



# Towards Modern Assessment Policies and Practices in Croatia

Project MAT09/HR/8/7



## Project Completion Report January 2011

Cito, Institute for Educational Measurement  
The Netherlands



# Contents

<b>1</b>	<b>INTRODUCTION</b> .....	<b>3</b>
<b>2</b>	<b>PROJECT RESULTS</b> .....	<b>4</b>
2.1	OVERVIEW OF ENVISIONED AND ACHIEVED RESULTS .....	4
2.2	SUMMARY OF EVALUATION WITH BENEFICIARY AND COUNTERPART .....	4
<b>3</b>	<b>PROJECT ACTIVITIES</b> .....	<b>6</b>
3.1	OVERVIEW OF ENVISIONED AND IMPLEMENTED PROJECT ACTIVITIES .....	6
3.1.1	<i>Fact-finding Mission</i> .....	6
3.1.2	<i>Long-distance assistance</i> .....	6
3.1.3	<i>Two five-day working visits to Zagreb</i> .....	7
3.1.4	<i>Study Visit to the Netherlands</i> .....	8
3.2	SUMMARY OF EVALUATION WITH BENEFICIARY AND COUNTERPART .....	9
3.2.1	<i>Working visits to Zagreb</i> .....	9
3.2.2	<i>Study Visit to the Netherlands</i> .....	9
<b>4</b>	<b>COOPERATION BETWEEN IMPLEMENTING TEAM AND BENEFICIARY/COUNTERPART</b> .....	<b>10</b>
4.1	SUMMARY OF EVALUATION WITH BENEFICIARY AND COUNTERPART .....	10
4.2	ADDITIONAL REMARKS FROM IMPLEMENTING TEAM .....	10
<b>5</b>	<b>PROGRAMME OBJECTIVES</b> .....	<b>10</b>
5.1	SUMMARY OF EVALUATION WITH BENEFICIARY AND COUNTERPART .....	10
5.2	ADDITIONAL REMARKS FROM IMPLEMENTING TEAM .....	11
<b>6</b>	<b>PROJECT EFFECT AND SUSTAINABILITY</b> .....	<b>11</b>
6.1	SUMMARY OF EVALUATION WITH BENEFICIARY AND COUNTERPART .....	11
6.2	ADDITIONAL REMARKS FROM IMPLEMENTING TEAM .....	11
<b>7</b>	<b>IMPORTANT DEVELOPMENTS</b> .....	<b>12</b>
7.1	SUMMARY OF EVALUATION WITH BENEFICIARY AND COUNTERPART .....	12
<b>8</b>	<b>FOLLOW-UP AND RECOMMENDATIONS</b> .....	<b>12</b>
8.1	SUMMARY OF EVALUATION WITH BENEFICIARY AND COUNTERPART .....	12
8.2	ADDITIONAL REMARKS FROM IMPLEMENTING TEAM .....	12
<b>9</b>	<b>PUBLICATION TEXT IN DUTCH AND ENGLISH</b> .....	<b>12</b>
9.1	VERSION IN ENGLISH .....	12
9.2	VERSIE IN HET NEDERLANDS .....	13

## 1 Introduction

Croatia has implemented an extensive Education Modernization Process in which the national curriculum has been completely revised, new final examinations have been implemented and new systems of monitoring educational progress have been put into place, among many other things. Both in the case of low-stakes monitoring systems and in the case of high-stakes implications of examinations, stakeholders - students and their parents, teachers and principals, and the universities - are much concerned about these new developments.

Cito, the Dutch Institute for Educational Measurement has been invited by the EVD, the agency responsible for international business and cooperation within the Dutch Ministry of Economic Affairs, to carry out a project to support the Croatian National Centre for External Evaluation of Education (NCEEE) in strengthening its capacity to achieve error-free, objective and dependable administration of the external evaluation of education.

The beneficiary in this project is the Croatian Ministry of Science, Education and Sports. The counterpart is the NCEEE. The project has been monitored by the Dutch Embassy in Zagreb.

This Project Completion Report describes the results and the accompanying activities undertaken by NCEEE and Cito in the context of this project. A more detailed, technical report has also been published. In the latter report activities, conclusions and recommendations on specific assessment issues are reported upon.

