Document of
The World Bank

Report No: ICR2502

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(IBRD-73600 TF-56498 TF-90845)

ON A

LOAN
IN THE AMOUNT OF EURO 25.5 MILLION
(US$ 30.14 MILLION EQUIVALENT)

AND A

GLOBAL ENVIRONMENT FACILITY GRANT
IN THE AMOUNT OF US$ 5.00 MILLION

TO THE

REPUBLIC OF CROATIA

FOR AN

AGRICULTURAL ACQUIS COHESION PROJECT AND

AGRICULTURAL POLLUTION CONTROL PROJECT

January 29, 2013

Environmentally and Socially Sustainable Development Sector Unit
South East Europe Country Unit
Europe and Central Asia

CURRENCY EQUIVALENTS

(Exchange Rate Effective January 09, 2013)

Currency Unit = Croatian Kuna (HRK)
HRK 5.79954 = US$ 1.00
EUR .76923 = US$ 1.00

FISCAL YEAR
January 1 to December 31

ABBREVIATIONS AND ACRONYMS

AIC	Agricultural Information Center	MAFWM	Ministry of Agriculture, Forestry and Water Management
CAEI	Croatian Agricultural Extension Institute	MC	Monitoring Committee (SAPARD)
CAP	Common Agricultural Policy	M&E	Monitoring and Evaluation
CARDS	Community Assistance for Reconstruction, Development and Stabilization	MoF	Ministry of Finance
CEEC	Central and Eastern European Countries	MoHSW	Ministry of Health and Social Welfare
CFA	Croatia Food Agency	MFI	Micro-Finance Institution
CISS	Croatian Institute for Seeds and Seedlings	MIS	Management Information System
CSREP	Croatia Social and Economic Recovery Program	NARDP	National Agricultural and Rural Development Plan
DHRGA	Department of Human Resources and General Affairs (MAFWM)	NBC	National Bank of Croatia
DMSS	Directorate of Marketing and Structural Support (MAFWM)	NUTS	Nomenclature of Territorial Units for Statistics
DPEUIC	Department for Policy, European Union and International Cooperation (MAFWM)	PA	Payment Agency
DSDRA	Department of Sustainable Development of Rural Areas (MAFWM)	PAL	Programmatic Adjustment Loan
EC	European Commission	PCFG	Post-conflict Fund Grant
EU	European Union	PIU	Project Implementation Unit
FADN	Farm Accountancy Data Network	PPF	Project Preparation Facility
FDI	Foreign Direct Investment	PFI	Participating Financial Institutions
FMR	Financial Management Report	PN	Payment Note
FSC	Facility Steering Committee	PPI	Plant Protection Institute
FSSP	Farmer Support Services Project	PSC	Project Steering Committee
HAMAG	Croatian Agency for SME Development	PY	Project Year
GIS	Geographic Information System	SAPARD	Special Accession Program for Agriculture & Rural Development
GMO	Genetically Modified Organism	SERP	Social and Economic Recovery Program
GoC	Government of Croatia	SME	Small and Medium Enterprise

HACCP	Hazard Analysis and Critical Control Point Analysis	SWAp	Sector Wide Approach
IACS	Integrated Administration and Control System	TAL	Technical Assistance Loan
IPA	Instrument for Pre-Accession Assistance	TISSUP	MAFWM Market Information Center
IPARD	Instrument for Pre-Accession Assistance for Rural Development	USAID	United States Agency for International Development
ISTA	International Seed Testing Association	VD	Veterinary Directorate (MAFWM)
IT	Information Technology	VI	Veterinary Institute
MA	Managing Authority (SAPARD	WTO	World Trade Organization

Vice President:	Philippe Le Houerou
Acting Country Director:	Kyle Peters
Sector Manager:	Kulsum Ahmed
Project Team Leader:	Vera Dugandzic
ICR Primary Author:	Daniel Gerber

Republic of Croatia
Agricultural Acquis Cohesion Project
and
Agricultural Pollution Control Project

CONTENTS

A. Basic Information

Country:	Croatia	Project Name:	Agricultural Acquis Cohesion Project
Project ID:	P091715,P100639	L/C/TF Number(s):	IBRD-73600,TF-56498,TF-90845
ICR Date:	01/30/2013	ICR Type:	Core ICR
Lending Instrument:	SIL,SIL	Borrower:	GOVERMENT OF CROATIA
Original Total Commitment:	USD 30.14M,USD 5.00M	Disbursed Amount:	USD 34.88M,USD 4.99M
Environmental Category: B,B		**Focal Area**: I	

Implementing Agencies:
Ministry of Agriculture, Forestry and Water Management

Cofinanciers and Other External Partners:
Government of Netherlands

B. Key Dates

Agricultural Acquis Cohesion Project - P091715

Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	11/22/2004	Effectiveness:	11/21/2006	11/21/2006
Appraisal:	07/29/2005	Restructuring(s):		06/22/2010 12/22/2011
Approval:	02/16/2006	Mid-term Review:	09/30/2008	04/15/2010
		Closing:	10/31/2010	07/31/2012

Agricultural Pollution Control Project - P100639

Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	09/28/2006	Effectiveness:		07/31/2008
Appraisal:	08/03/2007	Restructuring(s):		
Approval:	12/06/2007	Mid-term Review:	11/15/2010	
		Closing:	07/31/2012	07/31/2012

C. Ratings Summary	
C.1 Performance Rating by ICR	
Outcomes	Moderately Satisfactory
GEO Outcomes	Moderately Satisfactory
Risk to Development Outcome	Moderate
Risk to GEO Outcome	Moderate
Bank Performance	Moderately Satisfactory
Borrower Performance	Moderately Satisfactory

C.2 Detailed Ratings of Bank and Borrower Performance (by ICR)			
Bank	**Ratings**	**Borrower**	**Ratings**
Quality at Entry	Satisfactory	Government:	Moderately Satisfactory
Quality of Supervision:	Moderately Satisfactory	Implementing Agency/Agencies:	Satisfactory
Overall Bank Performance	Moderately Satisfactory	Overall Borrower Performance	Moderately Satisfactory

C.3 Quality at Entry and Implementation Performance Indicators			
Agricultural Acquis Cohesion Project - P091715			
Implementation Performance	**Indicators**	**QAG Assessments (if any)**	**Rating:**
Potential Problem Project at any time (Yes/No):	Yes	Quality at Entry (QEA)	None
Problem Project at any time (Yes/No):	Yes	Quality of Supervision (QSA)	None
DO rating before Closing/Inactive status	Satisfactory		

Agricultural Pollution Control Project - P100639			
Implementation Performance	**Indicators**	**QAG Assessments (if any)**	**Rating:**
Potential Problem Project at any time (Yes/No):	No	Quality at Entry (QEA)	None
Problem Project at any time (Yes/No):	No	Quality of Supervision (QSA)	None
GEO rating before Closing/Inactive Status	Moderately Satisfactory		

D. Sector and Theme Codes

Agricultural Acquis Cohesion Project - P091715

	Original	Actual
Sector Code (as % of total Bank financing)		
Agricultural extension and research	28	20
Agro-industry, marketing, and trade	22	10
Central government administration	50	70
Theme Code (as % of total Bank financing)		
Administrative and civil service reform	14	20
Export development and competitiveness	29	20
Regional integration	29	20
Rural markets	14	20
Rural policies and institutions	14	20

Agricultural Pollution Control Project - P100639

	Original	Actual
Sector Code (as % of total Bank financing)		
Agricultural extension and research	26	10
Central government administration	2	15
General agriculture, fishing and forestry sector	72	75
Theme Code (as % of total Bank financing)		
Environmental policies and institutions	17	20
Other rural development	33	20
Pollution management and environmental health	33	50
Regional integration	17	10

E. Bank Staff

Agricultural Acquis Cohesion Project - P091715

Positions	At ICR	At Approval
Vice President:	Philippe H. Le Houerou	Shigeo Katsu
Country Director:	Roland K. Peters	Anand K. Seth
Sector Manager:	Kulsum Ahmed	Juergen Voegele
Project Team Leader:	Vera Dugandzic	Aleksandar Nacev
ICR Team Leader:	Vera Dugandzic	
ICR Primary Author:	Daniel P. Gerber	

Agricultural Pollution Control Project - P100639		
Positions	**At ICR**	**At Approval**
Vice President:	Philippe H. Le Houerou	Shigeo Katsu
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ICR Team Leader:	Vera Dugandzic	
ICR Primary Author:	Daniel P. Gerber	

F. Results Framework Analysis

Project Development Objectives (from Project Appraisal Document)
The objective of the proposed project is to develop sustainable systems and capacities within the MAFWM to ensure timely compliance with EU acquis conditions in the rural sector.

Revised Project Development Objectives (as approved by original approving authority)

Global Environment Objectives (from Project Appraisal Document)
The development objective of the project is to significantly increase the use of environmentally friendly agricultural practices by farmers in Croatia's Pannonian plain in order to reduce nutrient discharge from agricultural sources to surface and ground water bodies.

Revised Global Environment Objectives (as approved by original approving authority)

(a) PDO Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Croatia completes the negotiation of its EU accession agricultural chapter			
Value (quantitative or Qualitative)	0	100%		100%
Date achieved	01/23/2006	10/31/2010		07/12/2012
Comments (incl. % achievement)	Chapter 11 on Agriculture and Rural Development closed in December 2010 and Chapter 12 on Food Safety, Veterinary and Phytosanitary Policy was closed in mid-April 2011.			

(b) GEO Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	At least 10% reduction in discharge of nutrients into surface and groundwater in the three project regions			
Value (quantitative or Qualitative)	none	10%		26%
Date achieved	12/06/2007	07/31/2012		07/12/2012
Comments (incl. % achievement)	Proxy indicator was used based on the field survey results. The third survey conducted in April 2012, showed that 26% of 163 examined farms had appropriate manure storage.			
Indicator 2 :	Increased national awareness of linkages between local actions and impact on water nutrient load			
Value (quantitative or Qualitative)	Little	25%		High
Date achieved	12/06/2007	07/31/2012		07/12/2012
Comments (incl. % achievement)	National awareness and promotion and outreach activities related to good agriculture program (GAP) implemented through all available media channels. Some GAP 80 000 leaflets and 85 000 brochures distributed to farmers and 400 presentations held.			
Indicator 3 :	At least 40% of the farming population in the project areas adopting preventive and remedial measures to reduce nutrient discharge			
Value (quantitative or Qualitative)	0	10%		94%
Date achieved	01/23/2006	07/31/2012		07/12/2012
Comments (incl. % achievement)	Surpassed. Based on the last APCP survey conducted in April 2012 which included 785 farmers, 94% of have adopted at least one of stated preventive measures like organic manure usage, proper manure storage, three-year crop rotations, etc.			
Indicator 4 :	Multi annual applied research into economic crop fertiliser response successfully completed.			
Value (quantitative or Qualitative)	N/A	Research results published		Results reflected in project end survey
Date achieved	12/06/2007	07/30/2012		07/12/2012
Comments (incl. % achievement)	Data was collected as part of the farm demonstrations.			
Indicator 5 :	Percentage of cropped area in the project counties under relevant nutrient reduction measures			
Value (quantitative or	Less than 5%	30%		30% of farmers use soil analysis for

Qualitative)				nutrition planning
Date achieved	12/06/2007	07/30/2012		07/12/2012
Comments (incl. % achievement)	Most progressive and lager farmers adopting nutrition management measures representing more than 30% of cropped area.			
Indicator 6 :	Percentage increase of rural population in project and non-project areas aware of and initiating / implementing actions related to nutrient reduction.			
Value (quantitative or Qualitative)	very low percentage if any	TBD		85%
Date achieved	12/06/2007	07/30/2012		07/12/2012
Comments (incl. % achievement)	Adoption of mitigating measures in over 90% of farms reflects a high level of awareness among the population at large.			
Indicator 7 :	At least 200ha of pilot GAP demonstration sites in each of the three counties			
Value (quantitative or Qualitative)	0ha	600 ha		1400 ha
Date achieved	12/06/2007	07/30/2012		07/12/2012
Comments (incl. % achievement)	Demonstration plots on 87 farms totaling 1400 ha of arable land incorporated in the good agriculture practice demonstrations.			
Indicator 8 :	Unified set of monitoring guidelines and standards for soil and water adopted and implemented			
Value (quantitative or Qualitative)	Discrete monitoring framework for water and soil	Satisfactory implementation to meet government and EU requirements		in place
Date achieved	12/06/2007	07/30/2012		07/12/2012
Comments (incl. % achievement)	Croatian Water's main laboratory and institutions that analyze soil have both developed standards which are harmonized with EU requirements.			
Indicator 9 :	Percentage of livestock farms in three participating counties that have animal waste storages			
Value (quantitative or Qualitative)	6%	25%		88%
Date achieved	12/06/2007	07/30/2012		07/12/2012
Comments (incl. % achievement)	Based on the last APCP survey done in April 2012, 88 percent of farms have some sort of animal waste storages.			

(c) Intermediate Outcome Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	SAPARD Managing Authority, Monitoring Committee and Payment Agency are established			
Value (quantitative or Qualitative)	Not established	100%		Established
Date achieved	01/23/2006	10/30/2010		07/12/2012
Comments (incl. % achievement)	Established and fully operational.			
Indicator 2 :	Croatian sanitary and phytosanitary management systems are EU/WTO compliant and regionally based.			
Value (quantitative or Qualitative)	40%	100%		100%
Date achieved	01/23/2006	10/30/2010		07/12/2012
Comments (incl. % achievement)	Target met. Croatian Food Agency is operational and CRO-RASFF system is established. Veterinary Inspection & Phytosanitary Inspection established at national and regional level.			
Indicator 3 :	MAFWM departments systematically use electronic databases.			
Value (quantitative or Qualitative)	20%	100%		100%
Date achieved	01/23/2006	10/30/2010		07/12/2012
Comments (incl. % achievement)	The Ministry of Agriculture departments use electronic databases. Operational phytosanitary info system is delivered, and veterinary info system in a final stage of implementation with conditional operational acceptance issued.			
Indicator 4 :	Croatian sanitary and phytosanitary management systems are EU/WTO compliant and regionally based			
Value (quantitative or Qualitative)	40%	100%		100%
Date achieved	01/23/2006	10/30/2010		07/12/2012
Comments (incl. % achievement)	Target met. Croatian Food Agency is operational and CRO-RASFF system is established. Veterinary Inspection & Phytosanitary Inspection established at national and regional level.			
Indicator 5 :	MAFWM staff able to implement EU acquis communautaire.			
Value (quantitative or Qualitative)	15%	70%		90%
Date achieved	01/23/2006	10/30/2010		07/12/2012
Comments (incl. % achievement)	MAFWM staff trained and capacity built to implement EU acquis communautaire in rural sector and meet the demands of EU compliant agricultural policy.			
Indicator 6 :	Number of SAPARD /IPA facilitators trained and working profitably			

Value (quantitative or Qualitative)	0	80		115
Date achieved	01/23/2006	10/30/2010		07/12/2012
Comments (incl. % achievement)	Some100 private consultants plus 15 staff of the Chamber of Agriculture as well as County Development Agencies providing support for applications.			
Indicator 7 :	Sanitary and animal health inspections are implemented by separate services			
Value (quantitative or Qualitative)	0%	100%		100%
Date achieved	01/23/2006	10/30/2010		07/12/2012
Comments (incl. % achievement)	Inspection separation effective.			
Indicator 8 :	Disbursements of the Pilot SAPARD pre-financing facility for SAPARD measures			
Value (quantitative or Qualitative)	0	4.0 million EURO	0	0
Date achieved	01/23/2006	06/30/2010	06/22/2010	07/12/2012
Comments (incl. % achievement)	Indicator was dropped along with activity as part of June 2010 restructuring.			

G. Ratings of Project Performance in ISRs

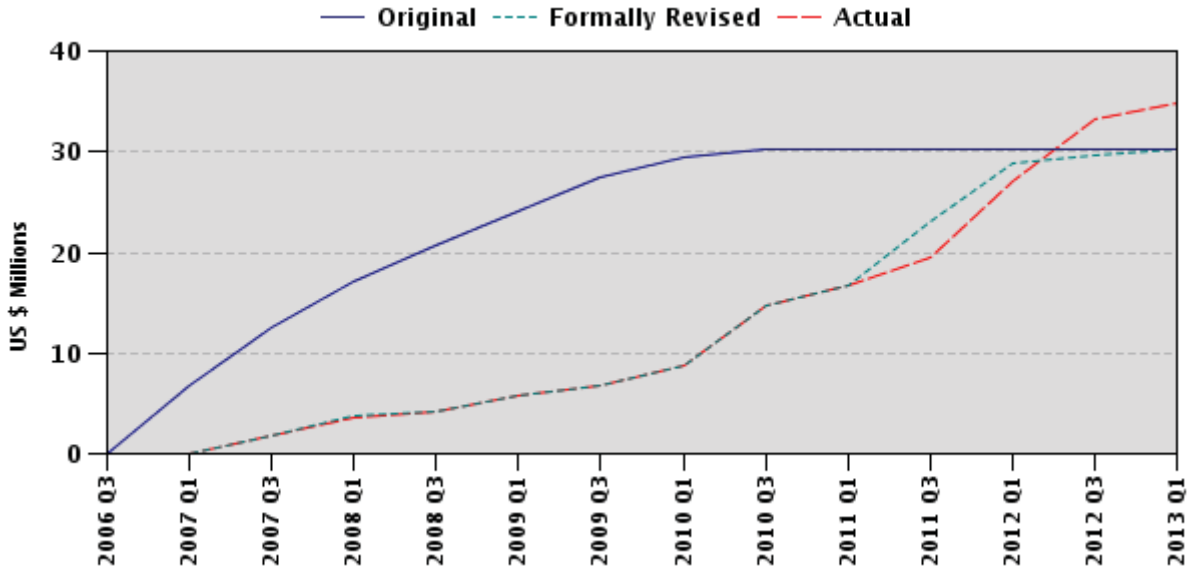
-						
No.	Date ISR Archived	DO	GEO	IP	Actual Disbursements (USD millions)	
					Project 1	Project 2
1	03/23/2007	S		S	0.89	0.00
2	04/06/2007	S		S	1.75	0.00
3	12/20/2007	S	S	S	3.92	0.00
4	04/16/2008	S	S	S	4.29	0.00
5	03/29/2009	S	S	MS	6.79	0.40
6	07/05/2009	S	S	MS	7.27	0.40
7	02/20/2010	MU	MU	MU	12.09	0.40
8	06/14/2010	MS	MS	MS	14.64	0.80
9	03/01/2011	S	MS	S	19.49	1.14
10	08/19/2011	S	MS	S	26.13	1.67
11	04/10/2012	S	MS	S	33.29	3.30
12	07/29/2012	S	MS	S	34.38	4.13

H. Restructuring (if any)

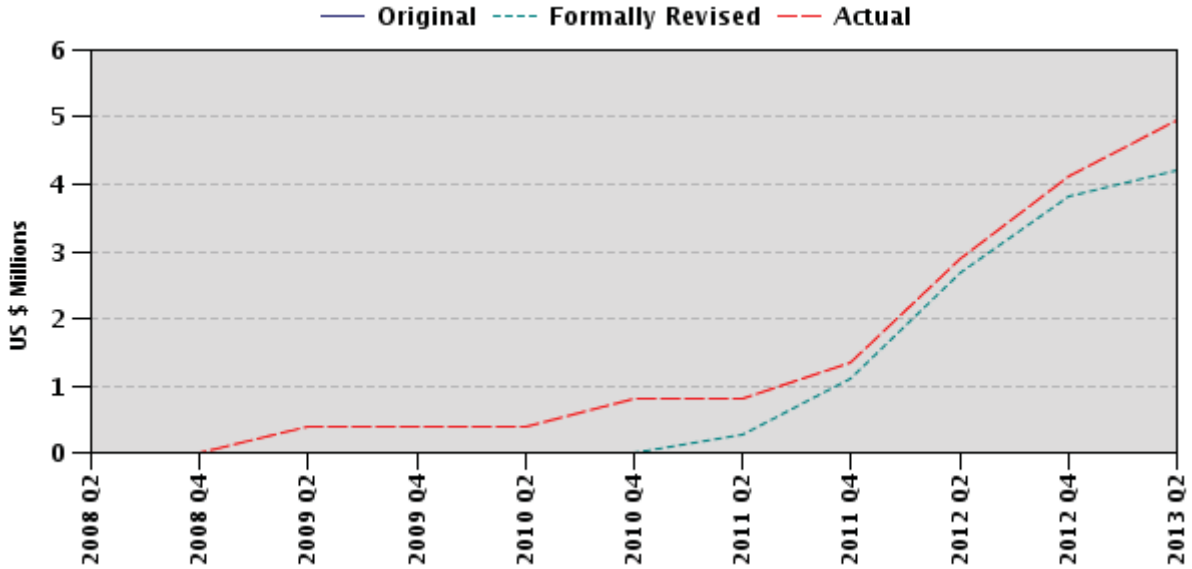
Restructuring Date(s)	Board Approved		ISR Ratings at Restructuring			Amount Disbursed at Restructuring in USD millions		Reason for Restructuring & Key Changes Made
	PDO Change	GEO Change	DO	GEO	IP	Project1	Project 2	
06/22/2010			MS		MS	14.64		Closing date extension, cancellation of guarantee fund and reallocation
12/22/2011			S		S	31.38		Closing date extension to permit conclusion of ongoing works on laboratories

I. Disbursement Profile

P091715



P100639



1. Project Context, Development and Global Environment Objectives Design

At the time of project preparation, the Government of Croatia was actively working to meet the requirements of Croatian accession to the EU described in European Council Decision COM(2004) 275 on European Partnership with Croatia. Accordingly, the Government worked actively to meet the requirements and obligations as laid down in the *acquis communautaire* (body of laws of the European Union).

Agriculture was a substantial element of the Croatian economy, contributing about 6.0 percent of GDP substantially above Central and Eastern European Countries (CEEC) average. Some 42 percent of the country's total population of 4.5 million was living in rural areas, with agriculture providing about 8 percent of employment and directly or indirectly a source of livelihood for a significant segment of Croatian society.

With agriculture and environment making up over half of the *acquis communautaire*, one of the major challenges for the Croatian government was to create a competitive and efficient agriculture sector that abides by the environmental cross-compliance requirements. These requirements apply at many levels including compliance with institutional and procedural set up, the assurance of adequate food safety and phytosanitary conditions to allow for the uninhibited flow of trade of agricultural products across the EU, adoption of transparent financial mechanisms in the payment of agricultural subsidies under SAPARD/IPARD for future management of the resources made available under the EU's Common Agricultural Policy (CAP). For the agri-environment policy, the requirements mainly include the application of measures towards achieving compliance with the EU water directives since in the region the agricultural sector is one of the main polluters of water resources. Croatian farmers lacked knowledge and capacity to effectively apply for support for measures to reduce point source pollution from poor manure and slurry storage and handling as well as adopting farming practices that would mitigate water pollution of agricultural origin.

1.1 Context at Appraisal

The Government had been running rural development programs aimed at increasing productivity and diversifying output, conserving natural resources, creating or improving infrastructure, promoting markets and increasing the incomes of the rural population. These interventions lacked focus and continuity, resulting in mixed results, with an uneven impact on the rural population. Food safety regulations and quality standards were not EU compatible and the Croatian food industry was unprepared for the competitive environment of the EU common market. Croatian food safety institutions and inspection services were insufficiently aware of the EU sanitary standards and lacked infrastructure and capacity that are the key pre-conditions for Croatia's products future uninhibited access to European markets.

