

**Partnerships for Food Industry Development  
A U.S./Ukrainian/Moldovan Partnership**

**Leader-with-Associates Agreement No: PCE-A-00-01-00012-00**

**Funded by**

**The United States Agency for International Development**

**USAID M/FM/CMP**

**1300 Pennsylvania Avenue, N.W.**

**Washington, DC 20523-7700**

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**2<sup>nd</sup> Semi-Annual Report**

**July 15, 2001 – January 31, 2002**

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**Submitted by**

**International Programs**

**Louisiana State University Agricultural Center**

**Baton Rouge, Louisiana**

**In association with**

**The World Food Logistics Organization,**

**The World Laboratory, Ukraine Branch, and**

**The National Institute of Animal Husbandry and Veterinary Medicine of Moldova**

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1. 2001 Assessment Report	
2. Solution Strategy Paper/Capacity Building Document	
3. First Annual Work Plan	

## **List of Acronyms and Abbreviations**

ACM .....	Advisory Committee Meeting
AWP .....	Annual Work Plan
HACCP .....	Hazard Analysis Critical Control Point
LSU AgCenter .....	Louisiana State University Agricultural Center
NAUU .....	National Agricultural University of Ukraine
IARW .....	International Association of Refrigerated Warehousemen
IFSC .....	International Foods Safety Center
INZMV .....	National Institute of Animal Husbandry and Veterinary Medicine
LSU AgCenter .....	Louisiana State University Agricultural Center
NGP .....	Nominal Group Process
OSAR .....	Odessa State Academy for Refrigeration
PFID .....	Partnerships for Food Industry Development
SAR .....	Semi-Annual Report
SCP .....	Sanitation Control Process
SSP .....	Solution Strategy Paper
Ukrmiasso .....	(Ukrainian Association of Meat Producers)
USAID .....	United States Agency for International Development
USDA .....	United States Department of Agriculture
WFLO .....	World Food Logistics Organization
World Lab .....	World Laboratory, Ukraine Branch

## **Section I. Introduction and Summary**

This document details the activities of the Partnerships for Food Industry Development (PFID) Project, coordinated by LSU AgCenter, from July 15, 2001 to January 31, 2002.

The primary activity to continue the Project's assessment process was the conduct of stakeholders meetings attended by processors and other key participants in the industry. In each of the two meetings, presentations were given in the morning and a nominal group process (NGP) was conducted in the afternoon. In the NGP, participants identified the key constraints to growth and development of the industry and which constraints could best be addressed by the Project. Other assessment activities included a Client Profile survey in both countries and a refrigeration survey conducted in Moldova. These activities supplemented the PFID's Technical Committee's Initial Assessment (submitted last July) resulting in an overall assessment report (attached to this report) covering issues pertinent to the following: cold chain methodology; trade associations; post-harvest and processing technology; safety, sanitation and standards; and economic issues.

The Project's 1<sup>st</sup> Annual AWP obligated it to prioritize needs and issues. This was achieved through the conclusion of the assessment activities, which resulted in a number of programmatic recommendations. The Project's planning process was further refined at the Project's Advisory Committee Meeting (ACM). After an overview of the Project's activities for the past year, discussions of sector-specific assessment and future strategies took place. The committee then reviewed each component of the Solution Strategy: support mechanisms, educational and technical capacity building activities and fostering of business partnerships. These activities resulted in the finalization of a solution strategy, in which each recommended activity was assigned a category: "A" activities – which could be conducted with the Project's own resources, "B" activities – which would require additional donor grants or awards, and "C" activities which would require business partnerships. The Solution Strategy Paper (SSP) serves as a guideline for the second Annual Work Plan (AWP), which has been prepared and includes targets that will be expected as a result of conducting Project activities (both documents are attached to this report).

The Project identified four support mechanisms to be undertaken: information management, industry association development, the establishment of the International Food Safety Center, and networks and linkages for improving supply of raw material. WFLO has provided two informational materials for translation and dissemination, has accepted four new members and awarded participation in its Young Leaders Program for 2002 to a Moldovan. World Lab and Ukrmiasso held a seminar where a commitment was made to promote industry awareness, comply with international food quality and safety requirements, and develop business partnerships. World Lab also helped establish the International Food Safety Institute. World Lab assessed the raw material market in three oblasts. INZMV analyzed the list of governmental standards and helped form a Technical Committee of Standardization for meat, poultry and fish products. It helped develop a program of animal husbandry development until 2010. The SSP also includes a list of capacity building activities that will be conducted in Year Two. INZMV asked the head of the Polytechnic Institute's Food Canning Department to assist in identifying HACCP seminar participants.