The counterpart, the beneficiary and the consultant look back on a most successful project that has created opportunities for successful National Assessment in the service of the economic development of Croatia as a future member of the European Union.

## 2 Project Results

### 2.1 Overview of envisioned and achieved results

For the project two main results have been formulated.

#### *Result 1*

- An evaluation of the first National Assessment has been carried out for Grade 2 in Gymnasium with a view to improving its content and its procedure.
- Revised procedures for the administration of National Assessment in Primary Education have been produced and implemented

#### *Result 2*

- Stakeholders are made aware of (improvements in) National Assessment procedures;
- Strong links are established between the Centre and the Ministry of Science, Education and Sports;
- A procedural relationship is established between curriculum development and assessment data.

### 2.2 Summary of evaluation with beneficiary and counterpart

The project has been successful in achieving all its aims as defined in Results 1 and 2. The NCEEE has increased its capacity and skills for the development of adequate tests and testing procedures. Furthermore, the NCEEE and the Ministry of Science, Education and Sports have now joined hands in developing strategies for continuous improvements on the basis of the outcomes of assessments. Besides capacity building and training, this has meant revising the strategy and focus of external assessments, applying current European insights in the education field.

In the project Cito, the Dutch National Institute for Educational Measurement has been active in supporting the NCEEE in strengthening its capacity in educational assessment knowledge and skills through a capacity building program, including training of the NCEEE staff and external experts, and through assistance with the development of future strategy for the implementation of external assessment, including recommendations for improvement.

Both the NCEEE and Cito look back on a most successful project that has created opportunities for successful National Assessment and external assessment in general in the service of the economic development of Croatia as a future member of the European Union. The NCEEE can play an important role in the certification of the skills acquired through non-formal education and of previously acquired competences. Both the Ministry and the Chamber of Commerce are prepared to contribute to this certification process.

#### *Specific suggestions from NCEEE*

During their study visit to the Netherlands the NCEEE also made suggestions for future collaboration with Cito. The main points follow below.

- Future collaboration brings new possibilities for consultancy in specific areas such as instruction on software for test construction developed by Cito and joined work in regional development.

- In the near future one-to-one consultancy will be needed with an emphasis on psychometric work. Therefore it was proposed that NCEEE psychometric team could join Cito to further develop competencies which are established in prior projects

## 3 Project Activities

The Project Proposal lists a number of (non-exhaustive) activities. We will list the agreed-upon activities for Results 1 and 2 together as in practice many of these activities have contributed to *both* results.

### 3.1 Overview of envisioned and implemented project activities

#### 3.1.1 Fact-finding Mission

During the fact-finding mission (23-25 February 2010) two Cito staff members discussed the project proposal in detail with the NCEEE and asked the NCEEE for specific wishes and comments on the proposed activities and the timeline proposed. These talks have resulted in detailed plans for the various visits. The Cito staff members also had talks with a staff member of the Dutch Embassy, who emphasized the need for close cooperation with the Croatian Ministry of Education, Science and Sports.

The Fact-finding Mission has resulted in a detailed inception report published in March 2010 and sent to the Counterpart, the Beneficiary, the Dutch Embassy and the (then) EVD. The contents and the training programmes of the working were included in more detail than in the project proposal.

#### 3.1.2 Long-distance assistance

In order to achieve the project results the Cito staff members have worked closely together with the NCEEE staff on analysing data, drafting proposals, providing advice on day-to-day issues in external assessment and preparing the planned activities through long-distance contacts. A secure website was created to exchange confidential materials.

After the Fact-finding Mission and between consultancy visits 1 and 2, the NCEEE has been in very regular contact with the Counterpart. In these contacts the Cito staff members have helped prepare, discussed and evaluated a great number of topics such as those that the Project Proposal lists:

- Analysis of administration procedures;
- Analysis of data/results;
- General analysis and advice;
- Drafting revised procedures;
- Preparing for discussions with Centre staff
- Preparing for discussions with other stakeholders (such as the Dutch Embassy, the Ministry);
- Drafting revised procedures;.
- Reviewing draft procedures in the light of stakeholder comments

These regular contacts have resulted in two draft revised documents (1) *The Strategic Plan for the Implementation of National Assessment: Standards, Guidelines, Procedures* and (2) *The General Communications Plan*. The draft revised documents were subsequently discussed during the first working visit and then finalised.

