
Social Assessment and Draft Resettlement Action Plan

December 9, 2013



Project ID: P132443

**District Heating Energy Efficiency
Improvement**



**TERMOCOM's centralized heat
supply system efficiency
improvement**



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ACRONYMS AND ABBREVIATIONS

ARAP	Abbreviated Resettlement Action Plan
CHSs	Centralized Heating Substations
IHSs	Individual Heating Sub-stations
IFIs	International Financial Institutions
OP 4.12	World Bank Policy on Involuntary Resettlement
PIT	Project Implementation Team
RPF	Resettlement Policy Framework
ToR	Terms of Reference
WB	World Bank
ARFC	Land Relations and Cadastre Agency
MoE	Ministry of Economy



1. Project Description

District heating (DH) is the dominant form of residential space heating (SH) in Chisinau, Moldova where ca. 500 000 persons rely on DH services provided by the operator TERMOCOMS.A.

However, as a result of many years of underinvestment in the system, much of it needs to be replaced and/or upgraded to decrease the cost of heat supply.

The Government of Moldova has requested World Bank's support in TERMOCOM's infrastructure investment project.

The project will support supply-side priority investments aimed at optimizing and modernizing the heat distribution network, such as switching from Centralized Heating Substations (CHSs) to Individual Heating Sub-stations (IHSs) for better and more efficiency supply of heat and hot water to end-user consumers. Specifically, financing would be provided for: (i) modernization of selected pumping capacities by replacing the old pumps by new ones with lower voltage motors and variable speed drives, to reduce internal energy consumption and provide for automated flow of heat agent; (ii) rehabilitate selected segments of the distribution network by replacing the most severely damaged, corroded and leaking pipes with modern pre-insulated pipes to ensure continued service and reduce losses of heat; (iii) retrofit CHSs to IHSs installing DHW recirculation pumps and pipes for more efficient heat supply to end-users and better control of heat consumption.

2. Social Impacts Assessment

2.1 Social Impacts

The modernizing of the heat distribution network through switching from Centralized Heating Substations (CHS) and Group heating Substations (GHS) to Individual Heating Sub-stations (IHS) is expected to have positive impact in medium and long term. The most important physical change is to shift from a “production-driven” system to a “demand-driven” system by reaching what is termed the “Regulated Flow state”. Such a change will mean that the consumers can decide by themselves when and how much heat they need, and wish to buy. As a result, this will mean that consumers can have a better control on the consumed amount of heat and have better savings from such transformation when the system is renovated.

Another expected positive change is decrease of heat losses through replacement of old mineral wool-insulated steel pipes in concrete underground culverts by new preinsulated pipes.

The proposed project aims to implement the investments presented in the table below.

Rank	Investment
1.	IHS0: Reconnection of 41 public buildings/objects, including 86 new IHSs plus associated piping
2.	PS1: Three pumps and three motors in pumping station no. 8 and installation of VSDs and a 6 kV/400 V or 690 V transformer. Pumping station no. 8 is the largest pumping station in the Chişinău DH system
3.	IHP2a: Underground pipe CT-1/10 to PV-3 in the area of HOB West
4.	HP2b: Underground pipe PV-4 to SPRT N9 in the area of HOB West
5.	HP1a: Underground pipe SPRR N19 to C-319 to the area connected to HOB South
6.	IHS1: ≥ 180 new IHSs plus associated piping in the area close to HOB West (installation of IHSs in this area will permit extension of the period that CHP-2 operates alone during the transition periods)
7.	IHS2:

	≥ 60 new IHSs plus associated piping in the area close to HOB South (installation of IHSs in this area will permit extension of the period that CHP-2 operates alone during the transition periods)
8.	PS2: Two pumps and two motors in each of pumping station nos. 12 and 13 and installation of VSDs and 10 kV/400 V or 690 V transformers
9.	IHS3: 52 IHSs plus associated piping in a number of different locations (required due to problems in delivering SH and DHW as a result of low pressure difference)
10.	IHS4: Replacement of GHSs by 151 IHSs 2 440 200
11.	IHS5a: Replacement of GHSs by 151 IHSs
12.	Detailed Design and construction of a pump station, including over the ground pipeline Dn-600mm and L-350 m. between Pl-12/4 and CT-217 (str.Otovasca – str.Ciocana) str.Otovasca -19

Based on the discussions and consultations with TERMOCOM representative, Mr. Andrei Virilan, and field visits it has been determined that works on IHP2a:Underground pipe CT-1/10 to PV-3 in the area of HOB West, HP2b:Underground pipe PV-4 to SPRT N9 in the area of HOB West, HP1a:Underground pipe SPRR N19 to C-319 to the area connected to HOB South and Detailed Design and construction of a pump station, including over the ground pipeline Dn-600mm and L-350 m between Pl-12/4 and CT-217 (str. Otovasca – str. Ciocana) str. Otovasca - 19 will cause temporary economic displacement and restrictions in access to private property.

The above mentioned pipelines, except Dn-600mm and L-350 m between Pl-12/4 and CT-217 (str. Otovasca – str. Ciocana) str. Otovasca -19, are located (buried) under the ground. Based on the technical requirements for carrying out of construction works there was established an 8 m width easement for pipelines rehabilitation. In case where the established easement will not be sufficient to ensure free access of workers and machinery to the construction site, the easement area will be enlarged to the extent necessary to ensure sufficient access.