Both World Lab and INZMV found a qualified economist to join their Project staff. The Project's web page has been expanded and World Lab has created its own web page pertaining to the Project. Expansion of the Project's web pages will continue. World Lab has made an early start to foster business partnerships by gathering several investment proposals. Monitoring tools have been developed and Associate Award possibilities have been explored in Kharkiv Oblast.

## **Section II. Objective #1: Industry Assessment**

### **A. Accomplishments**

#### *1. Stakeholders Meeting*

The primary activity to continue the Project's assessment process, which was begun with the initial assessment trip of May and June (refer to the previous SAR), was the conduct of stakeholders meetings. World Lab and INZMV identified participants, trained facilitators and prepared logistical arrangements.

These meetings occurred on October 30, 2001 in Kyiv and on November 2, 2001 in Chişinau. Processors and other key participants in the industry attended these meetings. Participants in each meeting totaled up to one hundred. In the morning of both meetings, members of the US-based technical team and selected local participants gave presentations relevant to the industry.

A nominal group process (NGP) was conducted in the afternoon. An NPG is defined as a group decision process to produce a list of ideas or statements that are rank-ordered according to importance and/or likelihood of success. In the NGP conducted in both meetings, participants were divided into three breakout groups corresponding to the following sectors of processing: meat, poultry and seafood.

The Ukrainian Poultry NGP is shown below.



**Note.** The posted sheets refer to issues proposed by NGP members. Dots in each sheet correspond to members' votes pertaining to issue importance (blue) and the likelihood that the issue can be addressed by PFID (yellow).

Every participant in each group generated a response to the following two-part central question:

- What are the key constraints to growth and development of the Ukrainian/Moldovan meat, seafood, and poultry industries?

- Which of these constraints could best be addressed through partnership between Ukrainian/Moldovan stakeholders and PFID project staff?

World Lab and INZMV synthesized these issues and findings, a complete presentation of which is provided in Annex C of the 2001 Assessment Report. Key findings of each NGP session are also cited throughout that document's text pertaining to the Eastern European partners' and stakeholders' comments regarding recommendations.

## 2. *Client Profile*

Project management determined that, in addition to the stakeholders meetings, other activities were needed for a complete industry assessment. From July to September 2001, World Lab and INZMV surveyed potential participant processors, using the Client Profile attached in Annex A of the 2001 Assessment Report.

The goals of the Profile, *in order of priority*, were as follows:

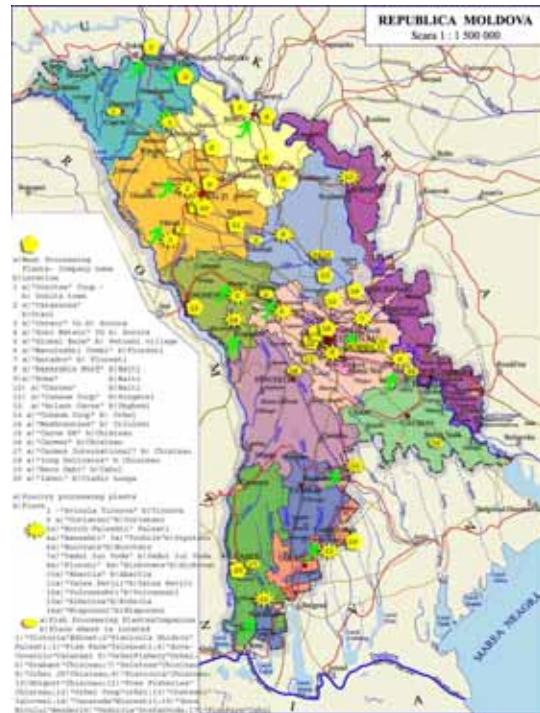
1. Generate a representative sample of potential participants for the stakeholder meeting;
2. Provide the basis for a database of potential participants; and
3. Analyze data for preliminary findings.

In general, the Client Profile was conducted as a mail survey. Processors were identified through collaboration with such government agencies as the Moldovan Ministry of Agriculture and Food Processing Industry and the National Statistics Department. The numbers of establishments responding to the profile were 282 in Ukraine (providing a total of 559 product lines) and fifty-three in Moldova (providing a total of 140 product lines). A complete presentation of the findings is provided in Annex B of the 2001 Assessment Report. It contains fifteen summary tables that provide descriptive statistics for red meat, poultry and seafood industries in Ukraine and Moldova. The data includes production capacities, capacity utilization, sales, and employment data.

