in infant and maternal mortality rates by three-quarters of current levels, which is repeated in the most recent National Five-Year Development Plan. Addressing this depends critically on strengthening the accuracy of healthcare service delivery.

For Zanzibar, the Health Sector Strategic Plan has the overall objective of reaching all households with essential health and social welfare services, including maternal and child health care services, with the specific objective of ensuring quality improvement of primary health care services. Against this background, the ORIO project interventions are in support of strategies to improve the maternal and child health services as specified in Zanzibar's key health policy plans.

Satellite-Based Water Monitoring and Flow Forecasting System for the Niger River Basin, Niger

The reduction of poverty and the promotion of local and national economic development are key issues of the national poverty and economic development strategy in Niger. By providing earlier alerts on water extremes events (floods and drought), the SATH project aims to contribute to the reduction of physical, socio-economic and agricultural losses and indirectly to reducing poverty. It allows the evacuation of persons before the occurrence of extreme events, helping to save lives.

Development of the Port of Ziguinchor in Senegal

The *Projet de développement du Port de Ziguinchor* (PDPZ) is coherent with the national development policies of the Government of Senegal. PDPZ is part of the *Programme Sénégal Emergent* (PSE), which is the national development plan of the Government launched in 2014. The PSE consists of 17 large programmes, each comprising a series of projects. PDPZ is one of the projects of the programme 'integrated logistics' and has a link with the project 'development of *agripole sud*', being part of the programme 'primary sector development'. The latter project will in the first instance be focussed on the development of the cashew nut and mango value chains, which are supposed to generate additional freight for the port of Ziguinchor.

Rehabilitation of Kilimanjaro International Airport (KIA), Tanzania

The investments for rehabilitation of the Kilimanjaro International Airport are fully in line with the policies of the Tanzanian government. Tourism is an important economic sector in Tanzania with a growing contribution to GDP. The ORIO investment is expected to enable the Kilimanjaro region to pursue the country's ambition of being a safe, high-end holiday destination. Public Private Partnership (PPP) investments in the convention centre in Arusha, as well as the investments in improved road access to and around Arusha, are coherent with access through the air in the region. Policies promoting the horticultural sector aim at improving the sector in order to attract foreign investors and grow the horticultural business. The ambition of having horticultural activities in the region aligns with having air cargo capacity available in the region.

9.2 Netherlands' Trade and Aid Policies

As reflected in the Netherlands' policy documents, a programme like ORIO is expected to play an important role in poverty reduction policies. It adds to the range of available policy instruments. Yet, ORIO is to a large extent a stand-alone instrument, without strong links with other programmes aimed at infrastructure development, for example, the Netherlands Water Partnership and FMO's activities in the area of financing of investments in infrastructure.

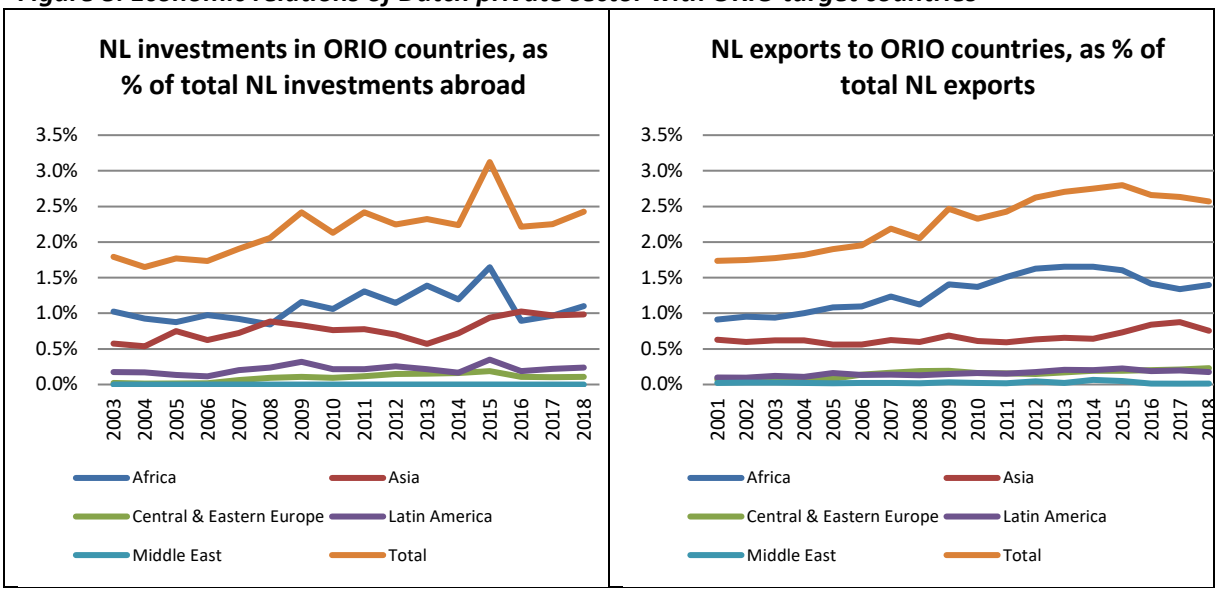
The ORIO programme is focused on the promotion of cooperation with the (international) private sector in the identification, preparation, formulation and implementation of investments supported by the programme.[49] As such, it would not only make use of the innovative strength, expertise and skills of the private sector, it would also promote the innovative character of the Dutch private sector abroad. This philosophy fits well in the Dutch policies regarding the link between aid and trade.

Regarding the involvement of the (Dutch) private sector, a mixed picture appears from the interviews with the (potential) private partners. The programme was indeed successful in offering Dutch consultancy firms in particular the opportunity to participate in the programme, mainly during the preparation and development phases. The programme was according to interviewed (potential) candidates less attractive for Dutch exporters to participate in the implementation phase of the projects. The main reasons mentioned were that they were not willing to spend much time and money on the preparation of the tender in the case of International Competitive Bidding organised by local governments. Another more substance-oriented remark was that the potential participants in project implementation were, by definition, not involved in the project formulation during the development phase and therefore were not able to provide specific expertise to benefit the projects. This latter remark makes clear that, while it was ORIO's intention to make optimal use of the expertise available within the Dutch private sector, this was not fully realised, at least not according to the opinion of some of the interviewed companies.

There is no evidence that the Dutch private sector benefited in terms of additional trade and investment from the (potential) goodwill created by the support to local investments in public infrastructure. Figure 8 shows respectively the direct Dutch investments in and Dutch exports to the regions of the target countries of the ORIO programme. The overall shares of these countries increased somewhat, but it would be speculative to link these changes to the support of the ORIO programme to these countries.

[49] See Staatscourant nr. 8239. 27 April 2012, section 3 "Rol van Infrastructuur".

Figure 8: Economic relations of Dutch private sector with ORIO target countries



9.3 Conclusions on Policy Coherence

In order to qualify for ORIO support, the national government had not only to show financial and institutional commitment to the project, but also had to make sure that the project was consistent with national priorities. During the assessment procedure, quite a number of projects were rejected, because there existed serious doubts about whether they fitted sufficiently in the national policies. This was, for example, the case when the application was not (co-)signed by a representative of the national government. The consistency with national priorities was checked several times in the approval process. It can therefore be concluded that the projects in the current portfolio are indeed valuable tools in the achievement of policies of the recipient governments. This is confirmed by the projects reviewed in the case studies. Generally, these are important activities in the policies regarding public infrastructure. An exception might be the electrification project in Tanzania, where expansion of the grid was not foreseen during the submission and the assessment of the project (see section on effectiveness).

The programme fits well with the aid policies of the Netherlands government regarding its aims to combat poverty in eligible developing countries and to promote private sector development in this group of countries with a focus on local SMEs. ORIO did, however, not have strong links with other Dutch aid instruments.

The success of ORIO as an instrument to promote Dutch trade and investment relations with the target countries is limited. There is no evidence that the Dutch private sector benefited in terms of additional trade and investment from the (potential) goodwill created by the support to local investments in public infrastructure.

10. Additionality and Catalysing Effects of ORIO

In the context of this evaluation, 'additionality' refers to the question of whether or not the project(s) could have been financed in the absence of the ORIO-grant, while the 'catalysing effect' refers to the question of whether or not the project initiated the mobilisation of additional funding for investments from the market or from other donors. Assessing additionality is a rather difficult exercise, because it requires information about the counterfactual situation that the project had not been (co-)financed by ORIO. For this, we base ourselves to a large degree on the interviews done in the context of the case studies and on telephone interviews.

Another complexity is the relation between additionality on the one hand, and national policy priorities of the government on the other hand. It can safely be assumed that projects with the highest priority would be financed anyhow. Then, because funds are fungible, the funds made available from ORIO might have encouraged spending on projects with lower priority and that might have been less effective. Some of the projects currently co-funded by ORIO received indeed the highest priority. An analysis of these (side) effects in the context of this study would, however, have been highly speculative. It is nevertheless good to realise in the discussion on additionality that these effects could have happened.

10.1 Findings of the case studies

Enhancement of maternal health and paediatric service in the Zanzibar archipelago, Mnazi Mmoja Hospital, Tanzania

In the absence of funding from ORIO, three alternative sources of finance were listed by the staff of the Tanzanian Ministry of Health. The government itself could have financed the project, but much more effort would have been needed from ministry and hospital staff, and it would have occurred at the expense of other projects. The local partners see clear advantages in the implemented turnkey project. Compared to other, non-turnkey projects, this ORIO co-funded project was experienced as much less time-consuming in terms of required skills and administrative and managerial tasks for the involved parties from Zanzibar's health service sector. The two other alternatives mentioned were projects with the African Development Bank (AfDB) or with Chinese partners. It was admitted that a similar project with the AfDB would have come at similar conditions and probably at a similar quality. A Chinese solution would have come with probably different (lower) costs, but most likely also at a different (lower) quality at the expense of sustainability, and maybe requiring some other commitments, which were not further specified by the interviewed partner. It was agreed that this ORIO project was an optimal solution for the challenges Zanzibar faces.

It was not considered realistic to assume that the project itself initiated additional funds for other investments at Zanzibar.

Satellite-Based Water Monitoring and Flow Forecasting System for the Niger River Basin

It is difficult to affirm that the project would have been financed without the support of ORIO. The Niger Basin Authority (NBA) could not have funded the project itself and it is not sure that other international multilateral organisations such as AfDB would have funded the project.

Yet, the project has already initiated mobilisation of additional funds for NBA. It has supported NBA to develop a project with AfDB of €1 million, used to pay the ORIO co-funded project's operational and logistic costs. It has helped NBA to develop a project with the World Bank to monitor the management of barrages, with a company from Toulouse and NASA to develop an altimetry monitoring system using satellite data, and with GIZ to improve NBA's chain of communication. The project complements the data collected by the systems, allowing NBA to have online data using the mode based on precipitation-flow.

Rehabilitation of Kilimanjaro International Airport (KIA), Tanzania

The interviews did not give a clear picture about continuation of the investments in the renovation of the airport in the absence of ORIO funding. Since the government is 100% shareholder in the Kilimanjaro Airport Company (KADCO), it is most likely that minimum investments had been made in order to maintain ICAO certification for international air traffic. It cannot be imagined that the airport would have been closed without ORIO's contribution. If that would have been the case, other countries, such as for example China through China Aid, would most likely have decided to finance rehabilitation, partly or in whole. China Aid has financed a number of other projects in Tanzania already.

So far, the upgrading of the airport with support of ORIO has not yet attracted other investments in the airport itself. Other investments are being made in and around Arusha, most likely also because of an international airport nearby. Yet, it cannot be concluded that this is the result of ORIO's contribution.

Development of the Port of Ziguinchor in Senegal

Initially, the Government of Senegal requested funding for the dredging of the Casamance river only. After that first request, the project design was expanded to a broader port development project, with 50% of the project costs financed by the Senegalese Government and the other 50% by ORIO. In the absence of foreign funding and in view of the urgency of solving the problem with the accessibility of the port, the Senegalese Government would have funded itself 100% of the capital dredging (capital dredging is first round of major dredging, without further maintenance dredging). That would have cost about €11 million, which is less than the Government's 50% share of the actual project now being implemented.

So far, the project has provoked some new private sector investments in the transport sector (purchase of trailer-trucks for transporting containers) and a couple of traders/importers/exporters have opened an office in Ziguinchor. More private sector investments are expected once a private operator gets concession to manage the commercial port and once the same approach will possibly be applied to managing the new fishery port.

Other evaluated projects

The impact studies focused on impact assessment and less on the issue of additionality. Yet, the evaluation study on the Water and Sanitation project in South Africa mentions that alternative finance could have been found through raising user fees, but at the expense of a smaller regional coverage, in particular leaving out the poorer regions. A similar conclusion was drawn in the impact study of the Vietnamese water projects.

10.2 Conclusions on Additionality

The picture regarding additionality is mixed. For projects with the highest priority, funding would have been made available anyhow. An example is the Kilimanjaro International Airport in Tanzania. In this case, accessibility was a growing problem and needed an urgent solution. It would have been possible to implement a project at a smaller scale. In the other case study projects, the alternatives for ORIO's contribution were not considered realistic. Some of the impact studies conducted separately indicate that alternative finance could have been found through raising user fees, but at the expense of a smaller coverage of the project.

11. Conclusions, Research Questions and Lessons Learnt

This Chapter describes the main conclusions of the evaluation and deals with the research questions as given in the Terms of Reference for the study. It further gives a short list of lessons learnt.

11.1 General Conclusions

The large number of applications shows that ORIO was a popular programme among potential beneficiaries. It started in 2009 with 217 applications. This number declined to 31 in 2013. The ORIO window was closed for new applications in April 2014. Many proposals were refused at the gate, because they did not comply with the formal and administrative requirements. The proposals prepared with the assistance of a private initiator had a higher probability of being accepted in the application phase than those without such help. The number of refusals declined over time in both absolute and relative terms. This indicates that the applicants learned to adapt to the requirements of ORIO. Staff of ORIO taught some potential applicants how to understand and manage requirements.

Prior to 2012, projects were scored according to certain criteria and those with the highest scores were awarded a go-ahead for the development phase ('beauty contest'). The regime changed to 'first come, first served' in 2012. Projects were allowed to enter the development phase if the proposal was submitted in time and if they scored 'satisfactory' on the criteria relevance, effectiveness, development impact, efficiency, sustainability and economic return. Opinions about which system is optimal differed. Some preferred the 'beauty contest', because they had the opportunity to show that they had the best offer. Others preferred the post-2011 approach, because they considered this regime more transparent. There are no indications that significant differences in the quality of project proposals or in the efficiency of the assessment procedure occurred as a result of the selection approach. It should be noted that the post-2011 approach has limited time to prove its enhanced efficiency (if any) because ORIO closed for new applications within two years of its introduction.

Overall, 73 projects qualified for an ORIO grant for the development phase. Most activities in this phase were executed by Dutch consultancy firms that were already involved as private initiators. The development phase was closed with a project plan for the implementation and O&M phases. This plan was assessed in a similar way to the proposal selection. By the end of 2018, 51 projects were considered ready for implementation or had already started implementation.

There is no doubt that there is a need for a programme like ORIO, which invests in public infrastructure in target countries. ORIO's process of selecting, managing and monitoring projects was carefully executed. The inclusion of a development phase contributed to an improvement of the project proposals, but also to relatively many dropouts. The operational costs of the programme were rather high compared with the value of the ultimate project portfolio. This was, however, partially driven by the short life of ORIO. ORIO-type programmes need a much longer period to prove their value.

11.2 Research Questions

Has the ORIO programme been relevant, effective, efficient, and sustainable in terms of the outputs, outcome and impact formulated in the results chain? If not, what are the causes?

Relevance

Reliable and accurate provision of public infrastructure services is widely recognised as a necessary condition for economic and human development and, as such, is a valuable tool in the fight against poverty. A wealth of information exists showing the need for investment in public infrastructure in ORIO's target group of countries. These countries perform relatively poorly regarding access to and

quality of physical and social infrastructure. They also show serious limitations in the field of financing investments in infrastructure. Against this background, a programme such as ORIO is relevant. Its relevance is also confirmed at the project level, as shown in the case studies conducted in the context of this evaluation.

The programme was also relevant regarding the participation of the (Dutch) private sector. The Dutch private consultancy sector was quite active in the promotion of ORIO and during the development phase of projects that qualified for ORIO support. The participation of the Dutch private sector in the implementation of the projects was also substantial, as evidenced by the payments of ORIO to Dutch contractors.

Effectiveness

The large majority of projects are not yet complete. It is therefore premature to draw strong conclusions on effectiveness and impact. The case and impact studies show a rather mixed picture. None of the projects have fully achieved their expected results yet. On average, projects score just sufficient, simply because they did not meet what was planned at the start. In these cases, the ORIO programme supported, to some extent, improvements in the service provision of public infrastructure.

Given the budgets allocated to the programme by the Ministry of Foreign Affairs, the programme could have funded more projects than it actually did. In the end, only about 50% of the total budget allocation will be spent.