### 3.1.3 Two five-day working visits to Zagreb

Two five-day working visits were carried out in the following periods: 7-11 June 2010 and 29 November – 3 December, 2010. During these two working visits the Cito experts together with the staff of the NCEEE have worked on the evaluation of the first (2009) National Assessment. Discussion groups on National Assessment were organised with NCEEE staff and other stakeholders.

The Cito experts closely cooperated with their counterparts in the NCEEE responsible for managerial and policy issues, psychometric topics, questionnaire issues, mother tongue topics and mathematics issues. Training on the organisation of stakeholder participation and on dissemination of information have resulted in a General Communications Plan that reflects an optimal communications situation with all stakeholders, the general republic and the authorities, including the Ministry of Science, Education and Sports. Relations with the group that has developed the new curriculum has also been included in the document.

#### *Technical assessment topics*

During the two working visits a great many topics have been discussed; a selection of these follows below. The reader is referred to the parallel Final Content Report for more specialist details. Topics included:

- setting up an item bank – relationship between item writers and item bank manager
- preparing for a database to be able to measure trends
- questionnaire development, questionnaire framework, SES issues
- equation of tests
- analysis of administration procedures
- analysis of data/results
- relationship test design and sampling
- sampling issues
- quality assurance (of the educational system): links with the Ministerial Department
- communicating findings to stakeholders
- differentiating between National Assessment and Matura
- regional cooperation

#### *Links between the NCEEE and the Ministry of Science, Education and Sports*

The Director of NCEEE and Mr Noijons from Cito visited Ms Monika Vričko who is head of the Quality Assurance Department in the Ministry of Science, Education and Sports. The department is responsible for external examinations and surveys and uses the data gathered in such tests for quality control and improvement at school and national level. The Ministry is particularly interested in data on the performance in VET schools and the comparison with Gymnasium. Ms Vričko would welcome national assessment in that area.

NCEEE Director Mr Goran Sirovatka, Ms Jasmina Muraja, NCEEE Project Coordinator, and Mr Noijons from Cito paid a visit to Dr Dijana Vican, State Secretary of Science, Education and Sports. Dr Dijana Vican also emphasized the importance of the present project, and in particular its relevance to curriculum development. The foundation of the NCEEE was a first step in this development

#### *Procedural relationships between curriculum development and assessment data*

Dr Dijana Vican, State Secretary of Science, Education and Sports mentioned that a new National Curriculum Framework (NCF) was published at the end of June 2010. A translation in English has

become available in the autumn of 2010. The State Secretary hopes that during the second visit of the consultants the relationship between the NCF and NA can be further discussed.

Dr Dijana Vican would like NA to focus on the subjects of Croatian Language, Mathematics and Natural Sciences as these, among others, have shown to need better monitoring. The country should try and adopt modern methods of teaching and train present and future teachers in applying these methods. The universities play an important role in this as they are responsible for teacher training. The NCEEE should be careful in approaching the (independent) universities in explaining the results of NA.

The Department for Quality Assurance needs to play an important role in making this happen. The State Secretary has expressed the wish that in all these developments other agencies and departments, such as VET and Teacher Training cooperate.

#### *Final Conference*

During the second working visit to Zagreb, on 30 November 2010, a conference was organised to present the new agreed upon procedures to a broader audience. The title of the conference was *National Assessment: towards evidence-based changes in Croatian education. Meeting the challenges of economic development*. The conference was attended by over one hundred participants representing a great many different stakeholders, such the Croatian Parliament, the Dutch Embassy, the Ministry of Science, Education and Sports, the Ministry of Economic Affairs and Labour, various Governmental Councils, the Chamber of Commerce, various universities, teacher associations and unions, the teacher-training agency and the agency for vocational education and others. A full report of the conference is included in the parallel Final Content Report.

#### **3.1.4 Study Visit to the Netherlands**

The study visit to the Netherlands by five NCEEE staff members took place 4-8 November 2010. The aim of the study visit was for the counterpart to acquaint themselves with the following topics:

- The Dutch education system and its institutions
- The Dutch system of administration of external assessment and monitoring of educational progress
- Technical and content issues in the administration of large scale assessment;
- Analysis of data: state-of-the-art psychometric techniques.