Implementation of the EU Nitrates Directive, including the development of the Code of Good Agricultural Practices (CGAP) to address nutrient management has become one of the major drivers to the country's commitment to policy and institutional reform in the agricultural/rural sector. The fact that the Danube River, as well as its tributaries the Sava and the Drava are draining sixty percent of Croatia's territory (approximately 33,940 sq km out of a total of 56,538 sq km) underscores the significant direct impact of the

ongoing agricultural practices in the region on the waters of the Danube River and the Black Sea. More than half of all nutrient loads into the Danube River originate from agriculture, about one-fourth from private households and about 10-13 percent from industry.

The Government requested World Bank assistance to fill specific gaps that would contribute to Ministry of Agriculture, Forestry and Water Management's (MAFWM) overall preparedness to fulfill the implementation requirements for EU accession as they relate to agricultural payments systems and food safety requirements. The Bank was well positioned to assist the Government in these efforts following the experience gained in implementing the Farmers Support Service Project (FSSP) that assisted the Government in its early reform efforts and the longer term objective of meeting the EU *acquis* in the

In the context of EU agriculture and environment *acquis,* the Bank had a comparative advantage in helping Croatia institute measures for Nutrient Reduction in the Danube and Black Sea Basin with a portfolio of over a dozen projects in the basin at various stages of preparation and implementation aimed at promoting environmentally friendly agricultural practices.

At the time, Croatia's committed efforts towards EU accession, the favorable political climate, the recognition of the links between sustainable agriculture and the environment and government's commitment to large scale investments in structural reform seemed to provide a window of opportunity for the Bank and GEF. The project would assist the country in piloting a nutrient reduction program that will kick-start a much larger and longer term investment in agricultural competitiveness and agri-environment management, including nitrate reduction.

1.2 Original Project Development Objectives (PDO) and Key Indicators (as approved)

The PDO of the Agricultural *Acquis* Cohesion Project (AACP) was to develop sustainable systems and capacities within the MAFWM to ensure timely compliance with EU *acquis* conditions in the rural sector. The Legal Agreement has a slightly different PDO wording: "to develop sustainable systems and capacities within the MAFWM *and other public institutions* to ensure timely compliance with EU *acquis* conditions in the rural sector" but the meaning is the same. The PDO mentions the MAFWM exclusively, but the understanding was that this would include the institutions supporting the sector including the various institutes and accompanying laboratories and inspection services. The primary project outcome would be more transparent, participatory and market-oriented support to and regulation of agriculture and rural development in Croatia, implemented within the framework of the prevailing EU Common Agricultural Policy (CAP) and *acquis communautaire*.

Key Indicators included:

- An innovative, transparent, participatory and environmentally sustainable rural investment program;
- Staff capacity and management and information systems within MAFWM commensurate with the demands of EU integration;
- An EU compliant agricultural policy framework and capacity to inform key decision makers and stakeholders of likely impacts;

- An EU compliant food safety management system that allows availability of safe food to Croatia's residents;
- An EU and WTO compliant sanitary and phytosanitary system that protects Croatia's human, animal and plant life and health

1.3 Global Environment Objectives (GEO) and Key Indicators (as approved)

The PDO of Agricultural Pollution Control Project (APCP) was to significantly increase the use of environmentally friendly agricultural practices by farmers in Croatia's Danube River basin in order to reduce nutrient discharge from agricultural sources to surface and ground water bodies. The GEO of the project was to reduce the discharge of nutrients into waters draining into the Danube River and Black Sea. In support of this, the project was to assist the Government of Croatia to: (i) promote mitigating measures for nutrient reduction from agricultural sources to surface and ground water bodies (manure management); (ii) implement a national agri-environment policy (Code of Good Agricultural Practices) and the national water protection policy, particularly concerning nitrates; and (iii) carry out a public awareness campaign that would disseminate the benefits of project activities with the aim towards replication at the national and regional levels. Key indicators included:

- At least 40% of the farming population in the project areas adopting preventive and remedial measures to reduce nutrient discharges;
- At least a 10% reduction in discharge of nutrients into surface and groundwater in the three project regions;
- Increased national awareness of linkages between local actions and impact on water nutrient load.

1.4 Revised PDO (as approved by original approving authority) and Key Indicators, and reasons/justification

While the AACP was restructured its rather broad definition of the PDO and its key indicators were not revised.

1.5 Revised GEO (as approved by original approving authority) and Key Indicators, and reasons/justification

The AP0.P GEO and its key indicators were not revised.

1.6 Main Beneficiaries

The main direct beneficiaries of the AACP were the institutions that would help with the implementation of the activities required to build and strengthen the administration of agricultural subsidies and the monitoring of these subsidies as well as the institutions responsible for the assurance of food safety in the country to improve the capacity for trade in agricultural products with EU member states. These institutions include the Ministry of Agriculture (former MAFWM), Croatian Agriculture Extension Institute (CAEI), Croatia Food Agency (CFA), National and Regional Veterinary Institutes, Plant Protection Institute (PPI) and Seeds and Seedlings Institute (SSI). The benefit from improved institutional capacity would ultimately accrue to farmers in the form of a more transparent and effective use of SAPARD and IPARD funding envelopes made available from the EU, and the opening of a larger export potential.

The main beneficiaries for the APCP (GEF- funded) activities have been the agricultural faculties undertaking the research and installation of piezometers for soil monitoring for increase nitrate leaching and demonstrations, Croatian farmers who benefitted from new manure storage and handling facilities, as well as individual communities and grant beneficiaries for off farm income generation as well as rural infrastructure.

1.7 Original Components (as approved)

For administrative reasons the project at the time was developed as two distinct separate operations each with its own project code (P091715 and P100639), the former for IBRD funding co-financed by a Dutch Grant, and the latter for the GEF funding. The components of the two projects were complementary and had conceptual links but did have completely different descriptions and activities. The IBRD-funded AACP principally supported capacity development of institutions towards meeting EU requirements in agriculture while the GEF-funded APCP provided resources to help develop capacities and demonstration investments towards implementation of EU Nitrate Directive in agri-environment sector. For brevity, the components of both projects are combined in an abbreviated form in this section.

The Agricultural Acquis Cohesion Project (AACP) was composed of four components: (i) Strengthen Capacity for Absorbing EU Financial Assistance in Agriculture; (ii) Empowerment of MAFWM Administration and Management; (iii) Ensuring Safe Food and Sanitary and Phytosanitary Conditions; and (iv) Project Management.

Component 1 (IBRD and Dutch TF): Strengthen Capacity for Absorbing EU Financial Assistance in Agriculture. This component was planned to support the establishment of a SAPARD program implementing three of the SAPARD rural development measures and a limited and carefully targeted number of sub-measures. The output of this investment would be increased capacity, during pre-accession, to comprehensively implement the *acquis communautaire* concerning the EU Common Agricultural Policy (CAP). The following three main activities were planned for financing:

a) The *SAPARD Managing Authority* would be established within the MAFWM Department for Sustainable Development of Rural Areas (DSDRA) to include a SAPARD Monitoring Committee, supported by a small, permanent Secretariat and overseeing a contracted SAPARD monitoring and evaluation program. Private and public sector SAPARD facilitators would be trained in financial evaluation and management, community organization, good agricultural practice, environment management and other SAPARD related grant preparation requirements. This sub-component would also include the development and implementation of communication strategies to (i) inform potential public and private sector SAPARD beneficiaries; and (ii) engage key agriculture stakeholders in the EU accession process.

b) The *SAPARD Payment Agency and Integrated Administration and Control System (IACS)* would be established, including an accredited SAPARD Payment Agency, with the necessary control, implementation, payment, accounting, internal audit, monitoring and information technology systems and capacities to rapidly and effectively implement SAPARD program. The project would provide supporting technical assistance and finance the investment and some operating costs of the

Payment Agency (PA). The sub-component would also establish a comprehensive IACS that would build off an improved farm registry.

c) *A Pilot SAPARD Pre-finance Facility (the Facility)* would be established to serve as a cash reserve for guarantees issued under the Facility to cover the risk of failure of municipalities in fulfilling SAPARD disbursement conditions.

Component 2 (IBRD and Dutch TF): Empower the MAFWM Administration and Management. The primary objective of this component was to establish an organized, cohesive and well-informed MAFWM management and administration team, with improved overall capacity to address the challenges of EU accession. Investments under this component would address gaps in MAFWM management and administration capacity, information technology, and institutional structures that were necessary for the effective functioning of the MAFWM and conditional to EU accession. Project support would determine the capacity profiles for key MAFWM management and administration staff and conduct a skills gap analyses to determine capacity building requirements. On the basis of this, training programs would be developed in, *inter alia*, civil service administration, change management, staff management, information technology and the EU agricultural *acquis.* This component would also strengthen the policy analysis capacity of the MAFWM Policy Analysis Unit, staff post-graduate training, technical assistance and funding for policy studies. This would include the upgrading of the Agricultural Information Center (AIC), development of a comprehensive Farm Register and pilot Farm Accounting Data Network (FADN), and the establishment of a management information system for MAFWM. Support would also be provided to upgrade MAFWM's information technology (IT) to ensure fast, secure data transfer and storage, both in-house and with regional centers, and establish a video conferencing capability between major MAFWM centers and agencies.

Component 3 (IBRD and Dutch TF): Ensuring Safe Food and Sanitary and Phytosanitary Conditions. The primary purpose of this component was to support the development of the Croatia Food Agency (CFA) and create the necessary conditions for Croatian compliance with EU sanitary and phytosanitary requirements. This component would include:

a) *Development of the Croatia Food Agency* and establish a consolidated, transparent, efficient, and risk-based food safety program. This would include the separation of human/animal health and food safety responsibilities among inspectors, the development of the CFA's web-based reporting and data management systems, CFA risk assessment and communications programs, food health crisis management strategies and a public information campaign.
b) *Strengthened Veterinary and Plant Health services* by developing regionally structured, effective veterinary and phytosanitary inspection services supported by investments in staff capacity building, transportation, testing equipment, a web-based inspection reporting, certification and data management system and civil works and office equipment at up to five regional centers. Veterinary animal and public health services would be strengthened through the establishment of a veterinary epidemiology department including the completion and integration of MAFWM epidemiology, residue testing, animal numbering, and border inspection software and staff training in its use. The project would also establish national veterinary, public health and plant health reference laboratories implementing ISO 17025 testing

methodologies, including investment in civil works, staff capacity, information management and some equipment. An International Seed Testing Association (ISTA) certified laboratory for genetically modified organisms (GMO) testing would be established at the Croatian Institute for Seeds and Seedlings (CISS).

Component 4: Project Management. This component was to finance a small implementation team within the MAFWM Department for Policy, EU and International Relations (DPEUIR) that would manage the project. The implementation team would include a Project Manager, Financial Controller, Procurement Officer and an administration/secretarial support person. Project impact monitoring would be contracted out. The team would be responsible for all aspects of project administration, including overall project oversight, TA, goods and materials procurement, and financial control. A Project Steering Committee (PSC) composed of key Assistant Ministers within MAFWM would provide project oversight and ensure national program integration. The SAPARD Monitoring Committee and the Croatian Food Agency (CFA) Board would ensure public participation in project program implementation. A Project Working Group made up of senior technical staff from the participating MAFWM departments would provide technical guidance to the project implementation team. The APCP management was fully integrated into the PIU of the AACP.

The AACP components were co-financed through a US$4.75 million Dutch Grant (TF056498) for the Technical Assistance to support the implementation of the Agricultural *Acquis* Cohesion Project. The Grant was provided by the Netherlands Ministry for Development Cooperation in October 2006. The grant funds were instrumental in strengthening the administration and management capacity of the staff of the MAFWM and associated institutions to comprehensively implement the *acquis communautaire* concerning the EU CAP during pre-accession. Three amendments to the Administrative Agreement were made to reflect the extensions of the Project Closing Dates and the inclusion of stipulation for the training of Croatian farmers and farmer associations to facilitate their understanding of the process and requirements of the EU agriculture *acquis* and EU accession requirements. More than 80 farmers' associations (1800 farmers in total) benefitted from the training and study tours to 15 European countries to exchange experience with their European counterparts. 98 percent of grant funds were disbursed.

The GEF-funded Agricultural Pollution Control Project (APCP) was composed of four components: (i) Mitigating Nutrient Loads to Water Bodies from Point-Source Pollution (Manure Management); (ii) Development and Promotion of Agri-Environment Measures; (iii) Public Awareness and Replication Strategy; and (iv) Project Management.

Component 1: Mitigation of Nutrient Loads to Water Bodies from Point-Source Pollution (Manure Management). The main objective of this component was to finance the following activities:

a) Establish a *Nitrates Mitigation Investment Fund* of $2.66 million within the Payment Agency to finance grants for 75 percent of the cost of manure storage and management in the counties of Osiječko-Baranjska and Vukovarsko-Srijemska, for medium-scale livestock farmers. Grants would contribute to the construction of the platforms/sumps and associated pumping and agitation and spreading equipment. In the Varaždinska county, in addition to cattle farms, poultry farms would be targeted,

eligible for matching grants for manure management systems based on impervious storage platforms and drainage sumps. An IPARD-compliant Beneficiary and Public Procurement Guide detailing the criteria and processes for awarding grants, and sample manure storage facility plans and construction specifications, would be developed.

b) *Support for Water & Soil Monitoring and Impact Analysis* in collaboration with the Croatian Water Agency (CWA) and Directorate for Water Management (DWM), to install piezometers in selected sites to monitor the quality of water flowing out of livestock farms implementing the project financed manure management sub-projects. The CWA would take responsibility for monitoring these piezometers as part of its national groundwater monitoring program. An operational manual would be developed with the aim of ensuring that all procedures, including sampling planning, field work, sample handling, laboratory analysis, record keeping and documentation would be coherent on all measuring stations and monitoring programs.

Component 2: Development and Promotion of Agri-Environment Measures. This component was aimed at assisting the implementation of the Code of Good Agricultural Practices (CGAP). The specific activities would include:

a) *Dissemination of the CGAP:* Publish user-friendly guidelines that would help farmers understand and implement the relevant provisions of the CGAP that dealt with the aspects of the Nitrate Directives with particular focus on manure storage and application as organic fertilizer based on a healthy soil nitrogen balance. The publication of the Guidelines would be supplemented with brochures, messages through mass media, agricultural fairs, etc.

b) *CGAP Training and Demonstration (T&D) Program*: The CAEI would undertake a training and demonstration program to educate and train the livestock community (extension workers, farmers, enterprises) in sustainable, cost-effective manure management practices. The project would build capacity under this sub-component by using GEF funds to recruit three technical staff, to be located in the three participating counties and trained to implement the manure management program and CGAP. This would include: (i) technical assistance to farmers receiving nitrate mitigation grants; (ii) nutrient management planning in the project counties to promote optimal use of organic and mineral fertilizers in order to reduce the loss of Nitrogen (N) Phosphorus (P) Potassium (K) to water bodies; and (iii) demonstration of cover crop technology to reduce nutrient loss, protect soil from compaction and erosion, maintain soil organic matter, and enhance biodiversity and provides additional fodder and/or green manure, and demonstrated on up to 200 ha per annum in each participating county. The project would provide some equipment for training and demonstration purposes.

Component 3: Public Awareness and Replication Strategy. The main objective of this component was to support the following activities:

a) *Public Awareness:* At the project county level, the main audience would be the direct stakeholders of the project, including local and county officials, farmers, community groups and NGOs. At the national level the project would concentrate on institutions and groups, including government agencies, national environmental or professional associations, academia, NGOs, etc. and the population at large. The aim would be to

familiarize the population with the project and its benefits and thereby raise the interest of potential future clients.

b) *Website:* The project would assist the CAEI to develop and maintain a website containing detailed information on project activities and programs on technologies and land management systems appropriate for reducing point and non-point nutrient loads from agriculture to surface and ground water bodies.

c) *Knowledge Sharing:* Provision would be made for government and project staff participation in GEF International Waters Learning Exchange and Resource Network (IW-LEARN) conferences and workshops and other international seminars related nitrates management

Component 4: Project Management. The APCP management was fully embedded in the PIU of the AACP established within the MAFWM.

1.8 Revised Components

The project and its components were not substantially revised during implementation with the exception of the AACP Component 1 where loan proceeds were reallocated from the envisaged guarantee fund (Facility) towards works and goods of Components 1 and 2. Some of the original items for procurement were modified mainly because the project activities were being supported in parallel by the EU-funded programs and the project thus focused on financing gaps.

The **AACP Component 1** in support of the paying system in Croatia was not financed exclusively from the loan proceeds but also from the EU programs. Consequently, the component activities were effectively fine-tuned in order to fill the gaps that remained in the establishment of these structures. Under the first subcomponent, the activities in support of the SAPARD/IPARD Managing Authority (MA) were essentially delivered as intended at design and conferral of management has been obtained for the support measures under it management. Project support has been focused on sector analysis, supporting an advisor to build beneficiary capacity, and ex-ante evaluation of the Rural Development (RD) program delivery.

Support to the Paying Agency and IACS was similarly reoriented to essentially build up pieces that were insufficiently advanced towards EU accession. In this case project support focused on the establishment of an effective Land and Parcel Information System (LPIS) which is a crucial piece in the establishment of an effective IACS and the transparent management of direct payments to farmers. Specifically, the project financed the LPIS software development and deployment, orthophoto maps, cadastral maps as well as TA and related IT equipment under this activity.

The delays with the conferral of the third SAPARD measure for Improved Rural Infrastructure had been postponed for so long that it led to the dropping of the SAPARD pre-finance facility altogether. The measure would be reintroduced as part of IPARD but would only happen so late in the project that the impact of the facility by closing would be negligible. The resources were thus reallocated for more procurement of works, goods as well as laboratory and diagnostic equipment in particular.

The **AACP Component 2** largely remained as it was designed providing a variety of training to the staff of MAFWM to build capacity and improve Information Technology

user capacity, support policy analysis and institutional gap analysis. Resources under this component also provided support for the establishment of the Agricultural Information Center, linking all the databases of the Data Centre at the Ministry including support for FADN, a Veterinary Information System (VIS), and a Phyto-Information System (Phyto-IS) coordinated along with the activities under Component 3. The Dutch TF underwent a reallocation and closing date extension to increase support towards farmers training, study tours and post-graduate scholarship at national and international universities for some 60 individuals.

The **AACP Component 3** was largely delivered as intended at project design with few changes. In terms of support to the veterinary services, during implementation discussions had evolved around a large single building rehabilitation in Zagreb. With the arrival of a new Director at the Veterinary Institute and the separation of the Veterinary Inspections into a separate Directorate, the idea evolved towards the rehabilitation of five regional offices. The rehabilitation of these buildings became significantly more extensive than originally intended as laboratory facilities needed full upgrading in line with EU requirements including upgrading of equipment and accreditation of tests in accordance to ISO 17025 in order to be able to fulfill their mandate in the food safety sector.

Under **APCP Component 1**, modifications were made to the Operations Manual in July 2011 to enable Croatian farmers to better access grant funding under the US$2.6 million Nitrate Mitigation Fund. Due to complex procedures for permits and building authorizations and poor access to pre-financing from commercial banks, the terms for farmers were changed in the Manual to reflect an up-front grant disbursement of 55% and a reduction in processing times from 12 down to 7 months. This led to a dramatic improvement and full disbursement of grant funding against this activity.

The rest of the sub-components remained substantially the same with minor changes only to quantities. In the course of project implementation, studies began to show that nitrate accumulation in Croatian ground waters is in all likelihood more related to excessive nitrate use, in part as a result of fertilizer subsidies than from livestock. As a response the Project provided support to Agriculture Faculty in Osijek which has been developing a simple nitrate monitoring software module to help the Croatian farmers to better estimate nitrate needs in their soils and reduce long term ground water contamination.

The APCP Components 2 and 3 were substantially delivered as designed.

C**omponent 4 for AACP and APCP** was implemented as designed.

1.9 Other significant changes

The project was closely coordinated with EU pre-accession programs with activities timed to complement each other. Ultimately, the process to accession took several years longer than intended by the EU which also meant that some support programs that were to be implemented in a coordinated manner with this project were delayed. Significant components such as the pre-finance facility had to be dropped altogether due in part to such a difference from the originally planned timing. As a result the project had to be very flexible in filling gaps that resulted from some of the delays. The cost overruns in the PPI laboratory construction and rehabilitation works however largely absorbed these funds so that the project almost fully disbursed (98.8 percent of loan funds were disbursed).

When the project was restructured in June 2010, much of the resources were reallocated towards funding of construction of the Plant Protection Institute (PPI) laboratory in Zagreb and regional veterinary facilities. On the same occasion, the entire project had been reduced given that the counterpart financing had been dropped and most activities after restructuring were financed 100 percent from the loan funds. A second reallocation of resources undertaken along with a project closing date extension for five months in December 2011 would complete the outstanding works and furnishings of the PPI laboratory, and the veterinary institute in Rijeka.

2. Key Factors Affecting Implementation and Outcomes

2.1 Project Preparation, Design and Quality at Entry

The Government of Croatia needed a substantial support to accelerate its preparedness to fulfill the implementation requirements for EU accession and to enable its agriculture sector to capture benefits accruing from the EU accession. The AACP was the first in a series of projects in the region aiming at supporting the rural institutions to accelerate their progress along the EU pre-accession/accession path. They were in part developed due to the realization of the problems the new member states were having in implementing EU institutional requirements even after accession and the lack of capacity to administer the very significant financial resources the EU made available to the pre-accession countries. In the case of Croatia, the project also helped in completing some activities that had been already identified at the closure of the IBRD financed Farmers Support Services Project and addressed the institutional gaps that were apparent with forthcoming EU accession.

The identification mission for this project undertaken in fall of 2004 already defined the support that the project would provide. An appraisal mission was fielded in May/June 2005 that essentially confirmed the activities recognized at identification. The preparation team was composed of seasoned specialists from the Bank with significant local familiarity and Food and Agricultural Organization (FAO) support in institutional development.

The project was in line with government's intents on EU accession and had broad based support at the level of the MAFWM but also government overall. Consequently, given the overall agreement on policy and activities this project supported, there were relatively few risks attached to the implementation of the project and those were estimated to be moderate for the most part. The risk that was not foreseen was that the accession could be significantly delayed and coordinated EU programs could similarly be delayed which means that the project would have to fill some of the gaps that might emerge during the project implementation period. Ultimately the institutional arrangements the EU requires for accession are not so much a matter of if, and how, but much more an issue of when, given that they also involve significant institutional adjustments with potential political liabilities. From the Aide memoires, and documents available and discussions of the ICR team in country, an adequately broad based consultation effort with the client took place at the design of the project.

Project Preparation Facility - The project was to be substantially prepared from funding of a Project Preparation Facility (PPF). A number of delays led to lower expenditure than was projected and the time frame of the PPF was extended by 12 months. The PPF nonetheless provided vital support to the Ministry in its program for EU integration. PPF

resources financed: (i) the appointment of skilled national consultants to the MAFWM departments supporting EU integration; (ii) the provision of technical assistance in critical areas of food safety, laboratory design, SAPARD implementation, IPA-RD planning and Payment Agency (PA) procedures that have enabled the MAFWM to meet EU inspection requirements. The PPF further supported preparatory studies; (iii) for contracting for the design and construction for the genetically modified organisms laboratory and design of the plant protection laboratory; (iv) the procurement of essential office and information technology (IT) equipment, vehicles and facilities for the SAPARD Management Authority (MA), the PA and the MAFWM Veterinary Directorate and Sector for Plant Protection; (v) the processing of policies and procedures in support of the project's MAFWM capacity building program, that was to commence at project inception; and (vi) the establishment of a competent Project Implementation Unit (PIU) including the introduction of new financial management software.