The area of impact was established with use of the GIS tools and available spatial information (aerial images, cadastral plans, maps of pipeline infrastructure, topographic survey, etc.). In addition, field visits were undertaken to make an inventory of all affected land plots along the pipelines. The table showing the project area of impact is presented below:

Rank	Investment	Tentative date for construction commencement	Pipeline length, m	Easement, 8m	Affected area, m2
1	IHP2a:Underground pipe CT-1/10 to PV-3 in the area of HOB West	March 2015	1300	8	10400
2	HP2b:Underground pipe PV-4 to SPRT N9 in the area of HOB West	March 2015	1900	8	15200
3	HP1a:Underground pipe SPRR N19 to C-319 to the area connected to HOB South	March 2015	1500	8	12000
4	Detailed Design and construction of a pump station, including over the ground pipeline Dn-600mm and L-350 m between PI-12/4 and CT-217 (str.Otovasca – str.Ciocana) str.Otovasca -19	March 2014	NA	NA	300

Other investments will not have any adverse social impact as reconnection of former users, pumps and motors replacement, IHS installations will be performed within the land and assets belonging to TERMOCOM, in places (buildings or technical chambers) that belong to TERMOCOM; therefore no additional land take or economic displacement is foreseen in these areas.

2.2 Social Assessment

The Social Assessment was aimed at determining the nature and severity of impacts which the renovation and rehabilitation works conducted by TERMOCOM is likely to have on the population in the project area. The assessment took into consideration not only the scale, specifically, the number of affected people, vulnerable groups, ethnic minorities, but also the severity of impacts, the likelihood of permanent loss of assets, physical displacement, loss of incomes and employments, restricted access to resources and social facilities, limited or restricted mobility, and any restrictions imposed on cultural practices of vulnerable and/or ethnic minority groups.

The initial meeting with TERMOCOM representative helped in planning, but also in conducting the field work.

Specifically, the Social Assessment had the following objectives:

1. Identify basic socio-economic characteristics of project affected persons and compile the list of the owners with contacts details;

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2. Identify potential adverse effects that the project works can have on local residents or businesses and the magnitude of expected losses or means of livelihood;
3. Establish eligibility criteria for compensation;
4. Identify monitoring indicators;
5. Establish a cut-off date.

2.2.1 Socio-economic Overview of the Impacted Area

The major problem is related to the fact that the majority of the district heating facilities in Chisinau system have exceeded their expected operational lifetime. In 2009, the average specific number of breakdowns per km for the entire network was circa 1.7 per km; this is about ten times higher than that of the modern district heating systems in the EU.

Therefore, the modernization of the heating system in Chisinau has become an imperative of the days in order to respond to the needs of providing better services to the population and not keep families in cold.

Hence, notwithstanding long-term positive effects, the physical works related to the replacement and/or renovation of the pipelines will have an adverse impact on some project affected population.

For identification of project affected persons, data from TERMOCOM on the route of the pipeline that is planned for renovation was used and sites visits was made by the Consultant along the route, accompanied by TERMOCOM managers of pumping stations.

2.2.2 Interviews

Interviews were held with the project affected businesses: administration and owners of a local market in the **city district of Sculeni**, renters of the kiosks in Scleni market, one of the founders of “Evrica” educational institution of kindergarten-school type, a resident of a private house, where the pipeline crosses her private garden, and TERMOCOM representatives, including pumping stations managers.

The population in the project area is: (i) urban residents of private houses and residential buildings along the routes of pipes, (ii) owners of small businesses and pavilions (iii) social institutions, (iv) public entities.

The nature of impact is:

- 1) *Socio-economic*, with works possibly to affect temporarily a local market in Sculeni district with a number of 36 small businesses and light trade pavilions in. This impact has a gender dimension with majority of those who sell in this market being women.
- 2) *Physical* structures of educational institutions, which is a privately owned school-kindergarten “Evricea” on 19/2 Calea Iesilor street, and public school “Natalia Dadiani” in 21 Calea Iesilor street.
- 3) *Restriction of access* to use of public roads and transportation, including restricted mobility and access to private properties / private houses during physical works (the measures to mitigate this impact are covered by the Environmental Management Plan for that project).

During interviews and discussion with stakeholders the purpose of the assessment was explained. TERMOCOM will use a stakeholder involvement policy and disclosure of information about social impact of the project throughout all stages of this project implementation and future projects as well. Disclosure of relevant project information will help affected people and other stakeholders understand the risks, impacts and opportunities of the project. TERMOCOM will provide at all stages to the affected persons the relevant information on the purpose, nature, and scale of the project, the duration of renovation works, any risks to and potential impacts on project affected persons and relevant mitigation measures, apply the grievance mechanism to address complaints and keep a positive image of the institution.

2.2.3 Mapping of Impacts along the Route

IHP2a: Underground pipe CT-1/10 to PV-3 in the area of HOB West

The pipeline forwards along Calea Iesilor street underground on the sidewalk entering a small local market. The affected market is located on the land leased out to **Individual Enterprise Gaidampas**. The Individual Enterprise Gaidampas, the owner of the market, rents out small kiosks to **36 individuals and commercial companies** which will be affected by the rehabilitation works.

