

## Needs Analysis Regarding Residents of Environmentally Affected Areas. Patos - Marinza Case

Marilda Jance PhD candidate

Lecturer, University of Shkodra "Luigj Gurakuqi",  
[mjance@unishk.edu.al](mailto:mjance@unishk.edu.al)

Doi:10.5901/mjss.2013.v4n1p285

### Abstract

*Societies are faced with the problems which are of many and various, but now days there are increasing evidences on the close links that exist between environmental problems and social injustice. Various studies tent to place their focus on solving environmental problems through integrated and multi-dimensional social policies. Often the treatment of isolated environmental policies may slow down the progress towards achieving social wellbeing or vice versa. Social and environmental issues can proportionally often be in conflict to each other, but with an integrated package of policies it would be a proper way for avoiding or resolving these conflicts. This study tents to see social injustice issues through environmental lens and vice versa by analyzing environmental issues more clearly in terms of social justice. New effective ways for dealing with each should be developed rather than each issue is tackled separately. This study is focused on the Marinze (Patos-Fier) area as such as that in recent years is facing many environmental and social issues and tends to emphasize the needs of the residents referred to these problems. The data collected through the survey (including open and closed questions), clearly demonstrate the effects on health and livelihoods of the inhabitants facing air pollution, mainly to residents living near sources of pollution. This paper emphasizes the importance that the inclusion of environmental policies in other social policies in order to ensure and enhance the welfare of individuals and the importance that local institutions should play to ensure and protect the health of residents who need supportive services.*

Key words: *health, services, environment, polluted areas, social policy, environmental policy.*

### 1. Introduction

Albania continues to face social problems, for this reason, environmental issues probably did not have the proper attention. On the other hand their treatment requires broad institutional and consequently respective instruments to give a proper solution. It should be noted that recently there is a growing interest towards the environment and its constituent elements, both by society and the relevant institutions of the country in an effort to give due importance. The reason is that these issues are considered to be directly related to the health of individuals and their welfare, the limitation of living resources or income in society. Actually there are several environmentally contaminated areas for which there are not taken actions to address them (UNEP 2000)<sup>1</sup>.

Environmental problems are not a phenomenon of the past few years but they are attributed to a long past, mainly due to the development of heavy industry. Major problems arise in those cities where the contamination of the area continues as a result of private economic activities, such as the region's oil production and processing Marinze (Patos-Fier) (UNDP 2008)<sup>2</sup>.

However, environmental degradation is a growing problem related not only to the past but also due to the current misuse of resources, due to the lack of standards and the malfunctioning of institutions at the local and at the central government level. Albania has not taken serious steps on regular monitoring and dynamic assessment on the impact of pollution over the health of the population, level of morbidity or means of prevention and treatment of diseases or cost evaluation on national economy spent for social or medical treatment to these individuals.

In all these areas with environmental problems are hampered by overcrowding situation sufficiently large, where uncontrolled displacement and unstudied population migration has created a difficult situation for regional structures

<sup>1</sup> UNEP (2000): *Post Conflict Environmental Assessment – Albania, Switzerland*, pp.5

<sup>2</sup> UNDP (2008): *International consultancy for preliminary site investigation of a number of environmental hot spots in Albania - Main Report, Albania*, pp. 12;

themselves. On the other hand the high level of unemployment seems to have encouraged residents to a compromise with the risk of not losing the only source of income (some area residents are employed in these activities).

In addition to the foregoing, to the inhabitants of these areas are identified with emergences of many diseases as a result of the high level of pollution (including air, water, and soil). For these reasons, this paper identifies the main problems faced by residents located in areas with environmental degradation and attempts to analyze their needs for support services at the institutional level. Research is carried to city Marinze (Patos-Fier) (areas nearby wells and the oil industry).

## 2. Current Situation

The oil field of Patos Marinza is one of the largest and most important field in the country and also in Europe in terms of oil reserves. It concludes about 2,000 wells and covers an area of about 160 km<sup>2</sup> (MMPAU report 2010).