Both World Lab and INZMV designed client locator maps using the data available from the client profile (shown below). World Lab’s map is electronically linked to its database.



Locator Map, Ukraine



Locator Map, Moldova

### 3. Other Assessment Activities

INZMV conducted a refrigeration survey among fifty-six respondents and entered the responses in a database. The survey form is found in Annex D and the findings in Annex E of the 2001 Assessment Report. Those findings led INZMV to reach several conclusions regarding the need to replace transport, compressor and other refrigeration equipment. Recommendations included an information system and capacity building. World Lab launched a similar survey but findings are not available at this time.

World Lab and INZMV also provided a list of standards and regulations from their respective countries pertaining to sanitation control and product quality. This is provided in Annex F of the 2001 Assessment Report. World Lab also asked two heads of industry associations and two sector experts to review the results of NGP process.

### 4. Result – 2001 Assessment Report

The fore-mentioned activities supplemented the PFID’s Technical Committee’s Initial Assessment (submitted last July) based on visits with key stakeholders in the meat and seafood processing in May and June 2001.

The following pictures are from that initial assessment trip. Both World Lab and INZMV contributed to the refinement of this report.



Assessment team members and staff of the Odessa State Academy of Refrigeration



Odessa (Ukraine) fish cannery



Vinnitsa Oblast (Ukraine) product samples



Assessment Team and hosts, Vinnitsa Oblast

Team members from WFLO observed that cold chain methodology and logistics were under-developed. They noticed a lesser emphasis placed on improved refrigeration and distribution processes as value-added components, little or no use of information management systems and a poor transportation pipeline. Most frozen or refrigerated products are exported to Russia. Low income has limited domestic demand for processed meat products. The sector also is severely limited by a lack of quality raw materials. These factors resulted in processing plants and cold storage facilities operating at a low level of capacity. WFLO witnessed other challenges facing Ukraine and Moldova similar to those facing other emerging markets such as: third-country competition, financing problems and unfamiliarity with the demand for quality. WFLO can provide analysis instruments and reference information for cold chain issues, including energy consumption patterns.

Compliance with international guidelines would be facilitated through cooperative endeavors within associations. WFLO suggested that a weak local association could improve by linking with a stronger and more global association. WFLO can also conduct training of trainer courses, in collaboration with academic institutions and other development projects in the area, for association development.



In Ukraine, there are more than one thousand small meat plants and approximately thirty plants that produce more than one thousand kilograms per day. In Moldova, there are approximately a dozen meat-processing plants with daily production capacity larger than one thousand kilograms. Pork is the most highly consumed meat, with little beef or lamb consumption due to livestock supplies. Most of the meat plants have a combination of old and new equipment. In Ukraine, there are about 320 poultry enterprises, with thirty percent currently idle. The poultry plants seemed to have moderate to high capacities, but were limited by the numbers of birds. The Moldova poultry industry is largely dependent upon small producers.

There are limited natural fishery resources in the Ukraine. However, the Port of Odessa could serve as one of the most important hubs for seafood processing in Eastern Europe by importing raw materials for value-added food processing. It has large facilities but has suffered from neglect over the last ten years. Nearly all facilities visited were operating at only a fraction of their production capabilities. Moldova has potential for establishment of freshwater species capable of pond culture. The team recommends identification and promotion of finished seafood products acceptable outside Ukraine and Moldova.

Slaughter equipment was generally less modern than processing equipment, requiring additional care and sanitation practices. In the Ukraine, it was indicated that the government has regulatory personnel assigned to each plant. There was considerable indication of a high regard and concern for product sanitation but a need does appear for Hazard Analysis Critical Control Point (HACCP) and sanitation training. Sanitary practices can be further assessed through chemical, physical, and microbiological analyses. The sanitary condition of the air and ventilation, water, and other inputs, as well as official standards for such conditions and the frequency of testing for both countries, should be examined. HACCP pre-course preparation activities also could serve as a final assessment of training needs. Improved temperature controls of products, as part of an overall improvement in cold chain techniques, would be warranted to maintain product safety and quality. The bulk of seafood training should be concentrated in Ukraine and focus on sanitation and standards.

The economic constraints to food processing in Ukraine and Moldova are linked to weak domestic markets, export markets that are closely tied to the unstable Russian economy, and lack of good quality animals for processing. The weak demand can be traced to low incomes relative to food prices and a high inflation rate. Most livestock are owned and raised by the smaller operators who have limited capacity to improve the raw product. These factors result in the underutilization of processing and cold storage capacity. Further development of export markets may increase the demand for processing but will require marketing plans. The supply of raw products could be improved with a “model” central livestock market and forward contracts.

