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Environmental Policy and Technology Project

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UKRAINE

Recommended Impact Indicators: Environmental Work Groups, and Ukraine-U.S. Program to Promote Sustainable Development

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Delivery Order #09, Task U5

Delivery Order #15, Task 2

Prepared for:

**U.S. Agency for International Development
Regional USAID Mission to Ukraine, Belarus & Moldova**

**Bureau for Europe & the New Independent States
Office of Environment, Energy & Urban Development
Environment & Natural Resources Division**

Prepared by:

**Ukraine, Belarus & Moldova Regional Office
Environmental Policy and Technology Project
For the New Independent States of the former Soviet Union**

A USAID Project Consortium Led by CH2M HILL

PREFACE

Under the 1992 Freedom Support Act, the United States Congress initiated a program to provide various forms of assistance to new independent states (NIS) of the former Soviet Union. Cooperative Agreements were signed between representatives of the U.S. government and each country in which assistance is to be undertaken. The U.S. Agency for International Development (USAID) was given the responsibility to coordinate all U.S. government assistance to the NIS under the Act.

Through competitive bidding, USAID awarded a multi-year contract to a team managed by CH2M HILL International Services, Inc. (CH2M HILL) to support implementation of an environmental assistance program to republics of the former Soviet Union. Under this contract, termed the Environmental Policy & Technology (EPT) Project, CH2M HILL is to assist USAID's missions in Moscow, Kyiv, and Almaty undertake a program to promote environmental improvements in the NIS. The USAID mission in Kyiv supports environmental, and other, assistance programs to Ukraine, Belarus, and Moldova. These western republics of the former Soviet Union are termed WESTNIS. CH2M HILL has established an office in Kyiv from which to perform services in the WESTNIS region under the EPT Project.

This report contains deliverables required under contract between USAID and CH2M HILL. Although work on this report was conducted in cooperation with the assisted governments and USAID, the findings and recommendations are those of the CH2M HILL team. They do not necessarily represent official positions of the governments of the assisted countries nor of the United States of America.

The CH2M HILL team includes the following organizations:

- Center for International Environmental Law
- Clark Atlanta University/HBCUMI Environmental Consortium
- Consortium for International Development
- Ecojuris
- Environmental Compliance, Inc.
- Harvard Institute for International Development
- Hughes Technical Services Company
- International Programs Consortium
- International Resources Group, Ltd.
- Interfax Newsagency
- K&M Engineering
- Ogden Environmental and Energy Services Company
- Price Waterhouse
- World Wildlife Fund (US).

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NOTE ON TRANSLITERATION

Ukrainian personal, institutional, and place names used in CH2M HILL's Environmental Policy and Technology Project (EPT) documents are transliterated into English from Ukrainian (not Russian), according to the modified U.S. Library of Congress standard for Ukrainian-to-English transliteration that has been adopted by many Western organizations and publications, including the *Encyclopedia of Ukraine* (University of Toronto Press, 5 vols, 1984-1993) and Subtelny's authoritative *Ukraine: A History* (University of Toronto Press, 1988, 2nd edn, 1994), as well as by the Ukrainian Commission on Legal Terminology (Resolution No. 9, dated 19 Apr 1996).

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Abbreviations, Acronyms & Glossary	iv
1 Introduction	1
2 Recommended Impact Indicators	3
2.1 Industrial Environmental Management Work Group	4
2.2 Urban Water & Wastewater Work Group	6
2.3 Sustainable Agriculture Work Group	8

ABBREVIATIONS, ACRONYMS & GLOSSARY

CH2M HILL	CH2M HILL International Services, Inc. (a U.S.-based international environmental engineering consulting firm)
DO	Delivery Order
EPAT	(USAID-funded) Environmental & Natural Resources Policy & Training (Project)
EPT	Environmental Policy & Technology (Project). A USAID-funded program to provide environmental assistance to New Independent States of the former Soviet Union.
MEPNS	Ministry of Environmental Protection & Nuclear Safety (of Ukraine)
MIS	Management Systems International (a U.S.-based international consulting firm)
NGO	non-government organization
NIS	New Independent States (of the former Soviet Union)
USAID	U.S. Agency for International Development

Section 1

INTRODUCTION

As part of a United States government bilateral assistance program, the U.S. Agency for International Development (USAID) is supporting environmental management in Ukraine. Under direction from USAID, a consortium led by CH2M HILL International Services, Inc. (CH2M HILL), is implementing part of USAID's Environmental Policy & Technology (EPT) Project by undertaking various tasks that have been agreed to by representatives of the governments of both countries.