Dutch consultancy firms were heavily involved in the development phase of the selected projects, but budget-wise this comprised less than 10% of the total ORIO budget estimated to be spent for the whole programme. Between 30% and 50% of the project investment costs were paid to Dutch contractors. It should, however, be realised that because these firms act as the main contractors, a substantial part of these payments are channelled to local contractors in the recipient countries for their contributions to the implementation of the works in the project.

Efficiency

ORIO supported investments in developing and transition countries that usually do not excel in institutional, managerial and financial strengths. Such investments require careful preparation, which is reflected in ORIO's intensive appraisal processes. The average period to approve a project proposal, including the formulation and agreement of the terms of reference for the detailed technical, institutional and financial design of the project, was slightly more than a year. Given the complexity of the investments and their environments, this is considered reasonable, although, admittedly, there were also some extremely long periods. The detailed design of the project during the development phase took, on average, another 2-2.5 years, which is considered reasonable for an investment of between €25 million and €60 million in such a context.

In some cases, the planned period for O&M was seen as rather short given the lack of technical and managerial expertise in the recipient country. These studies also state that the efficiency of the service provision of the newly established and/or improved public infrastructures has improved.

About €7.7 million have been spent on the development of projects that were cancelled or withdrawn. In some cases, it would have been possible to require firmer financial and institutional commitments from the applicant officials before the start of the development phase, in order to avoid spending time and money on projects that for these reasons would not continue.

It was mentioned several times in interviews with Dutch participants in the programme that they considered the procedures of ORIO as being rather heavy. They interviewees further mentioned that the communication with the executing agency was regularly hindered by changes in staff.

Sustainability

With the inclusion of an O&M phase, the ORIO programme recognised the importance of sustainability. Mobilising enough funds to cater for maintenance is problematic for most reviewed

projects. Some reviews also mention that institutional weaknesses are bottlenecks for carrying out sufficient maintenance activities, threatening the efficient functioning of the supported infrastructure in the future.

The assessment of the projects was focused as well on their social and environmental impact by applying the criteria described by IFC and OECD. If relevant, this also included a Social and Environmental Impact Assessment. This clearly paid off, considering the positive contributions (or no harm) to the environment and labour conditions witnessed in the reviewed projects.

Policy coherence
Receiving support from ORIO required from the national government that it should not only show financial and institutional commitment to the project, but also that the project was consistent with national priorities. Consistency with national priorities was checked several times during the approval process. The reviews of the projects in the case and impact studies generally confirm that these projects are important activities from a local development policy point of view.

The programme also fits well with the aid policies of the Netherlands government regarding its focus on poverty reduction in eligible developing countries. It further promotes private sector development in this group of countries, with a focus on local SMEs. The coordination with other Dutch aid instruments is, however, limited.

ORIO is less successful as an instrument to promote Dutch trade with the target countries. Although Dutch companies did play a role in the implementation of the supported projects, there is no strong evidence that they benefited from the (potential) goodwill created by the support to local investments in public infrastructure in terms of additional exports or direct investments.

Can key success or failure factors for the programme as a whole be identified?

ORIO has not existed long enough to prove its full value. For the majority of projects, the O&M phase has not started yet and it is therefore too early to judge if financing of this part of the project cycle has contributed to the success of the programme. The inclusion of a development phase has certainly contributed to better projects, but it is rather difficult to fully assess the impacts at this moment.

What has been the effectiveness of the process design of ORIO?

Support to all phases of the infrastructure construction
ORIO's rules for accepting projects were very strict, as evidenced by the careful appraisal process of the projects, and by the inclusion of a project development phase. Moneywise, this process resulted in a reduction of budgeted project costs, as is illustrated by the fact that the value of grants committed by ORIO is substantially lower than the amount requested in the proposals submitted by the recipient governments. The grants committed for the development phase were €38 million, against €40 million requested. The grants committed for the implementation and O&M phases reduced from above €800 million to slightly above €400 million. This reduction is largely due to the grants related to cancelled projects (amounting to €220 million) and the re-design of projects during the development phase (saving €180 million).

At the same time, 22 out of 73 projects that had been approved failed to reach the implementation stage, implying a lot of effort to draft proposals for project that in the end are not implemented.

Despite the careful preparation of projects, the case and impact studies show that projects have realised the planned outputs but have not (or not yet) fully achieved the formulated outcomes.

Institutionalised assessment by the independent committee ACORIO adding to the overall quality of the process of project appraisal
ACORIO played an important role as independent advisor to the staff of the ORIO desk in RVO. It asked the right critical questions at the right time in the project appraisal process, and added value in

terms of recommendations for improvements. The multi-disciplinary composition of the committee was a guarantee that all quantitative and qualitative aspects of the projects were taken into account. During ORIO's first period, the committee scored the projects in conjunction with ORIO and the external experts, applying the same criteria. Discrepancies in the scores were discussed and in the end a compromise was reached. In several cases, the committee asked for clarification about details of the project proposals which generally was to the benefit of the projects.

How efficiently has the ORIO programme been managed?

Considering the volume and complexity of most projects, the time needed from gate to start of implementation is reasonable. Similarly, the planned period for the implementation phase was reasonable. The case studies confirm that the projects were implemented accurately.
The operational costs per project accepted for the development phase is comparable with other agencies, although comparisons are difficult because of the differences in programme designs and the lack of clear financial information of alternative programmes. The operational costs as a percentage of respectively the costs of the projects in portfolio, the grants committed to these projects and the disbursements up to now are rather high. This percentage will further increase, since the executing organisation (i.e. RVO) will continue to be involved as manager of the O&M phase. The short life of the programme has resulted in a portfolio that is rather small and, consequently, an upward bias in the above-mentioned ratios.

Has ORIO become more efficient and/or more effective due to changes of its policy rule in 2012?

ORIO was already closed for new applications within two years after the change in policy rules in 2012. This period is too short to conclude on efficiency and/or effectiveness of projects agreed upon during this period, simply because most of these are still in the preparation phase. Yet, up to now there are no indications of significant differences. From interviews, it became clear that contractors prefer the 'first come, first served' approach of the post-2011 period because they consider this procedure more transparent. In contrast, consultants prefer the 'beauty contest' approach of the 2009-2011 period because, in their view, it offers them the opportunity to show their expertise.

To what extent have the ORIO projects been additional in line with the DCED guidelines as used and adopted by RVO in the implementation of ORIO?

The picture regarding additionality is mixed. There are indications that funding would have been made available anyhow for projects with the highest priority (Kilimanjaro International Airport in Tanzania; the port of Ziguinchor in Senegal). The two other case studies concluded it unlikely that the projects would have been implemented under similar conditions without ORIO. With the exception of the case study project in Niger, none of the case studies found indications of a catalytic role of ORIO. The impact study on the Water and Sanitation project in South Africa mentions that alternative finance could have been found through raising user fees, but at the expense of smaller regional coverage, in particular leaving out poorer regions. A similar conclusion was drawn in the impact study of the Vietnamese water project.

Has the programme been effective involving the knowledge and experience of (inter)national companies?

As mentioned at several places before, Dutch companies were heavily involved as private initiators in the application phase and as consultants in the development phase. As such, the Dutch knowledge was utilised during these stages of the project cycle. Dutch companies also played a substantial role in the implementation of the projects, often as project managers, giving them the opportunity to introduce up-to-date technologies. Yet, discussions with some companies in the Netherlands revealed their belief that the programme did not sufficiently utilise the know-how and expertise of the Dutch business sector. These interviewees often represented exporters of capital goods who are

more in favour of a trade promotion instrument such as ORET, rather than a programme which supports pubic investments such as ORIO.

11.3 Lessons Learnt

1. The programme was flooded with applications, in particular during its first years. A large number of these were rejected at the gate, because they did not comply with the requirements of the programme. This was not only demanding for the staff of ORIO, but the applicants and the private initiators involved also spent time and money preparing unsuccessful applications. In order to minimise this waste of time and money, programmes like ORIO should require very explicit, clear and easily accessible instructions regarding the requests for support.
2. The inclusion of a development phase – during which the project was prepared in detail, considering local needs and context – appeared to be a success. It is advisable to introduce such a preparatory phase in programmes like ORIO that support investments. Introduction of an O&M phase in such an investment-supporting programme requires clear definitions of modalities on how to contract out critical maintenance tasks, which needs to be laid out early on in the design phase of an infrastructure development project.
3. To avoid a project being stopped for lack of counterpart funding from the recipient government after having fully determined its specifications in (for example) a development phase, it requires firmer financial and non-financial commitments from the government prior to the start of a development phase.
4. All projects in ORIO were appraised by applying similar criteria independent of the sector. It would be more logical and potentially more effective to treat projects in the social sectors, such as Health and Education, different from the projects in sectors such as Transport, Ports and Water, by changing the weights of the various assessment criteria.
5. ORIO was open for applications for only 5 years. Consequently, the programme did not have sufficient time to prove its value or to establish itself as a mature programme. As a result, its operating costs will be relatively high compared to the volume of its portfolio. It is therefore recommended to give such a programme sufficient time to prove itself.
6. ORIO's commitments were much lower than its available budget. It would be advisable to commit more funds at the start of the development phase than the available budget. Had ORIO been allowed more time, it could have learnt how many projects would have been stopped during the development phase.

Annex 1: Countries qualified and sectors selected for ORIO support

	Country classification		Sector selected for ORIO support						
Country	Fragile state	Income Category a)	Civil Works	Comm.	Energy	Env.	Social Services	Transp.	Water
Africa									
Algeria		UMI	**X**						**X**
Angola		LMI			**X**			**X**	
Benin		LI	**X**		**X**			**X**	
Burkina Faso		LI			**X**		**X**		**X**
Burundi	Fragile state	LMI							
Cape Verde		LMI			**X**			**X**	**X**
Congo Dem. Rep.	Fragile state	LMI			**X**	**X**		**X**	
Egypt		LMI					**X**	**X**	**X**
Ethiopia		LI			**X**	**X**		**X**	
Gambia		LI			**X**			**X**	**X**
Ghana		LI					**X**	**X**	**X**
Kenya		LI			**X**	**X**	**X**		**X**
Malawi		LI					**X**	**X**	**X**
Mali		LI			**X**	**X**			**X**
Morocco		LMI			**X**	**X**			**X**
Mozambique		LI					**X**	**X**	**X**
Niger		LI				**X**			**X**
Rwanda		LI			**X**			**X**	**X**
Sao Tomé & Principe		LMI			**X**			**X**	
Senegal		LI			**X**	**X**		**X**	**X**
South Africa		UMI				**X**		**X**	**X**
South Sudan	Fragile state	LMI					**X**	**X**	**X**
Sudan	Fragile state	LMI					**X**	**X**	**X**
Tanzania		LI			**X**		**X**	**X**	
Uganda		LI			**X**			**X**	
Zambia		LI			**X**		**X**	**X**	

Countries qualified and sectors selected for ORIO support, continued

	Country classification		Sector selected for ORIO support						
Country	Fragile state	Income Category	Civil Works	Comm.	Energy	Env.	Social Services	Transp.	Water
ASIA									
Bangladesh		LI			X	X			X
Bhutan		LMI		X	X			X	
Indonesia		LMI			X			X	X
Maldives		LMI	X				X	X	
Mongolia		LMI				X			X
Pakistan	Fragile state	LMI			X	X			
Philippines		LMI			X		X		X
Thailand		LMI				X	X		X
Vietnam		LI			X		X		X
Central & Eastern Europe [a)]									
Albania		LMI			X	X			X
Armenia		LMI	X		X	X			
Bosnia & Herzegovina		UMI	X					X	X
Georgia		LMI	X			X			X
Kosovo		LMI			X	X		X	
Macedonia		UMI				X	X		X
Moldova		LMI			X			X	X
Montenegro		UMI			X	X			X
Serbia		UMI	X					X	X
Latin America									
Bolivia		LMI			X	X			X
Colombia		UMI				X	X		X
Guatemala		LMI			X				X
Nicaragua		LMI			X		X	X	
Peru		UMI				X	X		X
Surinam		UMI	X					X	X
Middle East [a)]									
Afghanistan	Fragile state	LI			X			X	X
Palestinian Territories	Fragile state	LMI					X	X	X
Yemen		LI			X		X		X

LI = Low Income

LMI = Lower Middle Income

UMI = Higher Middle Income

[a)] regional definition of RVO

Annex 2: The comparison of the main characteristics of ORET and ORIO

<table>
<tr><th>ORET</th><th>ORIO</th></tr>
<tr><td colspan="2">Objectives</td></tr>
<tr><td>Development relevant export transactions to strengthen sustainable economic development and improve the business climate in eligible developing countries.</td><td>Development of relevant infrastructure with impact on the realisation of MDGs in eligible developing countries and more accessible to SMEs in developing countries and the Netherlands.</td></tr>
<tr><td colspan="2">Project cycle</td></tr>
<tr><td>Initiative and project preparation rest with applicant, preparatory costs partly subsidised by a separate PESP facility. Co-funding infrastructure implementation and maintenance & operation.</td><td>Ownership with recipient government but heavy involvement of consultants. Project development in (fully) subsidised phase 1 for LDCs and 50% for non-LDCs and implementation in co-financed phase 2. Co-funding for complete project cycle.</td></tr>
<tr><td colspan="2">Character of the facility</td></tr>
<tr><td>Subsidy facility subject to General Subsidy Law and budget ceiling. Pipe-line approach of applications.</td><td>Finance facility not subject to the General Subsidy Law. Initially a beauty contest on basis of development relevance, bi-annual tender rounds with 50% of available annual budget of € 120 mln. After 2012 a pipeline approach was re-introduced.</td></tr>
<tr><td colspan="2">Country and Sector focus</td></tr>
<tr><td>List of beneficiary countries divided in list A (44 non-LDCs) and list B (47 LDCs). India and South Africa deleted from list in 2006 and 2007.</td><td rowspan="2">List of beneficiary countries divided in 29 LDCs (ORIO-A) and 24 non-LDCs (ORIO-B). It included 40 partner countries at the time, and non-partner LDCs (if EKV was available). Commitments were also possible in exit aid partner countries and 7 high potential export countries (Algeria, Philippines, Morocco, Montenegro, Peru, Servia and Thailand) until 2012, and in Vietnam until 2015. Transition facility outside ORIO for China and India. Initial focus on 2-3 sectors linking up with bilateral development programme in partner countries if relevant. Sector focus was dropped in 2012.</td></tr>
<tr><td>No sector focus. No country focus but demand driven resulting in 6-7 heavy users with more than € 20 mln in 2007-2012.</td></tr>
<tr><td colspan="2">Tying status</td></tr>
<tr><td>Tied for non-LDCs: direct award. After 1-1-2005 de facto untied for LDCs, after 1-5-2006 also de jure untied for LDCs (ICB).</td><td>Fully (de jure) untied for LDCs: ICB for both phases. Also de jure untied for South Africa and 3 non-LDC HIPC countries (Bolivia, Ghana and Nicaragua) after May 2008 OECD decision. De facto untied at programme level for non-LDCs with non-Dutch applicants able to submit applications but no ICB in phase 2.</td></tr>
<tr><td colspan="2">Distinction between LDCs and non-LDCs</td></tr>
<tr><td>Higher grant percentage (50% instead of 35% of transaction amount). Water facility for drinking water and sanitation projects for both LDCs and non-LDCs with grants up to 50%. Closed for LDCs between 2002 and 2004 but reopened in 2005. In 2005-2006 initial ceiling limit of 30% of budget for transactions in LDCs thereafter dropped.</td><td>In phase 1 development cost for LDCs eligible for 100% grant. For LDCs grant percentage varying from 30-60% in line with multilateral debt sustainability framework. Grants up to 80% of transaction amount or more in fragile states. Grant percentage 35% for transactions in non-LDCs. Commitment to increase spending (50% of funds) in LDCs until 2011 with obligation thereafter.</td></tr>
<tr><td colspan="2">Benefits to the Dutch economy</td></tr>
<tr><td>Not explicit but informal in screening criteria.</td><td>None but more linkage with sectors where Dutch companies can offer added value.</td></tr>
<tr><td colspan="2">Percentage of minimum Dutch content</td></tr>
<tr><td>50% minimum Dutch content (with exceptions) for non-LDC’s only. For LDC’s maximum 50% local production possible.</td><td>50% minimum Dutch content rule abolished and more options to use local SMEs. Dutch content rules of Atradius remained applicable to EKV-covered export credit (criteria of foreign content > 50%).</td></tr>
</table>

The comparison of the main characteristics of ORET and ORIO, continued	
ORET	**ORIO**
Financing arrangement	
Grant combined with separate non-grant funds, usually an insured commercial export credit but also other from other sources. Mixed credit (concessional loan with grant and capitalised future interest payments) in a few transactions. Finance cost (bank fees and insurance premium) eligible up to 75% from grant.	Also, combination of grant (1/3) with export credit (2/3) with compensation of finance cost from the grant in the same ratio.
Coherence with Dutch development policy at country level	
Not required. Informal link with PESP for preparatory cost. Additional facility (GOM) of Ministry of Economic Affairs till 2008 linked to ORET to cover greater insurance risk on export credits on countries where Atradius was not open. Later integrated in general insurance policy of Atradius.	Initially through sector focus in partner countries and linkages with PRSPs of partner countries. Stronger involvement of Dutch embassies.
Explicit criteria on women, poor and environment	
Social policy checklist. Impact on women and poor 'field of attention' in feasibility study.	Not explicitly mentioned but linkage to realisation of MDGs.
Special Technical Assistance Facility	
Part of 2006 Regulation allowing up to 75% of cost of technical assistance and institutional strengthening of end-user for a maximum period.	Technical assistance and maintenance & operation integral part of project design throughout lifetime of projects.
Monitoring & evaluation	
No clear provisions except for the prescribed format for progress reports and end reports by applicants and ad hoc field visits by ORET.nl that focused on operational problems.	Clear M&E protocol with procedures and budgets, especially after introduction of the 2011 PSD protocol.

