

# **Heifer International model of sustainable management of small scale farmers in Central and Eastern Europe**

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## **Abstract**

Heifer International is a humanitarian organization with its headquarters in Little Rock, Arkansas, USA. The mission of Heifer International is to work with communities to end hunger and poverty and care for the earth. "Passing on the gift" principle is fundamental to Heifer International's approach to sustainable development.

From 1992, after the collapse of the communist regime, the Central Eastern Europe Program of Heifer International implements projects in several countries. The CEE Program has increased rapidly extending its activity in 15 countries: Albania, Armenia, Azerbaijan, Estonia, Georgia, Kosovo, Lithuania, Latvia, Macedonia, Moldova, Poland, Romania, Russia, Slovakia and Ukraine.

The CEE Program contributes to the reduction of poverty in rural areas through the establishment of the model of sustainable family farms, offering a development model even to other communities. Heifer International contributes through the donation of quality heifers, training, support with input, technology transfer and the support of farmers' groups and associations.

In this aspect, 110 projects with cattle are implemented by the CEE Program Country Offices. The main principle of this organization, "Passing on the Gift", is reflected in the donation of approximately 6000 heifers and passing-on of 4000 offspring of them, assisting about 10,000 poor families.

Staff implementing Heifer International projects have identified some of the main problems the family farms face today: fragmented family farms economy with small land and pasture surface; limited opportunities for investments in the farm, low mechanization level; insufficient practical knowledge and skills in breeding and feeding of animals, veterinary service, marketing and entrepreneurship; high production cost, unstable market.

The solution of the identified problems could be the focus on the decrease of the gap between the productive activity of family farms and the market commodity, through: design and implementation of a training program and practical education of the farmers in animal breeding and feeding, farm management, marketing, agri-business, animal reproduction and health, livestock products quality, safety and standards and ecological farms; participation in the costs for providing with equipment for the family farm, for the establishment of products collecting points and livestock markets, and the opportunity for loans, as well as support for the establishment and strengthening of farmers' associations.

## **Introduction**

### **Heifer International**

Heifer International is a nongovernmental non-for-profit organization with its headquarters in Arkansas, USA, with the mission of reducing hunger, poverty and degradation of environment in rural areas, through the development of livestock and education. Heifer

International assists the poor farmers to provide food for their families and improve their income through donation of animals, education and technical assistance, aiming at the development of small scale farms. Heifer International is working in 128 countries around the world, improving the life of about 24 million people for 60 years now. Heifer implements its activity through several regional programs in Asia, Africa, Central Eastern Europe, Latin America and Caribbean and North America.

The purpose of this presentation is to present the Heifer International model of cattle farms in Central Eastern Europe country programs, and the contribution of Heifer International in the development of farms in these countries, and to identify future trends on development of sustainable small cattle farms.

## **Central Eastern Europe Program**

Heifer International started its activity in the countries of Central Eastern Europe in 1992, immediately after the collapse of the communist regime. Actually it is working in different European countries, such as: Albania, Armenia, Azerbaijan, Estonia, Georgia, Kosovo, Lithuania, Latvia, Macedonia, Moldova, Poland, Romania, Russia, Slovakia, and Ukraine.

The Central Eastern Europe Program is focused on assisting small scale private farms to achieve self-reliance in a free market economy. This mission is achieved by:

- Building sustainable farming systems utilizing improved livestock technology and management, in order to increase income and stimulate human development.
- Training of farmers to orientate their farms in a free market economy and encourage their cooperation with other organizations involved in sustainable agricultural development.

Through the donation of quality animals and the implementation of the main principle of Heifer International, "Passing on the Gift", we are making sure that a greater number of families profit from our projects, providing for more food and a better life to them.

During these years, the CEE Program has quickly developed and extended. More than 180 projects have been implemented or are under implementation, 110 of them involving cattle or mixed animal types. 6000 heifers are donated (distributed) in the framework of these projects. This number, through the "passing on the gift" philosophy, is raised by 4000 other animals, bred by the beneficiary families. In this context, about 10000 families are assisted by the projects involving donation of cattle.

## **Situation of family farms in some countries of CEE Program and Heifer International contribution in this aspect**

Of course, the development phase and the problems of family farms in some countries of Central Eastern Europe have their own characteristics compared to other countries of the world. A specific element for these countries was the emergence from a centralized economic system led by state politics of communist regimes. The change of this system through the privatization brought forth a great number of family farms, with very limited opportunities to provide food and livelihood of the farmers. Apart from that, these countries are neighbors of a developed economic zone and some of them are integrated or working for integration with the European Union market.