## **B. Discussion and Future Assessments**

Several issues delayed the assessment process. Firstly, Project operations began in earnest in April 2001 after the execution of the agreement with USAID. Secondly, World Lab and INZMV recommended amending the original schedule for the stakeholder meetings to include presentations by the members of the US-based technical team. They justified this inclusion as a necessary incentive for participation, but it necessitated postponing the meetings from August. Thirdly, the meetings were further postponed following the events of September 11<sup>th</sup>.

The NGP provided a dual benefit to the Project's assessment process: it identified those issues that were most important to the stakeholders and it legitimized the Project's solution strategy to the stakeholders. However, there were some shortcomings. Facilitators did not have sufficient experience to completely eliminate redundant ideas that were raised by the stakeholders or to prevent some breakout groups from being dominated by the more forceful members.

As the profile had to be designed to the satisfaction of both the US-based and Eastern European Project partners, revisions, field-testing and translation took more time than anticipated. In some cases the Project specialists had to call to the plants in order to get the needed information. The design of a database for entry and analysis of responses required expertise from the Vinnitsa project, as well as training of Project staff in the use of Microsoft Access. Data collection of potential clientele will continue throughout the project and the database will be continuously updated to maintain a current information system.

World Lab was unable to obtain full refrigeration survey data with its current resources. In Ukraine, there is no authority that monitors the refrigerator equipment of processing enterprises in a centralized manner. Acquiring that information requires personal communication, visits and large preparation work, so that respondents agree to answer the very specific questions in the survey. Given Ukraine's size, such an action does not seem feasible at this time.

Recommendations for further analysis include comparison of refrigeration needs with financial resources and energy assessments as part of an initiative to improve efficient energy consumption.

### **Section III. Objective #2: Developing Awareness of Critical Issues**

#### **A. Accomplishments**

##### *1. Conclusion of Assessment Activities*

The Project's 1<sup>st</sup> Annual AWP obligated it to prioritize needs and issues. This was achieved through the conclusion of the assessment activities. The following possible activities have been suggested in the original Initial Assessment Report.

- IARW/WFLO is willing to develop a working relationship with any food processing enterprise that participates in this project. This will provide those participants with access to WFLO's reference information and collaboration with members of IARW.
- The PFID Technical Committee can also provide assistance to processor associations and academic institutions. This could include capacity building activities such as "train the trainer programs", internships and cooperative development programs.
- WFLO is well placed to respond to informational and educational inquiries through its Scientific Advisory Council and the members of its affiliated organization, the International Association of Refrigerated Warehousemen (IARW). It also has an extensive library of manuals on such specific commodity storage, energy efficiency and other cold chain issues.

- Linkages with existing projects promoting association development would be useful. PFID also could buy into the information system developed by World Lab for the Vinnitsa Project.
- Finished seafood products that can be exported could be identified and promoted in international seafood expositions.
- Improved temperature controls would better maintain product safety and quality.
- Seafood HACCP and sanitation workshops will be conducted during 2002, followed by impact evaluations. These evaluations could focus on how participants' products improved as a result of their participation in the workshops.
- It may be possible to develop some niche markets for sausage and other processed meats in selected Western European countries. This would require compliance with HACCP regulations and well-developed marketing plans possibly leading to a test market launch. Such accomplishments could be facilitated by collaboration with CNFA's Agribusiness Partnership Program.
- A "model" central livestock market could provide assembly, grading, and sale of animals. Another possibility to improve market efficiency might involve forward contracts between processors selected farmers. PFID could partner with the Vinnitsa Project to implement this solution strategy.

It should be noted that many of these recommendations were supported by other sources, such as the NPG results and a review of the IAR by World Lab, INZMV and other organizations in Ukraine and Moldova.

The NPG results and the reviews also provided the following additional suggestions for Project activities

- Develop operational instructions for the cold chain;
- Facilitate organizational development of both pre-existing associations and new associations as the need arises in the industry;
- Address the low levels of raw materials that limit processing of meat, poultry and seafood;
- Promote the harmonization of standards;
- Include HACCP and sanitation training for meat and poultry, as well as seafood;
- Address financial and economic constraints – such as credit, taxation, and competition – faced by processing industries; and
- Develop a pilot project based on a model meat processing enterprise for in a rural area.

Project staff members realize that the implementation of several of these recommendations could be beyond PFID's resources. It will be the responsibility of the Project staff and of key stakeholders to determine which recommendations have both the importance and the feasibility to justify implementation.