The magnitude of the impact in any case is temporary displacement of kiosks. During the construction phase these small kiosks renters might lose incomes due to the fact that they would suspend their business activity and will not be able to trade.

The pavilion itself on 2/3 Calea Iesilor will not be affected by the rehabilitation works, though the kiosks currently placed in front on the pavilion on the sidewalk will have to be displaced.

TERMOCOM has an agreement (attached in Annex 9) in writing with the private enterprise that owns the pavilion and kiosks, which stipulates removal of kiosks by owners in case of any type of TERMOCOM works.

The WB O.P. 4.12 was discussed between the TERMOCOM and the administration of the market involving also renters of the trade pavilions that aimed at ensuring there is understanding for the institutions involved.

The administration of the market stated that all kiosks and businesses from the current area, which will be impacted by TERMOCOM reconstruction works, will be offered alternative locations on the right and back side of the pavilion. The time for dismantling of kiosks and moving to a new location will be a day or two after which the traders would continue their activity.

However, prior to commencement of construction works, TERMOCOM will verify and check if changes in the situation have happened. Necessary adjustments in the mitigation measures will have to be made accordingly and re-discussed with PAPs.

Passing through the market the pipeline goes along Calea Iesilor street to the end of the section. There is no social or resettlement impact on this remaining section. See Annex 1 for details.

HP2b: Underground pipe PV-4 to SPRT N9 in the area of HOB West

The underground pipe to be rehabilitated on the present section starts in the park located between Calea Iesilor street, Milano street, Ion Neculce street and Eugen Coca street. It goes through the park under existing paved side walk. It exits the park on Milano street and turns left heading to Tarinii street where it turns right towards Trei Crai street. On this part of the section the pipeline is placed under existing road pavement. At the intersection with Drumul Crucii street the pipe turns left and enters a municipal land plot under existing two buildings that belong to the **Education Facility “EVRICA”** (kindergarten and school).

At present there is a lawsuit between owners of the Education Facility “EVRICA” and Chisinau Municipality disputing the ownership rights over the land plot.

The pipeline goes under the area where Education Facility “EVRICA” is situated and further passes under the territory another Education institution, both the land and the building of which belong to Chisinau Municipality.

Termocom will revise the design of the pipeline route to make sure it bypasses the education institutions and they are not affected.

The pipeline goes through Drumul Crucii street and turns left on Bariera Sculeni street. At the intersection with Calarasi street the pipeline turns left along Calarasi by-street and enters SPRT N9 facility. There is no resettlement impact on this remaining section as the pipeline is buried under existing road formation.

Since the streets in the whole area are narrow, during the construction phase Contractor will be made aware about this fact and required to assure that people have access to their properties and mobility is ensured. Development of the mobility and Access Facilitation Plan will be included in the contract for the project works and Contractor will implements it during See Annex 2 for details.

HP1a: Underground pipe SPRR N19 to C-319 to the area connected to HOB South

This section of the pipe starts at SPRR N19 facility and is moving towards Gheorghe Asachi street under existing road infrastructure, approaching the street it turns left and enters a state land plot which belongs to the Ministry of Interior Affairs; it is a former stadium and at present it is closed since the stadium infrastructure is old and requires rehabilitation. There are no constructions or facilities affected therefore there is no impact on this particular land plot.

At the intersection with Mitropolit Gurie Grosu street the pipeline turns right moving upwards Frumoasa street and on its route intersects Hincesti street.

On Frumoasa street it turns right and then immediately left along the same street, Mitropolit Gurie Grosu. There is a section of the pipe on this particular street that crosses a private land plot and **the pipeline is located above the ground along the wall inside the private property land plot.** At the intersection with Viilor street the pipe turns right and moving down the Viilor street around 300 meters where the Termocom's project on this section ends. See Annex 3 for details.

Construction of a pump station, including over the ground pipeline Dn-600mm and L-350 m. between PI-12/4 and CT-217 (Otovasca str. –Ciocana str.) Otovasca str. - 19

This section of over the ground pipeline starts at the intersection of Ciocana street and Budai street moving towards Otovasca street on existing concrete blocks. It intersects two major land plots which are the property of the State. These land plots are transferred for use to the Central Union of Consumer Cooperatives MOLDCOOP. The buildings in this area belong to Central

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Union of Consumer Cooperatives MOLDCOOP as well. Also, TERMOCOM intends to erect a Pump Station on the ground of the land plot with the cadastral number 0100306006 (See Annex 4 for details).

Crossing these land plots, the pipeline affects the roof of several buildings. The roofs will require rehabilitation after or during the construction works

The costs for roofs rehabilitation will be included in the bidding documents and the Contractor will restore them.

The Gender Dimension

The stakeholder and PAP analysis has identified that the Sculeni market is the project area which needs closer monitoring in course of project implementation. Most of those who sell various goods in this market are women. In Moldova women's economic activities are an important source of income for households, while economic dependence may force them to face new forms of violence.

It is crucial that stakeholders of this project understand that eligibility criteria and payment of compensation under the Bank OP4.12 cannot be restricted to ownership rights but shall also include the users of the land. The Abbreviated Resettlement Action Plan sets the provisions for ensuring that vendors trading in the market are duly compensated for any loss of income.