Annex 3: Evaluation Methodology

This Annex describes respectively the main purpose of the evaluation based on the Terms of Reference and the evaluation approach. The latter also includes the review of the selected case studies among others based on the portfolio analysis described in Chapter 3 and considering the six impact studies of which 3 are finalised and 3 are ongoing. It concludes with a summary of the sources of information being used.

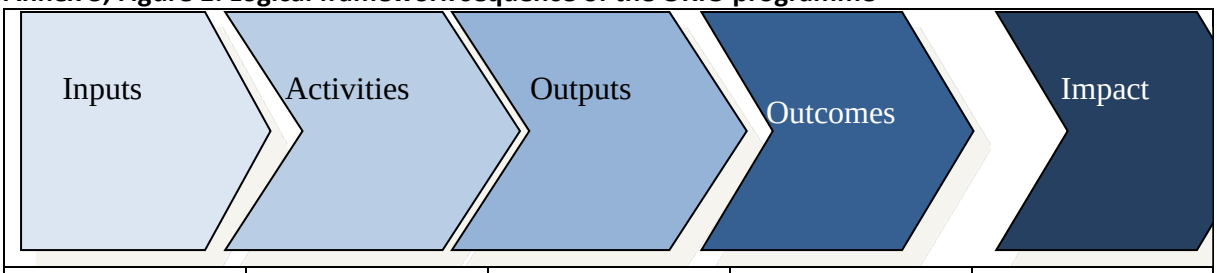
Evaluation Concepts

ORIO-funded projects are expected to contribute to outputs, to short-term outcomes, such as improved facilities and/or capabilities of the client, and have an impact on human development and private sector development in the long run. The picture below visualises the sequence from inputs to impacts. This results chain has been the basis for the evaluation, both at the level of the individual projects as well as at the programme level.

The ToR define in great detail the research questions, both at the programme level and at the project level (see ToR ORIO evaluation, page 13-14). The evaluation did an independent assessment of the ORIO-programme at these two levels, applying the following evaluation criteria:

- *Relevance*: to what extent are the objectives and activities of the ORIO programme and the ORIO co-funded projects consistent with the requirements of the beneficiaries, the needs of the recipient country and with the policies of the Netherlands' government.
- *Effectiveness* relates output to outcome, in this case to what extent has the ORIO-programme reached its objectives of stimulating the social and physical infrastructure in the recipient country and to what extent has it contributed to increasing Dutch economic and financial relations with these countries.
- *Sustainability*, which refers to what extent the project is financially, technically and institutionally viable in the long run after ORIO's contribution has been phased out, and to what extent it has a non-negative environmental impact.
- *Efficiency* relates inputs (funds, expertise, time, etc.) to outputs and if possible, to outcomes, or have the resources been translated into outputs in an economical way?
- *Additionality* refers first to whether or not the project(s) could have been financed in the absence of the ORIO-grant, and secondly whether or not the project initiated the mobilisation of additional funding for investments in the recipient country. The evaluation will therefore analyse to what extent ORIO in general has fulfilled a catalytic role in mobilising additional public and possibly also private finance for social and economic infrastructure investments in recipient countries that would otherwise not have taken place. On the other hand, the evaluation will assess – at least in the 4 in-depth case studies - whether ORIO sourcing conditions may have led to displacement of other entrepreneurs or distortions of domestic markets.

Annex 3, Figure 1: Logical framework sequence of the ORIO programme



Inputs	Activities	Outputs	Outcomes	Impact
– Policies regarding ORIO programme – Project identification by the recipient government and/or private initiator – ORIO funding development phase (grants) – Expertise provided by Dutch and foreign consultancy firms – ORIO funding for implementation and operation and maintenance (grants) – Remaining funding through commercial loans, other donors or funds from own resources recipient government. – Export credit insurance by Atradius – Management of the programme by RVO	– Preparation project proposal, often with support of private initiator – Preparation and submission of application by recipient government – 1st assessment of the application – Appraisal project proposal often with support of external consultant – Assessment project proposal by ACORIO – Further development and detailing of the project – 2nd assessment of the project proposal, including advice ACORIO – Accepting or rejecting project proposals – ICB approved projects – Preparing grant arrangement with recipient governments. – Preparing the contracts with the suppliers by recipient government – Checking contracts by ORIO programme staff – Monitoring of the project progress and programme activities	– # of projects in the development phase – # of projects in the implementation phase – # of projects in the operation and maintenance phase – # of finalised projects – Distribution of grants over projects, countries, sectors, applicants	– Improved social and physical infrastructure in recipient countries – Increased use of public infrastructure services – Improved capabilities of the client organisations – Increased economic activities of Dutch business community with and/or in the recipient countries	– Sustainable economic and human development in low- and middle-income countries – Sustainable economic and financial relations between private sector in the Netherlands and the countries that have benefited from the ORIO programme

Activities

Policy reconstruction of the ORIO-programme

The policy developments of the ORIO- programme includes an assessment of the selection criteria: how are environmental, poverty and gender impacts assessed, or the CSR standards in general[50]? For this purpose, relevant policy documents have been studied and key stakeholders in the Netherlands interviewed, among them the programme staff of ORIO, members of ACORIO, relevant staff of the Ministry of Foreign Affairs, representatives of the Netherlands business community, etc. During this phase use will be made of the review of the ORIO-programme by Carnegie Consult[51] and the documents that discuss the 2012 changes.

Desk study and field visits of the 4 ORIO projects selected for in-depth case study. This will also include an analysis of the roles of the stakeholders in these cases

During the inception phase, the team has started to collect information to prepare the design of the interviews, and the visits. In principle, suppliers of the goods or services of these selected ORIO projects will be approached prior to the field mission and be interviewed on the basis of a semi-structured interview design. If necessary, for example to validate the findings in the field, a second interview will take place after the field mission. The results of the study will be described in a country report. During the field visits the relevant stakeholders of the projects will be interviewed. These include staff of the (local) institutions involved in the projects, government officials who initiated the projects and those who supervise the implementation of the project and who are responsible for the maintenance of infrastructure when installed. Where possible, these also include beneficiaries of the new infrastructure. On the basis of the study of the project documentation it has been decided that a survey among beneficiaries would be too premature. Main reason being that the projects are not fully operational yet and that it therefore is too early to expect impacts[52].

Desk study of the remaining 47 projects, including interviews with a selection of the suppliers to analyse their roles in the projects and collect their views on the ORIO-programme in general and of the individual projects in particular.

This component includes a desk study of the project documents available within RVO. Given the limitations of such a desk study, the focus will in particular be on the efficiency and where possible on the effects of the projects. The latter is only possible for the projects for which information is available on effects and impact from monitoring and desk evaluation reports and from the six separate impact studies. It should be mentioned that out of these six studies only two have been finalised so far. From the others[53] the baseline study could provide information about the context of the projects. Specifically, the baseline studies allow us to study to what extent the assumptions made in the project proposals regarding local conditions and needs can be validated, which has implications for the likelihood of the projects to generate outcomes and impacts. The parties involved in these projects, both in the Netherlands and abroad, will be asked about their roles and about their views on the ORIO-programme in general and on the specific project in particular, through interviews and if relevant surveys.

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[50] We follow the OECD definition of CSR, as published in: OECD (2008) *OECD Guidelines for Multinational Enterprises;* CSR can be conceptualised as a condition (do no harm) or as an aim (generating positive outcomes). In the context of the assessment of the ORIO selection criteria we think of CSR as a condition. CSR as an aim will be covered by the field visits (see ad 2).

[51] '*Review ORIO, Eindrapportage Report*', Carnegie Consult, Investment Advisory Services, 14 October 2015.

[52] An exception is the case study of ORIO10TZ21 (Rehabilitation of Kilimanjaro International Airport), where project implementation is almost fully completed. In this case we still choose not to make use of a survey for methodological reasons (see the chapter on this case study for further details).

[53] The impact study of the project in Nicaragua has stopped in an early stage because of security reasons.

Analysis of rejected applications including interviews with a selection of the applicants to collect their views on the ORIO-programme in general and these rejected individual projects in particular.
A selection will be made of projects that were not approved. The information provided by RVO shows different categories, such as "request not taken into consideration"; "rejected after assessment by ACORIO"; and "rejected because of the limited overall ORIO-budget", "dropped out", etc. It is proposed to interview at least one participant in each category and several for the cases rejected on the basis of a negative assessment of the application. The parties involved who are not interviewed face-to-face, both in the Netherlands and abroad, will be asked about their experiences with the ORIO-programme in general and with the specific project in particular.

Study of the context of the ORIO-programme in the Netherlands.
In addition to the study of the relevant policy documents of the ORIO-program, this component includes interviewing financial institutions that are involved in financing and insuring the non-grant part of the ORIO subsidised projects as well as representatives of the Dutch business community.

Study of the process of the ORIO programme
As explained above the process of ORIO program from application to finalisation of the projects consists of several phases, namely the development phase, implementation phase and operation and maintenance phase. As such it differs from similar programmes. The strength and weaknesses of this approach will be analysed in-depth. Main sources of information for this analysis will be the programme documents as well as interviews with the relevant staff of ORIO, members of ACORIO, which plays an essential role in the approval process, and representatives of the Netherlands business community. The latter includes companies that have been active in the application and development phase of the programme and companies that are involved in the implementation and operation and maintenance phases.

Comparison of the effectiveness and if possible, the impact of the ORIO projects/programme with projects/programs of multilateral and bilateral donors.
Evaluation reports on similar projects/programs executed by other donor organisations will be studied with a view to compare the reported results with the findings of this evaluation. The main purpose is to analyse the results in the context of the various approaches followed by the different donor organisations. This part of the exercise will also include a review of the literature on the relation between investment in public infrastructure and national/regional economic development.

Writing synthesis report, which summarises the findings of the components above.
Interviews with stakeholders is a relatively important source of information in this evaluation. It might be that different stakeholders have different views on the ORIO programme in general and on the various aspects of the programme in particular. The team will try to weigh such conflicting views in the final evaluation of the programme and if needed report them separately.

Sample of projects for in-depth study

From the total of 51 active projects[54], 4 projects in 3 countries have been selected for a more in-depth analysis. Table 1 shows the selected cases by country. The total project value adds up to over € 90 million, of which about € 45 million is being financed from ORIO grants (see Table 5). These amounts are rather low compared to the total value of the portfolio of respectively € 1.4 billion and € 630 million. Yet, it should be noted that in addition to this evaluation impact studies of projects are executed in 6 different countries. The results of these impact studies will also provide inputs for this evaluation study.

[54] State of affairs on 31 December 2018.

Table 1: Projects selected for case studies (eligible project costs in Euro)

	Development phase a)	Implementation phase	Operation and Maintenance	Total eligible project costs
Mnazi Moja Hospital in Zanzibar, Tanzania				
Project costs	362,765	7,916,000	1,699,000	9,977,765
ORIO grant	362,765	3,958,000	849,500	5,170,265
% ORIO grant	100.0%	50.0%	50.0%	51.8%
% paid of total grant a)	100.0%	90.2%	-	-
Kilimanjaro International Airport, Tanzania				
Project costs	414,323	35,500,000	-	35,914,323
ORIO grant	414,323	15,000,000	-	15,414,323
% ORIO grant	100.0%	42.3%	-	42.9%
% paid of total grant a)	100.0%	83.0%	-	-
Port of Ziguinchor, Senegal				
Project costs	827,397	20,235,000	10,261,000	31,323,397
ORIO grant	827,397	10,117,500	5,130,000	16,074,897
% ORIO grant	100.0%	50.0%	50.0%	51.3%
% paid of total grant a)	100.0%	74.2%	-	-
Forecasting System for the Niger River Basin, Niger				
Project costs	41,280	4,043,831	1,531,180	5,616,291
ORIO grant	41,280	2,016,227	765,590	2,823,097
% ORIO grant	100.0%	49.9%	50.0%	50.3%
% paid of total grant a)	95,2%	79.0%	-	-

a) committed

Source: respective grant arrangements

In case of these case study projects, the field studies are divided into three stages:

The *preparatory stage* consists of:

- Collection and study of the documentation on the country and the selected ORIO-projects.
- Interview with the Dutch applicant(s) for the ORIO grant(s) and other stakeholders.

The *field stage* includes:

- Interviews with the main local stakeholders, such as the clients as well as other participants in the projects.
- Interviews with the Royal Netherlands Embassy and the national authorities of the recipient country. These include at least Ministry of Finance which is relevant regarding the financing of the project, and the sector ministry(ies) (institutions such as the Niger Basin Authority), which initiated the project, which supervises its implementation and which is responsible for the operation and maintenance as soon as ORIO's contribution is phased out. These interviews will be based on semi-structured formats and checklists.
- Interviews with the Chamber of Commerce, research institutes, ministries, public and private agencies relevant to the ORIO project (or the impact thereof), in particular also to get insight in the local context of the project;
- A visit to the project for a physical check on construction or if relevant on operation and maintenance;
- Study of government budgets and/or accounts in order to assess the catalytic effect: additional investment or additional operational spending
- Study of written information, reports on clients.

The *reporting stage* consists of the preparation of a country report that evaluates the ORIO-projects in the country setting. The findings will be inputs for the assessment of the ORIO-programme at the programme level.

Companies

This evaluation will map out and analyse the experiences and perceptions among Dutch stakeholders with respect to the outreach and functioning of the ORIO-facility, how it contributed to development and in what way it addressed constraints Dutch companies are facing in their business with developing countries. Although the main focus will be on Dutch companies, other actors involved, particularly in the financing arrangements linked to ORIO also represent an important group to understand the advantages and constraints of the ORIO facility and more importantly how ORIO interacted with other Dutch financing facilities. A clear example is the export credit insurance scheme of the Ministry of Finance executed by Atradius DSB.

To assess the effects of ORIO among the companies, semi-structured interviews were held with a relatively large selection of these parties.

The interviewed companies can be divided into the following categories:

- Service providers/consultancy firms that were active in the preparation of the applications, offering their services to the recipient governments in the developing countries;
- Service providers/consultancy firms that did have a contract to further develop and design the project into a technically and financially feasible and sustainable public infrastructure. These firms are usually the same as mentioned in the first category
- Service providers/consultancy firms that were asked by RVO/ACORIO for advice on the feasibility of the projects during the development phase.
- Companies that won the international competitive bidding and were therefore responsible for the implementation of the project.
- Companies that were/are involved and responsible for the operation and maintenance component of the ORIO co-funded project. These companies were often also active in category 4.

The interviews aimed at gaining more in-depth knowledge of the benefits these companies received, but also of the whole process of the application and the relation with RVO.

We interviewed at least the following companies:

- The companies involved in the 4 case studies to determine the impact of ORIO;
- A number of Dutch companies involved in ORIO (co-)funded projects but not covered in the case studies;
- Non-Dutch companies involved in ORIO (co-)funded projects but not included in the case studies;
- Companies involved in applications that were rejected for various reasons, such as a negative advice of the ACORIO, withdrawal because the co-finance (commercial or otherwise) could not be arranged, the application did not meet the substantive criteria.

In addition to these companies, a number of other parties have been interviewed as well.

Summary of information sources

Table 2 below indicates how the various parties involved in the ORIO programme are approached: by semi structured interview or through a survey. A preliminary structure of both the structured interviews and the surveys is provided in Annex 6 and 7.

Table 2: Stakeholders interviewed

Policy makers and executing agency
Staff of Ministry of Foreign Affairs
Staff of Ministry of Economic Affairs
Representatives of Dutch business community
Staff of ORIO desk
Staff on RVO, non-ORIO desk
Members ACORIO
Applicants
Applicants who were successful
Applicants who were not successful
Implementing institutions
Service providers active in the preparation of the applications
Service providers contracted to further develop the project
Service providers that advised ACORIO/ORIO desk (e.g. Ecorys)
Companies that won the ICB for implementation of the project
Companies contracted for the final phase of the project
Case studies
Clients as well as other participants in the projects.
Local staff institution(s) responsible for the project
Other stakeholders in the project
Staff of Ministry of Finance
Staff of Ministry Economic Affairs
Chamber of Commerce
Research Institute
non-Dutch donor institutions
Royal Netherlands Embassy

Annex 4: The Global Competitiveness Index of the World Economic Forum

The construction of the Global Competitiveness Index

This Annex gives a brief overview of the methodology applied by World Economic Forum (WEF) to calculate the Global Competitiveness Index (GCI). An extensive explanation of the methodology is described in the respective Global Competitive Reports of the World Economic Forum. GCI is published annually by WEF and is an aggregate of the scores on indicators that define the following 12 pillars of competitiveness, that in total are constructed on the basis of 110 indicators:

1st pillar: Institutions (21 indicators)
2nd pillar: Infrastructure (9 indicators)
3rd pillar: Macroeconomic environment (5 indicators)
4th pillar: Health and primary education (10 indicators)
5th pillar: Higher education and training (6 indicators)
6th pillar: Goods market efficiency (16 indicators)
7th pillar: Labour market efficiency (10 indicators)
8th pillar: Financial market development (6 indicators)
9th pillar: Technological readiness (7 indicators)
10th pillar: Market size (4 indicators)
11th pillar: Business sophistication (9 indicators)
12th pillar: Innovation (7 indicators)

The computation of the score by pillar is based on the aggregation of the indicators defined for the respective pillars. Similarly, the GCI is the aggregation of the scores by pillar.

