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Impact of Accounting Information Systems on Decision Making Case of Bosnia and Herzegovina

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Abstract
In the market economy, the way in which company is managed and developed is extremly important, because every wrong or misleading decision comes at a high price. Therefore each decision that management brings should be based on precise, qualitative, timely and unambiguous information. In order to serve its purpose, after information are collected they are processed, classified and stored within the company. For effective and efficient information processing it is necessary to have an integrated set of components, called an information system. Undoubtedly, significant role in information processing for effective decision making, belongs to accounting information system. Therefore, the purpose of the study is to analyze the situation in Bosnia and Herzegovina related to the use and adoption of accounting information system and it's impact on decision making process. Questionnaire distributed to the business organizations and interviews with the managers, as a data collection method, will be used. Statistical and graphical methods will be used to demonstrate findings.
Keywords: information systems, accounting information, accounting information systems, decision making, business organization, Bosnia and Herzegovina.

Introduction
Managing the company is the process of conducting business operations toward achieving short term and long term objectives, in line with the overall company's objective which is to ensure the company's existance in the constantly changing market environment.

In the market economy, the way in which company is managed and developed is extremly important, because every wrong or misleading decision comes at a high price. Therefore each decision that management brings should be based on precise, qualitative, timely and unambiguous

information. The term information can be defined in a number of ways. In this case, the most appropriate definition of information would be: powerful and indispensable resource without which the company is unable to accomplish growth and development objectives. The existence of successful and efficient management of the company is inconceivable without adequate information, having in mind that we live in a era of high information technology expansion and when the communication as a modern tool of information exchange is highly developed. For a company, on a daily basis different kinds of information are needed: information from the field of finance and accounting, quantitative and qualitative, technical and technological information, and many other business and non-business information. In order to serve its purpose, after information are collected they are processed, classified and stored within the company. For effective and efficient information processing it is necessary to have an integrated set of components, called an information system.

Business information system is composed of several subsystems: management information system, accounting information system, marketing information system, human resource information system and others. Undoubtedly, significant role in information processing for effective decision making, belongs to accounting information system. Accounting information system that collects and procesess data from the area of accounting planning, business transactions recording, controling and analyizng should generate valid, timely and qualitative information. Qualitative financial information should be: comprehensible, comparable, relevant and reliable. Information published in the form of financial statements should be understandable to the end users – various interest groups.

Accounting Information

According to the Ovidia (2013), economic information sources are:

• Economic planning – provides information about business planning and business forecasting data, what makes 28% of total economic information

• Economic database – provides effective information data, what makes 70% of the total economic information, disseminated as follows:
  o 46-50% of accounting information provided by accounting department
  o 9-13% of economic-social statistics information
  o 11% of active database information
  o 2% of other information sources.

Every private or public organization, whether profit-making or non-profit making oriented, small or large scale, requires and uses accounting information to bring decisions, and needs for information vary depending on what each information user demands (Nicolas & Mchugh, 2009).

Accounting as a discipline is concerned with collection, analysis and communication of financial information. This information is valuable to those who make business decisions and plans and also to those who control the businesses. For example, business managers may need accounting information in the following cases: new product or service development, increase or decrease in price or quantity of existing product or service, borrowing money for the purpose of helping to finance the business, increase or decrease business operating capacity, make a changes in purchasing, production or distribution methods.

Also, there are others outside the business, who may require accounting information for the purpose of following: to make an investment in the particular business, to make lending decision (whether to lend money or not), to make an offer for credit facilities, to enter into contracts regarding purchase of products or services (McLaney & Atrill, 2010)

Characteristis of Accounting Information

To satisfy the user's need, accounting information should possess certain key qualities. According to the McLaney and Atrill (2010), those qualities or characteristics of good information should be: relevance, reliability, comparability and understandability.

Relevance – Accounting information needs to possess capacity to influence decisions. Without this characteristic, there is no purpose of producing information. The accounting information may be relevant for forecasting of future events or it may be relevant for confirmation of past events. The role that accounting information has in past events confirmation is significant,

because users often want to analyze the accuracy of past forecasts that they have made, what may have impact on accuracy of current decisions.

Reliability – Accounting information should not be restricted neither by substantial error nor bias. It should demonstrate and represent what is supposed to demonstrate and represent. Accounting reliability refers to whether financial information can be tested and used constantly by investors and creditors with the same outcomes. Essentially, reliability refers to the financial statements trustworthiness.