## 2. Meetings

Both World Lab and INZMV maintained on-going contacts with key players in the food industry of their respective countries. In this manner, the two Eastern European Project partners apprised the stakeholders of the Project's accomplishments and findings.

*Advisory Committee Meeting* - The Project's assessment was reviewed and solution strategy activities further refined at the Project's Advisory Committee Meeting (ACM) held in Mid January 2002 at Baton Rouge (pictures below).



Vladimir Popov, Director of Ukrmiasso, with J. William Hudson, President of WFLO



ACM Luncheon

Committee members included the following:

- *Technical Team members from the LSU AgCenter* - Dr. Michael Moody (Chairman of the Food Science Department), Dr. Kenneth McMillin (Professor of the Animal Science Department) and Dr. R. Wesley Harrison (Associate Professor of the Agricultural Economics Department);
- *Technical Team Members from WFLO* – Mr. J. William Hudson (President) and Mr. R. Brinkley Seward (Director of Membership);
- *Management Team from the LSU AgCenter* – Dr. Lakshman Velupillai (Director, International Programs) and Dr. Jonathan Hubchen (PFID Project Coordinator);
- *Representatives from Ukraine* – Dr. Gennady Palshin (Director of World Lab), Dr. Hennadii Mironiuk, (First Deputy Chairman of the State Committee of Standards) and Mr. Vladimir Popov (President of the Ukrainian Meat Producers Association or “Ukrmiasso”);
- *Representatives from Moldova* – Dr. Ion Socican (Project Director from INZMV), Dr. Sergiu Chilimar (Professor at INZMV) and Mr. Petru Brijatâi (Technical Director of Carmez Meat Processing Company); as well as
- *Representatives of USAID's Global Bureau* (Mr. James Dunn and Dr. Ivor Knight), of the Chancellor of the LSU AgCenter (Dr. William Brown).

The first part of the meeting consisted initial deliberations, from which the representatives of USAID and the Chancellor were absent. After introductory activities, Dr. Jonathan Hubchen

gave an overview of the Project's activities for the past year and of its assessment activities. Discussions of sector-specific assessment and future strategies then were given on the following topics: cold chain and institutional issues, the seafood sector, the meat and poultry sector, economic issues and issues specific to each country. The committee then reviewed each component of the Solution Strategy: support mechanisms, educational and technical capacity building activities and fostering of business partnerships.

Formal presentations then were given to the representatives of USAID and the Chancellor. These included Dr. Hubchen's overviews and presentation on the previously mentioned sectors. Both the USAID representatives and Dr. Brown responded with their own impressions of the strategies put forward by the Project staff. Dr. Hubchen concluded with an overview of the proposed AWP.

As a result of these activities, several issues arose. Project staff stated that the Project's roles included that of a catalyst and facilitator for the food industry. Another role would be that of a model, determining whether various technologies are appropriate for Ukraine and Moldova. USAID strongly recommended that PFID expand its programmatic partnering, both with the US-based private sector (possibly through expanding WFLO's participation), regulatory agencies and other development projects. It also suggested that the Project should identify project activities that can provide early and visible benefits to the clientele. These results then should be prominent in any scheme that the Project uses to promote itself such as bulletins or web pages.

### 3. *Solution Strategy Paper*

The preceding activities resulted in the finalization of a Solution Strategy Paper (SSP), which was mandated in the AWP and is documented in an attachment to this SAR. The recommended activities in this document were based on the Project's assessment activities, as documented in the 2001 Assessment Report. Solution Strategy activities were further refined at the Project's ACM. Project staff and key stakeholders from both Ukraine and Moldova provided key contributions throughout this process.

Due to the Project's limited resources, each recommended activity was assigned a category: "A" activities – which could be conducted with the Project's own resources, "B" activities – which would require additional donor grants or awards, and "C" activities which would require business partnerships. The solution strategy activities recommended in this document are presented below – first grouped by category, then by objective.

#### *"A Category" Activities:*

- *Support mechanisms* - information management, industry association development, International Food Safety Center and networks and linkages for improving supply of raw material;
- *Training* – including HACCP and sanitation workshops, economic training seminars, and WFLO-sponsored cold chain management training (in the SSP, association training was categorized as a support mechanism);
- *Training, informational support and initial case studies* – on such topics as post-harvest technology and practices, as well as economic issues

### *“B Category” Activities*

- *Support mechanisms* – to identify and promote products with market potential, increase raw material for the fish processing industry and develop of university departments in food science; and
- *In-depth, collaborative research* – on post-harvest technology and practices, economic issues; animal husbandry development and recovery of poultry supply.