2.2.4 Restricted Mobility and Limited Access

Urban residents of private houses will be affected by restricted mobility and limited access to their courtyard and use of public roads. This is the case of residents of streets Milano, Trei Crai, Drumul Crucii, Calea Iesilor, Calarasi and other streets in Sculeni district. In Telecentru district mainly streets Gurie Grosu, Valeriu Cupcea, Drumul Viilor will have limited mobility and access during the reconstruction works.

This social impact needs to be mitigated and a mobility and access facilitation plan developed and implemented by the Construction Company during rehabilitation works. The requirement for preparation of the plan shall be required in the bidding documents and under the terms of contract.

The Mobility and Access Facilitation Plan will ensure that the mitigation of negative impacts of rehabilitation related works on the project population is planned in advance.

The MAFP will include measures in accordance with the construction schedule to avoid or minimize impacts of construction-related road closures and blocking of access to properties. In specific this will include and tackle, as a minimum, the following:

- Procedure for informing the population about schedule/dates of works;
- Construction schedule prepared minimum one month before commencement of works;
- Informing of owners of the market in Sculeni and traders 6 month in advance about dates when rehabilitation works will be conducted in this project area, as requested by them during Social Assessment visits;
- Display signs with information of road closures / alternative accesses to properties.

In Telecentru district the pipe is placed on private properties in 67 Valeriu Cupcea Street, with owner agreement. This particular owner was not aware of the future project works, however she displayed agreement with TERMOCOM conducting renovation works on the pipes on her property.

2.2.5 Affected social institutions

“Evrica” educational institution has two of its hallways as permanent buildings just on the pipeline, i.e. the pipeline is located under the hallway of the kindergarten-school. This poses a high degree of risk to the safety of children, teachers and parents and this type of construction should have not been authorized by the relevant construction safety inspectorate back in the times when the construction was conducted. The details of circumstances how this happened are not known neither to TERMOCOM, nor to the representatives of the school.

Redesign of the pipeline route is the recommended solution for this segment to avoid bursts or other incidents associated with passing of the pipelines under the hallways. The project should not tolerate old unsafe practices and redesign is strongly recommended. On the other hand, displacement options would not be a feasible solution in this specific case.¹

The map of below proposes alternative design of the pipeline segment route to avoid explosions or other accidents at the pipeline under the hallways of the school-kindergarten “Evrica”.

¹Exploring of alternative project designs is also in line with the IFC Performance Standards

3. Draft Abbreviated Resettlement Action Plan

The objectives of this abbreviated resettlement action plan is to ensure compliance with World Bank policy: *OP 4.12 Involuntary Resettlement* that is triggered by the project.

OP 4.12 is triggered in situations involving involuntary taking of land and/or other assets as well as restrictions of access. The policy aims to avoid involuntary resettlement to the extent feasible, or to minimize and mitigate its adverse social and economic impacts. Specifically, OP 4.12 states that project planning must avoid and minimize involuntary resettlement, and that if people lose their homes or livelihoods as a result of projects, they should have their standard of living improved, or at least restored. It promotes participation of displaced people in resettlement planning and implementation. The OP 4.12's key economic objective is to assist displaced persons in their efforts to improve or at least restore their incomes and standards of living after displacement. The policy prescribes compensation and other resettlement measures to achieve its objectives and requires that implementers prepare adequate resettlement planning instruments prior to appraisal of proposed projects.

The proposed infrastructure rehabilitation project is designed and subsequently will be implemented for the public good. Though, unavoidable, that some features of project implementation will have adverse impacts on some members of the community. The objective of this resettlement plan has been first: to identify both these people and the extent of those negative impacts, second: to provide sufficient human, physical and financial resources for their mitigation.

In this project adverse impacts are mainly limited to temporary loss by the respective Project Affected Persons of the incomes due to disruption of commercial activity caused by the rehabilitation of the heating pipeline.

3.1 Legislation on land expropriation and mitigation of social impacts

The conducting of the Social Assessment was based on the following regulatory framework and policy documents:

- Constitution of the Republic of Moldova, adopted on 29.07.1994;
- Civil Code of the Republic of Moldova No. 1107-XV as of 06.06.2002;
- Law No.190 as of 19.07.1994 on Grievances published on 24.01.2004;
- WB Social Analysis Guidance Note Series;
- Operational Policy OP/BP 4.12: Involuntary Resettlement;
- Involuntary Resettlement Sourcebook Planning and Implementation in Development Projects.

The basic principles of the Moldovan civil legislation are: recognition of equality among the parties to relationships regulated by it, inviolability of ownership, freedom of contract, prohibition to interfere with private affairs, free exercise of civil rights, guaranteed remedy of violated rights and judicial protection of the same. In particular, art.10 section b) of the Civil Code stipulates that “restoration of the condition, which existed before the violation of the right and suppression of acts which violate or threaten to violate such right”. The principle of inviolability of ownership, guaranteed remedy of violated rights and judicial protection are in line with the OP 4.12 - Involuntary Resettlement and “*improving of livelihoods of project affected persons and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of the project implementation, whichever is higher*”².

There is only limited compatibility between Moldovan legislation and WB policy. This reflects a fundamentally different orientation towards the relation between the government, people and land (and other natural resources). In WB-funded projects, all land acquisition and/or resettlement issues will be resolved according to the higher standard where Moldovan law and WB policy diverge because the lesser standard is met ipso facto. In other words, OP 4.12 complements the existing body of Moldova regulations and does not supersede them.