Comparability – If accounting information possesses this characteristic, it will allow users to detect changes in business over time. Also, it will assist them in evaluation of business performance compared to the other similar businesses. Comparabality is attained if the same items are treated in the same manner for certain accounting purposes. Comparability may be improved by clarfying the policies that have already been adopted in evaluating and communicating the information.

Understandability – Accounting information should be presented in a way that a reader can understand it. It is assumed that a reader has a reasonable knowledge of business, but does not require advanced business knowledge. For information to be understandable it should be represented in a complete, concise, clear and organized way.

Bassam (2006) states that accounting information should possess following characteristics: appropriateness, credibility, accuracy, timing, understanding and absorption, importance and fulfillment.

Users of Accounting Information

Company necessarily operate in an enviornment where it interacts with number of interest parties and influential forces, which can be called by one name – *the stakeholders.* Internal and external stakeholders are individual or groups within and outside of the company that have an interest, claim or stake in the company and are very interested in the business performance and operating results of the company.
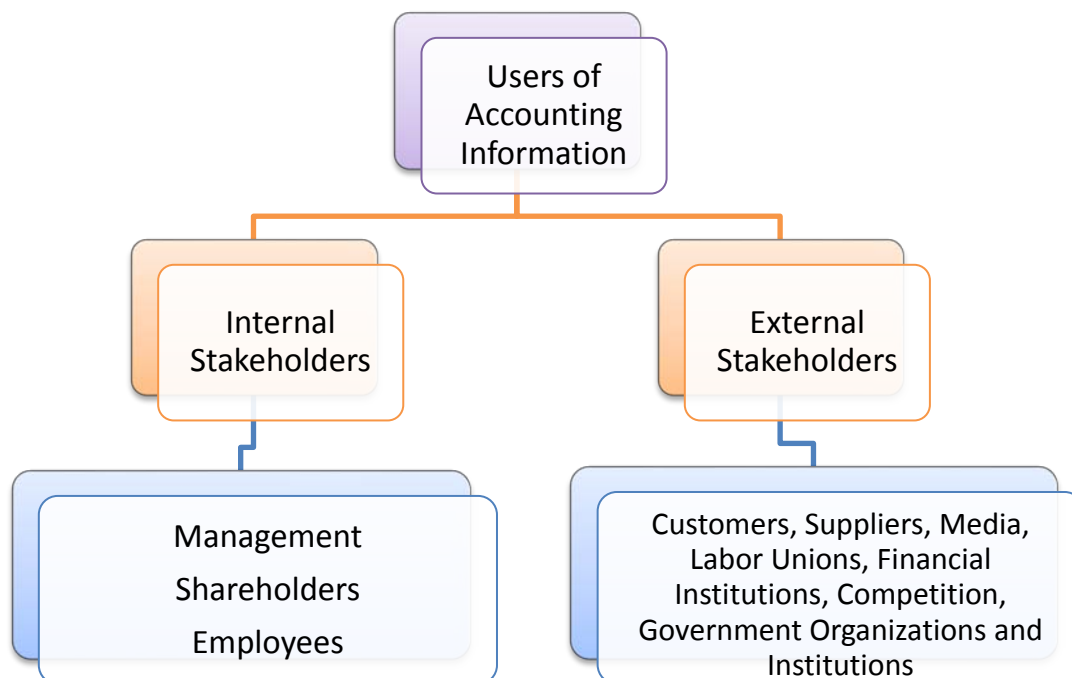
Figure 1: Users of Accounting Information
Soruce: Created by author.

Internal stakeholders consist of: management, shareholders and employees. This group of stakeholders by investing their resources in the company (capital, skills, knowledge, time) expect

the fulfillment of their personal expectations. Owners of the capital – *shareholders* expect an adequate return on their invested funds. They are interested in information that provide an insight into company's operations and investment secureness. Also, shareholders are interested in profit amount, earning per share or the divident amount, manager's capability to successfully run a company, etc. On the basis of those information, shareholders decide to maintain, increase or decrase their capital in particular company. *Management* by contributing to the company by their knowledge, skills and time expects to achieve excellent retruns on company's investment, demonstrated through high profit, high retrun on equity ratio, high return on assests ratio, etc. *Employees* contribute to the company by providing necessary human resources and skills, and expect from the company satisfactory compensation, good working conditions and job security so they are interested in the information regarding their compensation and job security (Đogić, 2009).