Participants were:

- Goran Sirovatka, director NCEEE
- Jasmina Muraja, PhD - Head of Department for Quality assurance (project coordinator)
- Sanja Fulgosi, PhD – senior adviser at Department for Quality assurance (mother tongue specialist)
- Zlatko Zadelj – senior adviser at Department for Test Organisation and Conduction (mathematic specialist)
- Josip Šabić – expert adviser at Department for Research and Development (data analysis and psychometrics)

The study visit included visits to Cito, to the Examination Commission (College voor Examens) in Utrecht and the Ministry of Education, Culture and Sciences in The Hague. A full report of this study visit is included in Annex A to the parallel Final Content Report.

## **3.2 Summary of evaluation with beneficiary and counterpart**

### **3.2.1 Working visits to Zagreb**

The Cito experts closely cooperated with their counterparts in the NCEEE responsible for language issues, mathematics issues, questionnaire issues, psychometric issues, and managerial and policy issues. In order to achieve the project results and prepare for the working visits the Cito staff members have also worked closely together with the NCEEE staff by means of long-distance contacts through various means to make the exchange of larger documents possible.

The various subject groups studied the revised draft document on Standards, Guidelines and Procedures in great detail. The general impression has been that the document now does reflect what is needed in carrying out NA in Croatia.

### **3.2.2 Study Visit to the Netherlands**

An evaluation of the study visit was made through a questionnaire. The participants clearly expressed their satisfaction with the content of the programme and the presentations, as well as with the performance of Cito experts throughout the five-day study visit. Most of the issues were relevant to the project, but also to the present situation and the future plans at NCEEE. Although the programme was prepared months ago there was a flexibility to accommodate new questions and themes that were raised in the course of the project, but also on the spot.

## **4 Cooperation between implementing team and beneficiary/counterpart**

### **4.1 Summary of evaluation with beneficiary and counterpart**

Ms Monika Vričko, head of the Quality Assurance Department in the Ministry of Science, Education and Sports has emphasized the importance of the project and has welcomed the cooperation between NCEEE and Cito. Likewise, Dr Dijana Vican, State Secretary of Science, Education and Sports has emphasized the importance of the present project, and in particular its relevance to curriculum development. The foundation of the NCEEE was a first step in this development.

Throughout the project, the staff of the NCEEE have expressed their great satisfaction about the cooperation with Cito. An example from the evaluation of the Study Visit may illustrate this. *Although the programme was prepared months ago there was a flexibility to accommodate new questions and themes that were raised in the course of the project, but also on the spot.*

### **4.2 Additional Remarks from implementing team**

During their study visit to the Netherlands the NCEEE also made suggestions for future collaboration with Cito. The main points follow below.

- Future collaboration brings new possibilities for consultancy in specific areas such as instruction on software for test construction developed by Cito and joined work in regional development.
- In the near future one-to-one consultancy will be needed with an emphasis on psychometric work. Therefore it was proposed that NCEEE psychometric team could join Cito to further develop competencies which are established in prior projects.

Cito would welcome the above cooperation. NCEEE is a young institute that has shown it can handle most of the issues in National Assessment. However, especially in the area of psychometrics, sampling and questionnaire development the development of more expertise would enable the NCEEE to carry out its present and future tasks even better.

## **5 Programme objectives**

### **5.1 Summary of evaluation with beneficiary and counterpart**

#### *Bilateral Public Relations*

Both in the Netherlands and in Croatia stakeholders are aware that these countries have competent assessment institutes. During the Final Conference many (Croatian) speakers have welcomed the cooperation between the Netherlands and Croatia. This element has also been emphasized in the speech by the representative of the Dutch Embassy.

New contacts have been established between the NCEEE and the Dutch Ministry of Education, Culture and Sciences and with the Dutch Examinations Commission (*College voor Examens*). The existing relations between Cito and NCEEE have become stronger than ever. The NCEEE will try to find funds to continue its cooperation with Cito.