Although the Moldovan legislation has no express language about resettlement issues, there are legal provisions which are relevant for RAP development such as:

- Land Code, no. 828-XII as of 25.12.1991;

²<http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTOPMANUAL/0,,contentMDK:20064610~menuPK:64701637~pagePK:64709096~piPK:64709108~theSitePK:502184,00.html>

- Family Code, No. 1316 from 26.10.2000;
- Expropriation for Public Utility Law, No. 488-XIV adopted on July 8th, 1999;
- The Law on the Normative Price and the Land Sale-Purchase Process, No. 1308-XIII adopted on July 25th, 1997;
- The Local Public Administration Law, No. 436-XVI adopted on December 28th, 2006;
- Government Decision no. 983 as of 22.12.2011 on corporate, institutional and financial restructuring of the centralized heating distribution system of Chisinau Municipality.

A detailed list of applicable legislation is provided in annex 6.

Moldova has a legal framework that establishes the expropriation as a legal operation by which property and property rights of private property are forcedly transferred into public property, in order to carry out public utility works for national or local interest, with a fair and preliminary compensation.

The expropriation procedures are defined by the Expropriation for Public Utility Law, No. 488-XIV adopted on July 8th, 1999 and detailed by the Government Decision No. 660 of 15 June 2006.

The coincidence between the Moldovan legislation and the World Bank Operational Policy on involuntary resettlement OP4.12 is limited. WB OP 4.12 aims to avoid involuntary resettlement as far as possible, or to minimize its negative social and economic impacts. Specifically, OP4.12 stipulates that all projects should avoid or minimize involuntary resettlement, but in cases when people lose their homes or livelihoods as a result of the project implementation, their standard of living should be at least restored to pre-project levels; if not improved. OP4.12 encourages public participation in resettlement planning and implementation. The key economic objective of OP4.12 is to assist affected persons in their efforts to improve or at least to recover their incomes and their life standards after the resettlement implementation. The WB OP 4.12 foresees that prior to the project proposals assessment; the debtors should prepare appropriate resettlement planning instruments.

Some of the main principles of the WB OP4.12 are provided partially met in the national legislation and these are the following:

- The preliminary compensation payment is compulsory in cases when land and property rights are acquired forcedly;
- The compensation offer should correspond to the market price or should be compensated by a building or land plot with the same size and value;
- Other damages, such as temporary or permanent loss of crops or production assets, should be compensated ;
- Grievances should be examined and solved.

However, the WB OP 4.12 is more explicit as compared to Moldovan legislation regarding such issues as:

- resettlement planning and procedural requirements;
- public hearings and local participation in the project affected areas;
- types of compensation offered and, if necessary, other assistance to affected persons;
- compensation payment to all categories of affected persons;
- property assessment of eligible persons;
- incomes recovery;
- compensation for informal users of the property or the property rights;
- compensation for informal businesses;
- protection of vulnerable groups (poor and landless persons, women, elderly, minorities etc.)

3.2 Description of Compensation and Eligibility Criteria

All affected persons, irrespective of their legal status, are eligible for a form of assistance, if the project has affected them and if they were present on the project affected area before the entitlement cut-off date which is the date when the assessment of persons and their property in the project area was carried out. The cut-off date is 31 October 2013.

The first step in designing the compensation and rehabilitation measures was to determine the entitlements of affected persons under applicable laws and regulations, to identify any services or social benefits to which they might have access, and to ensure that resources are available. The next step is to assess what additional measures are needed, if any, to restore the livelihoods of the affected population to the pre-resettlement level, and to design mechanisms capable of delivering the goods or services that are needed, including effective and expeditious procedures for the resolution of disputes. This allows the compensation and rehabilitation package to work within the constraints of Moldovan laws and institutions, complementing them only as required, with project specific measures.

In the Republic of Moldova three methods are used for determining the value of goods:

1. Expenses method is based upon estimation of the market value of the valuation object including all expenses necessary for its creation up to current state or recovery its consumption qualities;
2. Sales comparative analysis method: involves the estimation of the market value of the economic good based on the comparative analysis of similar goods recently sold and the sale prices adjustments to consider differences between these goods and valuation object;
3. Incomes method is based upon analyzing the information on incomes and expenses related to the valuation object; it allows determining the price of affected asset on the basis of net operational income which can be generated by this asset in future.

The conditions and the means for applying these methods of valuation are established by the Government of the Republic of Moldova. The valuation of real estate has to be carried out by the companies which are licensed according to the national legislation.

Replacement cost

Moldovan legislation has no reference to the term “replacement cost” but it uses the term “construction cost” in relation to all costs linked to constructions. According to par. 19 of the Provisional Regulations on the assessment of real estate, the “construction cost” is determined based on the estimate norms and provisions of other normative documents.

The “replacement cost” is defined in the WB OP 4.12 as market value of a good, calculated as the sum of all costs necessary for the replacement of this good in its current state, plus the cost of any registration and transfer taxes. While determining the replacement cost, amortization of the asset and value of salvage materials are not taken into account. The “replacement cost” is determined as follows:

- For agricultural land, it is pre-project or pre-displacement, whichever is higher, market value of land of equal productive potential or use located in proximity of the affected land, plus the cost of preparing the land to levels similar to those of the affected land, plus the cost of any registration and transfer taxes.
- For land in urban areas, it is pre-displacement market value of land of equal size and use, with similar or improved public infrastructure facilities and services located in proximity of the affected land, plus the cost of any registration and transfer taxes.
- For houses and other structures, it is a market cost of materials needed to build a replacement structure with size and quality similar to or better than those of the affected structure, or to repair a partially affected structure, plus cost of transportation of building materials to the construction site and cost of any labor and contractors' fees. The costs of any registration and transfer taxes are also paid and the values of benefits to be derived from the project are included in assessment of an affected asset.