2.2 Implementation

The ***AACP*** project faced significant coordination challenges that were in part due to its design to fill gaps towards establishing EU compliant institutions in Croatia. Procurement activities at project start were slow due in part to the understaffing of PIU and to a significant extent to the project's broad scope, technical complexity, the lack of agreement on the actual structure of some institutions that were expected to receive support from the project and in some cases delayed answers from the Bank to No Objections requests. Delays were also in part due to the continuous progress in the EU accession negotiations that led to evolving and sometime changing investment needs.

The project was also affected by elections which brought with them changes in policies and wholesale restructuring such as the Ministry's shedding responsibility for water management, forestry and fisheries in that process. After protracted discussions, and a series of back and forth as to the location and extent of investments in the sector, it was agreed to review the whole veterinary laboratory complex in Croatia with a view to developing a comprehensive strategy for its upgrading and rationalization. This led to the decision to keep the National Veterinary Institute facilities with minimal investments while focusing project resources to refurbish and equip the regional veterinary institutes which also fill the role as reference laboratories.

In regard to establishing Paying Agency, MAFWM management chose to negotiate the lease/purchase of premises and to use regional Inspection centers for filling of applications instead of building new regional facilities which led to saving EUR 4.25 million. These resources were instead used to support the development of the LPIS that lagged behind other activities necessary for the PA Integrated Administration and Control System (IACS) within EU deadlines. Procurement included IT equipment, software development, digital orto-photo maps, and specialized surveying and communications support.

The implementation of the third SAPARD measure - Improved Rural Infrastructure - for which the project had set aside resources for a guarantee fund, was dropped after several postponements, and eventual transfer to the IPARD program. This was the result the delays with the EU's conferral of management for this SAPARD measure – a process beyond the project's control. Due to the need for a new IPARD-based national audit and accreditation process for this measure, EU conferral of management was not unlikely

before second half of 2010, just before the original project completion and it was clear that the EUR 4 million Guarantee Facility budget was not going to be utilized. Thus it was agreed to cancel the Facility and reallocate the proceeds to the loan goods category to cover the costs related to the LPIS and financing of laboratory equipment at regional veterinary offices.

Ultimately, due to the delays in implementation, the of institutional clarity on key pieces such as the support to NVI, and at times, long lead times by the Bank to provide 'no objections' (NO), the project was extended twice from the original closing date of October 31, 2010 to July 31, 2012. The extensions were justified in the context of the reallocation of the resources away from the guarantee facility to the construction of new building of PPI laboratory, and the longer than expected overhaul of the food safety veterinary and sanitary inspection systems and related works and goods procurement.

APCP - Agricultural Pollution Control Project became effective on July 31, 2008 with engagement of Livestock Nitrates Management Specialist (project coordinator). Procurement activities in regards to employment of the project staff, advisors and setting of minimum operational requirements started in September 2008. Documents and procedures regarding Nitrates Mitigation Fund, representing about 75 percent of grant funds, were completed and a broad based information campaign was undertaken. In parallel, a plan was developed for the installation of piezometers and the conceptual design of a nitrate monitoring software were undertaken before monitoring equipment was installed. Local agricultural faculties were engaged to make nutrients analyses and develop simple models for optimizing fertilizer/manure application.

2.3 Monitoring and Evaluation (M&E) Design, Implementation and Utilization

The AACP project had a very broadly defined PDO which did not adequately reflect the fact that it played a complementary role alongside ongoing programs funded by the EU to help the country reach EU accession requirements. While there was a single outcome indicator that essentially consisted of the successful conclusion of the negotiations of Croatia's agricultural chapters with the EU, there were 13 intermediate indicators. Some of the intermediate indicators had only an indirect link to the PDO objective.

For instance, the indicator dealing with absorption of SAPRD/IPARD funding is dependent on many variables beyond having a payments system in place. The indicator reflecting laboratory testing capacity presents a similar case, where Croatia was able to negotiate with the EU mainly relying on contracts with external accredited laboratories for much of its plant and plant by-products testing. This practice is perfectly acceptable from the stand point of EU requirements, but poses a question on the significant laboratory investments made under this project in GMO and Plant Protection, even though they do present strengthened local capacity to implement EU food safety regulations in the future with accreditation processes currently underway.

While most of the intermediary indicators and the overall objective have been substantially achieved, in part also due to the breadth of their definition, their achievement was not solely dependent on project activities.

There were substantial delays with M&E implementation. Only in 2010 was an agreement finally concluded to collect the necessary data to update and maintain the M&E framework by hiring a consulting firm for this purpose (for AACP). By then, the

typical difficulties with establishing a clear baseline before project interventions were already affecting M&E effectiveness. However, given that in large parts this project dealt with institutional reforms, the issue with baselines was not so significant.

The data collection and M&E reporting system for the APCP was adequate. The M&E consultant was hired in 2009 and M&E reports were submitted regularly. Three field surveys were conducted in 2009, 2011 and the final one in 2012. The surveys provided all necessary data and helped establish the final assessment of the project indicators (for a total of some 10 indicators). The most challenging indicator to measure was the second indicator: *"10% reduction in discharge of nutrients"* as it lacked precision. Notably, nutrient levels in surface and ground water while substantially affected by agricultural practices are not solely the result thereof. Furthermore, changes in the level of nutrients discharged in surface water take years to be measurable in ground water, and would not be identifiable within the project duration. The other mostly output indicators dealing with reduced contamination of surface water were measured and would over time contribute to a reduction of nutrients in surface and ground water stemming from agriculture.

2.4 Safeguard and Fiduciary Compliance

Both projects were subject to OP/BP4.01 requiring an Environmental Assessment and rated as category B. This rating stemmed primarily due to the fact that some construction works were to be undertaken for institutions and laboratories as well as on private farm land. Resettlement OP 4.12 was not triggered as no land acquisition was envisaged nor exercised.

The Bank's project fiduciary staff, including the Financial Management and Procurement Specialists, and safeguards staff such as the Environmental Specialist, were located in country or the region during the whole implementation term of the project. This arrangement provided for a more continuous implementation support with shorter response times and more direct interaction with the PIU and project stakeholders. Implementation issues that arose in this context were addressed promptly and the counterparts were responsive in its resolution. The biggest difficulties were encountered with Croatia's rather complex construction permitting process that led to significant delays for the construction of manure pits. Given that municipalities play a key role in permits and land registration, these issues had to be tackled one by one at the local level. The information campaigns that were held for municipalities led by the 3 regional GEF coordinators eventually played an important role in resolving these issues in close cooperation with the safeguards specialists. While there were some difficulties with timely audit during the implementation of the PPF, once these were resolved, the project benefitted consistently from unqualified and timely financial audit reports.

2.5 Post-completion Operation/Next Phase

The systems and institutions that were developed and strengthened under the AACP project are fundamental to Croatia's accession to the EU and will serve Croatia in accessing significant resources from the Common Agricultural Policy. As such, the investments under this project will pay for themselves many times over and are consequently assured financing from budget resources thus mitigating many of the typical sustainability risks related to institutional capacity building. Preparedness for EU

accession typically means that substantial institutional building needs to take place with corresponding growing demands on budget resources. Croatia has not been immune to this reality and compounded by the financial crisis in Europe there is growing pressure on operating budgets so as to stay within the EU prescribed fiscal deficits envelope. While Croatia, like most new EU member states, has a relatively sustainable level of public debt amounting to some 50% of GDP, its budget deficit remains quite high at around 4.5% to 5% of GDP over the past two years due to increasing costs of borrowing and lower tax revenues and consistently high social expenditures. With reforms that have been introduced recently, budget deficits are only forecasted to drop slowly over the next few years according to the IMF. While the country has now managed its formal accession as a next phase it needs to focus on optimizing the efficiency of the new institutions established as part of this process. In this context, the Bank is presently implementing a TA operation to support the government in optimizing the planning and monitoring of its agricultural and rural development program. This should assist Croatia in optimizing its absorption capacity of EU funds which has been a problem with most of the recent accession countries. Similar Bank support has been discussed and agreed in some of the neighboring new EU member states in the same vein.

3. Assessment of Outcomes

3.1 Relevance of Objectives, Design and Implementation

The objectives of the project have been highly relevant to Croatia's path towards EU accession. EU accession and the necessary competitive and structural adjustments Croatia needs to make remains the primary policy driver in the agricultural sector today. In addition to the EU accession agenda, and the need for institutional arrangements that satisfied EU requirements, the design was influenced to a significant part by the Farmer Support Services Project (FSSP) that preceded the AACP. This influence was significant in the decision to support the laboratory investments at the Seed and Seedling Institute and the Plant Protection Institute that had benefited from Bank support under the previous project. While the reference capacity for GMO testing and Plant Health are clear requirements set out in chapter 12 of the EU accession, such testing does not strictly need to be undertaken in country. However, the overall intent is that the laboratories built under this project will eventually acquire the necessary accreditation to fill that reference role to have testing done in Croatia, and in part also by serving neighboring countries as reference capacity. EU accession and strengthening capacities for the country to effectively absorb and administer EU funding remains the primary focus of the Banks ongoing engagement in Croatia.

The GEF project was developed as a result of the requirements for EU accession countries to adopt the *EU Nitrate Directives* requiring member countries to reduce nutrient discharge in rivers and streams and groundwater. The EU also developed a policy vehicle to support Nitrate reduction with the *Good Agricultural Practices,* which is a set of fairly simple and straightforward practices that are in reach of most agricultural producers to reduce their negative environmental footprint. Given the large area of the country draining into the Danube, the activities were in line with the *Investment Fund for Nutrient reduction in the Danube and Black Sea Basin* and were eminently relevant to the GEF objectives. The linking of the two projects also offered the option to use the EU compliant paying mechanisms developed with support of the AACP for the disbursement of the resources of the GEF.

3.2 Achievement of Project Development Objectives and Global Environment Objectives

While the PDO indicators have been substantially achieved this can be only partially attributed to this project alone as previously reflected. Nonetheless, the project provided for critical pieces in the puzzle that were necessary for Croatia to be able to successfully negotiate its agricultural chapters as part of EU accession.

AACP *Component 1: Moderately Satisfactory*
With the big exception of the SAPARD pre-financing facility the activities under the AACP Component 1 were generally delivered although not necessarily in the proportions as they had been identified at design. Under IBRD financing effectively a Managing Authority is active in Croatia that draws up and monitors the results from the implementation of the annual Rural Development program. A functioning accredited Paying Agency processes payments in line with IPARD requirements. While fully functional, the system however suffers from severe capacity problems as less than half of EU SAPARD allocations could effectively be absorbed. A similar situation prevails with the capacity to administer IPARD funding. While the guarantee fund was intended to provide guarantees for municipalities to access credit for the pre-financing of rural infrastructure activities, the question could be raised on whether rather than eliminating the guarantee altogether, the guarantee fund objective could have been retargeted so as to also cover co-financing of SAPARD measures aimed at farmers directly. However, it is worth nothing that Croatia during the project period also implemented a policy of very high commodity subsidies (direct payments) which in all likelihood stemmed the demand for grants and the willingness for farmers to go through a fairly elaborate application process required by the SAPARD/IPARD programs. Especially small farms with limited managerial capacity are likely to forego this elaborate application process given that direct payments require relatively little effort to be obtained. With increasingly tight government budgets, however, direct payments (for milk for instance) have already dropped significantly which is likely to drive the demand for investment assistance in the future.

APCP Component 1: Moderately Satisfactory
A total of some 65 applications were received and 48 investments were made to build manure platform and pits, as well as some manure spreading equipment to reduce point source pollution for large livestock farms. The design prescribed fully concrete made structures, which are expensive to build. Given the cost of the investments, broad adoption by individual farms on the terms of EU IPARD where 75% of the value of the investment is self-financed by the farmer and 100% of the investments have to be pre-financed, is unlikely. It might have been advisable to look at other storage options for manure and slurry such a steel ceramic, or fiberglass elements, which are quite readily available and manufactured in a number of the neighboring new EU member states and could have been demonstrated as cheaper alternatives. Only when the Manual was modified in July 2011 to allow for an upfront payment of grant funds of 55% and shorter simplified procedures (fewer on the spot controls, shorter implementation schedule) did the demand for the grant funding pick up. For comparison, in July 2011, disbursement stood at 23 percent and by the project closing it reached 100 percent. Also, the small size of farms with very limited means for investment, the relatively low cost of locally produced nitrogen fertilizer (from local natural gas) and the fact that manure application requires substantially more expensive equipment for handling and spreading, the

widespread adoption by smaller farms of the types of structures built under this project is not likely under the current environment. Similarly, the piezometers installed in the project areas monitoring nitrate level changes in ground water provided inconclusive results. In part this is due to the fact that the mitigation measures of the project will only be measurable in ground water after a period of several years.

AACP Component 2: Moderately Satisfactory

The training and capacity building under this component had a varied impact. Clearly the administrative process, the basic language skills, and user skills of information technology have significantly improved across the board in the Ministry and affiliated agencies. However, from discussions with stakeholders, the policy analysis support and management capacity building has only had moderate impact on policy making. This is illustrated by the fact that rural development planning remains weak with little apparent strategic vision to develop programs to help improve the competitiveness of Croatian agriculture. The AIC on the other hand is a remarkable construction providing a variety of information from all agricultural sub sectors including information on veterinary and phytosanitary inspections, borders inspections, FADN information, land use and cropping data, as well as data from the EU accredited paying system which all provide an excellent basis for informed policy making. Unfortunately, the vast array of available data remains to be effectively used to develop an effective agriculture and rural development strategy.

APCP Component 2: Satisfactory

Broad based dissemination of the Code of Good Agricultural Practices was undertaken and Field Demonstrations were held. The project closing survey seems to reflect a significant impact of these activities in the project area with some 94% of farms reporting some type of manure storage. The survey does not go into depth of the type and quality of storage, there seems to be growing realization that just letting manure run-off the farm premises is an unacceptable way of manure disposal. There appears to be a growing recognition of manure as a valuable input and there is a growing awareness and interest in machinery for spreading manure and slurry. However, application technology especially for small farms remains manual for the most part, in the winter rather than mechanical spreading before plowing when the value of manure as fertilizer would be optimized.

AACP Component 3: Satisfactory

The fact that Croatia signed the chapter 11 on Agriculture and Rural Development and chapter 12 (Food safety, veterinary and phytosanitary policy) demonstrates the progress the country has made during the project implementation. These are challenging chapters that required a wholesale reform of the food supply chain including concepts of traceability, risk analysis and assessment, the introduction of Hazard Analysis of Critical Control Points (HACCP/ISO 9000) at the level of food processors and food handling facilities. The main efforts went to building capacity at regional veterinary offices including laboratories, supporting the mandate of the Croatia Food Safety Agency in undertaking its analysis of mycotoxins in fodder and dry food products, trainings and information systems for inspection services linked to the AIC and laboratories to help improve real time reporting. While as mentioned previously this development cannot be attributed to this project alone, its targeted investments in closing existing gaps of the agricultural payment and food safety systems made the closure of these chapters possible.

APCP Component 3: Moderately Satisfactory

This component was to substantially integrate the lessons from APCP activities into greater agricultural policy making to help the country achieve the EU environmental requirements for agriculture. While awareness campaigns and demonstrations were held, the Croatian Agricultural Extension Institute (CAEI) never really developed into an effective advocate of environmental measures in agriculture. Extension services in Croatia remain weak and largely disconnected from farmers as their primary clientele. For instance, the application of (locally produced cheap) nitrogen fertilizer is still broadly advocated instead of making better use of organic fertilizer (manure/slurry) which would also reverse some of the mineralization and loss of topsoil that has taken place over the past 50 years as documented by the Osijek Agricultural Faculty. Nevertheless, the demonstration fields and the accompanying research for fertilizing optimization have generated significant interest by larger farmers who are increasingly adopting nutrient planning techniques disseminated under the project. Though all the component activities were delivered and key indicators met with the above caveat related to extension capacity, the impact is assessed as moderately satisfactory.

3.3 Efficiency

The Project Appraisal Document (PAD) of the AACP derived its economic benefits primarily from investments in rural public infrastructure where the grant facility would have played a major role. Since the measure to support this type of investment never obtained conferral of management from the EU and the guarantee fund to help municipalities to access credit for these activities was cancelled as a result, the assumptions defined in the PAD of the AACP project do not hold and cannot be a basis for before and after project comparison. No Financial Rate of Return (FRR) or Economic Rate of Return (ERR) had been calculated at the project preparation.

The project focused its investments on capacity building of public institutions to improve Agricultural Paying systems transparency and traceability as well as the capacity to absorb EU funds from SAPARD initially and IPARD later, and the implementation of the CAP in the future. A second objective has been to strengthen public institutions mandated to implement Food Safety thus opening the doors to food stuff export to the EU.

Benefit streams: The project contributed to developing the platform from which Croatia can access substantial EU CAP funds and provides the basis for open trade of food stuff with the EU. As such the project provided the potential to yield large benefits streams from the investments made. However, these streams will not be the sole result of this project but from a number of interventions including most importantly the EU. Given the difficulty in separating the various investments from the various donors supporting Croatia's successful negotiations of Chapters 11 and 12, no quantitative analysis has been made of the benefit streams.

Cost effectiveness: The project in many ways filled gaps where national resources or EU funding were not programmed for a specific task necessary for negotiations of the EU agricultural chapters. As such the project was highly complementary in its investment contributing to a greater whole that brings more benefits than the sum of its individual parts. The investments to set up the LPIS which was a critical piece for accreditation of

the paying systems for rural development from the EU as part of Chapter 11 negotiations are a good example of this situation.

Unit costs: It generally appears that works and goods investments generally fell in the regional averages for similar works and products in the region.

APCP benefits streams: The project identified reducing nutrient pollution of the Black Sea as the main benefit of the project. This was to be achieved from improved farming practices that would lead to annual reduction of dissolved nutrients flowing into the Black Sea at 20 kg/ha N and 2.5 kg/ha P mainly from animal origin. It was assumed that through improved storage and handling, half of the manure would be prevented from being flushed into the river systems and hence into the Black Sea. After 10 years, if sixty percent of the farmers in the project area adopted similar practices, then the estimated annual reduction of pollutants flowing into the Black Sea would be significant. It is also notable that with further study undertaken as part of the project, only about 30% of the nitrate accumulation can be traced back to livestock. Heavy nitrogen fertilizer use seemingly plays a larger role than estimated at project design.

The project also assumed that project's public awareness campaign, field trials and workshops, even farmers from adjoining areas would adopt the environmentally friendly agricultural practices, and result in a larger impact under the project. The survey undertaken in April 2012 confirms that 94 percent of the farmers interviewed adopted a practice that lead to a reduction in the nutrient loads promoted under the project.

For the Incremental Cost Analysis a baseline scenario assumed costs from a variety of projects financed by a number of donors amounting to some US$18.4 million and GEF would provide increment of some US$ 6.00 million towards achieving Global Environmental Benefits. The assumption was that the investments themselves would only have a limited impact on water quality, but that the IPARD approximating measures developed under the GEF project would become integral part of implementing the EU CAP and thus have a large multiplier effect.

Cost Effectiveness: The choice of design for manure pits and platforms made entirely of concrete was in all likelihood not the most cost effective. As mentioned above, given the high level grant financing on what are relatively larger farms, the project should have used the opportunity to introduce alternative, lower cost technologies that would have a better chance of being readily adopted. Nonetheless, unit cost rates for construction overall remained within the range considered normal in the Western Balkan region in spite of substantial permit processes and quite stringent building requirements.

3.4 Justification of Overall Outcome and Global Environment Outcome Rating

***Moderately Satisfactory*:** The AACP substantially delivered on the rather tall order it defined at design even if it needs to be recognized that many of the indicators and parameters met cannot be exclusively attributed to the project. On the flip side, some of the indicators that were not met were also not just caused by the project such as for instance the low absorption of SAPARD/IPARD funding processed through the Croatian Paying Agency. With the elimination of SAPARD Pre-finance Facility, substantial resources were reallocated and made available to invest into activities that were envisaged to cost less at project design. Though the PDO has been achieved it cannot be attributed solely to the project activities.

Similarly, ***Moderately Satisfactory*** rating is for the GEF-funded APCP. Most activities were delivered and indicators met, though only after some revisions were introduced to the application terms for the Nitrate Mitigation Fund. Nonetheless, as reflected previously, most of the project indicators were substantially met and the overall objective of meeting EU accession criteria were satisfied.

3.5 Overarching Themes, Other Outcomes and Impacts

(a) Poverty Impacts, Gender Aspects, and Social Development

The project did not have and is not expected to result in substantial changes in poverty or gender roles and access. However, with EU accession and CAP policy application, there will be an increasing pressure to favor larger more sustainable family farms. Increasingly, rural development policy will have to find mechanisms to finance social objectives by other means than by the agricultural incentives budget. This will lead to the slow disappearance of subsistence farming in favor of land consolidation and emergence of larger commercial farms. Programs coordinated between Agriculture and Rural Development and social affairs filling in the assistance gap currently provided by indiscriminate direct payments will have to be introduced to manage the social transformation that this change will produce as observed in other new accession countries.

(b) Institutional Change/Strengthening

As previously reflected, the institutional changes supported by the project fit into the broader framework necessary for EU accession. These institutions supported by the project activities will in the future need to report to supra national bodies such as the European Food Safety Agency, the EU FADN to help formulate and adjust CAP policy, against which Croatia will receive substantial cohesion funding. This funding mechanism will ensure that these institutions will have adequate resources to ensure functioning.

(c) Other Unintended Outcomes and Impacts (positive or negative)

There are not really any unintended outcomes from the project, as it primarily deals with institutions that have specific functions in a country on the threshold of joining the EU.

3.6 Summary of Findings of Beneficiary Survey and/or Stakeholder Workshops

A project closing survey was held as part of the APCP. Discussions with beneficiaries and institutions in the field reflect an overwhelmingly positive impression and satisfaction with the project outcomes and achievements. The results of field operations and achievements were presented and discussed during the regional APCP conference in Zagreb held from May 31 to June 1, 2012. Survey results are attached in Annex 5.

4. Assessment of Risk to Development Outcome and Global Environment Outcome

Moderate: The institutional changes supported by this project fit into the broader framework necessary for EU accession and membership. The institutions that were supported under the AACP will in the future need to report to supra national bodies such as the European Food Safety Agency (EFSA), the EU FADN to help formulate and adjust CAP policy, against which Croatia will receive substantial cohesion funding. This funding mechanism will ensure that the institutions supported by the project will have the

adequate resources to function and fulfill their mandate**.** The GEF investments need also to be seen in the bigger context of EU accession and especially the requirement for member countries to adopt the EU Water Directives that specify norms on water use and quality and have stemmed reforms to reduce pollution in all member countries. The reduction in pollution from agriculture is enshrined in Croatia's Code of Good Agricultural Practices and the Common Agricultural Policy (CAP) which emphasize measures to mitigate pollution from agriculture. Funding for environmental measures in agriculture is therefore assured.