Through Delivery Order (DO) Nos. 9 and 15, USAID authorized CH2M HILL to coordinate the provision of technical assistance, advice, and the transfer of U.S. experience on topics of special environmental importance to Ukraine, as outlined in the *Basic National Environmental Policies and Main Directions on the Rational Use of National Resources* report. Specifically, CH2M HILL was tasked to coordinate a Work Group program that targets several topics identified within the *Main Directions* report as being of high environmental priority for Ukraine.

Under DO #9, CH2M HILL initiated the *Ukraine-U.S. Program to Promote Sustainable Development*, subsequently renamed the *Program to Promote Sustainable Development in Ukraine*, which consists of an Executive Council, Steering Committee, five Work Groups, and a Program Secretariat. CH2M HILL has been responsible for operating the Secretariat, arranging activities of the Executive Council and Steering Committee, and coordinating three of the five Work Groups. In addition, DO #9 allocated some funds to support activities of the three Work Groups coordinated by CH2M HILL.

CH2M HILL's role was expanded under DO #15 to include coordination of five of the six Work Groups, and support was continued for operation of the Executive Council, Steering Committee, and Secretariat.

This report identifies impact indicators and targets for measuring the performance of three of the Work Groups -- Industrial Environmental Management, Urban Water and Wastewater, and Sustainable Agriculture -- as required under DO #9, Task U5. Since USAID support to the *Program* was continued under DO #15, Task 2, the impact indicators and targets in this report have also incorporated strategic objectives, and intermediate and interim results, developed by USAID in its *Strategic Framework for Assistance to Ukraine*. The strategic objectives, and intermediate and interim results, were the basis of performance measures developed for the DO #15 Work Plan prepared by CH2M HILL and submitted to USAID in December 1996.

This report fulfills the following deliverable requirements under DO #9, Task U5:

- Subtask 1: Industrial Waste Management Work Group:
 - ▶ 1.3: Report: Recommended Impact Indicators

- Subtask 2: Urban Water Resources Work Group:
 - ▶ 2.3: Report: Recommended Impact Indicators
- Subtask 3: Agriculture & Pesticides Work Group:
 - ▶ 3.2: Report: Recommended Impact Indicators.

All other DO #9, Task U5 deliverables are presented in CH2M HILL's report *Ukraine: Assessment of Environmental Work Group Outputs, and Progress of Ukraine-U.S. Program to Promote Sustainable Development; Activities in 1996*, dated March 1997.

Section 2

RECOMMENDED IMPACT INDICATORS

Impact indicators and targets developed under DO #9 for measuring the performance of three of the Work Groups: Industrial Environmental Management, Urban Water and Wastewater, and Sustainable Agriculture, are presented in the following tables. However, since *Program* support is continued under DO #15, impact indicators and targets in this report also incorporate the strategic objectives, and intermediate and interim results identified in the DO #15 Work Plan.