The scores by indicator are collected through a survey among business leaders around the world on a broad range of topics. The survey comprises 150 questions divided into 15 sections. Most ask respondents to evaluate an aspect of their operating environment, on a scale of 1 (the worst possible situation) to 7 (the best). The indicators derived from the survey are used in the calculation of the GCI. The various editions of the survey captured the views of over 14,000 business executives in approximately 150 economies. The administration of the survey is centralised by the World Economic Forum and conducted at the national level by the Forum's network of Partner Institutes. Partner Institutes are recognised research or academic institutes[55], business organisations, national competitiveness councils, or other established professional entities.

Here we concentrate our analysis on two pillars: Infrastructure and on the 4th pillar Health and Primary Education. The pillar 'Infrastructure' is based on the following 9 indicators:

- Quality of overall infrastructure
- Quality of roads
- Quality of railroad infrastructure
- Quality of port infrastructure
- Quality of air transport infrastructure
- Available seat kilometres
- Quality of electricity supply
- Telephone lines

The pillar 'Health and Primary Education' is based on 11 indicators:

- Business impact of malaria
- Malaria incidence
- Business impact of tuberculosis
- Tuberculosis incidence

[55] The partner institute in the Netherlands is a department of the Rotterdam School of Management of the Erasmus University Rotterdam.

- Business impact of HIV/AIDS
- HIV prevalence
- Infant mortality
- Life expectancy
- Quality of primary education
- Primary enrolment
- Education expenditure

Both reflect the need for public infrastructure as defined in the context of the ORIO project.

The Need for Public Infrastructure

In the tables below we present the average country scores by main continent for the pillars 2 and 4.

Annex 4, Table 1: Scores of World Economic Forum on Physical Infrastructure							
	Africa	**Asia**	**Central & Eastern Europe**	**Latin America**	**Middle East**	**Total**	**Neth.**
2009-2010							
# countries	18	7	7	6	0	38	
Scores 0-7							
Average	2.96	3.02	2.95	2.85	n.a.	2.95	5.74
Min	2.41	1.98	2.18	2.47	n.a.	1.98	
Max	4.33	4.57	3.60	3.20	n.a.	4.57	
Rank out of 140							
Average	96	95	96	97	n.a.	96	10
Highest	45	40	72	75	n.a.	40	
Lowest	125	132	128	122	n.a.	132	
2012-2013							
# countries	20	7	8	6	1	42	
Scores 0-7							
Average	2.83	3.24	3.74	3.32	2.01	3.12	5.72
Min	1.87	2.22	3.44	2.95	2.01	1.87	
Max	4.14	4.62	4.35	4.06	2.01	4.62	
Rank out of 144							
Average	110	97	79	91	139	100	10
Highest	61	46	53	68	139	46	
Lowest	141	134	94	108	139	141	
2015-2016							
# countries	19	8	8	5	0	40	
Scores 0-7							
Average	2.90	3.45	3.73	3.35	n.a.	3.24	6.18
Min	2.01	2.56	3.08	3.07	n.a.	2.01	
Max	4.30	4.62	4.20	3.67	n.a.	4.62	
Rank out of 140							
Average	108	90	80	92	n.a.	97	7
Highest	55	44	61	77	n.a.	44	
Lowest	136	123	103	107	n.a.	136	

Annex 4, Table 2: Scores of World Economic Forum on Health and Primary Education							
	Africa	**Asia**	**Central & Eastern Europe**	**Latin America**	**Middle East**	**Total**	**Neth.**
2009-2010							
# countries	18	7	7	6	0	38	
Scores 0-7							
Average	3.88	4.92	5.44	5.26	n.a.	4.58	6.22
Min	2.97	3.95	5.00	5.05	n.a.	2.97	
Max	5.28	5.52	5.81	5.58	n.a.	5.81	
Rank out of 140							
Average	114	90	66	82	n.a.	95	14
Highest	77	61	40	54	n.a.	40	
Lowest	131	113	97	95	n.a.	131	
2012-2013							
# countries	20	7	8	6	1	42	
Scores 0-7							
Average	4.45	5.38	5.65	5.45	4.39	4.97	6.6
Min	3.36	4.52	5.44	5.38	4.39	3.36	
Max	5.66	5.77	5.93	5.52	4.39	5.93	
Rank out of 144							
Average	115	87	71	88	122	99	5
Highest	71	64	48	82	122	48	
Lowest	141	117	86	97	122	141	
2015-2016							
# countries	19	8	8	5	0	40	
Scores 0-7							
Average	4.55	5.38	5.78	5.14	n.a.	5.05	6.6
Min	3.17	4.00	5.35	4.71	n.a.	3.17	
Max	5.99	5.89	6.21	5.32	n.a.	6.21	
Rank out of 140							
Average	112	86	69	95	n.a.	96	6
Highest	51	61	33	97	n.a.	33	
Lowest	139	127	95	109	n.a.	139	

The Need for Finance

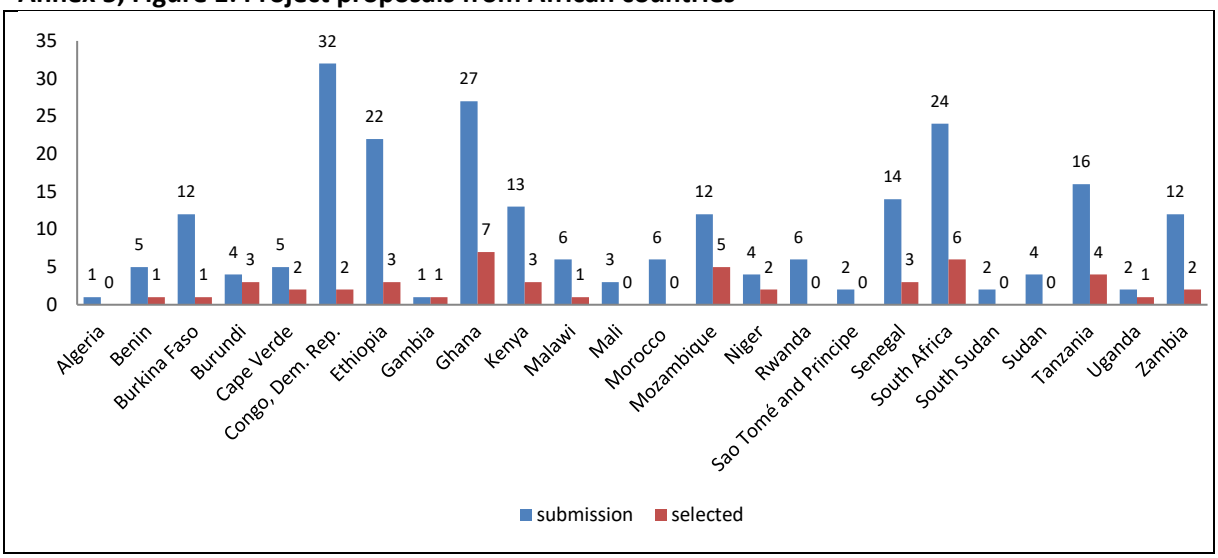
The ranking is based on an indicator, which is constructed on the basis of the following sub-indicators.:

- Ease of financing through local equity market
- Ease of access to loans
- Venture capital availability
- Restriction on capital flows
- Strength of investor protection
- Soundness of banks
- Regulation of securities exchanges
- Legal rights index

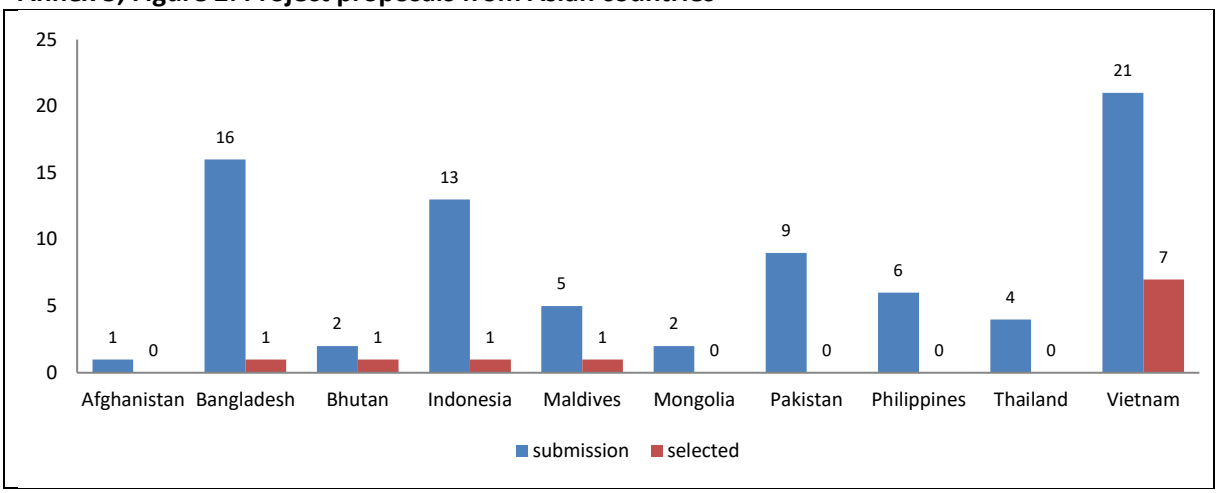
Annex 4, Table 3: Scores of World Economic Forum on Financial Sophistication							
	Africa	**Asia**	**Central & Eastern Europe**	**Latin America**	**Middle East**	**Total**	**Neth.**
2009-2010							
# countries	17	7	7	6	0	37	
Scores 0-7							
Average	3.75	4.07	4.03	3.80	n.a.	3.87	4.90
Min	5.43	4.49	5.01	4.66	n.a.	5.43	
Max	2.68	3.38	3.66	3.20	n.a.	2.68	
Ranking out of 140							
Average	92	76	81	91	n.a.	87	23
Highest	133	115	104	121	n.a.	133	
Lowest	5	49	17	39	n.a.	5	
2012-2013							
# countries	19	7	8	6	1	41	
Scores 0-7							
Average	3.82	3.96	3.79	3.79	2.37	3.80	4.96
Min	5.72	4.46	4.49	4.46	2.37	5.72	
Max	2.31	3.33	3.38	3.33	2.37	2.31	
Ranking out of 144							
Average	86	79	92	92	143	88	20
Highest	144	127	120	126	143	144	
Lowest	3	43	40	45	143	3	
2015-2016							
# countries	18	8	8	5	0	39	
Scores 0-7							
Average	3.61	3.77	3.58	3.98	n.a.	3.67	4.43
Min	5.03	4.38	4.26	4.61	n.a.	5.03	
Max	2.24	3.04	3.04	3.34	n.a.	2.24	
Ranking out of 140							
Average	88	78	91	68	n.a.	84	31
Highest	140	125	120	112	n.a.	140	
Lowest	12	39	44	25	n.a.	12	

Annex 5: Project proposals submitted and accepted for further processing

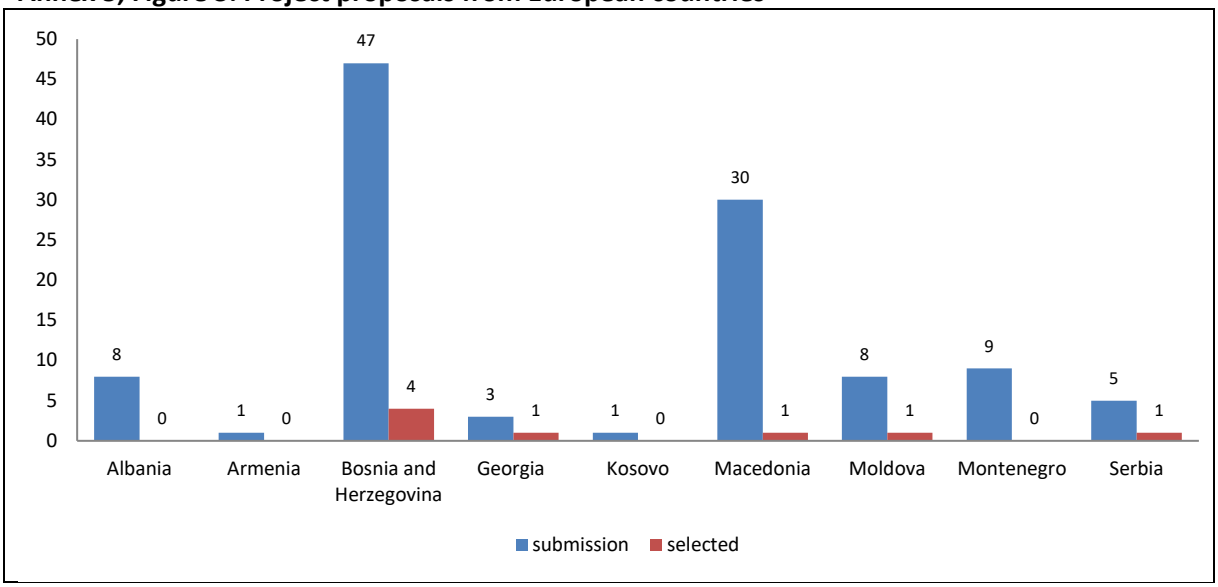
Annex 5, Figure 1: Project proposals from African countries



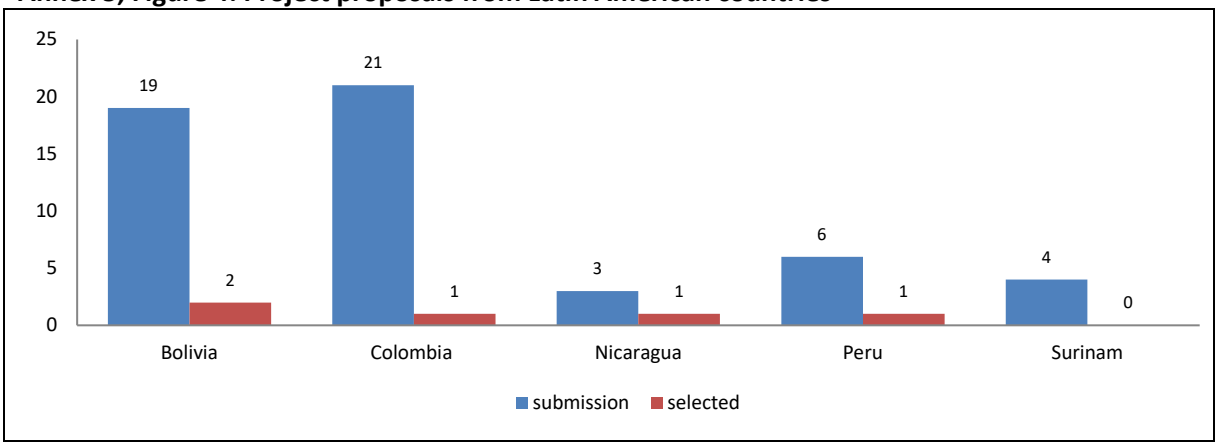
Annex 5, Figure 2: Project proposals from Asian countries



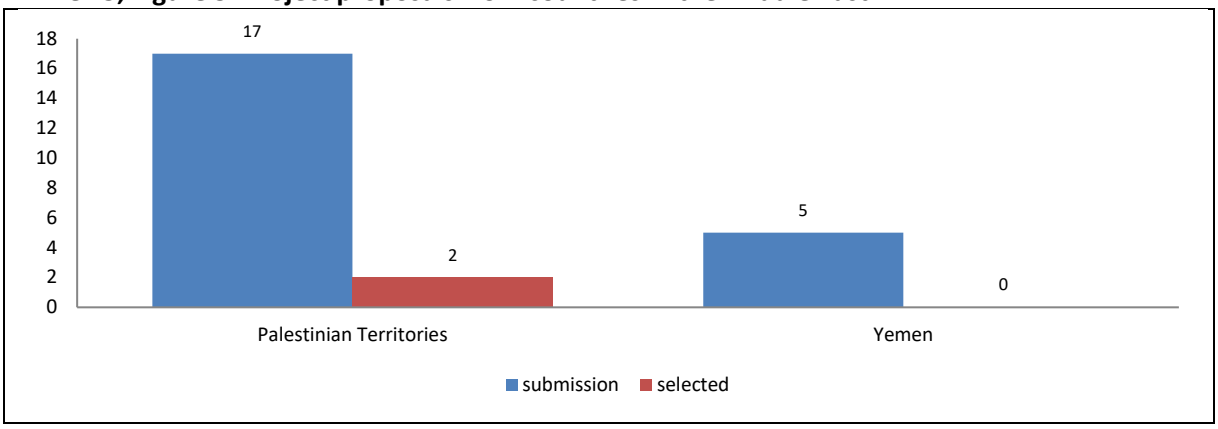
Annex 5, Figure 3: Project proposals from European countries