Unfortunately, the area is tremendous source of air pollution, soil and water. Pollution in the area is generated by the extraction of sulfur and hydrocarbon gas. Groundwater is significantly contaminated by oil wells, pumps, pipelines and oil processing equipment. Families living in small villages within the area are exposed to high risks to their health<sup>3</sup>. According to national experts, drinking consumed water which comes from household wells is filtered by layers of clay. Oil wells, however, penetrate clay layers and it very is likely to allow hydrocarbon pollution of drinking water pipelines. Pump equipments are seriously amortized shedding significant amounts of oil into the surrounding environment. Oil is transported by pipeline grid in processing equipment is mortised too. Pipelines are outdated and loose significant amounts of oil. There has never been conducted a proper and accurate estimation of oil contamination of the zone and the surrounding environment. Companies exploiting the resources the area have not achieved an accurate estimation about the exact amount of crude oil spilled in the area, but it is estimated that loses 1-2% of the total amount issued for 4 - 8 tons per day. Similar serious problems also appear to exist in the other oil field located nearby. Due to the malfunction of processing equipments, raw wastes of oil are directly discharged into the environment and deposited in Gjanica river nearby. This Gjanica river is the main drinking water source to residents through private wells in the area. Oil fields are also a source of air pollution. Oil is stored in open tanks, from which hydrocarbon evaporates and spreads out in the atmosphere. Pumps discharge 8,000 cubic meters of gas which contains sulfur components. Only a fifth of that amount used for energy production wells, the remaining four-fifths empty into the atmosphere. This is equal to the extraction of sulfur in a quantity of 115 tons per year<sup>4</sup>. There is a heavy redolence of hydrocarbon and hydrogen sulfate in the air. Prolonged exposure to hydrogen sulfate can cause respiratory problems. A sample analyzed by UNEP showed elliptic hydrocarbons and aromatic concentration in the limits of 4-90 mikrogram/m<sup>3</sup> (<sup>5</sup>)

According to MEFWA<sup>6</sup> assessed in terms of the soil, there are around 1480 oil sludge ponds occupying an area of 95 hectares and comprising an open exposure of residents to this pollution. In terms of surface water pollution, it is estimated that about 117 km are contaminated by substances / petroleum polymers, here including river waters Gjanica, Seman and streams in the area.

This water reserves condition poses direct risk to the agricultural food chain as a result of the use of water for irrigation of lands. Air has volatile cargo of hydrocarbon substances, hydrogen sulfide or sulfur oxides. Observations show that the health condition of the population is directly negatively affected by the environmental condition of the area as a result of air quality and drinking water in the area.

Considering the above, it can be said that economic damage, environmental and health situation has a direct link on the area's economic production system, low productivity and increased agricultural production estimated health care costs directly related to the study area's environmental situation. Area of Patos Marinza is not managed according to environmental standards, ranking alongside area network hot spots that need intervention and rehabilitation.

## 3. Demographic changes and environmental impact on the socio-economic situation

Pollution and environmental degradation are significantly associated with social welfare in communities or regions. Here we can mention the major consequences that pollution causes in drinkable water resources and agricultural lands, both very important elements, especially in rural areas, to make a living. Therefore environmental degradation leads not only

<sup>3</sup> UNEP (2000): *Post Conflict Environmental Assessment – Albania, Switzerland*, pp. 6

<sup>4</sup> UNEP (2000): *Post Conflict Environmental Assessment – Albania, Switzerland*, pp. 6

<sup>5</sup> UNEP (2000): *Post Conflict Environmental Assessment – Albania, Switzerland*

<sup>6</sup> Ministry of Environment, Forest and Water Administration (MEFWA) (2010): *Action Plan for the Health and Environment in the Patos-Marinza area*, [www.moe.gov.al](http://www.moe.gov.al)

to economic impoverishment, increasing dependence from other expensive, sources but often in the social exclusion of populations living in these areas with environmental problems. From the analysis of environmental elements we cannot exclude those related to demographic developments. From this perspective, urbanization is a major factor producing environmental impacts for new problems previously unknown. Radical changes starting in Albania in the 90s, opened a completely different demographic dynamics from previous periods closely related to the phenomenon of internal and external migration<sup>7</sup>. Unplanned and unregulated development of cities in terms of the rapid development of private enterprises is associated with uncontrolled interventions in existing infrastructure triggered off in some cases health and environmental problems caused by deficiencies in urban infrastructure (such as drinking water network, as well as water waste network) from the mismanagement of waste, as well as damage to the soil, groundwater pollution, etc..