Here we are considering an example of some representative countries of the Central Eastern Europe Program. The comparative data of the actual situation are presented below, showing in percentage the place of the family farms of different sizes and the cows they own, compared to the total number in these respective countries.

**Table 1.** Size and structure of the cattle farms in some CEE countries.

Countries	Size of the farms (cows per farm)									
	1-2		3-4		5-9		10-19		20 and more	
	Farms %	Cows %	Farms %	Cows %	Farms %	Cows %	Farms %	Cows %	Farms %	Cows %
Poland	65.3	22.6	14.2	12.7	10.2	17.3	7.6	26.5	2.7	20.9
Lithuania	78	36	15	20	5	12	2	13	1	19
Latvia	77.9	34	14.6	18.3	3.7	8.9	2.4	10.3	1.4	28.5
Armenia	70.5	38.1	22.2	31.9	5.6	16.1	1.4	10.2	0.3	3.7
Albania	78.8	55.1	20.1	37.4	0.95	7.0	0.05	0.5		

Family farms breeding 1-2 cows, the main focus of Heifer International, take a great percentage of the total number of farms. It varies from 65.3% of the total number of family farms in Poland, in about 78% in Albania, Lithuania, and Latvia and about 70% in Armenia. This group of family farms breeds a relatively large number of animals, varying from 22.6% of the total number of cows in Poland to 55.1% in Albania, and about 34-38% in Armenia, Lithuania and Latvia.

If we include and consider in our analysis even the farms breeding 3-4 cows, the number of family farms in a country, not yet able to achieve self-sustainability in a free market economy, is growing to 79.5% in Poland, 98.8% in Albania, and about 92-93% in Armenia, Lithuania and Latvia.

This group of family farms breeds 35.3% of the total number of cows in Poland, 92.5% in Albania and about 52.3-70% in Lithuania, Latvia and Armenia.

The great number of cattle bred by the family farms contributes directly to the employment and food production in rural areas, which is still high in these countries (according to countries 30-50 % of total population, FAO STAT-2004).

### **The model chosen and implemented by Heifer International**

Considering the specific conditions of CEE countries, as the emergence of these countries from a centralized economy of the communist system, the establishment of a network of small scale and fragmented farms, and the opportunity of these countries being near and integrating in a developed European market, Heifer International has chosen the sustainable development and management of small scale family farms as the best way to achieve its objectives. Some data of family farms involved in projects are presented below.

**Table 2.** Data on family farm size in some countries of the CEE Program.

Country	Average persons per family	Average nr of cows per farm	Land per farm / family (ha)			Milk yield per lactation (l per cow)
			Cultivated	Pasture	Total	
Poland	4	3-5	3.5	3-3.5	7	4000
Ukraine	3.7	1-2	2	0	2	3500
Lithuania (Baltic)	4.9-5.5	1-2	0.5	2.5	3	4000
Russia	3.3	2.2	0.3	1	1.3	3900

Armenia (Caucasian)	6	1	0.5	No private	0.5	1700
Kosovo	6-8	1	0.5-1.5	0.3	0.8-2	5080
Albania	4.8	1.3	1.2	No private	1.2	4100

As can be seen, Heifer International has selected poor families, with many family members and limited economic opportunities.

Naturally, Heifer International is an organization which does not support the development of business, it supports small family farms with inputs, training, technical assistance and activities in the community, but in about 3-5 years Heifer encourages the concept of sustainable development of farms, ensuring the generation of income.

Thus, based on this working method, Heifer International is extended with cattle projects in 15 countries, where about 180 projects are implemented or are under implementation, 110 of them involving cattle or mixed kinds of animals (Table 3).