2.1 INDUSTRIAL ENVIRONMENTAL MANAGEMENT WORK GROUP

DO #9 IMPACT INDICATORS	DO #15 STRATEGIC OBJECTIVES AND INTERMEDIATE AND INTERIM RESULTS SO 3.3 - Increased capacity to deal with pollution as a threat to public health.	PERFORMANCE MEASURES - TARGETS
<p>Economic Restructuring: Government institutions are strengthened in their capacity to carry-out environmental management responsibilities.</p> <p>New policies, laws and regulations supporting the shift from command to free-market economies address environmental quality concerns.</p> <p>Environmental standards, policies, and legislation that support sub-sector restructuring and commercial development are promulgated.</p> <p>Democracy Building: Increased public awareness of environmental and natural resource issues is demonstrated.</p>	<p>IR 3.3.1: More national policies and plans integrate environmental, economic and social goals.</p> <ul style="list-style-type: none"> • IR 3.3.1.1: Increased public and private sector participation in policy development, in order to improve the quality of public participation in national policy-making. • IR 3.3.1.2: Increased public awareness and education regarding the relationship between economic development and environmental quality. • IR 3.3.1.3: Increased availability and dissemination of environmental information. 	<p>Ukrainian governmental agencies consider incorporation of Work Group recommendations into national policy.</p> <p>Representatives from governmental agencies; non-governmental organizations (NGOs) and citizen's advocacy groups; and private enterprises regularly participate in the <i>Program</i>.</p> <p><i>Program</i> participants are introduced to environmental and economic development concepts and application.</p> <p>"Sustainable development" information is widely disseminated.</p>
<p>Social Sector Restructuring - Industry: Reduce threat to public health.</p> <p>Economic Restructuring: Demonstrated environmental technologies are replicated.</p>	<p>IR 3.3.4: Safer, more environmentally sound and efficient industrial sector.</p> <ul style="list-style-type: none"> • IR 3.3.4.1: Identify potential investor costs related to environmental management, in order to reduce investor uncertainty. • IR 3.3.4.2: Increase use of energy efficient and waste minimizing technologies. 	<p>Ukrainian governmental agencies and/or industrial enterprises consider incorporation of Work Group recommendations into sectoral policy.</p> <p>Lessons-learned from field projects undertaken in Ukraine are promoted through the <i>Program</i>, by dissemination of information and/or replication of demonstrated economically and environmentally-sound technologies.</p>

DO #9 IMPACT INDICATORS	DO #15 STRATEGIC OBJECTIVES AND INTERMEDIATE AND INTERIM RESULTS SO 3.3 - Increased capacity to deal with pollution as a threat to public health.	PERFORMANCE MEASURES - TARGETS
<p>Economic Restructuring: Market-based incentives for improved natural resources management and environmental quality are developed, tested and instituted.</p>	<p>IR 3.3.5: Increase participation in international markets and other international fora, in order to increase export of goods produced by safer, more environmentally sound technologies and/or by adoption of international protocols and agreements.</p> <ul style="list-style-type: none"> • IR 3.3.5.1: Increased compliance with international standards and guidelines. 	<p>Ukrainian governmental agencies and/or private enterprises consider implementing international environmental standards and guidelines.</p>

2.2 URBAN WATER AND WASTEWATER WORK GROUP

DO #9 IMPACT INDICATORS	DO #15 STRATEGIC OBJECTIVES AND INTERMEDIATE AND INTERIM RESULTS SO 3.3 - Increased capacity to deal with pollution as a threat to public health.	PERFORMANCE MEASURES - TARGETS
<p>Economic Restructuring: Government institutions are strengthened in their capacity to carry-out environmental management responsibilities.</p> <p>New policies, laws and regulations supporting the shift from command to free-market economies address environmental quality concerns.</p> <p>Environmental standards, policies, and legislation that support sub-sector restructuring and commercial development are promulgated.</p> <p>Democracy Building: Increased public awareness of environmental and natural resource issues is demonstrated.</p>	<p>IR 3.3.1: More national policies and plans integrate environmental, economic and social goals.</p> <ul style="list-style-type: none"> • IR 3.3.1.1: Increased public and private sector participation in policy development, in order to improve the quality of public participation in national policy-making. • IR 3.3.1.2: Increased public awareness and education regarding the relationship between economic development and environmental quality. • IR 3.3.1.3: Increased availability and dissemination of environmental information. 	<p>Ukrainian governmental agencies consider incorporation of Work Group recommendations into national policy.</p> <p>Representatives from governmental agencies; non-governmental organizations (NGOs) and citizen's advocacy groups; and private enterprises regularly participate in the <i>Program</i>.</p> <p><i>Program</i> participants are introduced to environmental and economic development concepts and application.</p> <p>"Sustainable development" information is widely disseminated.</p>
<p>Social Sector Restructuring - Water and Wastewater: Reduce threat to public health.</p> <p>Economic Restructuring: Demonstrated environmental technologies are replicated.</p>	<p>IR 3.3.2: Safer and more sustainable -- economically and environmentally -- water infrastructure.</p> <ul style="list-style-type: none"> • IR 3.3.2.1: Reduce contamination of municipal water supply. • IR 3.3.2.2: Improve efficiency and safety of water distribution system. 	<p>National governmental agencies and/or vodokanals consider incorporation of Work Group recommendations into sectoral policy.</p> <p>Lessons-learned from field projects undertaken in Ukraine are promoted through the <i>Program</i>, by dissemination of information and/or replication of demonstrated economically and environmentally-sound technologies.</p>