Urban developments, often outside the criteria and technical standards, have been associated with damage to pollution of drinking water networks, their shortcomings in waste management system, have caused a relatively high level durability and hydro borne diseases food, compared to other European countries, although the lack of a comprehensive analysis of the links between environmental condition. All elements demographic prognosis, in the event that will take place out of action and policy development regarding population, the economy or the feasibility for spatial regulation of the process of urbanization, will bring the same intensity adverse impact on the social and biophysical environment as well as up to date<sup>8</sup>.

#### 4. Environmental impact on the health of the population

Health problems are directly related to the socio-economic situation and lifestyle. In many cases they are conditioned and environmental health problems directly related to human exposure to air pollution, water, soil, or other factors that affect the quality of the environment. These last few years have made significant strides in the institutional and legal aspects. There have been a number of studies and projects aimed at addressing contemporary environmental health problems that aim to integrate economic and social development with environmental and health protection. Despite these achievements, there exist deficiencies in determining the incidence of diseases caused by environmental pollution. Also, the level of information available to the public health and the environment is low. In institutional terms the appropriate infrastructure exists, but there are major deficiencies in terms of exchange and disclosure of information for environmental health, the improvement of which would affect the best management of these problems. It is important because it recognizes and declares the areas that pose the highest risk to health, but inter agencies and institutions cooperation is not coordinated. There is not or there exist not specified actions designation of how to assist groups directly affected locations or areas included in the study.

#### 5. Methodology

Considering the nature of the information needed to be collected for the purposes of this paper, the methodology selected for use in this paper is:

- *Questionnaire with closed and open questions*
- *Analysis of the Albanian legal framework*

Regarding the questionnaire, it is organized into sections.

First column aims to obtain data regarding the level of information on environmental pollution by its constituent elements air, water, soil and agricultural products and livestock. Second columns related to data collection for the services required and provided in the area and the role played by local government. Third column is associated with the collection of data about the health of residents. General data of the residents, which are secondary but very important for the interpretation of data collected in the study area are located at the end of the questionnaire. The data collected are mainly qualitative. Using this method allows the collection of a broad and specific information related to the field of study, the problems and issues addressed, the treatment by the legal and institutional framework necessary for social support and new schemes seen from the perspective of local government. Formulation of questions took into account the level of social, economic and educational development, in order to facilitate the process of readability, understandability and completing it. Completion of the questionnaire was carried out by people in adulthood, as the nature of information requires a maturity and commitment on the part of respondents. The questionnaire was distributed in the oil extraction Marinze Patos. To best serve the purpose of this study is the use and analysis of the environmental legislation in force no. 10431, dated 9.6.2011 "On Environmental Protection".

<sup>7</sup> INSTAT, (2007): *Social Index – Environment*, [www.instat.gov.al](http://www.instat.gov.al).

<sup>8</sup> Ministry of Environment, Forest and Water Administration (MMPAU), (2006): *National Strategy of Environment*, Tirana, pp. 16.

## 6. Results of the study

According to the surveyed residents, their situation is critical and hopeless. Although there are drafting laws that intend to keep control of degradation phenomena, protect and care for and promote the further development policy environment still Albania remains a place where much remains to be done in this regard. This is mainly in terms of the practical side of implementing legislation. Compliance with the law would be one of the ways that will bring about significant improvements in the functioning of society.

So referring to the Law no. 10431, dated 9.6.2011 "On Environmental Protection"<sup>9</sup>, in its Article 14 "The principle of promoting environmental protection activities", stipulates that public authorities within their powers can:

- a) Promote activities to protect the environment, to prevent or reduce pollution, as well as projects that reduce the use of certain substances, raw materials and energy, or pollute less the environment;
- b) Engage into agreements with polluting entities and their associations for voluntary measures that they can take in order to further reduce environmental impact.

These two points of this article would be a positive factor if you will find practical application, as support burden will not be left solely in the hands of local government that operates with defined budgets, but would involve directly the operators exercise activities. This creates the possibility for institutions to play their role not only monitoring but also to act in support of to residents who faces constantly with such complex issues. This increases awareness of operators engaged in private activities sensitize them as to protect and respect the lives of residents, but also to comply with manufacturing standards by directly protecting the environment and its elements. This is clearly defined in Article 50 "Liability for damage to the environment"<sup>10</sup>, through the principle of "polluter pays" principle, where prevention and compensation of all damages caused to the environment, through the introduction of measures and practices to minimize the risk of environmental damage thus ensuring the health of the residents must be returned in an efficient standard for all.