Compensations provided under this ARAP will be calculated at replacement cost.

Considering the arrangement that market owners intend to conduct renovation of the market and they do have special arrangements with renters and TERMOCOM; there is likely to be no need for compensations as the solutions proposed by market owners allow the renters to maintain their trade kiosks in the trade area of equal value and provide for their families without losing means of livelihoods.

However, *there is a need to re-verify prior to start of the construction works if renters have been provided with a place for relocation of their small businesses.* In case no alternative location could be provided prior to start of project works and impact is produced on their means of livelihoods, they are entitled to a cash allowance equivalent to their average income calculated according to the formula below for as long as they are displaced:

$$C = (I - R - DC - LT) \times N;$$

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Where:

C – compensation value;

I – average daily income of the renter during one week;

R – daily rent amount;

DC – direct costs of goods sold;

LT – local taxes, patent; approx. 540.00 MDL per year, thus 1.48 MDL per day;

N – number of days while rehabilitation works take place.

The cash allowance calculated according to the formula above allows to compensate for temporary loss of income and maintain the standards of life of the affected persons on the same level as without the project.

No construction will occur near the affected land plots if compensation for displacement has not been completed.

Entitlements Matrix

Element	Project Impact	Category of Project Affected Persons (PAP)s	Entitlement
Construction of the new pump station	Land withdrawal for permanent use;	Public Owner (State)	Transfer the land from state to the Project Owner

Rehabilitation of the pipelines	Land withdrawal for temporary use.	Informal vendors temporarily displaced as a result of project works	Will be provided with an alternative place for trade and supported in relocating in case of need or will be compensated for the loss of income and damages to the asset occurring as the result of displacement by project works. The period of displacement will be kept as short as possible. In case no alternative location could be provided prior to start of project works and impact is produced on the informal vendors' means of livelihoods, they are entitled to a cash allowance equivalent to their average income during the period of their displacement however long it would last.
Rehabilitation of the pipelines	Partial or total loss of structures	Owners of the structures	The affected structures will be rehabilitated with the assistance of the Project Owner

Lists of kiosks and stands in 2/3 calea iesilor street:

Ownership of the market: Gaidampus Ion, tel. 069255385

	Name of PAP	Gender	Type of facility	Ownership status	Contact
1.	Olevschi D	M	kiosk	owned by Olevschi	2/3 CaleaIesilor Street
2.	SRL „Gudum-Construct”	Board of directors	kiosk	owned by SRL „Gudum-Construct”	2/3 CaleaIesilor Street
3.	Ivanova A.	F	kiosk	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
4.	Liubovici G.	M	kiosk	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
5.	SRL „Mauritania”	Board of directors	kiosk	owned by SRL „Mivarex”	Mun. Chişinăubl.Dacia bl.3 of. 22 tel. 022-92-90-38
6.	Darii Natalia	F	kiosk	owned by Darii N.	2/3 CaleaIesilor Street
7.	Bîrnă Maria	F	kiosk	owned by Bîrnă M.	2/3 CaleaIesilor Street

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8.	Gușan Angela	F	kiosk	owned by Gușan A.	2/3 CaleaIesilor Street
9.	Revencu Maria	F	kiosk	owned by Revencu M.	2/3 CaleaIesilor Street
10.	Poleacov Andrei	M	kiosk	owned by Poleacov A.	2/3 CaleaIesilor Street
11.	Țurcan G.	M	kiosk	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
12.	Vasilachi Galina	F	kiosk	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
13.	Mamonco A.	F	kiosk	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
14.	Șchircu Piotr	M	kiosk	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
15.	Cataraga Alexandra	F	kiosk	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
16.	Reutov I	M	kiosk	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
17.	SRL „Corelprint”	Board of directors	kiosk	owned by SRL „Corelprint”	Mun. Chișinău str. Igor Vieru nr. 18 of.82 tel. 022-40-42-97, 40-42-96
18.	AzimovSvet	F	kiosk	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
19.	Țurcan Eugenia	F	kiosk	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
20.	Colupanov Irina	F	kiosk	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
21.	Hîncu V.	F	kiosk	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
22.	Breguța Oleg	M	kiosk	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
23.	Codreanu V.	M	kiosk	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
24.	SRL „Vetzoagro”	Board of directors	kiosk	owned by SRL „Vetzoagro”	Mun. Chișinău str. Nita Florica nr. 2 of.49 tel. 022-49-36-08
25.	Bostănaru Victor	M	kiosk	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
26.	SRL „Sveatoslav Bondarev	Board of directors, M	kiosk	owned by SRL „SveatoslavBondarev	Mun. Cahul str. V. Stroiescu nr. 43 of.14 tel. 0299-2-45-26
27.	SA baza de transport „Auto-28 din Calarași ”	Board of directors		owned by SA baza de transport „Auto-28 din Calarași ”	2/3 CaleaIesilor Street
28.	Bulat A.	M	kiosk	owned by Bulat A.	2/3 CaleaIesilor Street
29.	MusteațaRodica	F	stand	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
30.	DovziiIurii	M	stand	owned by SRL „Mivarex”	2/3 CaleaIesilor Street