Annex 5, Figure 4: Project proposals from Latin American countries



Annex 5, Figure 5: Project proposals from countries in the Middle East



Annex 6: Literature

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Annex 7: Project Portfolio in Tables

Table 1: Accepted projects in 2009

Table 1a: Project proposals accepted by region, 2009					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	9	8,739,210	199,870,173	44,445,826	253,055,209
Asia	4	1,644,262	51,952,356	13,687,911	67,284,529
Central & Eastern Europe					
Latin America					
Middle East					
Total	**13**	**10,383,472**	**251,822,529**	**58,133,737**	**320,339,738**
Stopped/Withdrawn					
Africa	4	2,114,808	98,818,326	19,199,544	120,132,678
Asia	1		5,790,000	840,000	6,630,000
Central & Eastern Europe					
Latin America	1	416,503	20,148,000	3,376,000	23,940,503
Middle East					
Total	**6**	**2,531,311**	**124,756,326**	**23,415,544**	**150,703,181**

Table 1b: Project proposals accepted by sector, 2009					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education					0
Health	4	2,547,234	66,257,078	20,160,717	88,965,029
Water & Sanitation	6	7,004,238	119,642,809	33,800,820	160,447,867
Transport & Storage	3	832,000	65,922,642	4,172,200	70,926,842
Energy					
General Environment					
Agriculture					
Total	**13**	**10,383,472**	**251,822,529**	**58,133,737**	**320,339,738**
Stopped/Withdrawn					
Education	1	416,503	20,148,000	3,376,000	23,940,503
Health					
Water & Sanitation	4	2,114,808	98,818,326	19,199,544	120,132,678
Transport & Storage					
Energy					
General Environment	1		5,790,000	840,000	6,630,000
Agriculture					
Total	**6**	**2,531,311**	**124,756,326**	**23,415,544**	**150,703,181**

Table 1c: ORIO Grants Committed by Region, 2009					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	9	5,861,716	74,803,278	8,126,268	88,791,262
Asia	4	1,223,210	24,721,510	5,645,897	31,590,617
Central & Eastern Europe					
Latin America					
Middle East					
Total	**13**	**7,084,926**	**99,524,788**	**13,772,165**	**120,381,879**
Stopped/Withdrawn					
Africa	4	1,528,084	7,732,000	330,000	9,590,084
Asia	1	28,301			28,301
Central & Eastern Europe					
Latin America	1	383,906			383,906
Middle East					
Total	**6**	**1,940,291**	**7,732,000**	**330,000**	**10,002,291**

Table 1d: ORIO Grants Committed by Sector, 2009					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education					
Health	4	1,959,708	27,794,425	6,821,103	36,575,236
Water & Sanitation	6	4,208,473	43,043,469	5,579,562	52,831,504
Transport & Storage	3	916,745	28,686,894	1,371,500	30,975,139
Energy					
General Environment					
Agriculture					
Total	**13**	**7,084,926**	**99,524,788**	**13,772,165**	**120,381,879**
Stopped/Withdrawn					
Education	1	383,906			383,906
Health					
Water & Sanitation	4	1,528,084	7,732,000	330,000	9,590,084
Transport & Storage					
Energy					
General Environment	1	28,301			28,301
Agriculture					
Total	**6**	**1,940,291**	**7,732,000**	**330,000**	**10,002,291**

Table 1e: Payments per 31-12-2018, by region					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	9	4,876,798	23,419,404		28,296,202
Asia	4	1,223,210	14,332,260		15,555,470
Central & Eastern Europe					
Latin America					
Middle East					
Total	**13**	**6,100,008**	**37,751,664**	**0**	**43,851,672**
Stopped/Withdrawn					
Africa	4	1,375,617	27,451		1,403,068
Asia	1	28,301			28,301
Central & Eastern Europe					
Latin America	1	364,378			364,378
Middle East					
Total	**6**	**1,768,296**	**27,451**	**0**	**1,795,747**

Table 1f: Payments per 31-12-2018, by sector					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education					
Health	4	1,959,708	11,083,262		13,042,970
Water & Sanitation	6	3,235,964	19,122,438		22,358,402
Transport & Storage	3	904,336	7,545,964		8,450,300
Energy					
General Environment					
Agriculture					
Total	**13**	**6,100,008**	**37,751,664**	**0**	**43,851,672**
Stopped/Withdrawn					
Education	1	364,378			364,378
Health					
Water & Sanitation	4	1,375,617	27,451		1,403,068
Transport & Storage					
Energy					
General Environment	1	28,301	0		28,301
Agriculture					
Total	**6**	**1,768,296**	**27,451**	**0**	**1,795,747**

Table 2: Accepted projects in 2010

Table 2a: Project proposals accepted by region, 2010					
	# Projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	7	3,606,194	157,473,180	42,015,442	203,094,816
Asia					
Central & Eastern Europe	1	430,000	22,581,000	0	23,011,000
Latin America	1	421,470	46,628,571	3,065,715	50,115,756
Middle East					
Total	**9**	**4,457,664**	**226,682,751**	**45,081,157**	**276,221,572**
Stopped/Withdrawn					
Africa	5	4,679,064	103,580,159	12,668,646	120,927,869
Asia					
Central & Eastern Europe	2	1,320,700	27,817,000	3,500,000	32,637,700
Latin America	1	777,392	22,550,000	7,750,000	31,077,392
Middle East					
Total	**8**	**6,777,156**	**153,947,159**	**23,918,646**	**184,642,961**

Table 2b: Project proposals accepted by sector, 2010					
	# Projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education					
Health	2	1,272,928	67,328,530	4,935,460	73,536,918
Water & Sanitation	3	1,104,000	69,904,831	3,883,290	74,892,121
Transport & Storage	3	1,495,736	69,105,000	23,851,000	94,451,736
Energy	1	585,000	20,344,390	12,411,407	33,340,797
General Environment					
Agriculture					
Total	**9**	**4,457,664**	**226,682,751**	**45,081,157**	**276,221,572**
Stopped/Withdrawn					
Education					
Health	4	2,787,460	74,040,300	20,846,366	97,674,126
Water & Sanitation	2	2,434,496	58,534,859	3,072,280	64,041,635
Transport & Storage	1	346,200	11,484,000	0	11,830,200
Energy					
General Environment					
Agriculture	1	1,209,000	9,888,000	0	11,097,000
Total	8	6,777,156	153,947,159	23,918,646	184,642,961

Table 2c: ORIO Grants Committed by Region, 2010					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	7	3,377,522	71,250,457	13,408,611	88,036,590
Asia					
Central & Eastern Europe	1	239,374	7,671,000	0	7,910,374
Latin America	1	427,466	17,393,000	1,073,000	18,893,466
Middle East					
Total	**9**	**4,044,362**	**96,314,457**	**14,481,611**	**114,840,430**
Stopped/Withdrawn					
Africa	5	3,794,049			3,794,049
Asia					
Central & Eastern Europe	2	321,495			321,495
Latin America	1	182,005			182,005
Middle East					
Total	**8**	**4,297,549**	**0**	**0**	**4,297,549**

Table 2d: ORIO Grants Committed by Sector, 2010					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education					
Health	2	1,253,330	27,570,535	2,180,317	31,004,182
Water & Sanitation	3	1,000,279	31,547,227	765,590	33,313,096
Transport & Storage	3	1,394,906	26,524,500	5,830,000	33,749,406
Energy	1	395,847	10,672,195	5,705,704	16,773,746
General Environment					
Agriculture					
Total	**9**	**4,044,362**	**96,314,457**	**14,481,611**	**114,840,430**
Stopped/Withdrawn					
Education					
Health	4	1,255,525			1,255,525
Water & Sanitation	2	1,997,379			1,997,379
Transport & Storage	1				
Energy					
General Environment					
Agriculture	1	1,044,645			1,044,645
Total	**8**	**4,297,549**	**0**	**0**	**4,297,549**

Table 2e: Payments per 31-12-2018, by region					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	7	3,352,092	40,030,238	0	43,382,330
Asia					
Central & Eastern Europe	1	227,975			227,975
Latin America	1	427,466	17,393,000	1,073,000	18,893,466
Middle East					
Total	**9**	**4,007,533**	**57,423,238**	**1,073,000**	**62,503,771**
Stopped/Withdrawn					
Africa	5	3,454,755			3,454,755
Asia					
Central & Eastern Europe	2	276,397			276,397
Latin America	1	43,335			43,335
Middle East					
Total	**8**	**3,774,487**	**0**	**0**	**3,774,487**

Table 2f: Payments per 31-12-2018, by sector					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education					
Health	2	1,253,330	17,905,480	1,073,000	20,231,810
Water & Sanitation	3	975,864	6,997,425	0	7,973,289
Transport & Storage	3	1,387,615	22,247,795	0	23,635,410
Energy	1	390,724	10,272,538	0	10,663,262
General Environment					
Agriculture					
Total	**9**	**4,007,533**	**57,423,238**	**1,073,000**	**62,503,771**
Stopped/Withdrawn					
Education					0
Health	4	1,035,367			1,035,367
Water & Sanitation	2	1,912,527			1,912,527
Transport & Storage	1				0
Energy					0
General Environment					0
Agriculture	1	826,593			826,593
Total	**8**	**3,774,487**	**0**	**0**	**3,774,487**

Table 3: Accepted projects in 2011

Table 3a: Project proposals accepted by region, 2011					
	# Projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	9	9,995,689	237,000,916	17,397,614	264,394,219
Asia	2	1,273,614	21,135,912	7,231,481	29,641,007
Central & Eastern Europe	3	675,702	39,197,846	5,709,187	45,582,735
Latin America	2	3,317,619	30,086,244	25,964,557	59,368,420
Middle East					
Total	**16**	**15,262,624**	**327,420,918**	**56,302,839**	**398,986,381**
Stopped/Withdrawn					
Africa	1	514,500	17,826,980	4,848,800	23,190,280
Asia	2	1,789,024	45,547,774	5,707,171	53,043,969
Central & Eastern Europe	1	63,887	2,782,570	94,590	2,941,047
Latin America					
Middle East					
Total	**4**	**2,367,411**	**66,157,324**	**10,650,561**	**79,175,296**

Table 3a: Project proposals accepted by sector, 2011					
	# Projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education	1	2,117,619	9,175,172	24,758,762	36,051,553
Health	1	670,730	10,292,267	1,544,533	12,507,530
Water & Sanitation	10	9,529,245	241,229,821	21,238,397	271,997,463
Transport & Storage	2	1,698,474	38,597,853	5,473,147	45,769,474
Energy	2	1,246,556	28,125,805	3,288,000	32,660,361
General Environment					
Agriculture					
Total	**16**	**15,262,624**	**327,420,918**	**56,302,839**	**398,986,381**
Stopped/Withdrawn					
Education					
Health	1	514,500	17,826,980	4,848,800	23,190,280
Water & Sanitation	1	304,271	4,347,774	1,207,171	5,859,216
Transport & Storage	1	63,887	2,782,570	94,590	2,941,047
Energy					
General Environment	1	1,484,753	41,200,000	4,500,000	47,184,753
Agriculture					
Total	**4**	**2,367,411**	**66,157,324**	**10,650,561**	**79,175,296**

Table 3c: ORIO Grants Committed by Region, 2011					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	9	6,651,526	64,274,159	3,292,298	74,217,983
Asia	2	632,334	4,908,850	1,446,454	6,987,638
Central & Eastern Europe	3	278,911	13,002,262	0	13,281,173
Latin America	2	1,395,619	16,761,846	2,460,380	20,617,845
Middle East	0				
Total	**16**	**8,958,390**	**98,947,117**	**7,199,132**	**115,104,639**
Stopped/Withdrawn					
Africa	1	511,337			511,337
Asia	2	1,534,402			1,534,402
Central & Eastern Europe	1				
Latin America					
Middle East					
Total	**4**	**2,045,739**	**0**	**0**	**2,045,739**

Table 3c: ORIO Grants Committed by Region, 2011					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education	1	345,619	10,492,701	2,038,352	12,876,672
Health	1	635,471	0	0	635,471
Water & Sanitation	10	5,904,977	62,519,154	4,153,780	72,577,911
Transport & Storage	2	843,469	12,648,262	462,000	13,953,731
Energy	2	1,228,854	13,287,000	545,000	15,060,854
General Environment					
Agriculture					
Total	**16**	**8,958,390**	**98,947,117**	**7,199,132**	**115,104,639**
Stopped/Withdrawn					
Education					
Health	1	511,337			511,337
Water & Sanitation	1	169,758			169,758
Transport & Storage	1	0			
Energy					
General Environment	1	1,364,644			1,364,644
Agriculture					
Total	**4**	**2,045,739**	**0**	**0**	**2,045,739**

Table 3e: Payments per 31-12-2018, by region					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	9	6,325,714	8,538,607		14,864,321
Asia	2	602,223	0		602,223
Central & Eastern Europe	3	256,110	4,908,752		5,164,862
Latin America	2	1,347,839	8,222,445		9,570,284
Middle East	0				
Total	**16**	**8,531,886**	**21,669,804**	**0**	**30,201,690**
Stopped/Withdrawn					
Africa	1	486,988			486,988
Asia	2	1,469,419			1,469,419
Central & Eastern Europe	1				
Latin America					
Middle East					
Total	**4**	**1,956,407**	**0**	**0**	**1,956,407**

Table 3f: Payments per 31-12-2018, by sector					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education	1	300,603	1,953,300		2,253,903
Health	1	544,690	0		544,690
Water & Sanitation	10	5,725,432	19,650,239		25,375,671
Transport & Storage	2	759,607	0		759,607
Energy	2	1,201,554	66,265		1,267,819
General Environment					
Agriculture					
Total	**16**	**8,531,886**	**21,669,804**	**0**	**30,201,690**
Stopped/Withdrawn					
Education					
Health	1	486,988			486,988
Water & Sanitation	1	169,758			169,758
Transport & Storage	1				
Energy					
General Environment	1	1,299,661			1,299,661
Agriculture					
Total	**4**	**1,956,407**	**0**	**0**	**1,956,407**

Table 4: Accepted projects in 2012

Table 4a: Project proposals accepted by region, 2012					
	# Projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	5	3,099,450	151,590,140	13,615,824	168,305,414
Asia	1	435,000	34,098,109	4,832,710	39,365,819
Central & Eastern Europe					
Latin America					
Middle East	1	445,000	7,700,000	2,250,000	10,395,000
Total	**7**	**3,979,450**	**193,388,249**	**20,698,534**	**218,066,233**
Stopped/Withdrawn					
Africa	3	2,011,638	85,147,448	7,517,169	94,676,255
Asia					
Central & Eastern Europe					
Latin America					
Middle East					
Total	**3**	**2,011,638**	**85,147,448**	**7,517,169**	**94,676,255**

Table 4b: Project proposals accepted by sector, 2012					
	# Projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education					
Health	2	895,000	33,576,800	6,474,960	40,946,760
Water & Sanitation	3	1,637,000	107,161,109	7,992,710	116,790,819
Transport & Storage	1	1,000,000	47,204,613	4,211,053	52,415,666
Energy					
General Environment	1	447,450	5,445,727	2,019,811	7,912,988
Agriculture					
Total	**7**	**3,979,450**	**193,388,249**	**20,698,534**	**218,066,233**
Stopped/Withdrawn					
Education					
Health					
Water & Sanitation	1	810,000	33,403,448	4,144,169	38,357,617
Transport & Storage	1	450,000	34,900,000	3,100,000	38,450,000
Energy					
General Environment					
Agriculture	1	751,638	16,844,000	273,000	17,868,638
Total	**3**	**2,011,638**	**85,147,448**	**7,517,169**	**94,676,255**

Table 4c: ORIO Grants Committed by Region, 2012					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	5	2,668,141	13,499,732	1,873,865	18,041,738
Asia	1	209,500	12,269,869	1,363,856	13,843,225
Central & Eastern Europe					
Latin America					
Middle East	1	448,588	6,682,000	1,295,000	8,425,588
Total	**7**	**3,326,229**	**32,451,601**	**4,532,721**	**40,310,551**
Stopped/Withdrawn					
Africa	3	1,507,923			1,507,923
Asia					
Central & Eastern Europe					
Latin America					
Middle East					
Total	**3**	**1,507,923**	**0**	**0**	**1,507,923**

Table 4d: ORIO Grants Committed by Sector, 2012					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education					
Health	2	947,718	20,181,732	3,168,865	24,298,315
Water & Sanitation	3	1,436,204	12,269,869	1,363,856	15,069,929
Transport & Storage	1	500,000			500,000
Energy					
General Environment	1	442,307			442,307
Agriculture					
Total	**7**	**3,326,229**	**32,451,601**	**4,532,721**	**40,310,551**
Stopped/Withdrawn					
Education					
Health					
Water & Sanitation	1	423,203			423,203
Transport & Storage	1	599,628			599,628
Energy					
General Environment					
Agriculture	1	485,092			485,092
Total	**3**	**1,507,923**	**0**	**0**	**1,507,923**