External stakeholders are: customers, suppliers, media, labor unions, financial institutions, competition, government institutions and organizations. External stakeholders influence company's activities in several ways, depending on their role, place and degree of significance that they have in the process of input, transformation, and output. *Customers* buying the company's product or service expect that it will satisfy their needs and wants. They are interested in the quality of the product or service and supply continuity. *Suppliers* provide raw materials necessary for the process of production. Raw materials availability and conditions for their procurement are very important, and very often are critical point for accomplishing company's overall objective. Apart from consideration bargaining power of suppliers, the other ways of providing resoruces should be analyzed. For example, appropriate analysis of alternatives: buy versus produce, buy versus rent, orientation to the external market, entering into strategic business alliances, etc. When deciding whether to cooperate with the particular company, suppliers are interested in liquidity and overall solvency of the company. *Competitiors* – as the company operates in the environment characterized by constant threat of current and future competitiors, it is logical that the strenghts and weaknesses of the company must be frequently analyzed and compared to that of competitors. Also, the company must not overlook the emergence of new competitors. *Government and government organizations* are one of the most important external stakeholders which through laws, decrees and regulations influence businesses and restrict free actions. State most directly can intervene with the companies or organizations that perform activities that are of public interest (post, telephone, railway, electricity, water, forestry, transportation, etc.). In some cases, above mentioned companies or organizations are nationalized by the government or regulated by law, government possesses majority voting right in decision-making. *Financial institutions* – since businesses depends on the capital markets, it is necessary to examine the network of commercial and investment banks, insurance companies and other institutions that provide funds for financing economic activities. From the other side, those financial institutions, in order to approve funds need to have information regarding company's solvency and liquidity.

Due to different interest groups or stakeholders, the management of the company has the obligation to interpret accounting information, and if necessary complete it with various non-financial indicators (Đogić, 2009).

Information necessary for management decision-making can be obtained from various sources, and in this context, usually there is classification on internal sources of information (accounting records) and external data soruces (statistical offices or agencies, trade associations, etc.). Regardless form which source is obtained, data is processed in management information system of the company. Well-organized management information system of the company should be capable, at any moment, to answer on the following questions: what information is needed, when the information is needed, who needs it, where is needed, why is needed, and how much it costs (5W and 1H) (Mittra, 1986).

The most important part of the management information system is the one that is concerned with financial data processing – accounting information system. Accounting information system usually includes four basic subsystems:

• Subsystem concerned with daily business transactions recording with focus on routine decision making.

• Subsystem related to the general ledger and financial reporting that produces traditional financial statements, such as balance sheet, income statement, cash flow statement, and other reports prescribed by the law.

• Subsystem for fixed assets and capital investments that processes transactions related to fixed assets.

• Subsystem concerned with preparing reports for different levels of management.

According to the above mentioned, it can be concluded that accounting information system provides support for different management levels in their decision making process and daily performance (Đogić, 2009). In contemporary conditions, accounting information system is a part of computer based information system and usually consist of four applications: data collection, data processing, data base management, and information generation (Hali, 1995).

Characteristics of Accounting Information System

The basic characteristics of AIS, on the basis of business transactions recording, are: to provide stakeholders with adequate and timely information for decision making and for the purpose of business planning, and to provide as much information as necessary to analyze past events, since analysis of past events is essential for future company's decisions and operations. Till this point in time, in Bosnia there is no adopted legislation that would lay down basic characteristics or essential features that producers of AIS should comply with. In Serbia, Association of Accountants and Auditors passed and adopted the Standard ASS 33 (accounting software standard) that regulates the area of accounting software, or AIS area. According to the Standard ASS 33, the main charachteristics of AIS are: functionality, reliability, usability, efficiency, maintainability and portability.

Functionality is the ability of each component of AIS to complete its task as quickly and simply as possible, so that the entire AIS meets the users's requirements, and at the same time interacts with the other business software packages. The use of AIS that possesses this characteristic increases efficiency and profitability of the company.

Reliability is the ability of AIS to meet the demends of the users at any time and to provide reliable information on the user's request.

Usability is AIS's ability to be adapted to the user, so that he can use it in a daily's business activities without major difficulties.

Efficiency is the AIS's ability to respond on the requests under certain conditions and in accordance with the available resources at a given moment.