5. Assessment of Bank and Borrower Performance

5.1 Bank Performance

(a) Bank Performance in Ensuring Quality at Entry: *Satisfactory*

The project was prepared as a follow on to an ongoing agricultural project in Croatia (FSSP). Several preparation visits were undertaken with an adequate representation of technical specialties. This offered a good basis for knowledge of the sector and its institutions but may have at times also have influenced certain decision as to the extent of investments in laboratories and other facilities that might have had more scrutiny if the counterpart agency had been relatively less familiar. Conversely, the project's investments built capacity beyond the strict requirements of the EU for testing, and also provide a platform from where research in the sector may also provide the opportunity to boost agricultural productivity over time. The project activities and the results framework in spite of some conceptual weaknesses correlated with the PDOs in the case of both IBRD and GEF financing.

(b) Quality of Supervision: *Moderately Satisfactory*

All together there were four different Task Team Leaders which led to a lack of continuity in supervision though the country based staff maintained contact with the client. In its later phases the project was twice restructured to accommodate the changes in financing priorities, and disbursements improved dramatically. While there were some delays in the early part of the project with auditing, the problems were resolved in the second year. There were no fiduciary issues in subsequent years of projects' implementation.

(c) Justification of Rating for Overall Bank Performance: *Moderately Satisfactory*

There were some delays in the Bank's responsiveness to the client's requests for no objection. However, the country office staff kept the "ball rolling" in spite of sometimes poor responsiveness by the Washington based TTL in the mid part of the project implementation period. Due to pressures to disburse, with a new TTL on board in January 2010 restructuring and reallocations of funds became swift and major loan portions were reallocated to works and equipment which improved project performance and disbursements considerably.

5.2 Borrower Performance

(a) Government Performance: M*oderately Satisfactory*

Although there have been a number of changes in government with a number of new Ministers, overall the project benefitted from fairly consistent support. However, the Ministry did not always fully seize the opportunities that the project provided to adjust its policies towards more fiscal sustainability, better targeting of its agricultural support, and more environmentally sustainable farming practices.

(b) Implementing Agency or Agencies Performance: *Satisfactory*

The Implementation team was very pro-active and it is in large part responsible for the overall positive outcomes achieved under the two projects.

(c) Justification of Rating for Overall Borrower Performance: *Moderately Satisfactory*

While there have been several changes in Ministerial counterparts, and uncertainty in institutional policy defining the layout of the various institutions which led to some delays, the projects' activities were always seen as priority by the government.

6. Lessons Learned

Timing of EU Pre-Accession and Accession process. When defining broad objectives as a partner to implement activities such as EU accession negotiations, the Bank has little control on timing and in phasing its activities requiring a very flexible implementation approach where procurement often fills immediate needs that may not have been fully identified at project preparation. The EU Accession process is affected by many variables that are beyond the reach of the client Country, and often takes longer than the typical Bank project timeframe. To that effect, the willingness of the Bank to extend the project closing date and adjust the procurement plan to better reflect the client Country EU requirements during implementation makes it a valuable partner and provides continuity to the client Country who has to absorb all the TA and capacity that is being provided by the EU and other donors as part of the process.

Investments in Laboratory facilities for compliance with EU Food Safety requirements. This project as most projects of this sort supporting EU pre-accession invested very substantial portions of the funding in building government owned national reference testing capacity. The capacity of a country to certify its food production is a requirement for export to the EU. The question could be posed however whether these investments do not often go beyond the requirements of the EU. While having systems in place to ensure the safety of food products is necessary, this capacity for testing can also be contracted with accredited laboratories beyond the national borders. In the region, for instance, road and transport infrastructure is relatively good with good communications and countries are relatively small in size, the building of laboratory capacity could be envisaged at a regional level in a network of accredited laboratories accepted as reference by a number of countries. Such an arrangement could potentially have saved significant resources for each country. This point is particularly well illustrated with the GMO laboratory that has substantial overcapacity relative to the demand for Plant material GMO testing in the country. At the very least, such facilities should be proposed based on a feasibility study or business plan that goes beyond the mandate by the EU for reference capacity and also

look at local demand for such testing. Of course, this touches on the issues of national sovereignty which have aspects beyond the simple economic rational of such investments.

Investments for mitigation of environmental pollution measures in agriculture depend on public support and incentives and minimum farm size. While switching from mineral and synthetic fertilizer to better using organic fertilizer especially in farms with significant livestock holding makes sense economically, it only does so under the right circumstances. In higher income countries, when farms are very small and fragmented the cost in labor and time of spreading manure might be prohibitive relative to applying small quantities of mineral fertilizers. In larger farms with larger parcels the benefit might be greater, but then depends on very substantial capital investments in manure/slurry storage and equipment for proper application. These investments in most countries only take place with a targeted support and adequate information programs. Such programs however can only make sense on farms of a certain minimum size leaving out subsistence farmers with numerous fragmented parcels where applying a few kilos of fertilizer is a lot easier than loading, hauling and spreading several tons of manure in different locations.

Importance of Coordination and Partnership. Partnering with other donor organizations such as the EU, FAO, GEF and Dutch Embassy proved to be highly beneficial for the country and ensured that aid coordination across a common objective to help Croatia meet the EU accession agenda in the agricultural sector and satisfy the necessary institutional arrangements. The EU accession agenda, successful partnership with other donors and strengthening capacities for the country to effectively absorb and administer EU funding remain the primary focus of the Bank's ongoing engagement in Croatia. This approach has a great potential to be replicated in other neighboring countries aspiring for EU membership. Despite complex administrative procedures and substantial coordination by all partners, the end results are worth the effort. In the case of Croatia, in spite of imminent accession, the partnership of the Bank in consort with the EU remains in demand to assist it towards more effective and efficient administration of the vast resources and responsibilities that result from EU membership.

7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners

(a) Borrower/implementing agencies

The Borrower submitted to the Bank its Implementation Completion Report in September 2012 together with the Beneficiary Survey Results for the GEF-funded APCP. The survey results and report are presented in Annex 5 and Annex 7 respectively.

The PIU staff sent a note dated January 18, 2013 stating that they confirm that the text in final version of the document satisfactorily describes the activities and that the overall ratings and evaluation are acceptable to them.

(b) Cofinanciers:

No specific comment was received from the representatives of the Dutch Embassy in Zagreb. During project implementation, they always expressed a great satisfaction with the project activities as reported in the mission Aide Memoires.

Annex 1. Project Costs and Financing

CAACP/Dutch grant – Project Cost by Component (in USD Million equivalent)

Components	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Implementation of EU Acquis in Rural Areas	17.40	13.26	76
Empowerment of MoA Administration and Management	6.60	7.08	107
Ensuring Safe Food and Sanitary Conditions	17.49	16.60	94
Project Management	0.84	0.62	73
Refinancing of PPF	1.85	0.78	42
Total Baseline Cost	44.18	38.34	
Physical Contingencies	3.00		
Price Contingencies	1.25		
Total Project Costs	48.43		
Interest during construction	0.00		
Front-end fee	0.08	0.08	
Total Financing Required	48.51	38.42	

(b) Financing

Source of Funds	Type of Cofinancing	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Borrower		13.62	3.7	27
IBRD		30.14	29.97	99
Dutch Grant		4.75	4.75	100
TOTAL				

GEF APCP - TF 90845 - Project Cost by Component (in USD Million equivalent)

Components	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Mitigating nutrient loads to water bodies	14.61	14.50	99.30
Development and promotion of Agri-environment measures	3.79	3.77	98.95
Public awareness and replication strategy	0.71	0.71	100
Project Management	0.59	0.58	98
Total Baseline Cost	**19.70**	**19.60**	**99**
Physical Contingencies	0.16	0.16	100
Price Contingencies	0.13	0.13	100
Total Project Costs	**19.99**	**19.79**	**99**
Interest during construction	0.00	0	0
Front-end fee	0.00	0	0
Total Financing Required	**5.00**	**4.99**	**99.85**

Source of Funds	Type of Cofinancing	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Borrower		5.00	4.99	99.85
Local communities		1.10	1.10	100
Associated IBRD funds		13.90	13.90	100

Annex 2. Outputs by Component

As reflected earlier in the text, the project financed a number of activities necessary for the Croatia to successfully complete IPARD compliant paying system, and restructure its food safety infrastructure in line with EU requirements so as to be able to successfully negotiate Chapters 11 and 12 of the EU *Aquis Communautaire*. This meant that project financing was complementary to a number of ongoing activities to achieve this objective.

Under the IBRD financed component 1 ***Strengthening Capacity for Absorbing EU Financial Assistance in Agriculture*** **-** The EC Enlargement Strategy and Main Challenges 2008-2009 confirmed the defined key elements for the accession negotiations in Chapter 11: setting up the Paying Agency and establishing an integrated administration and control system (IACS) including a land parcel identification system (LIPS). Further to need for urgently strengthening Paying Agency, and building an EU compliant Payment System for EU SAPARD fund management with work on the development of IACS including LPIS additional activities were included in CAAC Project. The Project has supported these milestones through three major activities that were additionally added in line with the necessity of immediate action towards the EU requirements on LPIS: Supply and Installation of application software package (LPIS software); technical services for the services of producing Digital Orthophoto Maps (DOP 5) and Geodetic – Cadastral services for production of the Digital cadastral maps. The component development objective is reached applying a flexible approach where a number of activities originally envisaged were dropped and new ones added. Project activities were aligned with the EU delegation in Zagreb in order to avoid overlapping of financial sources. The Project has contributed substantially to the EU accreditation of MoA's Paying Agency and the establishment of the LPIS and IACS. The Pilot SAPARD Pre-finance Facility and accompanying Regulation/Directive on implementation of SAPARD in 2008 (3rd SAPARD Measure integrated in IPARD) led to significant redirecting of funds towards supporting the LPIS, a crucial element in transparent area based payment systems.

Today, Croatia has an accredited Paying system for IPARD funding that will also process CAP funds upon accession, farm level statistical data is regularly collected from a functioning FADN system, the staff of the Paying Agency have been trained and equipped and an Integrated Administration and Control System (IACS) with a Land and Parcel Information System (LPIS) to handle area payments (direct payments) is in place and functioning according to EU requirements and reflected in the successful negotiations of Chapter 11 of the Aquis Communautaire.

The following activities were delivered as per the procurement plan:

Originally planned activities	Justification	Activities implemented	Timeline/Comment
Construction of PA HQ (W)	CANCELLED: After establishing of the SAPARD Paying Agency (PA) within the MAFRD/DMSSA, the PSC approved the February 2007 Supervision Mission recommendation to reallocate PA civil works funds for the development of the LPIS. In compliance with findings of expert advice on the most effective approach to completing Croatia's ortho-photography coverage and developing its LPIS new activities were included in PP.	CW for Rehabilitation/upgrading of PA offices (W)	IMPLEMENTED 2006
		Digital ortophoto maps (G)	IMPLEMENTED 2010
NUTS II region PA offices (W)		Digital cadastral plans (G)	IMPLEMENTED 2010
PY1 office furniture and equipment (G)	IMPLEMENTED as office furniture for PA		
PY2 office furniture and equipment (G)			
PY3 office furniture and equipment (G)		PA office furniture and IT equipment(G)	IMPLEMENTED 2005/06
PA database management computing systems (G)	Activities joined and included in PP.	Account. finance software for PA (G)	IMPLEMENTED 2008
Ag.Information Center Information proc..and management (G)		Procurement of IT equipment &software for PA (G)	IMPLEMENTED 2007
	Not in original PP. Added activity	GPS equipment for PA (G)	IMPLEMENTED 2007
	Not in original PP. Added activity	LPIS software (G)	IMPLEMENTED 2008
	Not in original PP. Added activity	Vehicles for PA (G)	IMPLEMENTED 2006/07
PA HQ design/design spn (CS)	CANCELLED: As the construction of new building was cancelled the related supporting CS were cancelled too. New CS was included in PP to support LPIS.		
PA HQ building spn (CS)			
NUTS II offices design/design spn (CS)			
NUTS II office construction spn (CS)		LPIS promotion campaign (CS)	IMPLEMENTED 2008-2010
SAPARD monitoring and evaluation contract (CS)	CANCELLED: financed from EU funds		CANCELLED
SAPARD financial and performance audit (CS)	IMPLEMENTED	Internal Audit Advisor-PA (CS)	IMPLEMENTED 2006/07
Rural Forum Adviser (CS)	CANCELLED: financed from EU funds		CANCELLED
SAPARD Communications Program (G)	Partially IMPLEMENTED	Evaluation of sector analysis (CS)	IMPLEMENTED 2007

Ex-Ante Evaluation of the IPARD Program (SC)	IMPLEMENTED		IMPLEMENTED 2007. Alternative source of financing-DUTCH GRANT
SAPARD Guarantee Fund Advisor (CS)	CANCELLED: SAPARD project published 3rd measure for award of financial support in 2008. The Regulation/Directive on implementation of SAPARD was altered in 2008. 3rd SAPARD Measure will be part of IPARD. Consequently related supporting CS was cancelled.		
Credit Guarantee Advisor (CS)			CANCELLED
SAPARD M&E Advisor (CS)	CANCELLED: financed from EU funds		CANCELLED
SAPARD Rural Development Advisor (CS)	Beneficiary cancelled activity. Instead two new activities were included in PP.	SAPARD Managing Authority Capacity Building Advisor (CS)	CANCELLED
	Not in original PP. Added activity	SAPARD Beneficiary Capacity Building Advisor(CS)	IMPLEMENTED 2006
Paying Agency IACS Advisor (CS)	IMPLEMENTED and new related activities included in PP	Paying Agency IACS Advisor (CS)	IMPLEMENTED 2006
		LPIS Advisor for PA (CS)	IMPLEMENTED 2006
		LPIS Advisor for PA II (CS)	IMPLEMENTED 2007/08. Alternative source of financing-DUTCH GRANT
		LPIS Advisor for PA Amendment (CS)	IMPLEMENTED 2008. Alternative source of financing-DUTCH GRANT
		LPIS Advisor for PA III (CS)	IMPLEMENTED. Alternative source of financing-DUTCH GRANT
		LPIS project international ADVISOR (CS)	IMPLEMENTED 2009. Alternative source of financing-DUTCH GRANT
		IACS Advisor (CS)	IMPLEMENTED 2009. Alternative source of financing-DUTCH GRANT
		PA Information system and LPIS Advisor (CS)	IMPLEMENTED 2005/06
PA Risk Management Advisor (CS)	Beneficiary cancelled activity.		CANCELLED
	Not in original PP. Added activity	LEADER approach IPARD Plan 2007-2013. (CS)	IMPLEMENTED 2007. Alternative source of financing-DUTCH GRANT
	Not in original PP. Added activity	IT Specialist for PA (CS)	IMPLEMENTED 2005/06
	Not in original PP. Added activity	EU Procurement Specialist (CS)	IMPLEMENTED 2006
	Not in original PP. Added activity	TA-Training for Department for Control of Market Support Measures (PAFRD) (CS)	IMPLEMENTED 2010. Alternative source of financing-DUTCH GRANT

	Not in original PP. Added activity	TA-Training for On The Spot Control (PAFRD) (CS)	IMPLEMENTED 2011. Alternative source of financing-DUTCH GRANT
	Not in original PP. Added activity	TA-Training for Structural Support Measures (PAFRD) (CS)	IMPLEMENTED 2011. Alternative source of financing-DUTCH GRANT
	Not in original PP. Added activity	TA-Training for Pre accreditation audit guidelines (PAFRD) (CS)	IMPLEMENTED 2011. Alternative source of financing-DUTCH GRANT
	Not in original PP. Added activity	TA-On-going evaluation of IPARD programme (CS)	IMPLEMENTED 2011/12. Alternative source of financing-DUTCH GRANT
	Not in original PP. Added activity	TA-Ex-post evaluation of SAPARD programme (CS)	IMPLEMENTED 2011. Alternative source of financing-DUTCH GRANT

Under the GEF financed component 1 ***Mitigating Nutrient Loads to water Bodies from Point-Source Pollution -*** Despite difficult financial conditions and long lasting structural crisis in the Croatian agriculture, the project successfully motivated and engaged group of more than 60 farmers with their application to the Nitrates Mitigation Investment Fund created under the project. Due to low initial demand 48 projects were contracted on the basis of 25% farmer's financial contribution in the very late parts of the project. The Support for Water and Soil Monitoring and Impact Analysis funded the construction of 30 sets of water analysis stations (piezometers) that will become part of future Croatia waters control network. These activities significantly contributed to achieving of the Project outcome targets and contributed to a full disbursement of grant funds (99.85 percent).

The following activities were delivered as per the procurement plan:

Sub-component	Originally planned activities	Justification	Activities implemented
A. Nitrates Mitigation Investment Fund	Grants for Manure Storage (Grant 75%)	IMPLEMENTED	Grants for Manure Storage in Varaždinska County
			Grants for Manure Storage in Osiječko-baranjska County
			Grants for Manure Storage in Vukovarsko-srijemska County
	Grants for manure pumping (Grant 15%)	Financed 100% from the Grant funds. New activity included in PP.	Manure management equipment for farmers (G)
	MAFWM Paying agency staffing (CS)	IMPLEMENTED	GAO (CS)
	Paying agency staff training		
	Office equipment (G)	Activities amount aggregated and included in PP.	Office equipment for CAEI and PA staff (G)
	Office furniture (G)		Office furniture for CAEI and PA staff (G)
B. Water and Soil Monitoring and Impact Analysis	Field equipment (G)	IMPLEMENTED	Field piezometers installation (G)

			Field lysimeters (CS)
	Laboratory equipment (G)	CANCELLED: Laboratory equipment GC-ECD/MS system (for CW) not procured.	Instead laboratory equipment for Agronomy Faculty in Zagreb and Agronomy Faculty in Osijek (G)
		Not in original PP. Added activity	Technical Assistance for Assessment of Procurement Complaint
	Laboratory Quality Control Study (CS)	IMPLEMENTED	QA/QC Operation manual advisor (CS)
	Farm well water testing (CS)	CANCELLED: Portable nitrate testing equipment procured instead. New activity included in PP.	Portable Nitrate Testing Colorimeters (G)
	Soil Testing (CS)	CANCELLED	
	Laboratory staff training	IMPLEMENTED	CW laboratory personnel training (

Under the IBRD financed component 2 ***Empowerment of MAFWM Administration and Management*** - Significant Project contribution to staff capacity building program, financed primarily through the Dutch Grant has enabled MoA staff to accelerate and deepen its interactions with the EU counterparts by supporting their participation at numerous Agriculture Acquis related workshops, training events and short- and long-term graduate study scholarships. Through the Grant Funds a broader impact was achieved with the standardized European Computer Driving License training program and foreign language training in parallel. The Amendment to the Grant Agreement provided short-term financing and training of farmers in the country and abroad through various forms of training for members of associations of agricultural producers. The broader framework for all forms of education co-financed was harmonization of national legislation in area of agriculture with the EU acquis as well as its sustainable development, and preparation of farmers for EU membership and the application of the Common Agricultural Policy. The Grant facilitated the participation in lectures, round tables, conferences, workshops, courses and seminars in the field of Agriculture and Rural Development, organized by relevant experts, organizations and institutions in Croatia and the European Union.

The loan funded overall MoA's ICT (major activities: Implementation of the MAFRD Data Centre (Refurbishment, installation and implementation); Supply and Installation of Design, developing and implementation of Veterinary Science IS and Design, developing and implementation of Phytosanitary sector IS) has provided an advanced institutional level hardware platform as well as software solutions for the most demanding EU reporting obligations thus reaching the development objective.

Further to the alignment of the Croatian agricultural support system with the acquis the Project has contributed to Croatia's negotiations in the areas related to strengthening of the administrative managements capacities and supporting a number of EU policies trainings as well as establishing the farm accountancy data network (FADN). All activities within this component were successfully finished.

The following activities were delivered as per the procurement plan:

Originally planned activities	Justification	Activities implemented	Timeline/Comment
Construction of reg. MAFWM Inspection Offices (W)	CANCELLED: due to unwillingness of local government authorities to issue necessary permits for construction. The regional inspections are organized vastly dispersed on county level. Therefore a number of inspections were to be dislocated or reorganized. Reorganization was never conducted. Therefore the construction works activity was cancelled. Consequently related supporting CS were cancelled too		CANCELLED
Reg.Inspection office design/design spn			CANCELLED
Reg.Inspection office CW spn			CANCELLED
MAFWM database management computing systems (G)	Based on finding on consultancy for the specification of the MAFRD information technology (IT) architecture the estimation of cost for establishment of DC was increased. The estimated cost for Development of MAFRD MIS added.	Establishment of MAFRD Data Centre (G)	IMPLEMENTED 2010
Dev.of MAFWM MIS (G)			
	Not in original PP. Added activity	Generating unit for Data Centre (G)	IMPLEMENTED 2011
	Not in original PP. Added activity	Need assessment and TS for development of MAFWM Data Center (CS)	IMPLEMENTED 2007/08
	Not in original PP. Added activity	TA-Evaluation of bids for Implementation of the MAFRD Data Centre (CS)	IMPLEMENTED 2009
	Not in original PP. Added activity	TA-Supervision of implementation&establishment of MAFRD Data Centre (CS)	IMPLEMENTED 2010
Dev.of Vet.and Plant Protection dpt databases (G)	Based on finding on consultancy for the specification of the MAFRD information technology (IT) architecture activity was divided into two separate activities and estimation of cost was increased.	Supply and Installation - Design, Development and Implementation of the Veterinary Sector IS (G)	IMPLEMENTED 2011/12
		Supply and Installation - Design, Development and Implementation of the Phytosanitary Sector IS (G)	IMPLEMENTED 2010/11
	Not in original PP. Added activity	TA-Evaluation of bids for Supply and Installation of the Phytosanitary and Veterinary Sector IS (CS)	IMPLEMENTED 2010
	Not in original PP. Added activity	TA-Supervision of Supply and Installation - Design, Development and Implementation of the Phytosanitary Sector IS (CS)	IMPLEMENTED 2010/11
	Not in original PP. Added activity	TA-Supervision of Supply and Installation - Design, Development and Implementation of the Veterinary Sector IS (CS)	IMPLEMENTED 2011/12

MAFWM management training program	CANCELLED: two new activities added: ECDL Training Programme and English Language Training Programme for MAFRD Employees. Alternative source of financing-DUTCH GRANT	ECDL Training Programme	IMPLEMENTED 2009
		English Language Training Programme for MAFRD Employees	IMPLEMENTED 2011/12
MAFWM management skill gap analyst (CS)	Selection process cancelled.		CANCELLED
Agr. Information System Advisor (CS)	IMPLEMENTED	Market Information Service Advising Company (CS)	IMPLEMENTED 2008
Policy studies (CS)	Not initiated. Partially financed from EU funds.	Direct Sale of Agricultural Products and Complementary Activities on Family Farms (CS)	IMPLEMENTED 2011/12
FADN Pilot Program (CS)	IMPLEMENTED		IMPLEMENTED 2008-2010
	Not in original PP. Added activity	TA-external IT assistance for developing IT system for FADN networking (CS)	IMPLEMENTED 2008-2011
Policy analysis Post-graduate Training Program	CANCELLED: No need for two separate post graduate training programs. Alternative source of financing-DUTCH GRANT		Alternative source of financing-DUTCH GRANT
Policy Analysis Specialists (CS)	Partially IMPLEMENTED	EU Direct Payments Advisor (CS)	IMPLEMENTED 2007
	Not in original PP. Added activity	TA For further strengthening and completion of the Market Price Information Service AMPIS/TISUP in the years 2009-2010 (CS)	IMPLEMENTED 2009/10
	Not in original PP. Added activity	TA-Establishment and development of AIS/PIC (CS)	IMPLEMENTED 2010
	Not in original PP. Added activity	TA-SBS Assistance (CS)	IMPLEMENTED 2011
	Not in original PP. Added activity	Rapid Social Assessment for GEF APCP (CS)	IMPLEMENTED 2007
	Not in original PP. Added activity	EU Agricult. Negotiations Advisor (CS)	IMPLEMENTED 2008/09

Under the GEF financed component 2 ***Development and Promotion of Agri-Environment Measures*** - The project team together with external advisors successfully conducted role of facilitators and managers of the activities on the field. They led broad educational campaign with numerous lectures and seminars for the farmers - during the project information campaign and field days organized on the farms. In addition, the project entered in cooperation with two Agriculture faculties on three scientific studies and motivated five agriculture high schools on education of the children. All planned, activities within this component were successfully finished and related Project outcome indicators achieved.