**Table 3.** Data on projects, animals and breeds in some countries of the CEE Program.

Countries	Program Start Year	Cattle projects	Mixed Project	Families involved	Nr of heifers distributed	Nr of POG	Breed	Total projects*
Poland	1992	10	5	527	542	252	Polish Red Simmental	35
Romania	1992	13	2		480		HF Spot cattle	30
Ukraine	1994	12	10	1150	800	475	Brown Swiss Black & White Red & White Brown Carpathian Red Steppe	20
Lithuania (Baltic)	1999	4	6	420	235	110	Holstein Latvian Brown Lithuanian Black & White	12
Armenia (Caucasian)	1999	13	12	2820*	790	237	Local cattle	25
Russia	2001	6	11	572	417	200	Black & White Arshire Holstein Red & White Kostromskay Simmental	17
Kosovo	1999	10	-	1420	1420	841	Holstein Simmental	14
Albania	1998	16	-	1800	1280	962	Holstein Simmental Jersey Brown Swiss	23

\*total projects include other species or fields

## Activities for implementation of the projects

The Central Eastern Europe Program has established field offices in 8 countries and is working with its representatives in 7 other countries, with qualified staff who are working for the implementation of the projects based on the cornerstones of Heifer International and the respective strategic plans. Every office has and implements standard procedures for the approval and implementation of the projects.

The main elements to consider in designing and implementing the projects are:

- Performance of preliminary study for the region where the project is considered to be implemented, respecting even the policies of respective countries as well as the development programs and strategic plan of the CEE Program.
- Identification of the beneficiary farmers' groups based on defined criteria. This selection considers such characteristics as farmers in need, able to manage animals and the farm, but who lack concrete opportunities and need input.

After the approval of the project and provision of financial resources, the implementation starts according to these phases:

- Completion of a comprehensive training package including knowledge on Heifer International cornerstones, animal breeding and community development.
- Provision of technical assistance directly to the farmers for the construction or adaptation of the stables, for food and feeding, reproduction and protection of animal health. During the preparation in the shelter, at least the minimal requirements of animal welfare are respected, such as: space, ventilation, light, water, milking, manure management, etc., creating in this way the conditions for animals to reach their productive capacity and produce products according to the market standards. As demonstrated in Table 2, the milk yield per cow in these projects has increased (Table 2).
- Distribution of good breed quality animals, appropriate to the local farmers' conditions. In this aspect, the animals are carefully selected from the well-known breeding groups and from those local ones in accordance with the terrain, the resources and management skills of the farmers groups included in the project, but always animals with a higher capacity than the existing breeds in the community (Table 3 provides the breeds of animals donated in some countries of the CEE Program).
- Support with inputs and veterinary assistance to the farms is an integral part of the projects. Their specific type is defined in cooperation with the farmers' groups. The following table shows the kind of assistance provided to farmers' groups in different countries. In all the programs, the farmers' groups are supported with heifers, concentrated feed and additives, forage seeds, veterinary service and medicaments, and stable (shelter) improvement is considered a requirement.

**Table 4.** Support of farmers groups with inputs in different countries.

State	Heifer Improv s e stable	Concentrat ed Feed / additive	Forage seeds	Drinke rs	Milking machine	Coolin g tanks	Micro credit	Vet. treat Medic.	AI Equip.	Farm mecha n.
Poland	X	X	X	X		X	X	X	X	
Ukraine	X		X	X		X		X	X	X
Lithuania	X	X	X	X				X	X	X
Latvia	X	X	X	X				X	X	X
Armenia	X	X	X	X				X		
Georgia	X	X	X	X				X		

Azerbaijan	X	X	X	X					X		
Russia	X		X	X	X	X	X		X	X	X
Kosovo	X	X	X	X	X	X	X		X	X	
Albania	X	X	X	X	X	X		X	X	X	

- Performance of continuous evaluations and monitoring on project progress based on the project objectives. In its work, the programs have involved local experts of livestock, veterinary and sociology, who help in the evaluation of the projects.

Following the dynamics of the farmers' groups, Heifer International in cooperation with partners in some countries is actually working for further consolidation of family farms, supporting farmers' associations for the improvement of their management capabilities and professional education too, offering information on the market, processing and marketing of products and opportunities for loans. Bringing work to this phase enabled farmers of CEE countries be prepared to comply with standards and requirements of the European Community, where they wish be integrated. Many projects aim at this objective, like in Poland, Romania, Lithuania or the Integrated Dairy Development Project - TMF in Albania.

## Objectives and problems

### Objectives

Below are presented some data from countries of Central Eastern Europe, reflecting their opinion on family farms, which are aiming to achieve self-sustainability in accordance to the conditions of each country (Table 5). Based on the opinion, the size of a family farm is considered as acceptable if it manages: 3-4 cows per farm in Albania, Kosovo, Lithuania, Armenia; 5-6 cows in Ukraine and Poland, or 10 cows in Russia, calculating on this basis even the average gross income per family from the livestock.