Maintainability is the AIS's ability to be adaptable to new situations, such as legislative changes or the request for change and adaption by the user.

Portability is the AIS's ability to be transmitted from one business environment to the another. Also, portability implys ability to easily replace computer equipment with new or contemporary one, and ease of software maintenance (Glogić, 2014).

Decision Making on the Basis of Accounting Information System

Business information system, as a very complex system can be divided into three subsystems: executive subsystem, information subsystem and management subsystem. Information subsystem acts as a liasion between executive and management subsystem, and it's task is to provide timely information to executive and management subsystem for the purpose of decision-making. Information subsystem, according to the accounting role and task, are divided into accounting and non-accounting information subsystems. It is important to note that these subsystems do not exist as a separate units, but often are integrated in the overlapping responsibility areas.

Strategic management often needs diverse and concise information in the process of decision making. The decisions brought by strategic management are often future-oriented and therefore those decisions carry high level of risk in relation to the final outcomes. Tactical level of management requires more detailed information than strategical management, and for shorter period of time.

Operational level of management usually requires analytical data for information that are made on a daily basis.

For the purpose of conducting business operations, company's management is dependent on the accounting information systems. A number of financial reports containing different information are necessary to the managers on all levels. These financial reports can be presented in different time periods, in different ways and for different management and decision-making phases.

In order to adquately respond on management's requests, AIS must be organized as an active and creative system. With it's pro-active solutions, the accounting manager should need to review, direct and improve the information requests of management. In that way, the strength of AIS will be improved and the adoption of business and financial decision will be easily facilitated.

The specific relation between supply function, as a business function of executive subsystem, with the AIS is demonstrated through it's communication necessity. For example, the supply function receives information from financial, analytical and management accounting, and in the same time gives information to the AIS, which the system processes and makes available to the interested parties. If there is a high degree of communication and connection, the company will be able to adequately face challanges and accomplish desired objectives (Knežević, Stanković, & Tepavac, 2012).

The Role of Financial Statements in Decision Making Process

The role of financial statements is to provide information to the wide range of users/stakeholders related to the performance, finacial position and changes in financial position of the company, which they need for decision making. Financial statements also provide valuable information related to the management's capability to operate with the resources that owners entrusted to them. To inform stakeholders means to present accounting information in recognizable form with an understandable content to those for which financial statements are intended for. The most important financial statements that are taken in consideration when evaluating company's performance and that serves as a basis for decision making are: balance sheet, income statement, cash flow statement and statement of retained earnings.

Balance Sheet – a systematic overview of the company's assets, liabilities, and capital on a particular date. It shows the financial position of the company and is used to assess the safety of business operations. Determinants of the financial position of the company are:

• Efficient use of the resources and it's adoption to the company's interests. Based on this, it can be concluded whether the company in the next period will be able to efficiently use the resources and will it be able to generate cash and cash equivalents.

• Financial structure of the company based on which sources of the financing in the future can be predicted and possibility of liabilities settlement to the capital owners, creditors, suppliers and others.

• Liquidity and solvency of the company – ability of settling obligations in accordance with maturity date, where liquidity is related to the short-term, and solvency to the long-term.

• Ability to adapt to the changes in the environment – whether the company is able to use resources in the optimal and efficient way and it's adoption to the company's interests in changed conditions.

Income Statement – it shows revenues, expenses and financial result of the company for certain time period. Financial result is an indicator of business success which is usually defined as the ability to achieve certain objectives. The most common objective is profitability.

Cash Flow Statement – it shows cash sources and expenditures; all cash inflows and outflows and net changes in the cash, as a consequence of operational, financial, and investment activities. This statement, in interaction with other financial statement, gives the real picture of the financial health of the company.

Statement of Retained Earnings – it shows equity structure and any changes that have occured in equity during the accounting period. Retained earnings or profit makes a part of company's capital. The amount of retained earnings is increased with the increases in net-profit, and is decreased for the amount of net-loss and paid dividends.

All of the aforementioned financial statements are mutually related because they reflect different aspects of the same transactions. Complete picture of the financial position and business success of the company can be obtained only by comparative reading and analyzing of data and information from all financial statements. And for this kind of information we can say that are complete and reliable (Đogić, 2009).

Methodology

The main objective of the study was to analyze the situation in Bosnia and Herzegovina related to the use of accounting information systems and it's impact on decision making process.