### *“C Category” Activities*

- The Project will provide or create conditions that facilitate business partnerships through case studies, networking and promotion
- *Proposed partnerships* – include Linkages with other USAID-funded projects, increased cost-effectiveness of the fish industry in the Southern Region, re-establishment of current assets, a rural-based pilot-project, and production of canned poultry meat or endocrine-enzymes.

#### 4. *Annual Work Plan*

The Solution Strategy Paper serves as a guideline for Annual Work Plans (AWPs). The second AWP has been prepared and includes targets and indicators that will be expected as a result of conducting Project activities. Specific activities detailed in the Work Plan are described later in this document in the sub-sections pertaining to the Project’s objectives.

## **B. Discussion**

The development of solution strategies is a very complicated and painstaking process. Often, there is a significant divergence of opinions between industry members of different generations. Statistical data from various sources often are inconsistent and the extent of the shadow economy limits the Project’s ability to precisely assess the situation. Most of the implementation of solution strategies will be started in Year Two.

As described in the Second AWP, these activities correspond to the Project’s last three of five objectives:

3. Formulate support mechanisms and networks;
4. Create technical and educational capacity among key institutions in the industry; and
5. Foster business partnerships.

The activities pertaining to support mechanisms and capacity building will be described in the next sections.

## **Section IV. Objective #3: Formulate Support Mechanisms**

### **A. Accomplishments**

#### *1. Identification*

In the first AWP, PFID intended to identify five support mechanisms. As previously mentioned, the Project identified four support mechanisms that can be conducted with existing resources: information management, industry association development, the establishment of the International Food Safety Center (IFSC), and networks and linkages for improving supply of raw material. Three additional mechanisms – identification and promotion of products with market potential, increased raw material for the fish industry and university departments in food science – will require additional resources. In addition, INZMV has proposed a series of linkages between poultry producers and small wholesalers to improve the marketing prospects in that sector.

PFID could build on the information system developed by World Lab in the Support for Ukrainian Private Farming Sector and Scientific Collaboration Project (the “Vinnitsa Project”), to develop a similar system for the Ukrainian and Moldovan food industries. Topics for dissemination could include technologies, standards, marketing possibilities and raw material sources.

Association development can start through revitalizing existing organizations or establishing new ones where the need arises. WFLO proposes to improve associations’ capacity to conduct basic services for their members through training and other capacity building exercises, as well as provision of informational resources.

The IFSC could promote HACCP through seminars and other activities, as well as assist in the development of a regulatory base. As described in the Solution Strategy Paper, linkages between livestock producers and processors could involve institutional networking, central markets and forward contracts.

#### *2. Implementation*

WFLO has provided two manuals, one on Best Practices and their Commodity Storage Manual for translation and dissemination to the National Association of Meat Producers (Ukrmiasso) and other private sector members. As a result of the cooperation, networking and relationship building undertaken in Project activities, WFLO has four new members. They are World Lab in Ukraine, INZMV in Moldova; Ukrmiasso of Ukraine and Carmez S.A., Moldova. Such affiliation has ensured that the lines of communication and transmitting are in place. Gheorghe Birladean of Moldova is the recipient of the WFLO Young Leaders Program for 2002, in part because of the relationship that resulted from the PFID program.

In November 2001 World Lab and Ukrmiasso held a seminar to further business relations and to disseminate information about the Stakeholder Meeting. Participants of the seminar included technical staff of processing enterprises, officials of the State Standards Committee, scientists of technical institutes, and consumers’ representatives. The seminar was conducted to analyze such industry issues as quality and safety of foods, business partnerships and PFID Objectives. An

agreement was reached on active co-operation between processing enterprises that took part in the Seminar and the PFID Project in promoting industry awareness, compliance with international food quality and safety requirements, and development of business partnerships.

World Lab also negotiated the establishment procedure of the International Food Safety Center (IFSC) with a representative of the State Standards Committee. Statutory documents for the IFSC's registration have been compiled. The WLUB and the Institute of Quality (as co-founders of the IFSC) have been asked to implement a governmental program entailing the following:

- Development and scientific background of draft regulations, curricula, and methods; and
- Initiation of HACCP auditors and managers training in the Food Industry.

The program is designed to run for three years and is provided funds from the national budget. This assignment has signified government approval of the Institute's HACCP-related activities.