The following activities were delivered as per the procurement plan:

Sub-component	Originally planned activities	Justification	Activities implemented
A. Dissemination of Code of Good Agriculture Practice	CAEI Nitrates Management Field Advisors (CS)	IMPLEMENTED. 3 advisors in total, for each county 1.	
	Extension equipment (G)	IMPLEMENTED	

	Nitrates Policy Advisor (CS)		
	Nitrates Monitoring Advisor (CS)	Activities joined and included in PP.	Nitrates Management and Policy Advisor (CS)
	Good Agricultural Practice Advisor (CS)	IMPLEMENTED	
	CAEI Training of Trainers Program (Tr)	IMPLEMENTED	
		Not in original PP. Added activity	Nitrates vulnerable zones in Croatia study (CS)
		Not in original PP. Added activity	Agri-environment measures in Croatia study (CS)
C. CGAP Demonstration Program	CGAP Field Demonstration	IMPLEMENTED	

Under the IBRD financed component 3 ***Ensuring Safe Food and Sanitary and Phytosanitary Conditions*** - In 2008 the institutional framework for food safety management in Croatia required further alignment with the EU requirements related to Chapter 12. The role of Competent Authority for the management of food safety was assigned to MoA, and the Croatian Food Agency (CFA) was made responsible for food risk assessment. Project investments have enabled the newly established CFA to acquire the basic capacities necessary for performing its risk assessment functions. Through project supported activities EU compatible Rapid Alert system for Food and Feed (CRO-RASF system) is developed and established on national level in order to enable MoA to meet its international reporting obligations and perform its consumer protection functions. In the area of genetically modified organisms (GMOs) in line with the adoption of implementing legislation relating to conditions for laboratories involved in testing, control and monitoring, the Project financed the construction of the GMO laboratory. The GMO laboratory is fully operational using ISTA-certified tests. The project supported the path of veterinary sector with the adoption of implementing legislation through refurbishing and equipping NVI regional institutes. All 4 regional NVI laboratories are operational and using ISO 17025 certified tests. Strengthening the capacity of phytosanitary and agricultural inspections was additionally equipped by Project funds enabling better mobility and communication on the field. Financially most valuable project investment is the construction of Plant Protection Institute building that has been completed with accreditation to follow. All activities within this component were successfully finished.

The following activities were delivered as per the procurement plan:

Originally planned activities	Justification	Activities implemented	Timeline/Comment
Relocation of National Veterinary Institute (W)	CANCELLED: In collaboration with the NVI and Veterinary Directorate, an international consultant was recruited to review the structure of veterinary laboratory facilities and services in Croatia and advice on their restructuring, including privatization or relocation as required. Assessment of laboratory resources and restructuring of laboratory services was found acceptable by NVI and MAFRD. The final decision related to funds planned	Rehabilitation of reg.institute Vinkovci (W)	IMPLEMENTED 2010/11
		Rehabilitation of reg.institute Križevci (W)	IMPLEMENTED 2010
		Rehabilitation of reg.institute Split (W)	IMPLEMENTED 2010-2012

	to be used for building for new NVI was made on PSC Meeting. The funds are used for Upgrading of regional Institutes and Poultry Center. Part of reallocated funds are used for purchasing of Laboratory equipment for NVI	Rehabilitation of reg.institute Rijeka (W)	IMPLEMENTED 2011/12
Upgrading of CFA office (W)	CANCELLED Beneficiary decided to cancel activity. Instead activities CFA office equipment and IT equipment were included in PP.	IT for CFA (G)	IMPLEMENTED 2008
		CFA furniture (G)	IMPLEMENTED 2008
Food Safety Communication Program for CFA (G)	IMPLEMENTED	Food Safety Communication Program (Dpt.for Food Safety) (G)	IMPLEMENTED 2010/11
		Food Safety Communication Program for CFA (G)	IMPLEMENTED 2011
		CRO RASFF IT equipment (G)	IMPLEMENTED 2011
Vehicles (G)	Procurement of vehicles initiated 2007 in was cancelled. New procurement process was not initiated due to Government decision (July 2009) to ban the purchase of vehicles for government institutions. It was of crucial importance to obtained Government conclusion that was issued on March 2010 the Government conclusion.	Agricultural, Phytosanitary and Veterinary Inspection vehicles (G)	IMPLEMENTED 2011
		Forklifts for the needs of veterinary border inspection (G)	IMPLEMENTED 2012
Laboratory information management systems (G)	CANCELLED: Activity was to implement IT systems that will connect all veterinary and food safety related laboratories and responsible Government institutions. Included Governmental institutions were unable to make joint decision on how to implement such system and the ownership of the system.		CANCELLED
Laboratory equipment and supplies (G)	IMPLEMENTED	Laboratory equipment and supplies for NVI (G)	IMPLEMENTED 2011
		Microchip readers for dogs (G)	IMPLEMENTED 2009
		Procurement of HPCL instruments (G)	IMPLEMENTED 2008
		Laboratory equipment for early diagnosis of Avian Influenza for Poultry Center (G)	IMPLEMENTED 2006
	CANCELLED: Due to Government budgetary funds restrictions, decision to procure laboratory furniture and office furniture instead, in order to make new building of PPI fully functional.	Laboratory equipment and supplies for PPI (G)	CANCELLED
	Not in original PP. Added activity	Laboratory furniture for the needs of new building of PPI (G)	IMPLEMENTED 2012
	Not in original PP. Added activity	Laboratory chairs and laboratory trolley for the needs of new building of PPI (G)	IMPLEMENTED 2012
	Not in original PP. Added activity	Office furniture for the needs of new building of PPI (G)	IMPLEMENTED 2012

	Not in original PP. Added activity	Conference furniture for the needs of new building of PPI (G)	IMPLEMENTED 2012
	Not in original PP. Added activity	Acoustic barriers for PPI (G)	IMPLEMENTED 2012
	Not in original PP. Added activity	TA for Analysis, Assessment and Revision of the.specs. for procurement of lab.furn.for PPI (CS)	IMPLEMENTED 2011/12
Relocation of Plant Protection Institute (W)	IMPLEMENTED		IMPLEMENTED 2010-2012
GMO laboratory and offices (W)	IMPLEMENTED		IMPLEMENTED 2007
CFA office upgrade design/spn (CS)	CANCELLED: As the construction of new building was cancelled the related supporting CS were cancelled too.		
CFA office upgrade building spn (CS)			CANCELLED
NVI design spn during construction (CS)	CANCELLED: The beneficiary financed spn for CW for rehabilitation or NVI regional institutes form their own funds. Reallocated to supervision of CW .		CANCELLED
NVI laboratory CW spn (CS)	Divided to 4 activities in compliance with NVI regional institutes construction (Vinkovci, Križevci, Split, Rijeka).	Supervision of CW NVI regional center Vinkovci, Križevci, Split and Rijeka CW (CS)	IMPLEMENTED 2010-2012
	Not in original PP. Added activity	Supervision of CW NVI Rijeka-coordinator 1&2 safety expert (CS)	IMPLEMENTED 2011/12
PPI laboratory design spn (CS)	IMPLEMENTED		IMPLEMENTED 2007-2011
PPI laboratory CW spn (CS)	IMPLEMENTED		IMPLEMENTED 2010-2012
GMO laboratory design/des.spn (CS)	IMPLEMENTED		IMPLEMENTED 2006/07
GMO laboratory CW spn (CS)	IMPLEMENTED		IMPLEMENTED 2007-2011
CFA risk assessment studies (CS)		Safety assessment of food additives (CS)	IMPLEMENTED 2010-2012
		Study on manifestation of mycotoxins in forage and compound feed in Croatia (CS)	IMPLEMENTED 2011/12
Laboratory certification (CS)	CANCELLED		CANCELLED
Epidemiology field and laboratory studies and reporting (CS)	CANCELLED		CANCELLED
Laboratory rationalization study (CS)	IMPLEMENTED		IMPLEMENTED 2008
Food Safety Regulation Advisor (CS)		Food Safety Agency Development (CS)	IMPLEMENTED 2005/06
	Not in original PP. Added activity	Safety risk communication strategy Advisor	IMPLEMENTED 2007
	Not in original PP. Added activity	Advisor for Development of rapid alert programme for Directorate for food quality and food safety	IMPLEMENTED 2009

	Not in original PP. Added activity	Food Safety Laboratory Specialist	IMPLEMENTED 2006/07
	Not in original PP. Added activity	Food Safety Laboratory Specialist Amendment	IMPLEMENTED 2008/09
Reference Laboratory Management Advisor (CS)	CANCELLED: During the CAAC Project implementation the legislation on food safety responsibility was changed. Part of CFA legal responsibility was shifted to MAFRD directorates (Directorate for Food Safety and Quality and Veterinary Directorate). Because of ownership problem the selection procedure was never initiated by beneficiaries.		
Food Safety Management Advisor (CS)			
Food Lab. Test Certification Advisor (CS)			
SPS Skill Gap Analyst (CS)			
HAACP/Quality Assurance Advisor			CANCELLED
Sanitary and Phytosanitary Insp. Advisor (CS)	CANCELLED: financed from EU funds		CANCELLED
	Not in original PP. Added activity	Development of Food Safety Database for CFA (CS)	IMPLEMENTED 2006
	Not in original PP. Added activity	IT office eq.for phytosanitary inspection (G)	IMPLEMENTED 2011
	Not in original PP. Added activity	Training of trainers for phytosanitary inspections (CS)	IMPLEMENTED 2011
	Not in original PP. Added activity	GPS equipment for phytosanitary inspection (G)	IMPLEMENTED 2010

Under the GEF financed component 3 ***Public Awareness and Replication Strategy*** - The project conducted broad national public awareness campaign with more than 390 various presentations, lectures and media appearances. Code of Good Agricultural Practices was distributed to 85,000 farmers and more than 80,000 pieces of educational and promotional material were used in the campaign. The tasks and obligations within these components were successfully finished and additionally reinforced with activities that were not initially planned.

The following activities were delivered as per the procurement plan:

Sub-component	Originally planned activities	Justification	Activities implemented
A. Public Awareness	Information& Communication package (NCS)	CANCELLED. 4 new activities in regard to design of educational and promotional material; printing of promotional and educational material and printing of CGAP brochure included in PP. Not in original PP.	Graphic Design of Educational Material (CS)
			Printing of CGAP brochures (G)
			Developing/printing of APCP promotional material (G)
			Developing/printing of APCP educational material (G)
	Public and Private Extension Staff Training	CANCELLED and aggregated to CAEI Training of Trainers	

	(Tr)	Program.	
	Country Administration Capacity Building (Tr)		
	Farmer Field Days (Tr)		
B. Website	Computer equipment and networks (G)	Activities amount aggregated and along with Information&Communication package included in PP.	Nitrates Management Website Development (CS)
	Computer software and databases (G)		
C. Knowledge Sharing	Nitrates Management Advisors Study Tour (Tr)		
	Nitrate Management Advisor Training (Tr)		
	PIU staff traning (Tr)	IMPLEMENTED	
	Danube and Black Sea Commission Meetings (Tr)		
	GEF International Waters Annual Conference (Tr)	IMPLEMENTED	Closing APCP conference

Annex 3. Economic and Financial Analysis
(including assumptions in the analysis)

Financial and Economic Analysis of the IBRD and Dutch TF financed Acquis Cohesion Project - Component 1 of the CACP project facilitated the government's access to a total of Euro 14.5 million in EU SAPARD/IPARD funds between 2007 and 2012. Unfortunately, like many of its peers before accession, Croatia only absorbed a small portion of the resources that were made available to it under these programs. Fortunately, the benefits from the system developed under the project are not ending with IPARD's closure and accession. As Croatia becomes a full-fledged member, assuming a continuation of current CAP policies under the European Agricultural Fund for Rural Development, Croatia is expected to receive over 300 million Euro per year. It can be concluded that the project with a relatively modest investment of just short of Euro 11.00 million under this component with its support to establishing an EU compliant paying system offers potential yearly returns nearly 30 times greater than the original combined IBRD and Dutch TF investments under the project. While indeed the establishment of the paying system cannot solely be credited to the project, the potential benefits stream they offer over the coming years generate a rate of return many times greater than the minimum 12% required for Bank investments.

Component 2 of the CACP project contributed to maintaining open access to the EU market for Croatian agricultural produce and processed goods. The value of Croatian agricultural exports of agricultural products to the EU is estimated at some 170.00 million Euro per year. In order to maintain this export value Croatia just as any country wanting to export to the EU Croatia had to adopt EU compliant food safety standards. While the country remains a net importer of agricultural produce from the EU, the application of EU standards keeps the EU market open to Croatian products and offers the potential for growth with increasing farm productivity that is likely to result from consolidation into larger farms as promoted by the CAP.

Financial and Economic Assumptions of the GEF activities implemented under the project The original economic analysis estimated an average cost for constructing an above-ground manure storage facility is about 1,350 EUR per Livestock Unit (LU). Assuming a usage period of 30 years, the average annual depreciation cost is 45 EUR per LU. With an opportunity cost of capital of 6 % per year, the annual opportunity cost would be EUR 81 per LU, giving an annual financial cost of around 126 EUR per LU.

One LU annually excretes about 85 kg of nitrogen (N), of which about 35 % is lost into soil/water due to improper manure storage. The value of 1 kg of nitrogen as fertilisers is about EUR 0.6 Assuming 30 kg of preventable nitrogen loss, the annual benefit would be about 18 EUR.

Similarly to nitrogen, the prevention of P_2O_5 loss into water also bears an economic value both for the farmer and for society. An average LU in Croatia annually excretes about 47 kg P_2O_5. Assuming a loss of 35 % due to improper manure storage, there is a loss of 16.5 kg P_2O_5 per year, which, if purchased as fertilized at an average price of EUR 0.51 per kg of P_2O_5 would cost EUR 15.2/LU/year. With estimated externalities for production and distribution of 0.11 EUR per kg of P_2O_5 and an external cost of 15

EUR for each kg of P_2O_5 causing P_2O_5 concentration in water above the MAC, the annual value of the prevented externalities is 125 EUR per LU per year.

The average annual excretion of K_2O per LU in Croatia is 63 kg. With an average estimated loss of 35 % from the manure heaps, the annual K_2O load into soil/water per LU is 22 kg. To recover this, farmers would have to invest 11 EUR in K_2O fertilisers. Assuming that 50 % of the lost K_2O would raise K_2O concentration in water above the MAC with an external cost of 8.2 EUR per kg K_2O and an additional external cost of 0.11 EUR for each kg of produced and distributed K_2O, the total value of K_2O generated external costs are EUR 93 per LU per year.

By investing in this impervious manure storage systems, farmers would incur an annual charge of EUR 126/annum, while generating a benefit of about EUR 38/LU/year (EUR 15 for N, EUR 8 for P_2O_5 and EUR 11 for K_2O). From the farmer's perspective, therefore, it is more cost effective to buy these nutrients as fertiliser then through investment in a manure heap. A 75 % subsidy from Government for manure storage construction, however, makes manure storage cost neutral for the farmer. From the societal perspective, however, the value of the associated environmental damage and public investments is about EUR 244/LU/year, which is double the annual cost of the proposed measure and fully justifies public investment in manure storage.

The average cost for establishing green manure /undersowing (sowing a green crop between rows of corn for instance) is estimated at EUR 130/ha. Besides preventing nutrient losses, these measures have several other environmental and agronomic benefits, including improved soil structure, increased soil microbiological activity, etc., all generating yield benefits for subsequent crops estimated at EUR 65/ha or 50 % of establishment cost. The average Croatian nitrogen loss to water in the period 2001-2003 derived from farming is estimated at 71 kg nutrients per ha of arable land. Assuming the same leaching level in the three pilot regions and that the proposed N-reduction measures on arable land would prevent 60 % of N leaching, this would result in a reduction of 43 kg nutrients per ha (37 kg /N/ha and 6kg /K_2O/ha). Using the same price for these nutrients as for manure storage, the financial value to farmers of the prevented nutrient loss is EUR 22/ha, however, the value of the accompanying external costs is EUR 55/ha. Since the cost of the measure for the farmer is about three times higher than the benefit (EUR 65/ha vs. EUR 22/ha) an argument exists for farmers to receive an agri-environment subsidy of about EUR 43/ha, which is nearly the same as the value of the external cost for society (EUR 55/ha).

Assuming that the logic of the original estimate used at project preparation of the APCP per Livestock Unit (LU) largely stands, the calculation omits the costs related to application and transport of manure that affect its economic outcome. While indeed manure given that it is produced directly on site, incurs little transportation costs, its efficient application requires equipment or time that costs significantly more than is the case of mineral fertilizer application. The cost of acquiring this equipment, along with the fragmented nature of most small farms are likely key reasons preventing broad based adoption of manure and slurry storage by smaller farms unless there is also a significant subsidy towards handling and spreading equipment. To get more widespread adoption it will be critical to communicate to farmers that the requirements laid down in the EU Nitrates and other Directives protecting water

bodies from an excessive load of nutrients contain much more than a simple analysis on nutrient costs.

For the Incremental Cost Analysis a baseline scenario was assumed costs from a variety of projects financed by a number of donors amounting to some US$18.4 million and GEF would provide increment of some US$ 6.00 million towards achieving Global Environmental Benefits. The assumption was that the investments themselves would only have a limited impact on water quality, but that the IPARD approximating measures developed under the GEF project would become integral part of implementing the EU CAP and thus have a large multiplier effect.

Annex 4. Bank Lending and Implementation Support/Supervision Processes

(a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
Lending			
Aleksandar Nacev	Senior Agriculturist	ECSSD	Task Team Leader
Meeta Sehgal	Operations Officer	ECSS1	
Sharifa Kalala	Program Assistant	ECSSD	Admin Support
Solvita Klapare	Environmental Economist	EASER	
Garry Smith	FAO Consultant	FAO	Institutions
Supervision/ICR			
Aleksandar Nacev	Senior Agriculturist	ECSSD	Task Team Leader
Michael G. Carroll	Consultant	ECSSD	Task Team Leader
Sari K. Soderstrom	Sector Manager	ENV	Task Team Leader
Vera Dugandzic	Senior Operations Officer	ECSSO	Task Team Leader
Antonia G. Viyachka	Procurement Specialist	ECSO2	Procurement
Daniel Gerber	Rural Development Specialist	ECSS1	ICR Author
Garry A. Smith	Consultant	FAO	Institutions
Helen Z. Shahriari	Sr. Social Scientist	AFTCS	Social Assessment
Lamija Marijanovic	Financial Management Specialist	ECSO3	FM
Meeta Sehgal	Operations Officer	ECSS1	
Mirela Mart	Consultant	ECSOQ	
Mustafa Ugur Alver	Junior Professional Associate	ECSS1	
Natasa Vetma	Senior Operations Officer	ECSS3	
Solvita Klapare	Environmental Economist	EASER	
Dubravka Jerman	Program Assistant	ECCHR	

(b) Staff Time and Cost

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of staff weeks	USD Thousands (including travel and consultant costs)
Lending		
FY 2005	36.09	236,542
FY 2006	31.04	128,349.80
Total:	**67.13**	**364,891.80**
Supervision/ICR		
FY 2006	5.61	14,169.24
FY 2007	26.85	82,968.98
FY 2008	28.57	109,343.30
FY 2009	35.33	113,611
FY 2010	29.2	88,068.26
FY 2011	21.42	53,539.43
FY 2012	6.98	15,641.13
FY 2013	9.5	22,746.16
Total:	**163.46**	**500,087.50**

Annex 5. Beneficiary Survey Results

Introduction

Within the Agricultural Pollution Control Project a research was conducted through a questionnaire for farmers. This is a third research of this kind conducted within the APCP project with the goal to obtain feedback on results of the efforts made towards the implementation of Good agricultural practice (hereinafter referred to as GAP) and raising public awareness. The research goals were also to track progress towards project's indicators.

The questionnaire was conducted within the whole territory of the Republic of Croatia with the assistance of the Croatian Agricultural Chamber (hereinafter referred to as the CAC) which distributed the questionnaire, collected it and forwarded for processing to the Paying Agency in agriculture, fisheries and rural development (hereinafter referred to as PAAFRR).

Methodology

For evaluation, processing and obtaining of measurable results were used the MS Office and application for relational database in the MS Access in order to obtain statistical and mathematical (numerical) reports comparable with further researches. A new database in Croatian language was created in the MS Access with simple table structure, in accordance with the conducted questionnaire. During the database design phase specific answers given in the textual form were grouped in accordance with the respondents' answers. The processing of questionnaires was made on the basis of simple mathematical questions for completed tables using SQL (Structural Query Language) supported by the MS Access. Mathematical questions included counting, addition and some statistical questions like filtration and average. During the processing of data from the questionnaire, 34 queries were given in order to obtain desired information.

Analysis and statistics

The biggest number of respondents was in project counties: Osječko-baranjska, Varaždinska and Vukovarsko-srijemska by 10% compared by other counties of the region.

1. Average Age

The table shows average age of respondents by county. Average age of the respondent is 49 years. The youngest respondents were in Brodsko-posavska and Ličko-senjska county.

County	Average age of respondent
Bjelovarsko-bilogorska	46,97
Brodsko-posavska	41,03
Dubrovačko-neretvanska	54,58
Grad Zagreb	49,70
Istarska	53,20
Karlovačka	49,29

Koprivničko-križevačka	38,02
Krapinsko-zagorska	53,90
Ličko-senjska	50,33
Međimurska	43,58
Osječko-baranjska	50,41
Požeško-slavonska	52,10
Primorsko-goranska	49,45
Sisačko-moslavačka	43,66
Spiltsko-dalmatinska	56,15
Šibensko-kninska	54,77
Varaždinska	46,75
Virovitičko-podravska	44,08
Vukovarsko-srijemska	45,04
Zadarska	52,64
Zagrebačka	49,38
Average age	**48,81**

2. Gender

Most of the respondents are Male. The biggest number of Female respondents was in Osječko baranjska and Liško senjska county.

Gender	**Answers**	**Percentage**
Male	641	82%
Female	139	18%
Not stated	5	1%
∑	**785**	**100%**

3. Education

As the table shows most of the respondents have high school education. Most educated respondents were from Varaždin county.

Level of Education	**Answers**	**Percentage**
Elementary school	211	27%
High school	508	65%
Higher Education	32	4%
Bachelor/Master	30	4%
Not stated	4	1%
∑	**785**	**100%**

4. Organization form

90% of the respondents are Agricultural holdings which represents also a target group for APCP and this questionnaire.