For the purpose of this article, two methods of data collection are used: questionnaires and interviews. Questionnaire is distributed to the 70 companies located in Bosnia and Herzegovina, manily located in Sarajevo Canton and Zenica-Doboj Canton. Interview is done with the leading software producer „Datalab" in Bosnia and Herzegovina, as well as in the region.

Descriptive statistics will be used to demonstrate findings, which are result of the conducted research.

Empirical Findings

The interview is done with the Direct Solutions Sales Manager in Datalab company. Datalab company is headquatered in Sovenia, and it has seven branches located in: Bosnia and Herzegovina, Serbia, Croatia, Montenegro, Macedonia, Albania and Bulgaria. Datalab company is one of the leading ERP system providers as in Bosnia and Herzegovina, as well in the region. It's business operating system „PANTHEON" is designed for small and medium enterprises that have a need for comprehensive business information system. In Bosnia and Herzegovina there is around 4000 Pantheon users and 42000 in the region.

Pantheon's user interface allows the user quick access to the relevant data, making the work faster and more efficient, while the manual data entry is reduced to the minimum extent, what reduces the possibility of errors.

Pantheon supports all business processes, from merchandise management, accounting and finance to human resources, salaries, and has additional options for international businesses, and it provides business analytics for leading personnel.

Through this information system, it is possible to provide huge support to supply function. It combines receiving and issuing of invoices, warehouse transfers, material accounting, and inventory tracking. The system is designed in a way that it can provide support to complex and demanding merchandising or manufacturing company. It is an ideal tool for engineering companies and for companies that use ABC (activity-based costing) system. The system makes possible to periodicaly bill the clients and also it follows VAT records.

Pantheon accounting provides support to general ledger and enables automatic and manual transactions recording. Mainly bookkeeping is done according to the pre-defined templates. Subsidiary accounting ledgers are completely integrated into general ledger, without duplicate data entry. This program also includes basic chart of accounts, that can be supplemented and changed. In addition to the pre-prepared reports/financial statements, the new statements can be prepared for different departments, periods, cost objects, and comparisons of the periods can be done in domestic and foreign currency.

Questionnaire Results

Out of 70 companies, 67 of them answered that they use accounting information system for the conduction of business operations.

Does your company uses AIS?

Yes
No

4.29%

95.71%
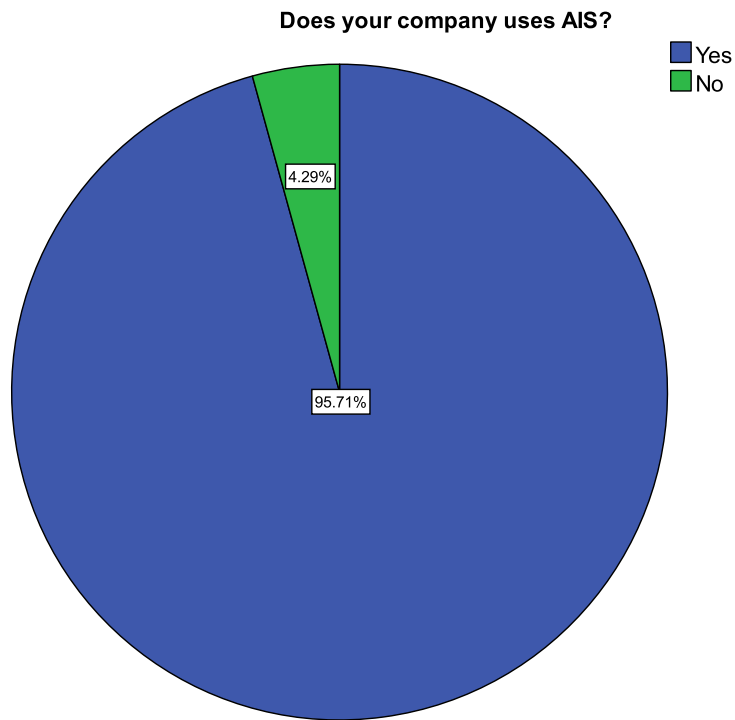
Two out of three companies that do not use AIS in their business operations said that main reason why they do not use AIS is there is no need for AIS in the company, and one company answered that the reason for AIS non-use is high cost of purchasing and implementation of AIS.

Related to the accounting information system's impact on decision making, the companies had three provided answers: always, sometimes and never.