31.	Vinițaia Zin	F	stand	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
32.	Braghiș Ludm	F	stand	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
33.	Țurcan Maria	F	stand	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
34.	Iacomii Nina	F	stand	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
35.	Jeceva Maria	F	stand	owned by SRL „Mivarex”	2/3 CaleaIesilor Street
36.	Dodon Liuba	F	stand	owned by SRL „Mivarex”	2/3 CaleaIesilor Street

3.3 Consultations with Affected People about Acceptable Alternatives

Infrastructure development projects are designed and implemented for the public good. It is frequently unavoidable that the implementation will have immediate adverse impacts on certain members of the community. Such adverse impacts put respective households or individual at risks. Whenever such negative impacts are foreseen, a resettlement is prepared to address and mitigate against such negative impacts.

The World Bank OP 4.12 stipulates that any displaced persons and their communities including any host communities should be provided with timely and relevant information, consulted on resettlement options. The communities and project affected persons should be also offered opportunities to participate in planning, implementing and monitoring of RAP.

The primary objectives to consult with the PAPs are to:

- Develop constructive public opinion that will lead to the execution of a fair and participatory project;
- Promote an environment for the participation and decision making of the PAPs in solving their own problems;
- Encourage a participatory process of all entities involved in the project’s development;
- Encourage the PAPs to be open-minded to share insight information, to make known their concerns and claims and to be transparently informed about the project and grievance process for their own rights and for lodging complaints. Many times this task appears not easy, due the societal mentality and historic backgrounds in this part of the world.

During the fieldwork, a number of meetings, discussions, consultations, interviews were conducted within the footprint of the project with households and commercial entities that are

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likely to be affected by the project. Face to face interviews/consultations with individual PAPs were conducted. Individual interviews/consultations on phone with PAPs were also applied.

The meetings took place on September 28, 2013; October 3, 2013; October 6, 2013, October 22, 2013.

The questions asked by people were reflected in this SA&RAP in Consultants' recommendations, such as: recommendation to redesign the route of the pipeline to avoid serious accidents on the school-kindergarten; recommendation to develop a Mobility and Access Facilitation Plan to not admit blocking of access to properties/private houses, recommendation to verify if owners of the Sculeni market have provided an alternative place as they assured the Consultants. The owners provided Consultants with a Letter in which they undertake to provide alternative place to all existing traders as soon as they are informed about date of outset of rehabilitation works. The kiosks will be moved a few meters to the right of the main building/pavilion. The original scanned Letter signed and stamped by Director of the market, Mr. Malindra, is attached to this report.

This draft Abbreviated Resettlement Action Plans will be disclosed in local language on the web-site of TERMOCOM and available in hard copy in its office. The document will be also disclosed in Bank's Infoshop.

The consultations will be held prior to its finalization.

3.4 Institutional Responsibility for Implementation and Arrangements for Monitoring the Implementation

The Land Relations and Cadaster Agency has overall responsibility for the process of public lands delimitation, assignment and acquisition, land use change and the correction of graphical errors as per geometric position of land plots.

The State Enterprise "Cadastru" has the overall responsibility for the verification of prerequisite cadastral works (land plots bodies formation), registration of ownership rights, issuance of documentation necessary to close sale and purchase agreements (ownership rights certificate and state valuation certificate).

Notaries and their offices have overall responsibility for the authorization of contract agreements, Power of Attorneys and other documentation to be issued for the implementation of the Resettlement Action Plan.

TERMOCOM will participate in the process of public lands assignment as the Party to whom the land will be assigned. TERMOCOM will be responsible for continuous monitoring for any necessary up-dating of the RAP, community consultations and ensuring RAP

implementation. Also, the primary responsibility to address all complaints and grievances in a project lies with TERMOCOM who is the project owner.

The main implementing agency, the Ministry of Economy as well as the implementing entity (MEPIU) have experience in successfully implementing safeguards issues within two World Bank projects (Energy II; and Competitiveness Enhancement Project).

MEPIU is staffed with highly qualified and experienced professionals, both in technical and safeguards aspects, who will ensure project implementation in accordance with the Operations Manual (OM), as well as that the RAP provisions are fully integrated into project implementation, conducting monitoring and reporting required by the World Bank.

The main responsibilities with regard to day to day implementation of safeguards requirements are assigned to district heating company TERMOCOM which is well prepared and has long time experience in this regard.

RAP implementation is considered successful when the PAPs are fully satisfied with all aspects of entitlements and assistance, including provision of economic compensation or relocation, depending on the case.



3.4.1 Procedures for Grievance Redress

TERMOCOM operates a telephone line available 24/7 that collects grievances and break-down reports and reacts to them. There is a practice of holding consultations with residents in case of persistent problems. Client satisfaction survey is being developed by the company as part of its compliance to ISO 9001.