Organization form	Answers	Percentage
Agricultural holding	360	46%
Agricultural holding (craft)	62	8%
Agricultural holding (VAT system)	343	44%
Legal entity	15	2%
Not stated	5	1%
∑	**785**	**100%**

5. Ha of Land

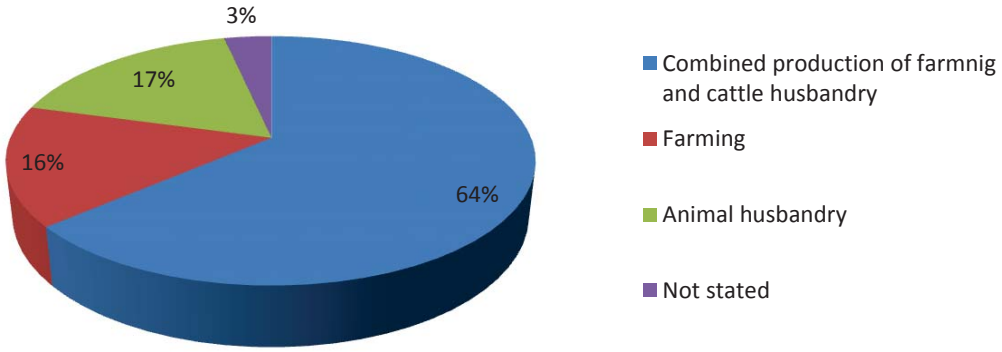
The table shows hectares of land in ownership and in lease by county. On the basis of answers by respondents, final row shows average hectares of land farmed by each respondent by county.

County	Ha of land in ownership	Ha of land in lease	∑	Answers	Average ha of land farmed by respondents
Bjelovarsko-bilogorska	584,40	675,00	1259,40	30	41,98
Brodsko-posavska	863,00	1180,00	2043,00	36	56,75
Dubrovačko-neretvanska	173,44	35,00	208,44	26	8,02
Grad Zagreb	230,94	630,00	860,94	40	21,52
Istarska	415,50	440,00	855,50	31	27,60
Karlovačka	206,00	196,00	402,00	21	19,14
Koprivničko-križevačka	764,22	682,15	1446,37	44	32,87
Krapinsko-zagorska	110,31	101,50	211,81	31	6,83
Ličko-senjska	186,35	100,00	286,35	30	9,55
Međimurska	665,00	871,00	1536,00	31	49,55
Osječko-baranjska	2386,77	2706,90	5093,67	81	62,88
Požeško-slavonska	240,10	131,00	371,10	30	12,37
Primorsko-goranska	161,62	317,99	479,61	29	16,54
Sisačko-moslavačka	1019,50	858,00	1877,50	32	58,67
Spiltsko-dalmatinska	540,88	76,90	617,78	27	22,88
Šibensko-kninska	87,75	227,60	315,35	31	10,17
Varaždinska	1160,40	889,00	2049,40	79	25,94
Virovitičko-podravska	313,00	583,72	896,72	25	35,87
Vukovarsko-srijemska	1769,41	2138,46	3907,87	82	47,66
Zadarska	109,55	261,20	370,75	28	13,24
Zagrebačka	129,68	104,61	234,29	21	11,16
∑	**12117,82**	**13206,03**	**25323,85**	**785**	**28,15**

6. Type of production

Most of the respondents, 64 percent, are practicing combined production of farming and cattle husbandry. The data is shown on the country level.

Type of Farms	Answers	Percentage
Combined production of farming and cattle husbandry	500	64%
Farming	122	16%
Animal husbandry	136	17%
Not stated	27	3%
∑	**785**	**100%**



7. Cattle

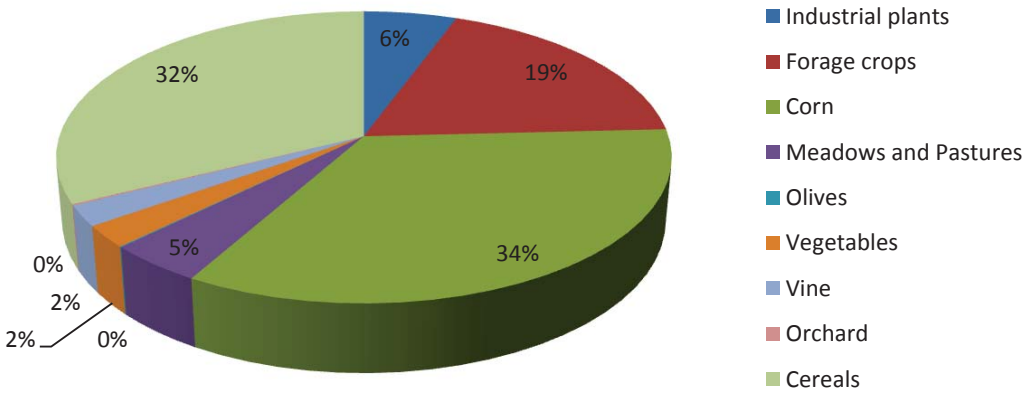
The table shows number of cattle stated by the respondents, grouped by the three pilot counties. During the data input, answers given by the respondents are grouped according to the Croatian regulation on Good agricultural practice in manure management in order to calculate number of Live Stock Units (LSU). Additional table shows number of LSU in project counties, and on that basis, it is calculated average number of LSU for project counties.

County	Number of LSU	Average number of LSU by respondent
Osječko-baranjska	2613,61	32,27
Varaždinska	2065,12	26,14
Vukovarsko-srijemska	3144,25	38,34

8. Crop Types

The table shows crop types grown by respondents. The answers were grouped according to the type of culture in order to show statistical data. As the results show the most respondents grow Cereals which are subsidized by the state.

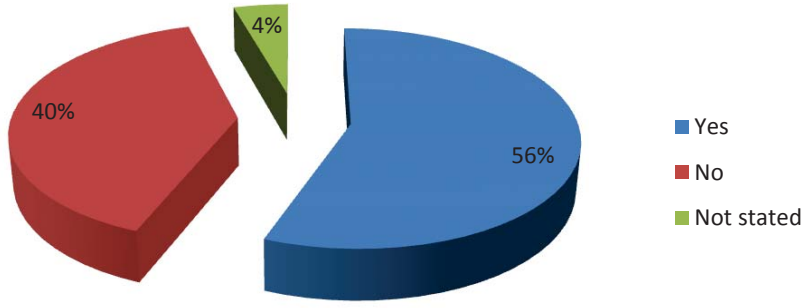
Farming culture	Ha of land	Precentage
Industrial plants	1346,53	6%
Forage crops	4442,09	19%
Corn	8136,34	34%
Meadows and Pastures	1068,82	4%
Olives	19,12	0%
Vegetables	584,25	2%
Vine	548,02	2%
Orchard	33,79	0%
Cereals	7731,09	32%
∑	**23910,05**	**100%**



9. Manure and slurry storage

More than 50% of respondents stated that they have manure and slurry storage.

Manure and slurry storage	Answers	Percentage
Yes	439	56%
No	311	40%
Not stated	35	4%
∑	**785**	100%



10. Size of manure storage

Under the question 11, respondents were asked to state the dimensions of the manure storage. The data were summed, multiplied and grouped by county.

Answers	Length in meters	Within meters	Height in meters	Cubic meters
785	4850,6	2791,4	891	12064108672

County	Answers	Length in meters	Within meters	Height in meters	Cubic meters
Osječko-baranjska	81	662,5	430,2	67,4	19209505,5
Varaždinska	79	662,5	396,5	99,7	26189320,63
Vukovarsko-srijemska	82	673	399,9	123,4	33210975,18

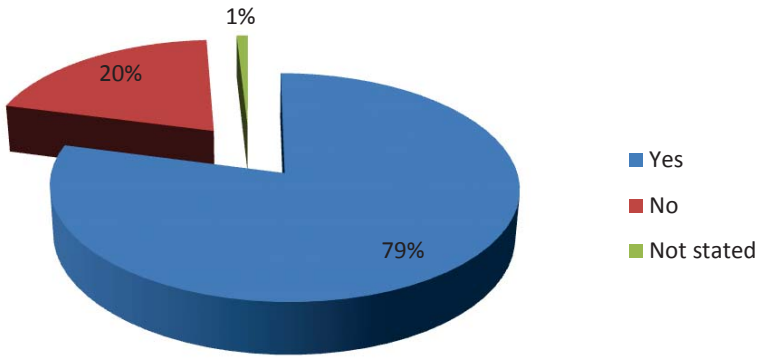
County	Answers	Length in meters	Within meters	Height in meters	Cubic meters
Bjelovarsko-bilogorska	30	393	199	63,3	4950503,1
Brodsko-posavska	36	311	136	28,2	1192747,2
Dubrovačko-neretvanska	26	16	14	5	1120
Grad Zagreb	40	253	157,5	33,2	1322937
Istarska	31	22	14	3	924
Karlovačka	21	58	47,6	19,3	53283,44
Koprivničko-križevačka	44	555	221,2	223,2	27401371,2
Krapinsko-zagorska	31	118	46	15,5	84134
Ličko-senjska	30	134	91,5	26,1	320012,1
Međimurska	31	41	41	19,8	33283,8
Osječko-baranjska	81	662,5	430,2	67,4	19209505,5
Požeško-slavonska	30	61	46	20,5	57523
Primorsko-goranska	29	89	52	15,7	72659,6
Sisačko-moslavačka	32	138,6	110,5	27,4	419639,22

Spiltsko-dalmatinska	27	80	58	22,5	104400
Šibensko-kninska	31	193	112,5	40,8	885870
Varaždinska	79	662,5	396,5	99,7	26189320,63
Virovitičko-podravska	25	86	58	6,7	33419,6
Vukovarsko-srijemska	82	673	399,9	123,4	33210975,18
Zadarska	28	126	82	14,8	152913,6
Zagrebačka	21	178	78	15,5	215202

11. Seminars on GAP

79% of the respondents stated that they have attended seminars on Good Agricultural Practice and Cross compliance. The analysis is shown also for the project counties.

Attended seminars on GAP	Answer	Percentage
Yes	621	79%
No	157	20%
Not stated	7	1%
∑	**785**	**100%**



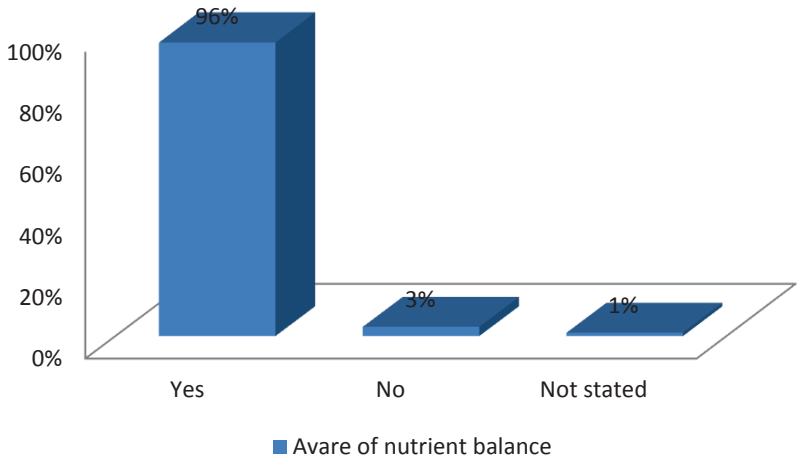
County	Attended seminars on GAP	Not attended seminars on GAP	Not stated	Number of answers	Percentage of attendance
Osječko-baranjska	68	13	0	81	84%
Varaždinska	78	1	0	79	99%
Vukovarsko-srijemska	74	6	2	82	90%
∑	**220**	**20**	**2**	**242**	**91%**

12. Awareness of nutrient balance

Almost all respondents stated that they are aware of nutrient balance in order to protect ground water. Additional analysis is made for the project counties where in Osiječko-baranjska and Varaždinska county all respondents stated that they are aware of nutrient balance. The exception is Vukovarsko-srijemska county where 2

respondents did not answer that question. The rest of the respondents in that county stated that they are aware of nutrient balance. The tables below show data on the country level, and on the project county level.

Aware of nutrient balance	Answer	Precentage
Yes	751	96%
No	25	3%
Not stated	9	1%
∑	**785**	**100%**



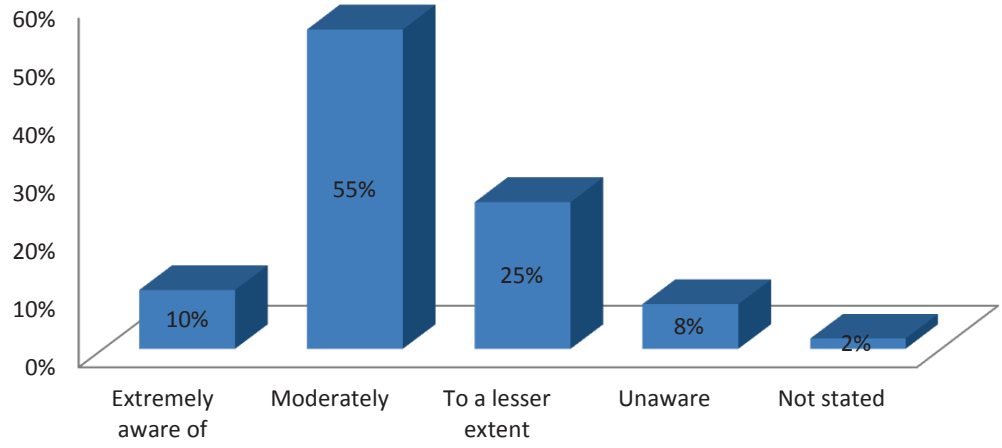
County	Aware of nutrient balance	Answer	Precentage
Osječko-baranjska	Yes	81	100%
Varaždinska	Yes	79	100%
Vukovarsko-srijemska	Yes	80	98%
Vukovarsko-srijemska	Not stated	2	2%
∑	∑	**242**	**75%**

13. Awareness of protection of ground water and soil

Respondents evaluated their colleagues on awareness of protection of ground water and soil. Most of the respondents stated that their colleges are moderately aware of protection of ground water and soil. Statistics is shown also for the project counties, and the result was the same.

Aware of protection of ground water and soil	Answers	Percentage
Extremely aware of	80	10%
Moderately	431	55%
To a lesser extent	199	25%
Unaware	61	8%
Not stated	14	2%
∑	**785**	**100%**

Aware of protection of ground water and soil	Osječko-baranjska	Varaždinska	Vukovarsko-srijemska	∑	Percentage
Extremely aware of	20	24	6	50	21%
Moderately	48	48	60	156	64%
To a lesser extent	10	2	13	25	10%
Unaware	3	4	1	8	3%
Not stated	0	1	2	3	1%
∑ of answers	81	79	82	242	100%

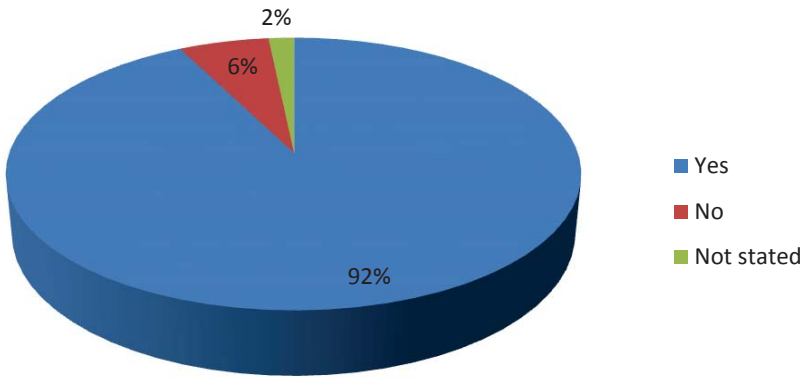


14. Take preventive measure

More than 90 percentage of respondents stated that they take preventive measures in order to protect ground water and soil. The data is shown also for the project counties with the same result.

Take preventive measure	Answers	Percentage
Yes	726	92%
No	46	6%
Not stated	13	2%
∑	**785**	**33%**

Take preventive measure	Yes	No	Not stated	∑	Percentage that take preventive measure
Osječko-baranjska	76	5	0	81	94%
Varaždinska	76	1	2	79	96%
Vukovarsko-srijemska	76	4	2	82	93%
∑ of answers	**228**	**10**	**4**	**242**	**94%**

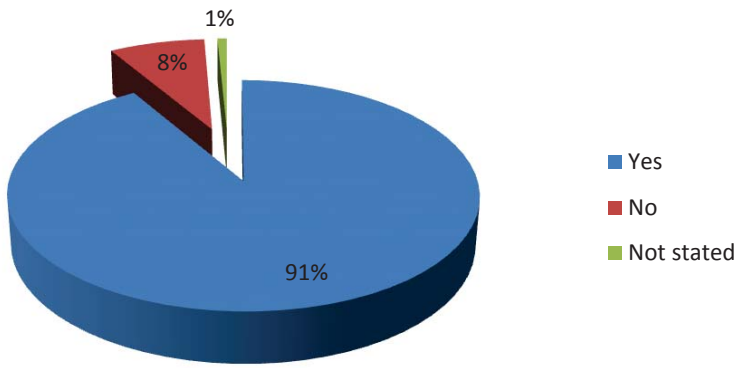


15. Knowledgeable about GAP

Respondents stated that they are knowledgeable about GAP and its influence for the organic production. The data is shown on the country level and on the project county level. The result for the project counties is the highest and it shows that almost all respondents are Knowledgeable about GAP.

Knowledgeable about GAP	Answers	Percentage
Yes	718	91%
No	61	8%
Not stated	6	1%
∑	**785**	**33%**

Knowledgeable about GAP	Yes	No	Not stated	∑	Percentage that are knowledgeable about GAP
Osječko-baranjska	80	1	0	81	99%
Varaždinska	79	0	0	79	100%
Vukovarsko-srijemska	81	0	1	82	99%
∑ of answers	**240**	**1**	**1**	**242**	**99%**

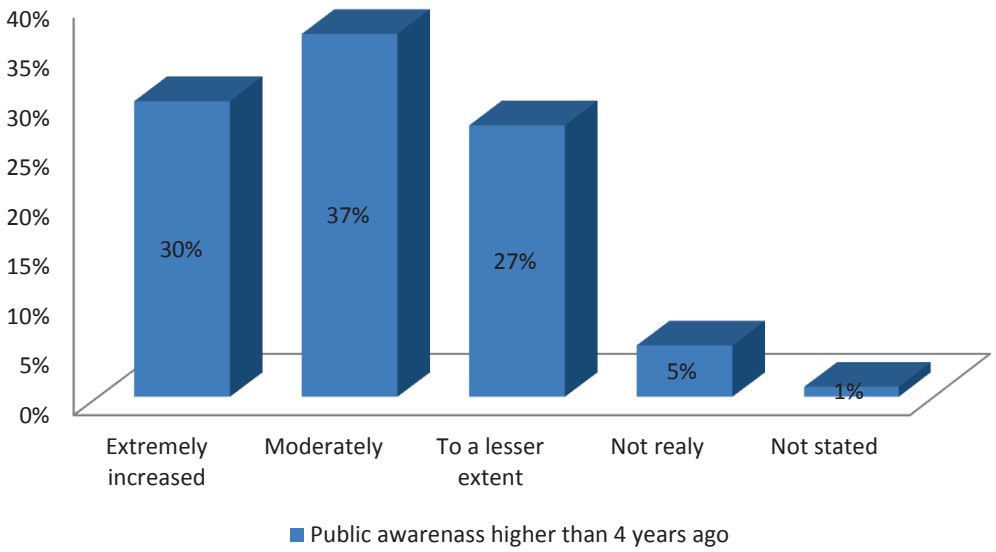


16. Awareness of GAP is higher than 4 years ago

Awareness of GAP is higher than 4 years ago in average by 30%. Awareness on GAP in project counties is higher compared with the data on country level. Average increase of awareness on GAP is 35% for the project counties after 4 years. The data and statistics are shown in tables below.

Awareness of GAP is higher than 4 years ago	**Answers**	**Percentage**
Extremely increased	234	30%
Moderately	287	37%
To a lesser extent	215	27%
Not really	41	5%
Not stated	8	1%
∑	**785**	**100%**

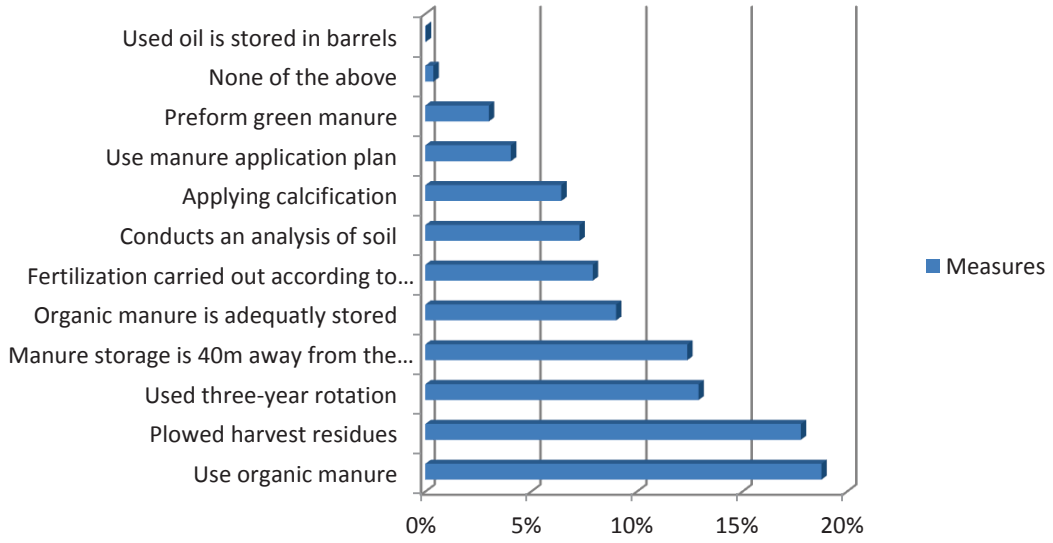
Public awareness higher than 4 years ago	**Osječko-baranjska**	**Varaždinska**	**Vukovarsko-srijemska**	**∑**	**Percentage**
Extremely increased	27	61	28	116	48%
Moderately	37	10	41	88	36%
To a lesser extent	13	8	12	33	14%
Not really	4	0	1	5	2%
∑ of answers	**81**	**79**	**82**	**242**	**100%**



17. GAP measures

In this question respondents were asked to choose one of more GAP measures that they are practicing on their agricultural holdings. The table below shows number of answers on which percentage of most popular measures is calculated. Additional statistics is made for the project counties. As the chart shows most popular measures are usage organic manure, plowing harvest residues, three-year rotation of crops and manure storage is 40m away of wells.