The Dutch embassy has closely monitored the progress in this project. There have been two meetings with a representative of the Embassy during which helpful advice was given on how to approach certain assessment issues. A representative of the Dutch Embassy gave a speech at the Final Conference, emphasizing the need for valid, relevant and reliable assessment. As was mentioned above, Cito and NCEEE hope to find funds to continue their cooperation.

#### *EU*

As was emphasized during the final conference a number of times, the project has created opportunities for successful National Assessment in the service of the economic development of Croatia as a future member of the European Union. Also, both within Croatia and within the EU the notion that Croatian national assessment procedures are valid and reliable has gained ground.

## **5.2 Additional Remarks from implementing team**

Cito has much appreciated working with NCEEE and has been particularly impressed by the way the NCEEE has reached out to stakeholders. NCEEE now enjoys a public position that is comparable to that of Cito in the Netherlands. The institute is well-known and respected for its expertise.

# **6 Project Effect and sustainability**

## **6.1 Summary of evaluation with beneficiary and counterpart**

#### *The effect of the Project*

More than before, stakeholders in Croatia are aware of the existence of the NCEEE and through it of the need for valid and reliable assessment. Croatia has gone through some major changes in the examination system. It looks as if all stakeholders have accepted these changes as necessary. The project has contributed to this by developing manuals to safeguard proper assessment procedures and correct communication with stakeholders. The Ministry of Science, Education and Sports also now recognizes the importance of close cooperation between curriculum development and test development. Thus the overall purpose of the project *Towards Modern Assessment Policies and Practices in Croatia* has clearly been met.

#### *Sustainability of the Project*

The NCEEE has been firmly established within the Ministry of Science, Education and Sports and has been allowed to expand, be it less than the Consultant would think necessary. The NCEEE is now regarded by all stakeholders as the central authority to advise and decide on assessment procedures and to be responsible for the administration of tests and examinations. The project has helped the NCEEE to gain this position of authority.

## **6.2 Additional Remarks from implementing team**

The Consultant looks back on a fruitful and very pleasant cooperation with NCEEE. Cito has been impressed by NCEEE staff members' willingness to adopt new ideas and their efforts to carry these out within a short period of time.

## **7 Important Developments**

### **7.1 Summary of evaluation with beneficiary and counterpart**

In the course of the preparations of the Project Croatia has been officially accepted as candidate member of the EU. This has made the project all the more relevant, as EU membership would require Croatia to have a valid and reliable examination system in place. It is the Consultant's firm opinion that Croatia already meets EU requirements in the area of assessment.

## **8 Follow-up and recommendations**

### **8.1 Summary of evaluation with beneficiary and counterpart**

- During the consultancy period the number of NCEEE staff has been increased, yet it would seem that for the various tasks that the NCEEE has to carry out, there is still a need for more staff members, certainly in the area of Public Relations, Communication and Human Resource Management. It would be very useful to have job descriptions for all staff members.
- The NCEEE will need to further develop its management structures, with special emphasis on Public Relations, Human Resource Management and Time Planning. Consultancy on these issues would be most welcome.
- It would seem that future funding will have to come from the EU, rather than from the Netherlands. There are a number of EU programmes which the work of the NCEEE relates to. Such programmes focus on:
  - Promotion of Equity
  - Fight against Corruption
  - Regional Development
  - Education of Roma People

### **8.2 Additional Remarks from implementing team**

The NCEEE is strongly advised to contact the EU bureau in Zagreb to discuss the possibility of joining some of the above programmes. The Cito project director has promised his help in addressing these issues.

## **9 Publication text in Dutch and English**

### **9.1 Version in English**

#### **Modernization of Tests and Examinations in Croatia**

Cito, the Dutch Institute for Educational Measurement has carried out a project to support the Croatian National Centre for External Evaluation of Education (NCEEE) in strengthening its capacity to administer relevant and objective test and exams.

The project has been funded by the Dutch Government. The beneficiary is the Croatian Ministry of Science, Education and Sports. The project was facilitated by the Dutch governmental agency *Agentschap NL* with strong support from the Dutch Embassy in Zagreb.

#### *Modernization of Education*

Croatia has implemented an extensive Education Modernization Process. The national curriculum has been completely revised and new final examinations have been introduced. Also, new systems of monitoring educational progress have been put into place. Both in the case of low-stakes monitoring systems and in the case of high-stakes examinations, stakeholders - students and their parents, teachers and principals, and the universities - are much concerned about these new developments.