**Table 5.** Opinion on the size of sustainable small scale cattle farms in some CEE countries.

Country	Land per farm (ha)		Nr of cows per farm	Milk used %		Approximate average income \$/month expected from livestock
	Cultivated	Pasture		Family consumption	Market	
Poland	5	2	6	12	88	260
Ukraine	2-3	2-3	3-5	30	70	90
Lithuania (Baltic)	1	2-5	2-3	30	70	100-150
Russia	3	10	10	30	70	1250
Armenia (Caucasian)	2	Use communal	4	30	70	100
Kosovo	2-3	0.5-1	3	30	70	120
Albania	1.5	1	4	40	60	110

### Identified problems

Some of the problems of the poor farmers in farm development process (identified in different countries) and the steps they think should be taken are:

- Small funds for purchase of quality animals and investments in the farm in order to achieve the requirements for milk sale.

- Low milk price.
- High production cost (fuel and agricultural equipment).
- Insufficient stable equipment to enable advanced technology.
- Limited financial resources for farm development.
- Insufficient knowledge and professionalism, especially in farm marketing and business.
- Insufficient knowledge on entrepreneurship.
- Lack of modern equipment for milking, production and in the stable.
- Insufficient resources for stable modernization, manure processing, etc.
- Lack of ecological farms, very expensive ecological products.
- Low milk price and high fuel price (15-18 cent per milk litre / 70 cent per gasoline litre).
- Limited arable land / pasture surface.
- Unstable milk market.
- Lack of mechanization.
- Lack of collecting points and milk markets.
- Unbalanced feeding of cows.
- Problems in cows' reproduction after first calving.
- Expensive veterinary service.

### **Some of the activities, recommended for action**

- Training, distribution of information, best farming practices.
- Further qualification.
- Establishment of some structures (collecting points, markets, etc) to help the farmers in selling the products.
- Training of farmers especially in agri-business and advanced technologies of cow management.
- Distribution of more financial and material resources for family farms (pure breed animals and equipment).
- Training associated with material investments for the development of practical skills for an effective entrepreneurship.
- Encouragement of farmers in establishment of associations in order to survive and develop milk production.
- Participation in the costs of establishment of collecting points in communities and other investments.
- Help in the establishment of milk collecting points.
- Training of farmers in farm management, livestock and agriculture.
- Support with important and necessary medicaments for the farm.
- Training and qualifications in animal feeding.
- Training in marketing.
- Support of forage production and provision of equipment for animal feed processing.

The identification of the problems in each country and the proposed recommendations give to the CEE Program staff a better view for continuous improvements in order to make the assistance of Heifer International for farmers' communities more effective to the development of sustainable family farms.

### **Conclusions**

Since 1992, the Central Eastern Europe Program is extended in 15 countries implementing 110 projects with cattle. The main cornerstone of this organization, “Passing on the Gift”, is reflected in the donation of 6000 heifers and pass-on of about 4000 offspring of them, assisting about 10,000 poor families.

The CEE Program contributes to the reduction of poverty in rural areas through the establishment of a model of sustainable family farms, offering at the same time a development model to other communities. The implementation of the project for the development of family farms with cattle and their gradual development to self-sustainable family farms forms a valuable experience for the countries where these projects are implemented.

The contribution of Heifer International through the donation of animals, training, technology transfer and support with input has created a vast network of small scale farmers’ groups and associations, which have the capacities to be involved in development programs. These capabilities serve as the object of other specialized projects or organizations.

The staff implementing Heifer projects have identified some of the main problems that family farms face today: fragmented family economy with low land and pasture surface; limited opportunities for investments in the farm, low mechanization level; insufficient practical knowledge and skills in animal breeding and feeding, veterinary service, marketing and entrepreneurship; high production cost, unstable market.

The identified problems can be solved by focusing on decreasing the gap between productive activity of family farms and market commodity, through:

- Design and implementation of a training program and practical education of farmers in animal breeding and feeding, farm management, marketing, agriculture business, animal reproduction and health, quality, livestock products standards and safety (food chain) and ecological farms.
- Participation in costs for providing equipment in family farms, establishment of product collecting points and markets, and opportunities for loans.
- Support in establishment and strengthening of farmers’ associations as an opportunity for small scale farmers to survive in a competitive market.

## **References**

The preparation of this material was based on information from Heifer International’s country programs in Poland, Ukraine, Lithuania, Armenia, Romania, Russia, Kosovo and Albania. The material was prepared with contribution of the staff the above countries.