Measures	Answer	Precentage
Use organic manure	631	19%
Plowed harvest residues	598	18%
Use three-year rotation	434	13%
Manure storage is 40m away from the wells	416	12%
Organic manure is adequatly stored	303	9%
Fertilization carried out according to the expert recommendation	266	8%
Conducts an analysis of soil	245	7%
Applying calcification	216	6%
Use manure application plan	136	4%
Preform green fertalization	101	3%
None of the above	13	0%
Used oil is stored in barrels	1	0%
∑	**3360**	**100%**



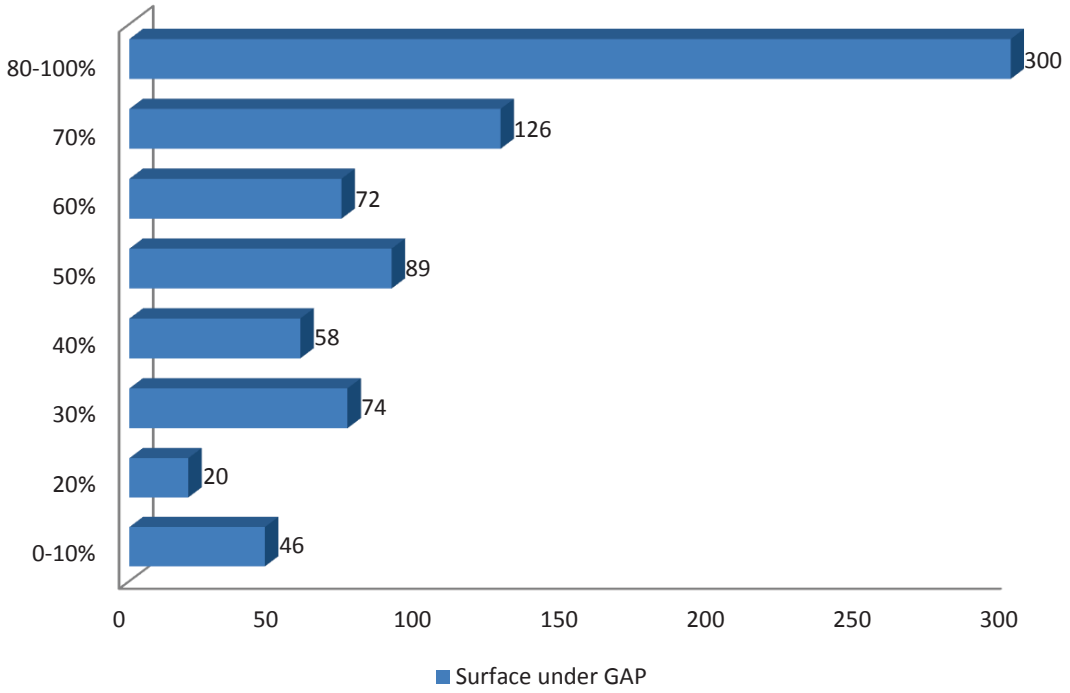
County	Measures	Answer	Precentage
Osječko-baranjska	Plowed harvest residues	78	17%
Osječko-baranjska	Use three-year rotation	71	16%
Osječko-baranjska	Conducts an analysis of soil	65	14%
Osječko-baranjska	Use organic manure	50	11%
Osječko-baranjska	Fertilization carried out according to the expert recommendation	46	10%
Osječko-baranjska	Manure storage is 40m away from the wells	44	10%
Osječko-baranjska	Organic manure is adequatly stored	26	6%
Osječko-baranjska	Use manure application plan	25	6%
Osječko-baranjska	Applying calcification	24	5%
Osječko-baranjska	Preform green fertalization	22	5%
Varaždinska	Plowed harvest residues	73	18%
Varaždinska	Use three-year rotation	71	17%
Varaždinska	Use organic manure	62	15%
Varaždinska	Conducts an analysis of soil	54	13%
Varaždinska	Organic manure is adequatly stored	43	10%
Varaždinska	Applying calcification	36	9%
Varaždinska	Fertilization carried out according to the expert recommendation	23	6%
Varaždinska	Manure storage is 40m away from the wells	21	5%
Varaždinska	Use manure application plan	16	4%
Varaždinska	Preform green fertalization	15	4%
Varaždinska	None of the above	1	0%
Vukovarsko-srijemska	Plowed harvest residues	77	18%
Vukovarsko-srijemska	Use organic manure	72	17%

Vukovarsko-srijemska	Manure storage is 40m away from the wells	62	14%
Vukovarsko-srijemska	Fertilization carried out according to the expert recommendation	44	10%
Vukovarsko-srijemska	Organic manure is adequatly stored	44	10%
Vukovarsko-srijemska	Applying calcification	39	9%
Vukovarsko-srijemska	Use three-year rotation	34	8%
Vukovarsko-srijemska	Use manure application plan	30	7%
Vukovarsko-srijemska	Conducts an analysis of soil	21	5%
Vukovarsko-srijemska	Preform green fertalization	6	1%

18. Farm surface under GAP

One third of the respondents stated that that they use one of the GAP measures on whole farm surface. The table below shows data on a country level, and on the basis of answers and respondents have more than 50% of their farm surface under GAP. The data is shown also on the project county level.

Surface under GAP	**Answers**	**Percentage**
0-10%	46	6%
20%	20	3%
30%	74	9%
40%	58	7%
50%	89	11%
60%	72	9%
70%	126	16%
80-100%	300	38%
∑	**785**	

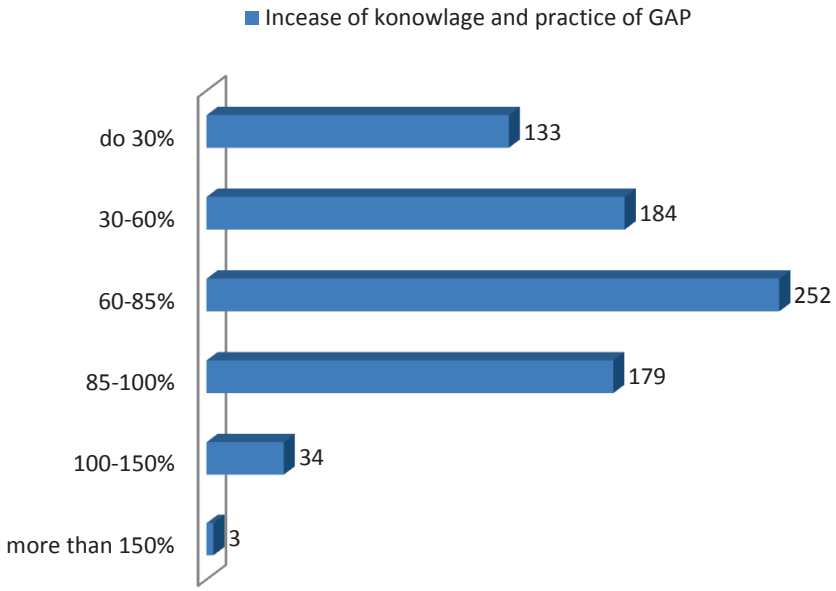


19. Percentage of increase of knowledge and practice of GAP

Respondents stated that increase of usage of GAP measures is by 60-85% on country level in the last four years. The table below shows number and percentage of answers.

Increase of knowledge and practice of GAP	Answer	Percentage
More than 150%	3	0%
100-150%	34	4%
85-100%	179	23%
60-85%	252	32%
30-60%	184	23%
do 30%	133	17%
∑	**785**	

20. Quantities of mineral and organic manure



County	Answer	UREA in tons	KAN in tons	NPK in tons	Manure in tons	Slurry in tons	Other in tons
Bjelovarsko-bilogorska	30	2172,4	4209,5	5240,1	6355	7934	450
Brodsko-posavska	36	693,1	906,3	1793,4	5660,5	2824	1,5
Dubrovačko-neretvanska	26	3,4	0	4,5	23	0	0
Grad Zagreb	40	98,52	129,38	142,85	2723	390	1
Istarska	31	46	56,5	105,5	3110	0	0
Karlovačka	21	85,16	82	96,72	2154,5	1283	0
Koprivničko-križevačka	44	124,3	359,2	300,8	2128,5	4105,8	50
Krapinsko-zagorska	31	106,1	784,35	993,3	1189	954,1	0
Ličko-senjska	30	207,66	15,55	38,1	1201,5	258	4
Međimurska	31	165,8	162,8	539,5	430	730	0
Osječko-baranjska	81	631,8	900,3	1271,3	1029,5	232,81	0,2
Požeško-slavonska	30	26,6	57,6	98	220	62	9,5
Primorsko-goranska	29	0	50	302,25	573	41	0
Sisačko-moslavačka	32	270,7	357,3	611	5225	1630	920
Spiltsko-dalmatinska	27	5,75	5,57	21,95	394,7	700	0
Šibensko-kninska	31	4,22	6,05	10,38	472,8	12	4,5
Varaždinska	79	92,35	91,5	265,95	14135,5	2460,3	0
Virovitičko-podravska	25	103,65	999,8	305,4	1535	630	52
Vukovarsko-srijemska	82	776,72	503,95	1170,4	23360,5	5913	4310
Zadarska	28	26,2	2,05	44	173,5	1	2,3
Zagrebačka	21	1821,45	1323,45	2322,1	1011	1508	0
∑	**785**	**7461,88**	**11003,15**	**15677,5**	**73105,5**	**31669,01**	**5805**

The table shows total amounts of fertilizers by county. The data was summed according to the county and by type of fertilizer. As expected, the biggest usage of fertilizer is in continental counties, and the lowest in the Dubrovačko-neretvanska and Zadrarska county.

Annex 6. Stakeholder Workshop Report and Results

Annex 7. Borrower's ICR

1. Project Context, Development Objectives and Design

Agriculture Acquis Cohesion Project

The objective of the project is to develop sustainable systems and capacities within the MAFWM to ensure timely compliance with EU acquis conditions in the rural sector.

Project Purpose: to develop sustainable systems and capacities within the MoA to ensure timely compliance with EU Acquis conditions in the agricultural & rural sector, including:

(i) increased transparency, accountability, innovation and participation in the design and implementation of MoA 's rural development program ; (ii) strengthened MoA management, technical and policy analysis and design capacity ; and (iii) a levelled and more competitive milieu for national and international food producers and traders in Croatia's domestic and export markets.

Agriculture Pollution Control Project

Global Environmental Objective (from Project Appraisal Document)
The development objective of the project is to significantly increase the use of environmentally friendly agricultural practices by farmers in Croatia's Pannonian plain in order to reduce nutrient discharge from agricultural sources to surface and ground water bodies.

Situation at Appraisal

Agriculture Acquis Cohesion Project (from Project Appraisal Document)
Agriculture Sector

Croatia has a diverse agricultural resource base, with the capacity to produce most continental crop and livestock products, plus many Mediterranean crops. Soil fertility and climate are suitable for agriculture, and in areas such as eastern Slavonia the yield potential is equivalent to the major agricultural areas of the EU. With 0.73 ha of agricultural land and 0.34 ha of arable land per capita, Croatia also has proportionately more farmland than the EU (0.36 agricultural land ha/capita) and most of the other countries in eastern and central Europe.

Small, private farms dominate production, owning approximately two-thirds of all agricultural land (2.09 million ha), and 85% of all livestock (measured as livestock equivalents). Production is very low by western European standards however, due to small farm size (average 3 ha), a high level of fragmentation and limited use of modern technology. Marketed surplus is also low, with most production consumed on the farm. As a result of these factors, only 15% of farm households relied solely on farming for their livelihoods in 2003 (2003 Census). Large, socially owned agro-kombinats (AK's) and agricultural cooperatives farm the remaining 1.07 million ha. Although the AK's use more modern, capital-intensive management systems and obtain higher levels of production, their output and productivity are still well below

production levels in Western Europe. Traditionally, the AK's have also dominated agricultural markets through their vertically and horizontally integrated processing and marketing subsidiaries; and together with the co-operatives, they were the major source of farm inputs. They are also a powerful influence on agricultural policy, seeking to preserve the high levels of protection and support they received during the socialist era. Thus, while the AK's account for less than 20% of total output, they have historically dominated agricultural sector policy and agricultural markets.
The transition to a modern, market-oriented agricultural economy requires reform of both components of this dual structure of agriculture. The competitiveness of small, private farms must be increased through policies and programs to facilitate: farm consolidation and enlargement, the adoption of more modern management systems and an increase in production and marketed surplus. A parallel re-structuring of the AK's is also needed, based on privatization, disaggregation and more efficient management. Commodity and factor markets also need reform. Competitive commodity markets must replace the regional processing and marketing monopsonies created by the AK's, and the markets for land and capital need to be strengthened. These are the challenges that the Croatian agriculture sector has faced since it began economic reform following independence in 1990.

Following negotiation of a Stabilization and Association Agreement with the EU in 2002, Croatian accession to the EU was confirmed in April 2004, with the principles, priorities and conditions for accession described in European Council Decision COM(2004) 275 on European Partnership with Croatia. Accordingly, the Government of Croatia is actively working to meet the requirements of the Decision, which will enable the country to comply with EU requirements and obligations as laid down in the acquis communautaire. Towards this, the Government faces substantial challenges, particularly in the agricultural and rural sectors, that have been deeply affected by the tumultuous years of the past decade where, inter alia, war and diplomatic isolation from Western Europe inhibited structural adjustment and agricultural growth.

Compliance efforts with the EU acquis in agriculture and rural development provide an excellent opportunity to the Croatian government to streamline the various piecemeal, ad hoc policies and programs currently being implemented by the different branches of Government. The EU compliance process will also help the government to better define priorities and put in place appropriate, revised or new measures using a transparent, consultative approach (whereby relevant stakeholders at the local, regional and central levels are actively involved), in accordance with EU environmental safeguards.

Existing World Bank commitments will, in particular, support improved agricultural competitiveness together with the associated land reform, while medium term EU support will focus on aspects of rural development and legislation harmonization.

Agriculture Pollution Control Project

Croatia is committed to improving water quality and reducing nutrient pollution over its entire territory as agreed under the Danube River and Black Sea Conventions and is in the process of negotiating its EU accession agreements for the Nitrates and Water Framework Directives.

Although a substantial endeavor is underway in policy, institutional and environmental reform in the agriculture sector, as outlined above, there remains a significant unfinished and under-financed government agenda, in particular to reduce nutrient loads to Croatian water bodies from agricultural sources as well as to put in place an accredited AE Program. The positive evolution in attitude regarding agriculture and the environment is encouraging and creates a favorable momentum for the introduction of the proposed GEF measures that would reduce nutrient discharge to surface and groundwater in the Pannonian plain.

1.2. Original Project Development Objectives (PDO) and Key Indicators (*as approved***)**

Agriculture Acquis Cohesion Project

The AACP Project Development Objective (PDO) to develop sustainable systems and capacities within the MAFWM to ensure timely compliance with the EU acquis conditions in the rural sector is well underway of being fully achieved. The same is true for the APCP PDO aimed to significantly increase the use of environmentally friendly agriculture practices by farmers in Croatia's Danube River Basin in order to reduce nutrient discharge from agriculture sources to surface and ground water bodies. All activities under the AACP and APCP are substantially completed and most of the end projects' targets have been reached.

Key Indicators:
Outcome indicators:

The primary project outcome would be more transparent, participatory and market-oriented support to and regulation of agriculture and rural development in Croatia, implemented within the framework of the prevailing EU Common Agriculture Policy (CAP) and *acquis communautaire*. Key **outcome indicators** include:

- An innovative, transparent, participatory and environmentally sustainable rural development program, with effective public-private sector participation;
- staff capacity and management and information systems within MoA commensurate with the demands of EU integration;
- an EU compliant agricultural policy framework and capacity to inform key decision makers and stakeholders of likely impacts;
- an EU compliant food safety management system that allows availability of safe food to Croatia's residents;
- an EU and WTO compliant sanitary and phytosanitary systems that protect Croatia's human, animal and plant life and health;

Output Indicators:

- an effective, transparent SAPARD/IPA Managing Authority and Monitoring Committee;
- the number and diversity of the SAPARD and successor IPA grants financed and degree of public-private partnership;
- the number of trained MoA staff achieving the required competency outputs;
- an EU compliant Farm Accountancy Data Network (FADN), overseen by a National FADN Committee;

- an independent Payment Agency implementing an EU compliant, GIS-based Integrated Administration and Control System (IACS);
- integrated, user-friendly food safety, SPS, IACS, farm registry and Agriculture Information Center (AIC) databases supported by reliable, secure and fast information technology systems;
- an effective, transparent and accountable CFA and associated food safety risk assessment and management system;
- an effective, transparent and accountable sanitary and phytosanitary institutional framework and management system implemented through regional agricultural inspection centers;
- plant protection, veterinary and public health reference laboratories applying ISO17025 accredited testing methodologies.

Agriculture Pollution Control Project

Project development objective and key indicators

The proposed GEF project objective reinforces the development objective of the IBRD financed Agriculture Acquis Cohesion Project (AACP) that aims at "developing sustainable systems and capacities within the MoA to ensure timely compliance with EU acquis conditions in the rural sector". Towards this, AACP aims at, inter alia, (i) building capacity for MoA support for sustainable, competitive agriculture in Croatia compliant with EU acquis requirements: (ii) establishing a transparent and efficient payment system for the disbursement of GEF-financed and subsequent government grants for structural reform in the agri-environment sector; (iii) reorganizing and reinforcing government inspection services supporting environment regulations and (iv) providing project management. GEF funds will provide incremental support for nutrient management activities in the agricultural sector to assist the country comply with the requirements of the EU Nitrates Directive and thereby assist the government in not only establishing a competitive agricultural sector but also assist it with honoring its international commitments to improve the waters of the Danube River and Black Sea.

The development objective of the project is to significantly increase the use of environmentally friendly agricultural practices by farmers in Croatia's Pannonian plain in order to reduce nutrient discharge from agricultural sources to surface and ground water bodies. In support of this, the project will assist the Government of Croatia to: (i) promote mitigating measures for nutrient reduction from agricultural sources to surface and ground water bodies (manure management); (ii) implement a national Agri-environment policy (Code of Good Agricultural Practices); and (iii) a public awareness campaign that would disseminate the benefits of project activities with the aim towards replication at the national and regional levels.

***Project Global Environmental Objectives*:** The global environmental objective of the project is to reduce the discharge of nutrients into waters draining into the Danube River and Black Sea. The project will provide an opportunity for the GEF to be a catalyst for actions to bring about the successful introduction and widespread adoption of integrated improved land and water resource management practices. GEF support will help reduce costs and barriers to farmers adopting improved and sustainable agricultural practices. It will also help develop mechanisms to move from

demonstration level activities to operational projects that reduce non-point nutrient pollution to the Danube River and Black Sea.

Key indicators included:
(iii) At least 40% of the farming population in the project areas adopting preventive and remedial measures to reduce nutrient discharges;
(iv) At least a 10% reduction in discharge of nutrients into surface and groundwater in the three project regions;
(v) Increased national awareness of linkages between local actions and impact on water nutrient load.

Outcomes envisaged under the project include, inter alia, improvement in soil and water quality, increased awareness of environmental issues in agro-industry and among farmers, increased number of farmers adopting mitigation measures and an increased area of agricultural land using resource conservation technologies.

Main Project Beneficiaries

The key beneficiaries of the AACP Project are the MAFWM and associated institutions: Croatian Agriculture Extension Institute (CAEI), Croatia Food Agency (CFA), National Veterinary Institute (NVI), Platnt Protection Institute (PPI) and Seeds and Seedlings Institute (SSI).

The key beneficiaries of the APCP Project are the MAFWM and associated institutions: Croatian Agriculture Extension Institute (CAEI), Payment Agency in Agriculture, Fisheries and Rural Development (PAAFRD). The key beneficiaries of sub-grants are farmers in three selected counties of Croatia: (i) Osiječko-Baranjska; (ii) Vukovarsko-Srijemska; and (iii) Varaždinska.

Original Components

The AACP Project initially consisted of four components:

1. **Strengthening Capacity for Absorbing EU Financial Assistance in the Agriculture Sector**
   - Establishment of a SAPARD (Special accession programme for agriculture and rural development) Managing Authority within Ministry of Agriculture, Fisheries and Rural Development (MoA); strengthening SAPARD implementation and monitoring capacities; and development and implementation of a communication strategy for SAPARD.
   - Establishment of the MoA Payment Agency (PA), including an accredited SAPARD Payment Agency; construction and equipping of regional PA sub-offices in NUTS (Nomenclature of Territorial Units for Statistics) regions; and establishment of a comprehensive IACS (Integrated Administration and Control System) within the PA.
   - Establishment of a SAPARD Guarantee Facility for providing guarantees to Beneficiaries for loans from Participating Banks under SAPARD.
2. **Empowerment of MoA Administration and Management**

- Establishment of an organized, cohesive and well-informed MoA management and administration team, with improved capacity to address the challenges of EU accession.
- Provision of technical assistance and training to strengthen the policy analysis capacity of the MoA Policy Analysis Unit.
- Upgrading of the Agricultural Information Center and of the farm register, and establishment of a pilot Farm Accounting Data Network (FADN) in the Center.
- Establishment of a management information system for MoA.

3. Ensuring Safe Food and Sanitary and Phytosanitary Conditions

- Development of the Croatia Food Agency (CFA).
  - ✓ Development of the CFA and establishment of a consolidated, transparent, efficient, and risk assessment based food safety program.
- Strengthening Veterinary and Plant Health services.
  - ✓ Development of regionally structured veterinary and phytosanitary inspection services supported by investments in staff capacity building, transportation, testing equipment, a web-based inspection reporting, certification and data management system and civil works and office equipment at up to five regional centres.
  - ✓ Establishment of a veterinary epidemiology unit including the completion and integration of Ministry epidemiology, residue testing, animal numbering, and border inspection software and staff training in its use.
  - ✓ Upgrading of the national veterinary and plant health institutes; and establishment of the new veterinary and plant health reference laboratories implementing ISO 17025 testing methodologies, including investment in civil works, staff capacity, information management and some equipment.
  - ✓ Establishment of an ISTA (International Seed Testing Association) certified laboratory for genetically modified organism (GMO) testing at the Croatian Institute for Seeds and Seedlings.

4. Project Management

A small implementation team within the MoA ex Department for Policy, EU and International Relations (DPEUIR) managed the project. The implementation induced Project Manager, Financial Controller, Procurement Officer and an administration/secretarial support person. The team conducted all aspects of project administration, including overall project oversight, TA, goods and materials procurement, and financial control. A Project Steering Committee (PSC) composed of key Assistant Ministers (Directors) within MoA provided project oversight and ensure national program integration.

<u>Agriculture Pollution Control Project components:</u>

1. Mitigating Nutrient Loads to Water Bodies from Point-Source Pollution

Carrying out of a program to promote sustainable manure management practices with the objective of reducing nutrient loads to the surface and ground water bodies of the Recipient, and encompassing the following:

- ✓ Nitrates Mitigation Investment Fund - Establishment of a Nitrates Mitigation Investment Fund within the MoA Paying agency to finance Sub¬-Grants in the counties of Osiječko-Baranjska, Vukovarsko-Srijemska, and Varaždinska.
- ✓ Water and Soil Monitoring and Impact Analysis Development and implementation of a water and soil monitoring program aimed at assessing the reduction of nutrient loads to surface and ground waters from Sub-projects.

2. Development and Promotion Agri-Environment Measures

Strengthening of CAEI's capacity to advice and train the farmers working in the counties of Osiječko-Baranjska, Vukovarsko-Srijemska, and Varaždinska on the most cost-effective on-farm technologies for complying with the Nitrates Directive.

- ✓ Dissemination of Code of Good Agriculture Practice
- ✓ Applied Research Program
- ✓ CGAP Demonstration Program

3. Public Awareness and Replication Strategy

Carrying out of nationwide public information campaign to disseminate the benefits of the proposed Project activities.

- ✓ Public Awareness
- ✓ Website
- ✓ Knowledge Sharing

4. Project Management

The APCP was managed by the Project Implementation Unit (PIU) of the AACP that has been established within the MoA (financial and procurement management). In addition, a livestock/nitrates management technical specialist was recruited to manage project activities. For purpose of managing NMIF applications 2 Grant administration officers (GAO) were recruited within PAFRD. In each project pilot county one Nitrates management fund officer (NMFO) assisted farmers to apply for Grants form Investment Fund.