Table 4e: Payments per 31-12-2018, by region					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	5	2,501,853	246,425		2,748,278
Asia	1	199,375	8,128,753		8,328,128
Central & Eastern Europe					
Latin America					
Middle East	1	427,227	135,140		562,367
Total	**7**	**3,128,455**	**8,510,318**	**0**	**11,638,773**
Stopped/Withdrawn					
Africa	3	681,545			681,545
Asia					
Central & Eastern Europe					
Latin America					
Middle East					
Total	**3**	**681,545**	**0**	**0**	**681,545**

Table 4f: Payments per 31-12-2018, by sector					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education					
Health	2	902,589	381,565		1,284,154
Water & Sanitation	3	1,307,574	8,128,753		9,436,327
Transport & Storage	1	475,985			475,985
Energy					
General Environment	1	442,307			442,307
Agriculture					
Total	**7**	**3,128,455**	**8,510,318**	**0**	**11,638,773**
Stopped/Withdrawn					
Education					
Health					
Water & Sanitation	1	11,025	0		11,025
Transport & Storage	1	228,430	0		228,430
Energy					
General Environment					
Agriculture	1	442,090			442,090
Total	**3**	**681,545**	**0**	**0**	**681,545**

Table 5: Accepted projects in 2013

Table 5a: Project proposals accepted by region, 2013					
	# Projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	3	1,415,000	47,900,000	9,700,000	59,015,000
Asia	1	606,315	17,890,000	360,000	18,856,315
Central & Eastern Europe	1	350,000	42,260,000	1,420,000	44,030,000
Latin America					
Middle East	1	450,000	28,950,000	2,830,000	32,230,000
Total	6	2,821,315	137,000,000	14,310,000	154,131,315
Stopped/Withdrawn					
Africa	1	703,500	16,980,000		17,683,500
Asia					
Central & Eastern Europe					
Latin America					
Middle East					
Total	**1**	**703,500**	**16,980,000**	**0**	**17,683,500**

Table 5b: Project proposals accepted by sector, 2013					
	# Projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education	1	500,000	19,600,000	3,400,000	23,500,000
Health	2	915,000	28,300,000	6,300,000	35,515,000
Water & Sanitation					
Transport & Storage	1	450,000	28,950,000	2,830,000	32,230,000
Energy					
General Environment	1	606,315	17,890,000	360,000	18,856,315
Agriculture	1	350,000	42,260,000	1,420,000	44,030,000
Total	**6**	**2,821,315**	**137,000,000**	**14,310,000**	**154,131,315**
Stopped/Withdrawn					
Education					
Health					
Water & Sanitation	1	703,500	16,980,000	0	17,683,500
Transport & Storage					
Energy					
General Environment					
Agriculture					
Total	**1**	**703,500**	**16,980,000**	**0**	**17,683,500**

Table 5c: ORIO Grants Committed by Region, 2013					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	3	1,498,251	27,185,108	1,720,148	30,403,507
Asia	1	762,878	8,888,000	135,000	9,785,878
Central & Eastern Europe	1	860,987			860,987
Latin America	0				
Middle East	1	839,976			839,976
Total	**6**	**3,962,092**	**36,073,108**	**1,855,148**	**41,890,348**
Stopped/Withdrawn					
Africa	1	570,000			570,000
Asia					
Central & Eastern Europe					
Latin America					
Middle East					
Total	**1**	**570,000**	**0**	**0**	**570,000**

Table 5d: ORIO Grants Committed by Region, 2013					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education	1	497,700	11,487,000	0	11,984,700
Health	2	1,000,551	15,698,108	1,720,148	18,418,807
Water & Sanitation					
Transport & Storage	1	839,976			839,976
Energy					
General Environment	1	762,878	8,888,000	135,000	9,785,878
Agriculture	1	860,987			860,987
Total	**6**	**3,962,092**	**36,073,108**	**1,855,148**	**41,890,348**
Stopped/Withdrawn					
Education					
Health					
Water & Sanitation	1	570,000			570,000
Transport & Storage					
Energy					
General Environment					
Agriculture					
Total	**1**	**570,000**	**0**	**0**	**570,000**

Table 5e: Payments per 31-12-2018, by region					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	3	1,463,424	193,700		1,657,124
Asia	1	699,052	61,840		760,892
Central & Eastern Europe	1	283,194			283,194
Latin America					
Middle East	1	839,974			839,974
Total	**6**	**3,285,644**	**255,540**	**0**	**3,541,184**
Stopped/Withdrawn					
Africa	1	570,000			570,000
Asia					
Central & Eastern Europe					
Latin America					
Middle East					
Total	**1**	**570,000**	**0**	**0**	**570,000**

Table 5f: Payments per 31-12-2018, by sector					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education	1	497,700			497,700
Health	2	965,724	193,700		1,159,424
Water & Sanitation					
Transport & Storage	1	839,974			839,974
Energy					
General Environment	1	699,052	61,840		760,892
Agriculture	1	283,194			283,194
Total	**6**	**3,285,644**	**255,540**	**0**	**3,541,184**
Stopped/Withdrawn					
Education					
Health					
Water & Sanitation	1	570,000			570,000
Transport & Storage					
Energy					
General Environment					
Agriculture					
Total	**1**	**570,000**	**0**	**0**	**570,000**

Table 6: Accepted projects during the 2009-2013 period

Table 6a: Project proposals accepted by region, 2009 - 2013					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	33	26,855,543	793,834,409	127,174,706	947,864,658
Asia	8	3,959,191	125,076,377	26,112,102	155,147,670
Central & Eastern Europe	5	1,455,702	104,038,846	7,129,187	112,623,735
Latin America	3	3,739,089	76,714,815	29,030,272	109,484,176
Middle East	2	895,000	36,650,000	5,080,000	42,625,000
Total	**51**	**36,904,525**	**1,136,314,447**	**194,526,267**	**1,367,745,239**
Stopped/Withdrawn					
Africa	14	10,023,510	322,352,913	44,234,159	376,610,582
Asia	3	1,789,024	51,337,774	6,547,171	59,673,969
Central & Eastern Europe	3	1,384,587	30,599,570	3,594,590	35,578,747
Latin America	2	1,193,895	42,698,000	11,126,000	55,017,895
Middle East					
Total	**22**	**14,391,016**	**446,988,257**	**65,501,920**	**526,881,193**

Table 6b: Project proposals accepted by by sector, 2009 - 2013					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education	2	2,617,619	28,775,172	28,158,762	59,551,553
Health	11	6,300,892	205,754,675	39,415,670	251,471,237
Water & Sanitation	22	19,274,483	537,938,570	66,915,217	624,128,270
Transport & Storage	10	5,476,210	249,780,108	40,537,400	295,793,718
Energy	3	1,831,556	48,470,195	15,699,407	66,001,158
General Environment	2	1,053,765	23,335,727	2,379,811	26,769,303
Agriculture	1	350,000	42,260,000	1,420,000	44,030,000
Total	**51**	**36,904,525**	**1,136,314,447**	**194,526,267**	**1,367,745,239**
Stopped/Withdrawn					
Education	1	416,503	20,148,000	3,376,000	23,940,503
Health	5	3,301,960	91,867,280	25,695,166	120,864,406
Water & Sanitation	9	6,367,075	212,084,407	27,623,164	246,074,646
Transport & Storage	3	860,087	49,166,570	3,194,590	53,221,247
Energy					
General Environment	2	1,484,753	46,990,000	5,340,000	53,814,753
Agriculture	2	1,960,638	26,732,000	273,000	28,965,638
Total	**22**	**14,391,016**	**446,988,257**	**65,501,920**	**526,881,193**

Table 6c: ORIO Grants Committed by Region, 2009 - 2013					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	33	20,057,156	251,012,734	28,421,190	299,491,080
Asia	8	2,827,922	50,788,229	8,591,207	62,207,358
Central & Eastern Europe	5	1,379,272	20,673,262	0	22,052,534
Latin America	3	1,823,085	34,154,846	3,533,380	39,511,311
Middle East	2	1,288,564	6,682,000	1,295,000	9,265,564
Total	**51**	**27,375,999**	**363,311,071**	**41,840,777**	**432,527,847**
Stopped/Withdrawn					
Africa	14	7,911,393	7,732,000	330,000	15,973,393
Asia	3	1,562,703			1,562,703
Central & Eastern Europe	3	321,495			321,495
Latin America	2	565,911			565,911
Middle East					
Total	**22**	**10,361,502**	**7,732,000**	**330,000**	**18,423,502**

Table 6d: ORIO Grants Committed by Sector, 2009 - 2013					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education	2	843,319	21,979,701	2,038,352	24,861,372
Health	11	5,796,778	91,244,800	13,890,433	110,932,011
Water & Sanitation	22	12,549,933	149,379,719	11,862,788	173,792,440
Transport & Storage	10	4,495,096	67,859,656	7,663,500	80,018,252
Energy	3	1,624,701	23,959,195	6,250,704	31,834,600
General Environment	2	1,205,185	8,888,000	135,000	10,228,185
Agriculture	1	860,987			860,987
Total	**51**	**27,375,999**	**363,311,071**	**41,840,777**	**432,527,847**
Stopped/Withdrawn					
Education	1	383,906			383,906
Health	5	1,766,862			1,766,862
Water & Sanitation	9	4,688,424	7,732,000	330,000	12,750,424
Transport & Storage	3	599,628			599,628
Energy					
General Environment	2	1,392,945			1,392,945
Agriculture	2	1,529,737			1,529,737
Total	**22**	**10,361,502**	**7,732,000**	**330,000**	**18,423,502**

Table 6e: Payments per 31-12-2018, by region					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Africa	33	18,519,881	72,428,374	0	90,948,255
Asia	8	2,723,860	22,522,852	0	25,246,712
Central & Eastern Europe	5	767,279	4,908,752	0	5,676,031
Latin America	3	1,775,305	25,615,445	1,073,000	28,463,750
Middle East	2	1,267,201	135,140	0	1,402,341
Total	**51**	**25,053,526**	**125,610,563**	**1,073,000**	**151,737,089**
Stopped/Withdrawn					
Africa	14	6,568,905	27,451		6,596,356
Asia	3	1,497,720			1,497,720
Central & Eastern Europe	3	276,397			276,397
Latin America	2	407,713			407,713
Middle East					
Total	**22**	**8,750,734**	**27,451**	**0**	**8,778,185**

Table 6f: Payments per 31-12-2018, by sector					
	# projects	Development phase	Implementation	O&M phase	Total project cost
Ongoing					
Education	2	798,303	1,953,300		2,751,603
Health	11	5,626,041	29,564,007	1,073,000	36,263,048
Water & Sanitation	22	11,244,834	53,898,854		65,143,688
Transport & Storage	10	4,367,517	29,793,759		34,161,276
Energy	3	1,592,278	10,338,803		11,931,081
General Environment	2	1,141,359	61,840		1,203,199
Agriculture	1	283,194			283,194
Total	**51**	**25,053,526**	**125,610,563**	**1,073,000**	**151,737,089**
Stopped/Withdrawn					
Education	1	364,378			364,378
Health	5	1,522,355			1,522,355
Water & Sanitation	9	4,038,927	27,451		4,066,378
Transport & Storage	3	228,430			228,430
Energy					
General Environment	2	1,327,962			1,327,962
Agriculture	2	1,268,683			1,268,683
Total	**22**	**8,750,734**	**27,451**	**0**	**8,778,185**

Table 7: Commitments in EURO 2009-2013 period

Table 7a: Development Phase												
	2009		2010		2011		2012		2013		Total	
Regions:	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro
Africa	13	7,389,800	12	7,171,571	10	7,162,863	8	4,176,064	4	2,068,251	47	27,968,549
Asia	5	1,251,511			4	2,166,736	1	209,500	1	762,878	11	4,390,625
Central & Eastern Europe			3	560,869	4	278,911			1	860,987	8	1,700,767
Latin America	1	383,906	2	609,471	2	1,395,619					5	2,388,996
Middle East	0		0		0		1	448,588	1	839,976	2	1,288,564
Total	**19**	**9,025,217**	**17**	**8,341,911**	**20**	**11,004,129**	**10**	**4,834,152**	**7**	**4,532,092**	**73**	**37,737,501**
	2009		2010		2011		2012		2013		Total	
Sector:	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro
Education	1	383,906			1	345,619			1	497,700	3	1,227,225
Health	4	1,959,708	6	2,508,855	2	1,146,808	2	947,718	2	1,000,551	16	7,563,640
Water & Sanitation	10	5,736,557	5	2,997,658	11	6,074,735	4	1,859,407	1	570,000	31	17,238,357
Transport & Storage	3	916,745	4	1,394,906	3	843,469	2	1,099,628	1	839,976	13	5,094,724
Energy			1	395,847	2	1,228,854					3	1,624,701
General Environment	1	28,301			1	1,364,644	1	442,307	1	762,878	4	2,598,130
Agriculture			1	1,044,645			1	485,092	1	860,987	3	2,390,724
Total	**19**	**9,025,217**	**17**	**8,341,911**	**20**	**11,004,129**	**10**	**4,834,152**	**7**	**4,532,092**	**73**	**37,737,501**

Table 7b: Implementation Phase												
	2009		2010		2011		2012		2013		Total	
Regions:	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro
Africa	13	82,535,278	12	71,250,457	10	64,274,159	8	13,499,732	4	27,185,108	47	258,744,734
Asia	5	24,721,510			4	4,908,850	1	12,269,869	1	8,888,000	11	50,788,229
Central & Eastern Europe			3	7,671,000	4	13,002,262			1		8	20,673,262
Latin America	1		2	17,393,000	2	16,761,846					5	34,154,846
Middle East							1	6,682,000	1		2	6,682,000
Total	**19**	**107,256,788**	**17**	**96,314,457**	**20**	**98,947,117**	**10**	**32,451,601**	**7**	**36,073,108**	**73**	**371,043,071**
	2009		2010		2011		2012		2013		Total	
Sectors:	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro
Education	1	0			1	10,492,701	0	0	1	11,487,000	3	21,979,701
Health	4	27,794,425	6	27,570,535	2	0	2	20,181,732	2	15,698,108	16	91,244,800
Water & Sanitation	10	50,775,469	5	31,547,227	11	62,519,154	4	12,269,869	1		31	157,111,719
Transport & Storage	3	28,686,894	4	26,524,500	3	12,648,262	2		1		13	67,859,656
Energy			1	10,672,195	2	13,287,000					3	23,959,195
General Environment	1				1		1		1	8,888,000	4	8,888,000
Agriculture			1				1		1		3	
Total	**19**	**107,256,788**	**17**	**96,314,457**	**20**	**98,947,117**	**10**	**32,451,601**	**7**	**36,073,108**	**73**	**371,043,071**

Table 7c: O&M Phase												
	2009		2010		2011		2012		2013		Total	
Regions:	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro
Africa	13	8,456,268	12	13,408,611	10	3,292,298	8	1,873,865	4	1,720,148	47	28,751,190
Asia	5	5,645,897	0		4	1,446,454	1	1,363,856	1	135,000	11	8,591,207
Central & Eastern Europe			3		4				1		8	
Latin America	1		2	1,073,000	2	2,460,380					5	3,533,380
Middle East					0	0	1	1,295,000	1		2	1,295,000
Total	**19**	**14,102,165**	**17**	**14,481,611**	**20**	**7,199,132**	**10**	**4,532,721**	**7**	**1,855,148**	**73**	**42,170,777**
	2009		2010		2011		2012		2013		Total	
Sectors:	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro
Education	1				1	2,038,352	0	0	1	0	3	2,038,352
Health	4	6,821,103	6	2,180,317	2	0	2	3,168,865	2	1,720,148	16	13,890,433
Water & Sanitation	10	5,909,562	5	765,590	11	4,153,780	4	1,363,856	1		31	12,192,788
Transport & Storage	3	1,371,500	4	5,830,000	3	462,000	2		1		13	7,663,500
Energy			1	5,705,704	2	545,000					3	6,250,704
General Environment	1				1		1		1	135,000	4	135,000
Agriculture			1				1		1		3	
Total	**19**	**14,102,165**	**17**	**14,481,611**	**20**	**7,199,132**	**10**	**4,532,721**	**7**	**1,855,148**	**73**	**42,170,777**