World Lab assessed the prospective development of raw material markets in Vinnitsa, Volhyn, Khmelnytsky and Cherkassy Oblasts by meeting with directors of meat processing enterprises, provincial government officials and university rectors. World Lab had similar meetings with the Director of wholesale food market and other businessmen in the town of Brovary regarding the establishment of a model livestock market and wholesale food market.

INZMV analyzed the list of governmental standards together with the experts of National Department of Standardization and Metrology and the Codex Alimentarius Commission of Moldova. They found that almost all former Soviet standards were adapted and some standards from Romania, Russia, Ukraine and Byelorussia were borrowed to become the current list of Moldovan standards. In 2001, 157 standards were in force for meat and meat products, twenty-nine standards for poultry and eggs, 122 for fish standards and twenty-one standards for other animal products. In order to facilitate the activity of National Standardization System, a Technical Committee of Standardization for meat, poultry and fish products was established. The Chief of the Committee is Dr. Bahcivanji, the Director of INZMV and Committee experts are Drs. Socican and Chilimar (Project Director and Technical Specialist respectively from INZMV).

Dr. Chilimar also collaborated with the Ministry of Agriculture and Food Industry to develop a program of animal husbandry development in Republic of Moldova until 2010. The program provides for research on genetic improvement, animal husbandry technologies, the formation of model farms and tax privileges for raw material producers.

## **B. Discussion and Future Activities**

While several activities have been started – translation of information resources, WFLO affiliation, collaboration, groundwork for the IFSC, and others – the Project had difficulties in meeting the first AWP's targets for support mechanisms. Much of this was due to unforeseen delays in the assessment and planning process, as mentioned before. Project management is confident that the second AWP provides a feasible schedule of activities that will show significant benefit to the industry.



World Lab and INZMV first will confer with clientele to communicate the types of mechanisms to be developed under the project and the clientele's commitment to participate in those mechanisms. As a result, it is hoped that clientele will express commitment to participate in at least three of the fore-mentioned support mechanisms and strategies to develop those mechanisms will be documented. For example, at least three of the following should be documented in the next Semi-Annual Report (SAR):

- At least five industry associations have affiliated with the Project by either formally affiliating with WFLO/IARW, utilizing PFID-provided materials or agreeing to attend training;
- The IFSC is a visibly established institution as evidenced by either sponsoring training in HACCP/SCP or promoting harmonization of regulations;
- An information management scheme is established detailing topics to be disseminated the vehicle(s) to be used (i.e. web page, newsletter, etc) and the resources to be employed; and
- At least one linkage between livestock producers and processors has been initiated.

Dr. Boris Gudyma, a senior official of the Department of Fish Industry of Ukraine, has initiated a model Association for Fish Industry operators in the South of Ukraine during the fall of 2001 as a result of initial visits, discussions and the stakeholder meeting held by the Project.

Organizational progress has been considerable and the Association will start activities in the nearest future. World Lab also has established three teams (by one for each industry) to develop information systems.

INZMV intends to further collaborate in developing the plan for meat production increase and to provide technical assistance in the early stages of the plan's implementation.

## **Section V. Objective #4: Create Technical and Educational Capacity**

### **A. Accomplishments, Identification**

The first AWP obligated the project to prepare a Capacity Building Document. Project management decided that it would be more practical to merge such a document with the SSP. As previously mentioned, capacity building activities including training workshops and seminars on such topics as HACCP/sanitation, economics/marketing, cold chain management and post-harvest practices. The SSP also proposed technical and economic case studies.

Note that most of these activities are training seminars (for purposes of this Work Plan, association training is categorized as a support mechanism activity). The Project identified the need to provide Hazard Analysis Critical Control Point (HACCP) and sanitation training to bring facilities personnel up to international standards, a necessary condition for the export of processed meat products. Seminars, on such economic issues as trade patterns, market issues (efficiency, planning and research) and the role of trade associations in promoting exports, were recommended to improve stakeholders' skills in selling their product. Selecting key clientele to attend the WFLO Institute, held annually at Norman Oklahoma, could substantially increase the

national capacity in cold chain management. Technical seminars could cover post-harvest and processing issues including deep processing, meat mass and improved cold chain practices.

In addition to the training, informational support and initial case studies can be conducted to further increase the technical capacity in the industry. For example, WFLO's Cold Chain Products and Services Council can provide useful guidance in replacing obsolete or inefficient equipment. Economic case studies can provide a foundation for targeted business or marketing plans and justification for credit, VAT exemption or legislative reform. Other post-harvest practices will be examined, including Dr. Moody's follow-up visits to seafood processing facilities, where he will evaluate critical limits and the degree to which training participants' HACCP plans address those limits. Other potential topics include mechanically separated poultry meat and improved cold chain practices, such as more efficient temperature controls.