Significant project changes

Agriculture Acquis Cohesion Project

Dropping the SAPARD Guarantee scheme - Since the Republic of Croatia officially decided not to implement SAPARD Measure 3 ("Improvement of infrastructure in rural areas") and Measure 4 ("Technical assistance"), the SAPARD Managing Authority submitted to the European Commission the request for reallocation of funds programmed for their implementation to Measure 1 and Measure 2. Amendments to the SAPARD Programme with the reallocation of funds were approved by the

European Commission on August 14th, 2008, based on the Commission Decision EC (2008) 4530.

Following this decision, there was no more justification for CAACP to keep aside a fund for the "establishment of a SAPARD Guarantee Facility", as this was designed to provide guarantees to Municipalities and local government seeking SAPARD financing under Measure 3.

Last call for applications from SAPARD was launched from 21st February till 21st April 2009 (OG No. 23/09) and December 31st, 2009 was the deadline for submitting payment requests on the SAPARD Fund.

In parallel, and as part of its preparations for the implementation of the upcoming IPARD Programme, in February 2009 the Directorate of Marketing and Structural Support in Agriculture (DMSSA) was transformed into the Paying Agency in Agriculture, Fisheries and Rural Development (PAAFRD) by the "Law on Establishment of the Paying Agency in Agriculture, Fisheries and Rural Development" (Official Gazette No. 30/2009). On December 18th, 2009, the PAAFRD was entered into the Court Registry of the Zagreb Trade Court, and of that date became an independent legal entity.

Following all these evolutions, CAACP proposed to the Bank to officially drop the financing line established for the financing of SAPARD Guarantee. A Bank supervision mission in May, 2009 agreed on the justification of reallocating this money.

After discussion with the new Paying Agency, it was reallocated to the financing of the creation of the new Land Parcels Information System (LPIS) – as an important component of the creation of the Integrated Administration and Control System (IACS) urgently needed for PAAFRD accreditation.

Amendment No 1 to Dutch Grant Agreement - The first extension of the Dutch Grant

A first extension of the Dutch Grant was done on 30th December 2009, extending its closing date till 31st August 2010.

Amendment No 1 to Loan – to increase the percentage of financing

In 2009 the WB issued Amendment Letter increasing the percentage of financing of the Loan proceeds under Category (1) (Works) and from the local expenditures for other items procured locally under Category (2) (Goods), form 85% to 100% due to reduction of budgetary funds and the inability to ensure the agreed average of co-financing by the Borrower and the state budget.

Amendment No 2 to Loan - the first extension of the WB Loan to February, 2012

Through the second Amendment Letter the WB extended the closing date of the Project to February, 28th, 2012, as well as enacted some reallocation of funds among the activities planned.

It was followed in parallel by a second amendment to the Dutch Grant on August 10th 2010, to allow the Grant disbursements to be carried on till February 28th, 2012 - in

parallel with the WB Loan-, and to extend its domain of activities towards trainings for farmers sensitisation in order to help them reap the maximum benefits from the EU membership.

This added a fourth result to the Dutch Grant's Logframe:

1. *Workshops, training & study tours are carried out for farmers, farmers organizations & other relevant grassroots stakeholders on the process & requirements of Agricultural Acquis and EU accession and requirements for sustainable agriculture within EU*

The second extension WB Loan to July 2012 and Reallocation of Loan Proceeds

A further amendment of the World Bank loan has been signed in order to authorise the extension of the Project till July 31st, 2012. The purpose of this amendment was to enable CAACP to complete safely its last big operation of procurement, namely the procurement of Laboratory furniture for PPI, which was at risk not to complete within the deadline otherwise.

At the same time third amendment of the Dutch Grant has been requested, here again to extend the closing date of the fund in parallel, as well as to authorise a further reallocation of the fund.

2. Key Factors Affecting Implementation and Outcomes

Implementation

AACP

During life of the AACP project appeared a lot of challenges. Procurement activities were slow in the start of Project, due, in part, to the understaffing of PIU and, in vast, to its broad scope, technical complexity, and the continuous progress in the EU accession negotiations that lead to evolving investment needs. The national elections in November 2007 generated subsequent restructuring of the Ministry to form the MoA, shedding responsibility for water management, forestry and hunting in that process. In April 2007 the Government issued a Decision instructing the Ministry of Science, Education and Sport (MoSES) and MoA to proceed with plans for the relocation of the NVI. The approval of the urban plan for a proposed MoSES science and technology park was pending with the City of Zagreb, despite the best efforts of the MoA to progress the decision. In the meantime, the newly appointed NVI Director has upgraded the existing facility to meet medium term EU test quality control requirements. MoA tried to expedite the clearance of the urban plan for the proposed NVI site for some time. Finally it was agreed with the NVI Director and the Assistant Minister for Veterinary Services to review the whole veterinary laboratory complex in Croatia with a view to developing a comprehensive strategy for its upgrading and rationalization. After few years decision was made (based on study) not to build new NVI but to refurbish and equip regional veterinary institutes.

In regard to establishing Paying Agency, MoA management has chosen to negotiate the lease/purchase of premises and not to develop regional centers in the foreseeable future apart from data archiving facilities that could be located at the planned regional

Inspection centers, thereby releasing the €4.25 million budgeted under the CAACP for this purpose. The MoA has requested that a part of these funds be used to support the development of the LPIS, which was an urgent requirement for meeting EU deadlines for establishing the PA Integrated Administration and Control System (IACS). Project funds were used for the procurement of equipment, softwares, development of digital ortophoto maps and its vectorization specialized surveying services and a communications package in support of the introduction of an LPIS.

The implementation of the third SAPARD measure for Improved Rural Infrastructure has been postponed and transferred to the IPARD program. This has been necessitated by delays in the EU conferral of management for this SAPARD measure – a process that is beyond project influence or control. Due to the need for a new IPARD-based national audit and accreditation process for this measure, EU conferral of management was not unlikely before second half of 2010, just before the original project completion and it was clear that the EUR 4 million Guarantee Facility budget is not going to be utilized. Thus it was agreed to cancel the Facility and reallocate the proceeds to the loan goods category.

The PIU's performance in project administration and implementation (delays in Operating Plans) are partially caused by PIU staff alterations in second half of 2008. It is important to emphasize that procurement delays, in part within the Bank systems and due to protracted government decision taking and processing, have also contributed to the low disbursement.

The implementation progress of Agricultural Acquis Cohesion Project was slower than expected in 2008 due to the delays with the processing of a few major procurement packages; however the project was on track to achieving its development objectives. This was changed in the second half of 2009 since major procurement packages with estimated value of EUR 12 million (approximately 50% of the loan) have either been advertised or contracts had already been signed.

By Y2009 the MoA managed to build strong ownership and implementation capacity among the participating Departments that has started to deliver tangible results. The key targets agreed with the previous missions have been reached, and the speed and quality of implementation had improved. The global financial crisis and its adverse impact on Government revenues has made the EU accession resources scarcer and therefore the demand for the project resources has increased substantively. Additional sizable procurement packages financed from the goods category are being finalized. The utilization of the loan proceeds was additionally boosted by MoA's request to increase the disbursement percentages for civil works and goods categories to 100%.

Project Preparation Facility

While project activities and expenditure were less than was projected and the time frame of the PPF was extended by 12 months, the PPF has, nonetheless, provided vital support to the Ministry in its program for EU integration and established a foundation from which the CACCP was expected to grow quickly. The PPF committed US$ 840,000, or 45% of available PPF funding, of which US$ 789,000 (43% of available funding) was disbursed prior to project effectiveness. Significant achievements under the PPF include: (i) the appointment of skilled national

consultants to MoA departments supporting EU integration; (ii) the provision of technical assistance in critical areas of food safety, laboratory design, SAPARD implementation, IPA-RD planning and Payment Agency (PA) procedures, that have enabled the MoA to meet EU inspection requirements in these fields (iii) the processing of contracts for the design and construction for the genetically modified organisms laboratory and design of the plant protection laboratory; (iv) the procurement of essential office and information technology (IT) equipment, vehicles and facilities for the SAPARD Management Authority (MA), the PA and the MoA Veterinary Directorate and Sector for Plant Protection; (v) the processing of policies and procedures in support of the project's MoA capacity building program, which will commence on project inception; and (vi) the establishment of a competent Project Implementation Team (PIT) including the introduction of new financial management software.

AACP-Project Year 1: 2007

The Croatia Seeds and Seedlings Institute Genetically Modified Organisms laboratory was completed, while design work on the new Plant Protection Institute/Orchard Institute building was progressing satisfactorily. The Project has supported the establishment of the SAPARD Payment Agency (PA) within the MoA, through the appointment of national consultants, supply of office and IT equipment and furniture, the construction of an EU compliant IT room, regional study tours and the recruitment of technical advisors in IT, land parcel information systems (LPIS), integrated administration and control systems (IACS), auditing and EU procurement policy. The Project was procuring additional office furniture and equipment for the Croatian Food Agency.

AACP-Project Year 2: 2008

Procurement of Supply and Installation of Information System – application LPIS software package for PA was signed. Procurement of Consultant for providing the consulting services for LPIS Promotional Campaign was signed and Project continued to support establishment of LPIS by procuring expert advisers as technical support to speed up the LPIS implementation. However, disbursement was very much behind the schedule due to the delay in the two largest project activities regarding LPIS - procurement of technical services for production of Digital Orthophoto Maps for LPIS for PA and procurement of Geodetic – Cadastral services for production of the Digital cadastral maps that have been put in procurement procedure in the last quarter of 2008. Both of stated activities were of crucial importance for Croatian EU negotiations.

The consultancy for the specification of the MoA information technology (IT) architecture has been successfully completed with the preparation of tender specifications for the MAFRD data management centre and phytosanitary and veterinary Directorate information databases. Participants at a final presentation by consultancy expressed a high level of satisfaction with its outputs. However, three large activities regarding Information Technology Program were slow down because of problems regarding finalizing the bidding documentation for tendering.

Project financed consultancy to review the whole of the veterinary laboratory complex in Croatia was completed and a comprehensive strategy for its upgrading and

rationalization has been finalized. In collaboration with the National Veterinary Institute and Veterinary Directorate, an international consultant was recruited to review the structure of veterinary laboratory facilities and services in Croatia and advice on their restructuring, including privatization or relocation as required. Assessment of laboratory resources and restructuring of laboratory services was found acceptable by NVI and MoA. NVI clearly gave the priority to the construction or upgrade of regional laboratories (Regional institutes in: Rijeka, Split, Vinkovci and Križevci) especially as the existing NVI building in Zagreb was audited and declared basically suitable to accommodate the central activities of the Institute.

APCP - Project Year 1: 2008

Agricultural Pollution Control Project became effective on July 31, 2008 with engagement of Livestock Nitrates Management Specialist (project coordinator). Procurement activities in regards to employment of the project staff, advisors and setting of minimum operational requirements started in September 2008. The MoA and CAEI are in the process of recruiting APCP support staff and effectiveness is expected by end-April 2008. An invitation for 1st round applications for grants for manure management was planned July 2008 following staff and farmer capacity building programs in May-June 2008.

AACP - Project Year 3: 2009

The MoA, with project support, has been building an EU compliant Payment System for EU IPARD fund management with work on the development of an Integrated Administration and Control System (IACS) including a Land Parcel Information System (LPIS) proceeded satisfactorily, including the procurement of Digital ortho-photo maps and Digital cadaster plans. These contracts coupled with the LPIS promotional campaign contract which implementation was underway. Combined, all activities given above helped MAFRD to meet critical EU accession milestone in the agriculture sector.

At the same time MoA started with tendering the ICB for an integrated MoA Management Information System and supporting data management center. In parallel the documentation for Phytosanitary and Veterinary databases software development have been prepared.

In regard to the planned restructuring of the NVI, the details on laboratory condition improvements and equipment were worked out and two large laboratory rehabilitation and equipment supply procurement packages estimated at EUR 4.6 million have been finalized. NVI has in due time prepared the laboratory refurbishment designs and the associated bills of quantities as well as the necessary building permits. The specification for the laboratory equipment and the procurement packages was also prepared

APCP - Project Year 2: 2009

Since appointing the PIU in March, 2009 important progress in the APCP Project took place. Documents and procedures regarding Nitrates Mitigation Fund, which represents about 50% of grant funds, have been completed and translated, and submitted to the Bank for comments. With the contribution of local counties, dissemination brochures have been designed and printed. These brochures will be

posted to 85,000 registered farmers. Posting of the brochures is an important concern given the associated cost of delivery. The lowest bid from private companies is at least 5 times higher than the National Post Office cost of delivery. Based on this, the mission considered reasonable that the distribution be implemented through the Post Office system, financed under the category of operational costs. The mission will consult with the Bank lawyer and procurement specialist and provide a formal opinion in this regard.

The tender for nitrates balance software was drafted submitted to the Bank. The reference price is equivalent to about 100,000 USD which could be higher in the case of international suppliers because of the additional costs of translation. The Bank recommended to analyze the option of using existing free software prior to proceeding with the bidding process.

The bidding documents for purchase of piezometer wells were completed and sent for Ministry approval. Also, the draft manual for Good Agricultural Practice demonstrations plots, which explains the demonstration program in detail as well as participation conditions, have been completed and sent for Ministry approval. The target for the program is participation of at least 10 farmers per county, with a total target of 200 farmers in total. The specific mechanisms and procurement methods for the implementation of these demonstration plots should be identified and discussed with the Bank team. It was agreed that this issue would be discussed during a VC shortly after the conclusion of the mission. A national workshop on manure management and nitrate pollution risk was planned for the Autumn/Winter 2010.

AACP - Project Year 4: 2010

Due to the Government restriction of budgetary resources, procurement of vehicles has been postponed. Until then, the MoA inspections have used their private vehicles for the purpose of performing everyday tasks, for which costs were much higher, but also the functionality of the inspection services and standards in accordance with EU negotiations Chapter 12 (Food safety, veterinary and phytosanitary policy) related to the timely and efficient work of veterinary, agricultural and phytosanitary inspection was questionable. Project obtained the Government permission to start this activity in 2010. The construction of the Plant Protection Institute (PPI) was formally launched in April 2010. The equipment for an integrated MoA integrated data management center and supporting Data Management System has been implemented, while the development of the supporting veterinary sector and phytosanitary sector information system has made significant progress in implementation. The upgrading of the regional veterinary centers infrastructure proceeded satisfactorily; and tender for veterinary laboratory equipment was in final stage of tendering.

APCP - Project Year 3: 2010

In their first year of the APCP operation, field staff have made 1080 farm visits, conducted 340 farmer surveys and met 110 farm organizations and businesses. To date, the project has received just 3 grant applications, of which 2 are in the process of approval, however, the Coordinator and the field officer met are confident that the target of 30 farmer grantees is achievable in the project timeframe, with many of the GAP demonstration farmers' also potential grantees.

The Minister MoA has written to Municipalities requesting their cooperation in approving building and location permits and the careful application of land use laws, however, the latter fall under the jurisdiction of the Ministry of Environment Protection and Physical Planning.

The project was making least progress in Varaždin County, the centre of Croatia's poultry industry. Most farmers produce under contract to a few large poultry processors and their poultry operations may not be integrated into larger farming operations. As such, poultry manure has less intrinsic value and is frequently disposed of with little care for the environment.

Government passed both GAP and EU cross-compliance legislation in January 2010, however, considerable training and resourcing of public sector institution and private farmers was required for its effective implementation. The project is in the process of contracting over 600 ha of private farmland for GAP demonstrations, has stated in summer 2010.

In work with the scientific staff of the University of the Osijek Faculty of Agriculture discussions regarding the design of the field trial. The discussion established that Phosphorous (P) and Potassium (K) is relatively available in the soils in the Osijek-Baranja region and thus should not be a variable in the proposed field trials, which will focus on nitrogen responses. It was agreed upon that, considering the relative uniformity of soils in the region, two trial sites should be adequate. It was also agreed that, with a view to deriving a clearer nitrogen-crop yield response curve, the number of nitrogen treatments would be increased at each trial site, particularly in the range where the best financial response is most likely. This approach provides a model for employing the Zagreb Agriculture Faculty to conduct a parallel field research program in Varaždin County.

The APCP website was about to become fully operational and 85 000 brochures of Code of Good Agriculture Practice have been distributed to all agriculture producers in February 2010. GAP and manure management field days were planned on at least 60 sites and existing and new on farm manure management programs over the coming 2 years, with potential to increase the frequency of field demonstrations.

AACP - Project Year 5: 2011

The construction of the Plant Protection Institute (PPI)/Horticulture Institute building, with minor variations, has been implemented on schedule for completion by the second extended project closing date (February 28, 2012). The PAAFRD) with project support, has established an EU compliant system for IPARD fund management, including an IACS incorporating a LPIS) (http://www.arkod.hr/). Contracts for veterinary laboratory equipment were signed and fully implemented until end of 2011. State food risk assessment and management information systems (CRO RASFF) was fully implemented. The MoA integrated data management center and supporting Data Management System was operational, while the development of veterinary sector and phytosanitary sector information system, including a new link to the SSI database, continued as scheduled. Two project in relation to food risk studies (food additives and mycotoxins in feed) started. The rehabilitation of the regional veterinary laboratory institutes was on schedule and key laboratory tests at the National Veterinary Institute and regional veterinary centers have been ISO 17025

certified opening the door for trade with the EU as reflected in the successful negotiations of the agricultural chapters of the Acquis Communautire. Vehicles for inspection services and additional veterinary laboratory equipment have been delivered and in use.

APCP - Project Year 4: 2011

In November 2010 project disbursement was at 23 percent. But commitments were standing at 52 percent. Total of 15 grants for on-farm manure platforms, valued at US$ 1.14 million, has been approved. The construction of six platforms has been completed, while five more have been contracted and their construction was about to start. Applications from 27 farmers were being appraised for documentation compliance by the Paying Agency. Farm eligibility has been raised to 150 cows and a law revision that will simplify procedures and reduce the cost of securing permits for unregistered and illegally constructed buildings is before the parliament. These two measures were expected to accelerate farmer application rates for manure platforms and IPARD grants. Piezometers, for soil water nitrogen measurement, have been installed at five platform sites.

During the visit of Sector Manger, John Kellenberg, to Croatia, the meeting was organized with the implementing team on June 7, 2011 in Zagreb. It was aimed at finding the ways to enhance the Nitrates Mitigation Investment Fund activities so that the end beneficiaries, Croatian farmers, could better use the grant funds to finance 75 percent of the cost of manure storage and management in a simpler and less time-consuming manner. To that effect, certain revisions to the IPARD compliant Beneficiary and Public Procurement Guide (Project Operation Manual) have been discussed and agreed upon. Though the key IPARD procedures will continue to be followed, some revisions to the Project Operations Manual will be introduced. Notably, these included upfront grant payment of 55 percent and time reduction for administrative processing from 12 to seven months provided that documentation and on-the-spot control are satisfactory.

The impact of nitrogen application on cereal and vegetable production was being tested in two respective field trials that will include an economic evaluation, while about 700 hectares were incorporated in the good agricultural practice demonstrations. During the fall of 2010, the project delivered workshops in all the main villages and towns of three project counties. Collectively, the APCP has delivered more than 160 lectures, seminars and media appearances y 2010 and 2011. A project monitoring and evaluation (M&E) program was now fully operational and undertaking competency based training evaluation. The Croatian Institute of Agricultural Extension (CAEI), an important partner in APCP implementation, has been integrated into the Croatian Agriculture Chamber (CAC), however, the CAC remains a nascent organization and the achievement of effective farmer representation in extension management remains challenging.

AACP - Project Year 6: 2012

The construction of the Plant Protection Institute (PPI) building in Zagreb was completed in February 2012. Due to budgetary restrictions the PPI was unable to furnish the new building with laboratory and office furniture. In order to make the

new PPI building functional the Project financed procurement of laboratory and office furniture. The laboratory furniture is procured for the new building of PPI: laboratory for bacteriology, laboratory for herbology, laboratory for mycology, laboratory for nematology, laboratory for virology and laboratory for zoology. Procurement of the laboratory furnishing was completed by the project closing date of July 31, 2012.

APCP - Project Year 5: 2012

The final phase of project was focused on finishing of farm investments, completion of education processes, and cooperation with Agriculture faculties, schools and other entities. 3 years of field operations and achieving of the results were presented during the regional APCP conference in Zagreb, May 31-June 01.

Monitoring and Evaluation (M&E) Design, Implementation and Utilization

Design: The PAD contains the detailed set of monitoring indicators for assessing progress in meeting the PDO.

Utilization: The data acquired through M&E, gave all stakeholders a clear sense of the progress that the Project was making. The data was also used to create pressure for further improvements.

Safeguard and Fiduciary Compliance

The financial management (FM), disbursement and procurement staff within the PIU performed capably and all Project audits (AACP&APCP) had clean opinion. The FM system recorded all transactions and balances, and it permitted clear and concise reports to be promptly issued. Internal controls and audit further assured the accuracy of records.

Summary of Findings of Beneficiary Survey and/or Stakeholder Workshops
Within the Project M&E two surveys have been conducted: Information technology survey and CAACP beneficiaries' staff competency survey (detailed surveys results are Annex to final CAACP M&E)

3. Lessons Learned

The AACP project has significantly supported institutional efforts in regard the EU *acquis* in agriculture and rural development, although facing a number of different challenges such as:
- Unrealistic planning before the project start:

- In general, for all international procurements: the procedures are much more complicated to deal with.
- All procurements linked with IT systems – the ICT is in constant change/progress.
- In regard to determining the procurement methods (works, goods and consultant's services) in relation to the specific requirement of each activity. Insisting on originally envisaged methods may not be the best solution and could have significant time consuming effect.

- As regards construction works – prolonged time for obtaining all necessary permits as well as acute problems when the designs of the Projects were not of a sufficient quality.

  Lacks in the designs then was translated into sizeable problems revealed at implementation stage, making it compulsory to negotiate complementary amendments with the contractors – all this translating into unforeseen delays in the works progress.
- Putting more effort on stakeholders' involvement in project design in early stage, and developing stronger project ownership could induce fewer delays in all future project implementation phases.

- Staff alterations:

- *PIU*

  Although existing PIU somehow managed to pull through with the requirements of Project's implementation, it was at the cost of very much pressure on staff and some unavoidable delays.
  PIU comprised:
  - 1 project manager (during the maternity leave the substation was not provided)
  - 1 procurement officer (3 staff alterations on his position form Y2005-Y2009)
  - 1 financial officer
  - 1 technical/administrative assistant (longer periods of project life this position was vacant)

- *WB staff*

The Project suffered for the frequent changes of TTL during its implementation – as each TTL needed some time to get acquainted with its peculiarities.

At some time, it took a long time to get WB answers to requests for instructions, or approval for the contracts to be signed.

Annex 8. Comments of Cofinanciers and Other Partners/Stakeholders

Annex 9. List of Supporting Documents

- Aide Memoires
- ISRs
- Restructuring papers
- Studies prepared as part of the project
- EU reports evaluating paying systems and Food safety sector for chapter 11 and 12 negotiations
- Beneficiary Survey Results

CROATIA

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- SELECTED CITIES AND TOWNS
- COUNTY (ŽUPANIJA) CAPITALS
- NATIONAL CAPITAL
- RIVERS
- MAIN ROADS
- RAILROADS
- COUNTY (ŽUPANIJA) BOUNDARIES
- INTERNATIONAL BOUNDARIES