Referred to above, the case study related to the area Marinze - Patos, it seems that it identifies precisely the fact that the adoption of legislation should not only be taken in its theoretical aspect. By the relevant local government bodies or private operators there do not appear specific initiatives to minimize pollution caused manufacturing activities. Is contradictory there appears no prompt residents organized reaction, this mainly as a result of fear, mistrust, job loss, or different pressures. According to them there is not any act or measure in informing the public on the activities carried out and activities that disrupt the environmental equilibrium. Residents surveyed said that despite numerous requests by them for taking action, not single preventive initiatives of any kind has taken place. Even in their manufacturing activities in the area operate at night, it possible to escape control by local bodies. Residents claim that they face every day with these phenomena degrading and that it is significantly more difficult their life in the area. Many argue that in the lack of hope for amelioration, local residents are relocating to other areas and other cities and abandoning homes, lands and their daily activities. Respondents, residents of the area for several years, claiming that they have started to feel concern about breathing, the appearance of asthma (young children), skin problems, spine problems, headaches, insomnia or skin problems. Despite starting to feel their health problems, residents claim they have been reluctant to carry out visits or medical tests, because they have low incomes and are unable to proceed. In some of their alleged cases of medical treatments have not given effect and did not bring improvements in their health.

Water situation in the area appears a very critical. It is completely inappropriate and even dangerous for consumption, as it contains hazardous wastes which have already penetrated even underground sources.

Pollution has affected even Food Products making a good part of them unfit for human consumption resulting thus in rising their purchase costs contrasted to their modest households budget.

Health problems are directly related to the socio-economic situation and lifestyle. In many cases these health problems are conditioned by environmental health associated with human exposure to air pollution, water, soil and other factors affecting the quality of the environment. For these reasons, this paper highlights the importance the inclusion of environmental policy has in social policies to protect the lives of individuals in society, but on the other hand to ensure and enhance their welfare. Undoubtedly a crucial role remains for local institutions to be played as institutions which control and guarantee the fulfilling the needs of society. A guarantee needed especially for those that obviously in a greater need for support services. Mankind and the environment cannot be understood as two separate issues<sup>11</sup>. Environmental issues should occupy an important place in the social policy agenda. Since that environmental issues are

<sup>9</sup> Albanian Law n. 10431, date 9.6.2011 "On Environmental Protection";

<sup>10</sup> Albanian Law n. 10431, date 9.6.2011 "On Environmental Protection";

<sup>11</sup> OECD (2006): *The Social Dimension of Environmental Policy*; [www.oecd.org/publications/Policybriefs/](http://www.oecd.org/publications/Policybriefs/)

of varying level of impact to people also, their treatment requires not just reactive steps such as cleaning the area, reducing or eliminating pollution, but a more proactive multidimensional approach should be considered in regard to environment, health and social policies. This contributes not only in the improvement of human health and quality of life for citizens, but also integrates influencing public policies in the minimizing costs of economic activities in different ways. It can be said that the some of the social policies aimed to compensate victims of society return to be inefficient, if they themselves environment continues to be a threat. Typically these are national health services which require close consideration over the environmental impact, in addition to other causes of social or economic, that affect in health condition of individuals.

## Reference

- Huby M. (1998): *Social Policy and the Environment*, Open University Press, UK;
- INSTAT, (2007): *Social Index – Environment*, [www.instat.gov.al](http://www.instat.gov.al).
- Law no. 10431, dated 9.6.2011 "On Environmental Protection";
- Ministry of Environment, Forest and Water Administration (MMPAU), (2006): *National Strategy of Environment*, Tirana, pp. 16.
- MMPAU (2010): *Action Plan for the Health and Environment in the Patos-Marinza area*, [www.moe.gov.al](http://www.moe.gov.al)
- OECD (2006): *The Social Dimension of Environmental Policy*; [www.oecd.org/publications/Policybriefs](http://www.oecd.org/publications/Policybriefs);
- UNDP (2008): *International consultancy for Preliminary site Investigation of a number of Environmental hot spots in Albania - Main Report, Albania*;
- UNEP (2000): *Post Conflict Environmental Assessment - Albania, Switzerland*.