Due to the urban circumstances the grievance mechanism may be effective through registering all calls related to RAP implementation in a separate category. All complaints and grievances should be properly documented and addressed through discussions and negotiations conducted in a transparent manner and aimed at resolving matters through consensus. However, if no agreement is achieved the case will be referred to the court and Moldovan legislation has all provisions in place, including Law no.190 of 19.07.1994 on grievances, published on 24.01.2004 in Monitorul Oficial no.6-8, art. 23.

This proposed grievance mechanism is an approach to be used during construction works. It is aimed at providing access to information and grievance resolution throughout the construction phase, because impacts may arise at a later stage, beyond RAP development. Affected persons may use the existing telephone line to call and ask for resolution of complaints. Aimed at keeping track of grievances related in specific to this project and make sure none is skipped, it is recommended to register such kind of grievances in a separate category and Registry.

If the affected person is not satisfied with the way how Termocom resolved his/her grievance – s/he has the right to apply to the court - a judicial authority.

3.4.2 Timetable and budget

The tentative compensation budget is of 216 000 MDL (two hundred sixteen thousand Moldovan lei) representing a cash allowance of 200 MDL (two hundred Moldovan lei) per day for a period of a month. This daily cash allowance was calculated based on formula presented in section 4 and information on the average income received from the vendors.

Number of kiosks vendors	Daily cash allowance, MDL	Max expected number of days the works would last	Tentative compensation amount, MDL
36	200	30	216 000

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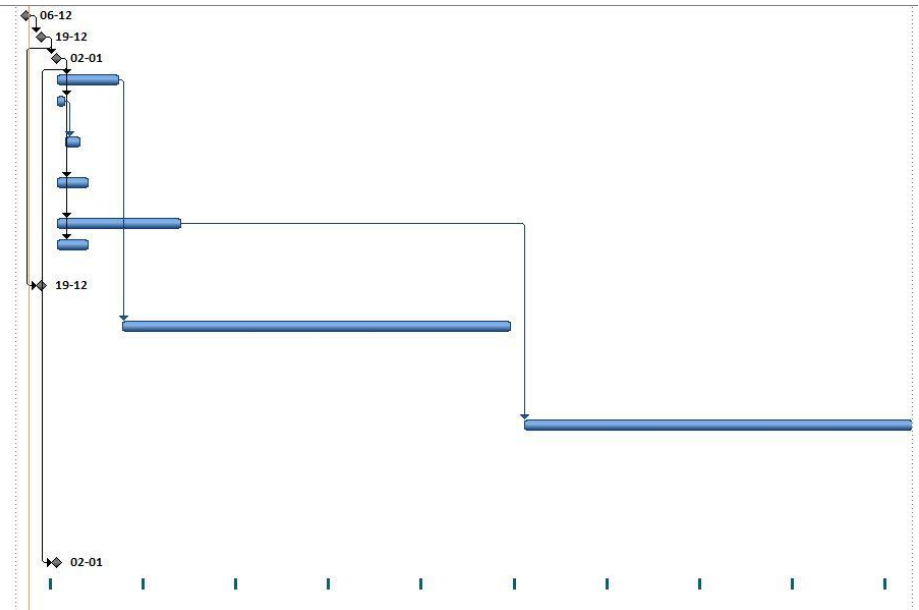
The amount of the compensation per day will be calculated again and agreed with the vendors prior to implementation of the plan shall the need for compensation materialize.

It has to be reiterated that this cash allowance will only be paid in case when kiosks vendors will not be provided with a relocation site of equal value as described above.

The costs of implementation of this Resettlement Action Plan will be borne by the TERMOCOM.

Timetable

		Final Abbreviated Resettlement Action Plan	0 days	Fri 06-12-13	Fri 06-12-13	
		Final ARAP disclosure	0 days	Thu 19-12-13	Thu 19-12-13	1FS+10 days
		Implementation team established	0 days	Thu 02-01-14	Thu 02-01-14	2FS+10 days
		Land assignment for pumping station	40 days	Fri 03-01-14	Thu 27-02-14	3
		Assessment on Sculeni market relocation site availability	5 days	Fri 03-01-14	Thu 09-01-14	3
		Cash allowance payment to PAP (if no relocation site is provided)	10 days	Fri 10-01-14	Thu 23-01-14	5
		Mobility and access facilitation plan development	20 days	Fri 03-01-14	Thu 30-01-14	3
		Alternative pipeline routes design	80 days	Fri 03-01-14	Thu 24-04-14	3
		Itemizing additional construction works (due to ARAP findings)	20 days	Fri 03-01-14	Thu 30-01-14	3
		Establishing a separate registry for resettlement grievances	0 days	Thu 19-12-13	Thu 19-12-13	2
		Construction of a pump station, including over the ground pipeline Dn-600mm and L-350 m. between PI-12/4 and CT-217 (Otovasca str. -Ciocana str.) Otovasca str. -19 commencement	252 days	Mon 03-03-14	Tue 17-02-15	4
		Construction of IHP2a: Underground pipe CT-1/10 to PV-3 in the area of HOB West; HP2b: Underground pipe PV-4 to SPRT N9 in the area of HOB West; HP1a: Underground pipe SPRR N19 to C-319 to the area connected to HOB South commencement	252 days	Mon 02-03-15	Tue 16-02-16	8
		Monitoring established (MEPIU)	0 days	Thu 02-01-14	Thu 02-01-14	3
		* Periodic monitoring reports	541 days	Fri 27-12-13	Fri 22-01-16	13





Annexes