Table 7d: Total Commitments per 31-12-2018												
	2009		2010		2011		2012		2013		Total	
Regions:	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro
Africa	13	98,381,346	12	91,830,639	10	74,729,320	8	19,549,661	4	30,973,507	47	315,464,473
Asia	5	31,618,918			4	8,522,040	1	13,843,225	1	9,785,878	11	63,770,061
Central & Eastern Europe			3	8,231,869	4	13,281,173			1	860,987	8	22,374,029
Latin America	1	383,906	2	19,075,471	2	20,617,845					5	40,077,222
Middle East							1	8,425,588	1	839,976	2	9,265,564
Total	**19**	**130,384,170**	**17**	**119,137,979**	**20**	**117,150,378**	**10**	**41,818,474**	**7**	**42,460,348**	**73**	**450,951,349**
	2009		2010		2011		2012		2013		Total	
Sectors:	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro
Education	1	383,906	0	0	1	12,876,672	0	0	1	11,984,700	3	25,245,278
Health	4	36,575,236	6	32,259,707	2	1,146,808	2	24,298,315	2	18,418,807	16	112,698,873
Water & Sanitation	10	62,421,588	5	35,310,475	11	72,747,669	4	15,493,132	1	570,000	31	186,542,864
Transport & Storage	3	30,975,139	4	33,749,406	3	13,953,731	2	1,099,628	1	839,976	13	80,617,880
Energy			1	16,773,746	2	15,060,854					3	31,834,600
General Environment	1	28,301			1	1,364,644	1	442,307	1	9,785,878	4	11,621,130
Agriculture			1	1,044,645			1	485,092	1	860,987	3	2,390,724
Total	**19**	**130,384,170**	**17**	**119,137,979**	**20**	**117,150,378**	**10**	**41,818,474**	**7**	**42,460,348**	**73**	**450,951,349**

Table 8: Total payments 2009-2013 period

Table 8a: Development Phase												
	2009		2010		2011		2012		2013		Total	
Regions:	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro
Africa	13	6,252,415	12	6,806,847	10	6,812,702	8	3,183,398	4	2,033,424	47	25,088,786
Asia	5	1,251,511			4	2,071,642	1	199,375	1	699,052	11	4,221,580
Central & Eastern Europe			3	504,372	4	256,110			1	283,194	8	1,043,676
Latin America	1	364,378	2	470,801	2	1,347,839					5	2,183,018
Middle East							1	427,227	1	839,974	2	1,267,201
Total	**19**	**7,868,304**	**17**	**7,782,020**	**20**	**10,488,293**	**10**	**3,810,000**	**7**	**3,855,644**	**73**	**33,804,260**
	2009		2010		2011		2012		2013		Total	
Sectors:	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro
Education	1	364,378			1	300,603			1	497,700	3	1,162,681
Health	4	1,959,708	6	2,288,697	2	1,031,678	2	902,589	2	965,724	16	7,148,396
Water & Sanitation	10	4,611,581	5	2,888,391	11	5,895,190	4	1,318,599	1	570,000	31	15,283,761
Transport & Storage	3	904,336	4	1,387,615	3	759,607	2	704,415	1	839,974	13	4,595,947
Energy			1	390,724	2	1,201,554					3	1,592,278
General Environment	1	28,301			1	1,299,661	1	442,307	1	699,052	4	2,469,321
Agriculture			1	826,593			1	442,090	1	283,194	3	1,551,877
Total	**19**	**7,868,304**	**17**	**7,782,020**	**20**	**10,488,293**	**10**	**3,810,000**	**7**	**3,855,644**	**73**	**33,804,260**

Table 8b: Implementation Phase												
	2009		2010		2011		2012		2013		Total	
Regions:	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro
Africa	13	23,446,855	12	40,030,238	10	8,538,607	8	246,425	4	193,700	47	72,455,825
Asia	5	14,332,260			4		1	8,128,753	1	61,840	11	22,522,852
Central & Eastern Europe			3		4	4,908,752			1		8	4,908,752
Latin America	1		2	17,393,000	2	8,222,445					5	25,615,445
Middle East							1	135,140	1		2	135,140
Total	**19**	**37,779,115**	**17**	**57,423,238**	**20**	**21,669,804**	**10**	**8,510,318**	**7**	**255,540**	**73**	**125,638,014**
	2009		2010		2011		2012		2013		Total	
Sectors:	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro
Education	1				1	1,953,300	0	0	1	0	3	1,953,300
Health	4	11,083,262	6	17,905,480	2	0	2	381,565	2	193,700	16	29,564,007
Water & Sanitation	10	19,149,889	5	6,997,425	11	19,650,239	4	8,128,753	1		31	53,926,305
Transport & Storage	3	7,545,964	4	22,247,795	3	0	2		1		13	29,793,759
Energy	0	0	1	10,272,538	2	66,265					3	10,338,803
General Environment	1				1		1		1	61,840	4	61,840
Agriculture			1				1		1		3	0
Total	**19**	**37,779,115**	**17**	**57,423,238**	**20**	**21,669,804**	**10**	**8,510,318**	**7**	**255,540**	**73**	**125,638,014**

Table 8c: O&M Phase												
	2009		2010		2011		2012		2013		Total	
Regions:	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro
Africa	13		12		10		8		4		47	
Asia	5				4		1		1		11	
Central & Eastern Europe	0		3		4		0		1		8	
Latin America	1		2	1,073,000	2		0		0		5	1,073,000
Middle East							1		1		2	
Total	**19**	**0**	**17**	**1,073,000**	**20**	**0**	**10**	**0**	**7**	**0**	**73**	**1,073,000**
	2009		2010		2011		2012		2013		Total	
Sectors:	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro
Education	1				1		0		1		3	
Health	4		6	1,073,000	2		2		2		16	1,073,000
Water & Sanitation	10		5		11		4		1		31	
Transport & Storage	3		4		3		2		1		13	
Energy			1		2						3	
General Environment	1				1		1		1		4	
Agriculture			1		0		1		1		3	
Total	**19**	**0**	**17**	**1,073,000**	**20**	**0**	**10**	**0**	**7**	**0**	**73**	**1,073,000**

Table 8d: Total Payments per 31-12-2018												
	2009		2010		2011		2012		2013		Total	
Regions:	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro
Africa	13	29,699,270	12	46,837,084	10	15,351,309	8	3,429,823	4	2,227,124	47	97,544,610
Asia	5	15,583,770			4	2,071,642	1	8,328,128	1	760,892	11	26,744,432
Central & Eastern Europe			3	504,372	4	5,164,862			1	283,194	8	5,952,428
Latin America	1	364,378	2	18,936,801	2	9,570,284					5	28,871,463
Middle East							1	562,367	1	839,974	2	1,402,341
Total	**19**	**45,647,419**	**17**	**66,278,257**	**20**	**32,158,097**	**10**	**12,320,318**	**7**	**4,111,184**	**73**	**160,515,274**
	2009		2010		2011		2012		2013		Total	
Sectors:	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro	#	Euro
Education	1	364,378			1	2,253,903			1	497,700	3	3,115,981
Health	4	13,042,970	6	21,267,177	2	1,031,678	2	1,284,154	2	1,159,424	16	37,785,403
Water & Sanitation	10	23,761,470	5	9,885,816	11	25,545,429	4	9,447,352	1	570,000	31	69,210,066
Transport & Storage	3	8,450,300	4	23,635,410	3	759,607	2	704,415	1	839,974	13	34,389,706
Energy			1	10,663,262	2	1,267,819					3	11,931,081
General Environment	1	28,301			1	1,299,661	1	442,307	1	760,892	4	2,531,161
Agriculture			1	826,593			1	442,090	1	283,194	3	1,551,877
Total	**19**	**45,647,419**	**17**	**66,278,257**	**20**	**32,158,097**	**10**	**12,320,318**	**7**	**4,111,184**	**73**	**160,515,274**

Table 9: Number of projects

Table 9a: number of projects proposed and selected by country															
	2009		2010		2011		2012		2013		Total		Stopped	Withdrawn	In execution
	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.			
Afghanistan	1										1	0			
Albania	7		1								8	0			
Algeria			1								1	0			
Armenia					1						1	0			
Bangladesh	3		9		2	1	2				16	1	1		
Benin	4								1	1	5	1	1		
Bhutan	1	1							1		2	1			1
Bolivia	16	1	1		1	1			1		19	2	1		1
Bosnia and Herzegovina	22		10		11	4	4				47	4		1	4
Burkina Faso	2		5		2		2		1	1	12	1			1
Burundi					2	1	2	2			4	3			3
Cape Verde	1		3	1	1	1					5	2			2
Colombia	9		7		5	1					21	1			1
Congo. Dem. Rep.	8		6		9		9	2			32	2	1		1
Ethiopia	7	1	2		1		5	1	7	1	22	3			3
Gambia	1	1									1	1	1		
Georgia	1		1						1	1	3	1			1
Ghana	15	5	7		2	2	3				27	7	2		5
Indonesia	6	1	4				1		2		13	1	1		
Kenya	3		4	2	3	1	2		1		13	3	2		1
Kosovo					1						1	0			
Macedonia	26		2	1			1		1		30	1	1		
Malawi	2		1	1	3						6	1	1		

Table 9a: number of projects proposed and selected by country, continued															
Maldives	2				1		1		1	1	5	1			1
Mali	1		2								3	0			
Moldova	3		4	1					1		8	1		1	
Mongolia	2										2	0			
Montenegro	5		4								9	0			
Morocco	2		1		2		1				6	0			
Mozambique	3	1	3	2	4	1	1	1	1		12	5	3		1
Nicaragua	2		1	1							3	1			1
Niger	1		2	2	1						4	2			2
Pakistan	4		2		3						9	0			
Palestinian Territories	11		3		1		1	1	1	1	17	2			2
Peru			2	1	4						6	1		1	
Philippines	1		1		3		1				6	0			
Rwanda	1				1		1		3		6	0			
Sao Tomé and Principe			2								2	0			
Senegal	7		4	2	1	1	2				14	3	1		2
Serbia	2		2	1	1						5	1			1
South Africa	7	2	3		9	2	3	2	2		24	6	1	1	4
South Sudan							2				2	0			
Sudan	2		1						1		4	0			
Surinam	3				1						4	0			
Tanzania	7	2	6	2	2		1				16	4			4
Thailand	3		1								4	0			
Uganda			1		1	1					2	1			1
Vietnam	9	3	4		4	3	1	1	3		21	7		1	6
Yemen	1		2		2						5	0			
Zambia	3	1	5		1		1		2	1	12	2			2
TOTAL	**217**	**19**	**120**	**17**	**86**	**20**	**47**	**10**	**31**	**7**	**501**	**73**	**17**	**5**	**51**

Table 9b: Africa: number of projects proposed and selected by country															
	2009		2010		2011		2012		2013		Total		Stopped	Withdrawn	In execution
	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.			
Algeria	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0
Benin	4	0	0	0	0	0	0	0	1	1	5	1	1	0	0
Burkina Faso	2	0	5	0	2	0	2	0	1	1	12	1	0	0	1
Burundi	0	0	0	0	2	1	2	2	0	0	4	3	0	0	3
Cape Verde	1	0	3	1	1	1	0	0	0	0	5	2	0	0	2
Congo, Dem, Rep,	8	0	6	0	9	0	9	2	0	0	32	2	1	0	1
Ethiopia	7	1	2	0	1	0	5	1	7	1	22	3	0	0	3
Gambia	1	1	0	0	0	0	0	0	0	0	1	1	1	0	0
Ghana	15	5	7	0	2	2	3	0	0	0	27	7	2	0	5
Kenya	3	0	4	2	3	1	2	0	1	0	13	3	2	0	1
Malawi	2	0	1	1	3	0	0	0	0	0	6	1	1	0	0
Mali	1	0	2	0	0	0	0	0	0	0	3	0	0	0	0
Morocco	2	0	1	0	2	0	1	0	0	0	6	0	0	0	0
Mozambique	3	1	3	2	4	1	1	1	1	0	12	5	3	0	1
Niger	1	0	2	2	1	0	0	0	0	0	4	2	0	0	2
Rwanda	1	0	0	0	1	0	1	0	3	0	6	0	0	0	0
Sao Tomé and Principe	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0
Senegal	7	0	4	2	1	1	2	0	0	0	14	3	1	0	2
South Africa	7	2	3	0	9	2	3	2	2	0	24	6	1	1	4
South Sudan	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0
Sudan	2	0	1	0	0	0	0	0	1	0	4	0	0	0	0
Tanzania	7	2	6	2	2	0	1	0	0	0	16	4	0	0	4
Uganda	0	0	1	0	1	1	0	0	0	0	2	1	0	0	1
Zambia	3	1	5	0	1	0	1	0	2	1	12	2	0	0	2
Total	**77**	**13**	**59**	**12**	**45**	**10**	**35**	**8**	**19**	**4**	**235**	**47**	**13**	**1**	**32**

Table 9c: ASIA: number of projects proposed and selected by country															
	2009		2010		2011		2012		2013		Total		Stopped	Withdrawn	In execution
	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.			
Afghanistan	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Bangladesh	3	0	9	0	2	1	2	0	0	0	16	1	1	0	0
Bhutan	1	1	0	0	0	0	0	0	1	0	2	1	0	0	1
Indonesia	6	1	4	0	0	0	1	0	2	0	13	1	1	0	0
Maldives	2	0	0	0	1	0	1	0	1	1	5	1	0	0	1
Mongolia	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0
Pakistan	4	0	2	0	3	0	0	0	0	0	9	0	0	0	0
Philippines	1	0	1	0	3	0	1	0	0	0	6	0	0	0	0
Thailand	3	0	1	0	0	0	0	0	0	0	4	0	0	0	0
Vietnam	9	3	4	0	4	3	1	1	3	0	21	7	0	1	6
Total	**32**	**5**	**21**	**0**	**13**	**4**	**6**	**1**	**7**	**1**	**79**	**11**	**2**	**1**	**8**

Table 9d: Central & Eastern Europe: number of projects proposed and selected by country															
	2009		2010		2011		2012		2013		Total		Stopped	Withdrawn	In execution
	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.			
Albania	7	0	1	0	0	0	0	0	0	0	8	0	0	0	0
Armenia	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0
Bosnia and Herzegovina	22	0	10	0	11	4	4	0	0	0	47	4	0	1	4
Georgia	1	0	1	0	0	0	0	0	1	1	3	1	0	0	1
Kosovo	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0
Macedonia	26	0	2	1	0	0	1	0	1	0	30	1	1	0	0
Moldova	3	0	4	1	0	0	0	0	1	0	8	1	0	1	0
Montenegro	5	0	4	0	0	0	0	0	0	0	9	0	0	0	0
Serbia	2	0	2	1	1	0	0	0	0	0	5	1	0	0	1
Total	**66**	**0**	**24**	**3**	**14**	**4**	**5**	**0**	**3**	**1**	**112**	**8**	**1**	**2**	**6**

Table 9e: Latin America: number of projects proposed and selected by country															
	2009		2010		2011		2012		2013		Total		Stopped	Withdrawn	In execution
	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.			
Bolivia	16	1	1	0	1	1	0	0	1	0	19	2	1	0	1
Colombia	9	0	7	0	5	1	0	0	0	0	21	1	0	0	1
Nicaragua	2	0	1	1	0	0	0	0	0	0	3	1	0	0	1
Peru	0	0	2	1	4	0	0	0	0	0	6	1	0	1	0
Surinam	3	0	0	0	1	0	0	0	0	0	4	0	0	0	0
Total	**30**	**1**	**11**	**2**	**11**	**2**	**0**	**0**	**1**	**0**	**53**	**5**	**1**	**1**	**3**

Table 9f: Middle East: number of projects proposed and selected by country															
	2009		2010		2011		2012		2013		Total		Stopped	Withdrawn	In execution
	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.			
Palestinian Territories	11	0	3	0	1	0	1	1	1	1	17	2	0	0	2
Yemen	1	0	2	0	2	0	0	0	0	0	5	0	0	0	0
Total	**12**	**0**	**5**	**0**	**3**	**0**	**1**	**1**	**1**	**1**	**22**	**2**	**0**	**0**	**2**

Table 9g: number of projects proposed and selected by continent															
	2009		2010		2011		2012		2013		Total		Stopped	Withdrawn	In execution
	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.			
Africa	77	13	59	12	45	10	35	8	19	4	235	47	13	1	32
Asia	32	5	21	0	13	4	6	1	7	1	79	11	2	1	8
Central & Eastern Europe	66	0	24	3	14	4	5	0	3	1	112	8	1	2	6
Latin America	30	1	11	2	11	2	0	0	1	0	53	5	1	1	3
Middle East	12	0	5	0	3	0	1	1	1	1	22	2	0	0	2
Total	**217**	**19**	**120**	**17**	**86**	**20**	**47**	**10**	**31**	**7**	**501**	**73**	**17**	**5**	**51**

Table 9h: distribution of projects proposed and selected by continent															
	2009		2010		2011		2012		2013		Total		Stopped	Withdrawn	In execution
	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.			
Africa	35%	68%	49%	71%	52%	50%	74%	80%	61%	57%	47%	64%	76%	20%	63%
Asia	15%	26%	18%	0%	15%	20%	13%	10%	23%	14%	16%	15%	12%	20%	16%
Central & Eastern Europe	30%	0%	20%	18%	16%	20%	11%	0%	10%	14%	22%	11%	6%	40%	12%
Latin America	14%	5%	9%	12%	13%	10%	0%	0%	3%	0%	11%	7%	6%	20%	6%
Middle East	6%	0%	4%	0%	3%	0%	2%	10%	3%	14%	4%	3%	0%	0%	4%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 9i: Projects selected as % of number of projects submitted by continent															
	2009		2010		2011		2012		2013		Total		Stopped	Withdrawn	In execution
	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.	subm.	sel.			
Africa		17%		20%		22%		23%		21%		20%	28%	2%	70%
Asia		16%		0%		31%		17%		14%		14%	18%	9%	73%
Central & Eastern Europe		0%		13%		29%		0%		33%		7%	11%	22%	67%
Latin America		3%		18%		18%				0%		9%	20%	20%	60%
Middle East		0%		0%		0%		100%		100%		9%	0%	0%	100%
Total		9%		14%		23%		21%		23%		15%	23%	7%	70%