## **B. Discussion and Future Activities**

The First AWP stated that the Project would conduct at least five educational activities by the submission of this document. Unfortunately, the fore-mentioned project delays prevented this from happening but staff is confident that the Second AWP provides a feasible schedule for which the succeeding capacity building activities will be documented in the next SAR. The Project first will solicit from collaborators (such as associations or the IFSC) commitment to help adapt at least five training activities for both Ukraine and Moldova to local conditions and to help in preparation. In addition, commitment will be secured for at least two US-based training workshops. As Dr. Harrison intends to travel in April, he and his counterparts in World Lab and INZMV will develop training curricula such topics as market analysis marketing plans, market efficiency and mechanics in time for his second trip in June.

Dr. McMillin will conduct basic certification seminars in meat and poultry HACCP in late May and June; the basic course outline is available and will be adapted to local conditions before he leaves. By the end of June, training curricula on Seafood Sanitary Control Practices (SCP), HACCP also should be adapted to Ukraine and Moldova; Dr. Moody will conduct basic certification courses in July. The first US-based workshop is for an initial basic training course in seafood HACCP, held in May, so that the two participants can later help Dr. Moody with his in-country seminars.

The next SAR also will identify at least two activities, relating to informational support or case studies, in both Ukraine and Moldova. Protocols will be prepared and submitted to World Lab and INZMV within the first half of the year. Dr. Harrison's April trip should provide guidance for case studies pertaining to economics and marketing.

INZMV has explored collaboration with the Food Canning Department of the Polytechnic Institute. Discussions were made regarding the technical assistance that might be provided by PFID with regard to HACCP/SCP training for Department Professors. INZMV asked the Department Head to assist in identifying seminar participants. WFLO materials also were provided to the Department. The Head of the Polytechnic Institute's Food Canning Department suggested exchange trips between LSU AgCenter and the Institute to share experience and plan cooperation in food security issues.

## **Section VI. Management, Monitoring and Evaluation**

### **A. Accomplishments**

Both World Lab and INZMV added an economist to their Project staff. Dr. Suzanna Kamilova is contracted from the Institute of Agrarian Economics to work full time for World Lab while Ms. Nina Cainarean has been hired to work for INZMV at fifty percent of full time.

The Project's web page (<http://www.agctr.lsu.edu/Inst/International/PFID/index.html>) has been expanded to include additional hotlinks and access to project documents. The linkage of the WFLO website to that of PFID's provides global information and communication with industry, academia and government agencies, such as Dr. Myronyuk's State Committee of Standards. World Lab also has created its own web page (<http://my.elvisti.com/worldlab>) pertaining to the Project.

World Lab has made an early start to Objective #5 (Foster Business Partnerships) by gathering and processing several investment proposals. INZMV staff members have started to network with CNFA in assessment and facilitation of credit.

The Project Coordinator prepared several tools that the rest of the staff can consider for monitoring, including staff report forms, client visit forms, training evaluations and surveys to monitor adoption or dissemination of food industry technologies. Lastly, the USAID/Kyiv mission has encouraged Project management to prepare a concept paper for an Associate Award in Kharkiv Oblast.

### **B. Discussion of Progress and Future Activities**

It was difficult for both World Lab and INZMV to select economists qualified to analyze and suggest changes for the food industry within the framework of a market economy.

Plans for expanding networking to foster partnerships can be outlined at the CNFA-sponsored 9th Annual Agribusiness Alliance Meeting, which Dr. Harrison, with his counterpart economists from World Lab and INZMV, will attend in April. Much of PFID's assessment conclusions have advocated the development of cultural seafood and fish growing in the Azov and Black Sea basin. The Port of Odessa could serve as one of the most important hubs for seafood processing in Eastern Europe. Assessment findings also include the need for investment or joint ventures to replace or update equipment. Such activities could be based on the example of "Carmez International", a joint stock company with Belgian capital. "Carmez International" imports raw material for processing, exports to Russia and is exempt from VAT.

As PFID's strategy for fostering business partnerships initially entails case studies, the process for which will be similar to that involving case studies to improve technical capacity. The next SAR should document that the Project identify at least one partnership to foster in each country, as well as the development of case study protocols to justify such joint ventures.

The Project intends to further expand its web page to include a review of relevant research and a bulletin of recent activities. The main web page also will be linked to World Lab's site and to

INZMV when that institute creates a web page. If the Kharkiv concept paper receives USAID/Kyiv's favorable consideration, Project management will prepare a formal proposal.