#### *The effect of the Project*

More than before, stakeholders in Croatia are aware of the existence of the NCEEE and through it of the need for valid and reliable assessment. It looks as if all stakeholders have accepted these changes as necessary. The project has contributed to this by developing manuals to safeguard proper assessment procedures and correct communication with stakeholders. The Croatian Ministry of Science, Education and Sports recognizes the importance of close cooperation between curriculum development and test development..

The overall purpose of the project to contribute to the modernization of Croatian Education has clearly been met. The NCEEE has been firmly established within the Ministry of Science, Education and Sports and has been allowed to expand. The NCEEE is now regarded by all stakeholders as the central authority to advise and decide on assessment procedures and to be responsible for the administration of tests and examinations. The project has helped the NCEEE to gain this position of authority.

#### *Further cooperation*

There are a number of EU programmes which the work of the NCEEE relates to. Such programmes focus on the *Promotion of Equity, the Fight against Corruption, Regional Development and the Education of Roma People*. It is hoped that the cooperation between Cito and NCEEE can be continued within this the context of these EU programmes.

## **9.2 Versie in het Nederlands**

### **Modernisering van toetsen en examens in Kroatië**

Cito, het Nederlandse instituut voor toetsontwikkeling, heeft een project in Kroatië uitgevoerd dat tot doel had om de relevante en objectieve toetsen en examens te ontwikkelen. Cito werkte daarbij samen met het Kroatische Nationale Centrum voor de Externe Evaluatie van het Onderwijs.

Het project werd gefinancierd door de Nederlandse overheid. De begunstigde was het Kroatische Ministerie van Wetenschap, Onderwijs en Sport. Het project werd gefaciliteerd door het Agentschap NL en begeleid door de Nederlandse Ambassade in Zagreb.

#### *Modernisering van het onderwijs*

Kroatië heeft een uitgebreid moderniseringsproces van het onderwijs doorgemaakt. Het nationale curriculum is geheel gereviseerd en nieuwe eindexamens zijn ingevoerd. Daarnaast zijn er nieuwe

systemen ingevoerd om het succes van onderwijshervormingen te monitoren. In al deze gevallen hebben belanghebbenden - ouders en leerlingen, docenten en schooldirecteuren en ook de universiteiten - hun bezorgdheid over deze ontwikkelingen uitgesproken.

#### *Het effect van het project*

Door de projectactiviteiten zijn de verschillende belanghebbenden bij de modernisering van het onderwijs zich nu meer dan ooit bewust van het bestaan van het Kroatische Nationale Centrum voor de Externe Evaluatie van het Onderwijs. Belanghebbenden lijken de veranderingen te hebben geaccepteerd. Het project heeft aan deze acceptatie bijgedragen door handleidingen te produceren die een correcte afname van toetsen en examens garanderen. Ook is aandacht besteed aan de wijze waarop met belanghebbenden dient te worden gecommuniceerd. Het Kroatische Ministerie van Wetenschap, Onderwijs en Sport erkent nu het belang van een nauwe samenwerking tussen curriculumontwikkelaars en toetsdeskundigen.

De algemene doelstelling om bij te dragen aan de modernisering van het Kroatische onderwijs is gehaald. Het Kroatische Nationale Centrum voor de Externe Evaluatie van het Onderwijs heeft een duidelijke rol binnen het Kroatische Ministerie van Wetenschap, Onderwijs en Sport en is gestaag uitgebreid. Het Centrum wordt nu door alle belanghebbenden beschouwd als de centrale autoriteit op het gebied van toetsontwikkeling en toetsafname. Het project heeft hier nadrukkelijk toe bijgedragen.

#### *Verdere samenwerking*

Er is een aantal EU-programma's dat gerelateerd is aan het werk van het Kroatische examencentrum. Daarbij valt te denken aan programma's die betrekking hebben op het *scheppen van gelijke kansen in het onderwijs, de strijd tegen corruptie, de ontwikkeling van regio's en het onderwijs aan Roma*. Het valt te hopen dat de samenwerking tussen Cito en het Kroatische examencentrum in de context van de bestaande EU-programma's kan worden voortgezet.