Table 10: Projects submitted, accepted and selected by sector and region

Table 10: Projects submitted, accepted and selected by sector and region												
	# Projects	Projects accepted	% accepted	Selected	Budget phase I (EUR)	Budget phase II (EUR)	Budget phase III (EUR)	Total Project budget (EUR)	Grant phase I (EUR)	Grant phase II (EUR)	Grant phase III (EUR)	Total Grant (EUR)
Civil works												
Africa	7	4	57%									
Asia	6	5	83%	1	606,315	18,000,000	760,000	19,366,315	606,315	8,945,000	180,000	9,731,315
Central & Eastern Europe	3	1	33%									
Latin America												
Middle East												
Total	**16**	**10**	**63%**	**1**	**606,315**	**18,000,000**	**760,000**	**19,366,315**	**606,315**	**8,945,000**	**180,000**	**9,731,315**
Communication												
Africa	2	1	50%									
Asia	1		0%									
Central & Eastern Europe	1		0%									
Latin America												
Middle East												
Total	**4**	**1**	**25%**		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Energy												
Africa	33	14	42%	3	1,829,720	49,900,290	18,467,360	70,197,370	1,829,720	24,950,145	5,728,680	32,508,545
Asia	10	0	0%									
Central & Eastern Europe	13	6	46%									
Latin America	5	4	80%									
Middle East	4	2	50%									
Total	**65**	**26**	**40%**	**3**	**1,829,720**	**49,900,290**	**18,467,360**	**70,197,370**	**1,829,720**	**24,950,145**	**5,728,680**	**32,508,545**

Table 10: Projects submitted, accepted and selected by sector and region, continued												
	# Projects	Projects accepted	% accepted	Selected	Budget phase I (EUR)	Budget phase II (EUR)	Budget phase III (EUR)	Total Project budget (EUR)	Grant phase I (EUR)	Grant phase II (EUR)	Grant phase III (EUR)	Total Grant (EUR)
Environment												
Africa	5	4	80%	1	447,450	5,445,727	2,019,811	7,912,988	447,450	4,356,582	1,615,849	6,419,880
Asia	5	5	100%									
Central & Eastern Europe	6	2	33%									
Latin America	1	1	100%									
Middle East	1	1	100%									
Total	**18**	**13**	**72%**	**1**	**447,450**	**5,445,727**	**2,019,811**	**7,912,988**	**447,450**	**4,356,582**	**1,615,849**	**6,419,880**
Social Services												
Africa	58	46	79%	13	7,617,752	211,906,504	140,954,355	360,478,611	7,367,752	98,058,900	28,423,883	133,850,535
Asia	6	5	83%									
Central & Eastern Europe	14	4	29%	1	974,500	16,333,000	350,000	17,657,500	487,250	5,716,550	122,500	6,326,300
Latin America	26	15	58%	4	3,822,062	53,059,145	77,650,427	134,531,634	2,330,018	18,570,701	27,177,649	48,078,368
Middle East	11	7	64%	1	445,000	7,700,000	15,627,000	23,772,000	445,000	6,160,000	1,800,000	8,405,000
Total	**115**	**77**	**67%**	**19**	**12,859,314**	**288,998,649**	**234,581,782**	**536,439,745**	**10,630,020**	**128,506,151**	**57,524,032**	**196,660,203**
Transport												
Africa	48	29	60%	8	4,893,871	214,647,787	45,309,143	264,850,801	3,372,796	99,137,634	19,390,067	121,900,497
Asia	8	6	75%	1	299,000	19,744,000	1,344,000	21,387,000	299,000	9,872,000	672,000	10,843,000
Central & Eastern Europe	18	7	39%	3	502,428	22,461,094	9,434,235	32,397,756	251,214	7,861,383	844,667	8,957,264
Latin America	8	2	25%									
Middle East	9	4	44%	1	450,000	28,950,000	2,830,000	32,230,000	150,000	23,160,000	2,264,000	25,574,000
Total	**91**	**48**	**53%**	**13**	**6,145,299**	**285,802,881**	**58,917,378**	**350,865,557**	**4,073,010**	**140,031,017**	**23,170,734**	**167,274,761**

Table 10: Projects submitted, accepted and selected by sector and region, continued												
	# Projects	Projects accepted	% accepted	Selected	Budget phase I (EUR)	Budget phase II (EUR)	Budget phase III (EUR)	Total Project budget (EUR)	Grant phase I (EUR)	Grant phase II (EUR)	Grant phase III (EUR)	Total Grant (EUR)
Water												
Africa	82	63	77%	22	28,553,306	598,351,317	91,269,512	718,174,135	20,176,450	268,173,706	26,923,572	315,273,728
Asia	33	23	70%	9	10,772,762	129,966,040	43,148,875	183,887,677	6,128,758	51,668,114	15,777,106	73,573,978
Central & Eastern Europe	57	29	51%	4	1,496,179	107,143,371	4,771,040	113,410,590	748,090	33,475,180	1,424,864	35,648,133
Latin America	13	6	46%	1	1,200,000	17,913,463	1,205,795	20,319,258	1,200,000	6,269,712	422,028	7,891,740
Middle East	7	4	57%									
Total	**192**	**125**	**65%**	**36**	**42,022,247**	**853,374,191**	**140,395,222**	**1,035,791,660**	**28,253,297**	**359,586,711**	**44,547,571**	**432,387,579**
Total												
Africa	235	161	69%	47	43,342,099	1,080,251,625	298,020,181	1,421,613,905	33,194,168	494,676,966	82,082,051	609,953,185
Asia	69	44	64%	11	11,678,077	167,710,040	45,252,875	224,640,992	7,034,073	70,485,114	16,629,106	94,148,293
Central & Eastern Europe	112	51	46%	8	2,973,107	145,937,465	14,555,275	163,465,846	1,486,553	47,053,113	2,392,031	50,931,697
Latin America	53	29	55%	5	5,022,062	70,972,608	78,856,222	154,850,892	3,530,018	24,840,413	27,599,678	55,970,108
Middle East	32	18	56%	2	895,000	36,650,000	18,457,000	56,002,000	595,000	29,320,000	4,064,000	33,979,000
Total	501	303	60%	73	63,910,345	1,501,521,738	455,141,553	2,020,573,635	45,839,811	666,375,605	132,766,866	844,982,283

Table 11: Projects submitted, accepted and selected by sector and region with support of private initiators

Table 11: Projects submitted, accepted and selected by sector and region with support of private initiators												
	# Projects	Projects accepted	% accepted	Selected	Budget phase I (EUR)	Budget phase II (EUR)	Budget phase III (EUR)	Total Project budget (EUR)	Grant phase I (EUR)	Grant phase II (EUR)	Grant phase III (EUR)	Total Grant (EUR)
Civil works												
Africa	5	3	60%									
Asia	5	5	100%	1	606,315	18,000,000	760,000	19,366,315	606,315	8,945,000	180,000	9,731,315
Central & Eastern Europe	1	1	100%									
Latin America												
Middle East												
Total	11	9	82%	1	606,315	18,000,000	760,000	19,366,315	606,315	8,945,000	180,000	9,731,315
Communication												
Africa												
Asia												
Central & Eastern Europe												
Latin America												
Middle East												
Total	0	0		0	0	0	0	0	0	0	0	0
Energy												
Africa	17	11	65%	3	1,829,720	49,900,290	18,467,360	70,197,370	1,829,720	24,950,145	5,728,680	32,508,545
Asia	1	0	0%									
Central & Eastern Europe	0	0	50%									
Latin America	4	4	100%									
Middle East	2	1	50%									
Total	24	16	63%	3	1,829,720	49,900,290	18,467,360	70,197,370	1,829,720	24,950,145	5,728,680	32,508,545

Table 11: Projects submitted, accepted and selected by sector and region with support of private initiators, continued												
	# Projects	Projects accepted	% accepted	Selected	Budget phase I (EUR)	Budget phase II (EUR)	Budget phase III (EUR)	Total Project budget (EUR)	Grant phase I (EUR)	Grant phase II (EUR)	Grant phase III (EUR)	Total Grant (EUR)
Environment												
Africa	5	4	80%	1	447,450	5,445,727	2,019,811	7,912,988	447,450	4,356,582	1,615,849	6,419,880
Asia	4	4	100%									
Central & Eastern Europe			100%									
Latin America	1	1	100%									
Middle East												
Total	10	9	91%	1	447,450	5,445,727	2,019,811	7,912,988	447,450	4,356,582	1,615,849	6,419,880
Social Services												
Africa	40	33	83%	10	5,255,318	168,406,004	124,799,305	298,460,627	5,005,318	79,458,650	21,388,858	105,852,826
Asia	3	3	100%									
Central & Eastern Europe	0											
Latin America	8	6	64%	2	837,973	21,333,973	45,141,665	67,313,611	837,973	7,466,891	15,799,583	24,104,446
Middle East	5	2	40%	1	445,000	7,700,000	15,627,000	23,772,000	445,000	6,160,000	1,800,000	8,405,000
Total	56	44	77%	13	6,538,291	197,439,977	185,567,970	389,546,238	6,288,291	93,085,541	38,988,441	138,362,272
Transport												
Africa	20	14	67%	6	4,360,871	170,047,787	41,909,143	216,317,801	2,839,796	81,937,634	17,690,067	102,467,497
Asia	4	4	100%									
Central & Eastern Europe	2	2	100%	0	156,228	10,977,094	2,413,335	13,546,656	78,114	3,841,983	844,667	4,764,764
Latin America	1	1	100%									
Middle East	1	1	100%	1	450,000	28,950,000	2,830,000	32,230,000	150,000	23,160,000	2,264,000	25,574,000
Total	28	22	78%	7	4,967,099	209,974,881	47,152,478	262,094,457	3,067,910	108,939,617	20,798,734	132,806,261

Table 11: Projects submitted, accepted and selected by sector and region with support of private initiators, continued												
	# Projects	Projects accepted	% accepted	Selected	Budget phase I (EUR)	Budget phase II (EUR)	Budget phase III (EUR)	Total Project budget (EUR)	Grant phase I (EUR)	Grant phase II (EUR)	Grant phase III (EUR)	Total Grant (EUR)
Water												
Africa	57	53	90%	19	25,902,306	537,190,317	83,332,512	646,425,135	17,847,950	242,093,206	24,005,072	283,946,228
Asia	15	11	76%	4	2,012,885	59,581,795	14,492,601	76,087,281	1,006,443	20,853,628	5,072,410	26,932,481
Central & Eastern Europe	3	2	85%	1	1,066,179	84,562,371	4,071,040	89,699,590	533,090	25,571,830	1,424,864	27,529,783
Latin America	2	2	100%	1	1,200,000	17,913,463	1,205,795	20,319,258	1,200,000	6,269,712	422,028	7,891,740
Middle East	1	1	67%									
Total	78	69	86%	25	30,181,370	699,247,946	103,101,948	832,531,264	20,587,482	294,788,376	30,924,375	346,300,233
Total												
Africa	144	118	81%	39	37,795,665	930,990,125	270,528,131	1,239,313,921	27,970,234	432,796,216	70,428,526	531,194,976
Asia	32	27	83%	5	2,619,200	77,581,795	15,252,601	95,453,596	1,612,758	29,798,628	5,252,410	36,663,796
Central & Eastern Europe	6	5	86%	1	1,222,407	95,539,465	6,484,375	103,246,246	611,203	29,413,813	2,269,531	32,294,547
Latin America	16	14	80%	3	2,037,973	39,247,436	46,347,460	87,632,869	2,037,973	13,736,603	16,221,611	31,996,187
Middle East	9	5	55%	2	895,000	36,650,000	18,457,000	56,002,000	595,000	29,320,000	4,064,000	33,979,000
Total	207	169	80%	50	44,570,245	1,180,008,821	357,069,567	1,581,648,632	32,827,168	535,065,259	98,236,079	666,128,506

Annex 8: Comments by Prof. dr Ruerd Ruben

COMMENT – Final Report ORIO Evaluation **prof dr. Ruerd Ruben**

The evaluation study of the Dutch ORIO program has been conducted in line with professional standards and the conclusions are based on diverse sources of information. Notwithstanding my general appreciation for the quality and analytics of the report, I would like to make three specific remarks concerning issues where I maintain a different appreciation.

1. Cost-effectiveness

The report only looks at cost effectiveness of the executing organization (section 6.4), but pays little attention to the investments per (potential) user at project level. This issue deserves more attention since it provides critical insights in the width of coverage of infrastructure investments.

It remains unclear how many final beneficiaries are (intended to be) reached with different ORIO projects and what are the investment costs per final client. In a similar vein, further disaggregation of clients by gender and income/wealth would be required to assess whether ORIO responds to the needs of local stakeholders and to judge how far ORIO's poverty targeting criterion ('beneficial for the poorest segments of the population') has been fulfilled. This is also important information that can benchmarked against other comparable investment funds (operated by IBRD/IFC, EIF or FMO) in order to assess the comparative (dis)advantage of RVO/ORIO.

2. Effectiveness and (potential) Impact

The effectiveness and impact of the ORIO program at project level has been assessed in two ways: (a) through 4 case studies based on short field visits and institutional interviews , and (b) with 6 long-term impact studies based on before/after comparison at beneficiary level. At the time of publication, only 3 impact studies have been concluded, but their results are robust and deserve to be considered as the most reliable information regarding ORIO project performance.

The impact studies are based on large scale representative surveys (using treatment and control groups before and after project implementation) that provide robust information on the effectiveness of the ORIO projects and deserve to be considered as the highest quality source of information. Unfortunately, all three fully concluded impact studies report low relevance and cannot register positive impact:

- The Rural electrification project (Tanzania) shows that most rural households prefer solar panels instead of grid connections. Moreover, reliability of supply remains limited and a anti-poor delivery bias is registered. While the evaluation report states that ''the project did not fully meet the objectives'(p. 47) it would be more precise to conclude that the project has been too much supply-side oriented and is not sufficiently aligned with development policies and strategies (EUR/RWI Impact Report, p. x).
- The eThekwini WASH project (South Africa) cannot find significant health effects from the water and sanitation interventions. Moreover, the sustainability of the project is considered questionable (PWC/AIID Impact Report p. 8/9). Only half of the number of intended clients are reached and clients express high uncertainty with respect to their housing settlements. The effectiveness score of 3 out of 5 (in Table 7.2 of final evaluation report) seems not justified.

- The Ba Ria Vung Tau water treatment plants (Vietnam) could not register significant health or time-saving effects. The PWC/AIGHD impact reports (p. 9-10) concludes that improvements in water supply are limited and that additionality is particularly low. This is mainly due to the fact that a rather prosperous province has been selected and the control group already have good access to safe drinking water. Also in this case, the score of 3 out of 5 (Table 7.2) is far too high.

A further reflection on the deficiencies of these ORIO projects is required. It is likely that ORIO projects could not deliver the expect results because of three types of selection and/or implementation failures:

a) Technology bias: the output of the investment program did not consider sufficiently the change in demands from final users;
b) Hardware bias: the output of the investment project focussed too much on delivery of products without considering required behavioural changes from potential users;
c) Welfare bias: several ORIO projects are launched in relative prosperous regions and focus on more wealthy clients.

3. Lessons for Theory of Change

Based on the observations in the final evaluation report and given the size and importance of the ORIO programme for the Dutch aid & trade agenda, it can be important to engage into some further stocktaking for the design and operation of future infrastructure development programs.

In addition to the conclusions and lessons learnt outlined by the evaluation team (section 11), some other issues deserve to be outlined that may be helpful to review and/or redefine the underlying Theory of Change (or Logic) of the ORIO program (see Annex 3).

There are three issues that deserve further consideration:

a) Public investment programs are likely to generate higher net welfare effects and greater additionality if implemented in **poorer regions** and when supportive to poorer categories of households. Currently only half of the ORIO portfolio is executed in low income countries. This may be due to better articulated demand in middle income countries or can be rated to more intensive trade linkages with the latter category of countries. It is recommended to include more precise ex-ante analysis of potential beneficiaries into the ORIO ToC.
b) The execution of ORIO projects is at higher risk in settings where **governance** is not sufficiently guaranteed. This refers both to governance in the project environment, but also to the internal governance structure for project execution. ORIO projects tend to focus more on the hardware side of infrastructure (capital goods) but may disregard the importance of soft infrastructure (i.e. local participation in governance). Governance should be part of the activities and the envisaged outputs in the ToC.
c) Learning from the ORIO program remains limited, partly due to the short lifetime of the program but also because almost no **real-time evaluation** has been included. Feedback from lessons and experiences during the execution of the ORIO program is scarcely available and therefore limited adjustment in the ToC can be made in the course of the program.