DO #9 IMPACT INDICATORS	DO #15 STRATEGIC OBJECTIVES AND INTERMEDIATE AND INTERIM RESULTS SO 3.3 - Increased capacity to deal with pollution as a threat to public health.	PERFORMANCE MEASURES - TARGETS
<p>Economic Restructuring: Market-based incentives for improved natural resources management and environmental quality are developed, tested and instituted.</p>	<p>IR 3.3.5: Increase participation in international markets and other international fora, in order to increase export of goods produced by safer, more environmentally sound technologies and/or by adoption of international protocols and agreements.</p> <ul style="list-style-type: none"> • IR 3.3.5.1: Increased compliance with international standards and guidelines. 	<p>Ukrainian governmental agencies and/or private enterprises consider implementing international environmental standards and guidelines.</p>

2.3 SUSTAINABLE AGRICULTURE WORK GROUP

DO #9 IMPACT INDICATORS	DO #15 STRATEGIC OBJECTIVES AND INTERMEDIATE AND INTERIM RESULTS SO 3.3 - Increased capacity to deal with pollution as a threat to public health.	PERFORMANCE MEASURES - TARGETS
<p>Economic Restructuring: Government institutions are strengthened in their capacity to carry-out environmental management responsibilities.</p> <p>New policies, laws and regulations supporting the shift from command to free-market economies address environmental quality concerns.</p> <p>Environmental standards, policies, and legislation that support sub-sector restructuring and commercial development are promulgated.</p> <p>Democracy Building: Increased public awareness of environmental and natural resource issues is demonstrated.</p>	<p>IR 3.3.1: More national policies and plans integrate environmental, economic and social goals.</p> <ul style="list-style-type: none"> • IR 3.3.1.1: Increased public and private sector participation in policy development, in order to improve the quality of public participation in national policy-making. • IR 3.3.1.2: Increased public awareness and education regarding the relationship between economic development and environmental quality. • IR 3.3.1.3: Increased availability and dissemination of environmental information. 	<p>Ukrainian governmental agencies consider incorporation of Work Group recommendations into national policy.</p> <p>Representatives from governmental agencies; non-governmental organizations (NGOs) and citizen's advocacy groups; and private enterprises regularly participate in the <i>Program</i>.</p> <p><i>Program</i> participants are introduced to environmental and economic development concepts and application.</p> <p>"Sustainable development" information is widely disseminated.</p>
<p>Social Sector Restructuring - Agriculture: Reduce threat to public health.</p> <p>Economic Restructuring: Demonstrated environmental technologies are replicated.</p>	<p>IR 3.3.3: More environmentally sustainable and safer agricultural sector.</p> <ul style="list-style-type: none"> • IR 3.3.3.2: Safer, more efficient use of pesticides. 	<p>Ukrainian governmental agencies and/or agricultural enterprises consider incorporation of Work Group recommendations into sectoral policy.</p> <p>Lessons-learned from field projects undertaken in Ukraine are promoted through the <i>Program</i>, by dissemination of information and/or replication of demonstrated economically and environmentally-sound technologies.</p>

DO #9 IMPACT INDICATORS	DO #15 STRATEGIC OBJECTIVES AND INTERMEDIATE AND INTERIM RESULTS SO 3.3 - Increased capacity to deal with pollution as a threat to public health.	PERFORMANCE MEASURES - TARGETS
<p>Economic Restructuring: Market-based incentives for improved natural resources management and environmental quality are developed, tested and instituted.</p>	<p>IR 3.3.5: Increase participation in international markets and other international fora, in order to increase export of goods produced by safer, more environmentally sound technologies and/or by adoption of international protocols and agreements.</p> <ul style="list-style-type: none"> • IR 3.3.5.1: Increased compliance with international standards and guidelines. 	<p>Ukrainian governmental agencies and/or private enterprises consider implementing international environmental standards and guidelines.</p>