Table 1: Does the company brings decisions based on AIS?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	31	46.3	46.3	46.3
	Sometimes	35	52.2	52.2	98.5
	Never	1	1.5	1.5	100.0
	Total	67	100.0	100.0	

Your company brings decisions based on AIS?
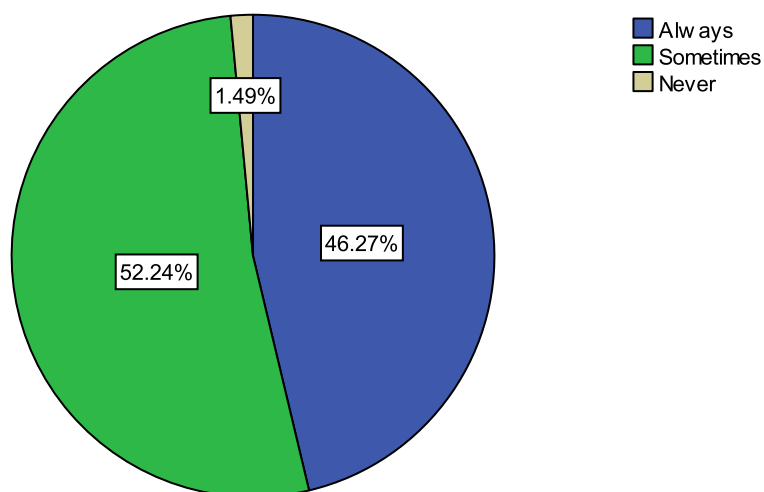
Out of 67 companies that confirmed that they use accounting information system, 31 always use AIS as a basis for decision making. 35 companies sometimes use AIS for decision making. However, during collection of surveys, the surveyed persons usually said that the answer that would be more suitable here is *often*, instead of *sometimes*. Just one company, according to the survey does not use AIS in decison making process.

Discussion and Conclusion

The purpose of this study was, through literature review, to demonstrate the role of accounting information systems in decision making process of the business organizations. And to present the current situation in Bosnia and Herzegovina related to the use and adoption of accounting information systems.

On the basis of reviewed literature and findings of the study, it can be concluded that accounting information systems play a very significant role in the process of decision making. Especially today, when technology is constantly developing and offering new solutions with the purpose to ease and improve people's lifes.

Concretely, when it comes to the Bosnia and Herzegovina and use of AIS, the findings showed that companies are recognizing more and more the need for implementation of appropriate business software that will improve it's business operations and in that way increase company's profitability. The responded questionnaires demonstrated that business decison making is not possible without taking into account information provided by AIS.

However, there are many things to be done in this area. Firstly, companies should invest more in the education of its staff, starting from the employees engaged in the process of production to the top managers, related to the all benefits that implementation of business software, or information system, brings with itself. Adequate trainings should be provided to the staff of the company.

In addition, government has a responsibility to support businesess, through adoption of laws, policies and guidelines that will facilitate implementation of business softwers (information systems).

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Exploitation of labour: A study of Migrant labourers in West Bengal

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Abstract
Migrant workers, who constitute a major work force, in the unorganized sector, face various psychological stresses and arrive in an aggravated mental position due to their habit of using different varieties of intoxicants. The researcher's attempt in this paper is to find out the connection of addiction- related stress and social disintegration of the migrant workers with the wide web of exploitation of labour through an empirical analysis. The intoxicants are the only medium for the migrants to leave the sufferings behind them for a time being. This paper highlights the push factors as the fabricated trap to exploit the migrants physically, socially and mentally for surplus production with cheap labour.
Keywords: Health, labour, exploitation, employment, fundamental rights.

Introduction
Health is always considered as wealth. "Health is a state of complete physical, mental and social well being and not merely the absence of disease or infirmity: it is a fundamental human right and … the attainment of the highest possible level of health is a worldwide social goal whose realization requires the action of many other socio- economic and political sectors in addition to the health sector."[*] All dimensions of socio- economic, political and cultural conditions such as food, water supply, education, housing, employment, reasonable wage and circumstances of creativity etc. play a vital role in maintaining health. The structural analysis shows different levels of life negations in the health issues of migrant labourers. Deprivations of land, means of production, surplus extraction by using technologies and extension of the time of the work, deprivation of wage and low wages etc. constitute through alienation to the labourer. Since labour is defined as 'any economically productive activity' and the major labour force of India is marginal workers.[2] the welfare of a nation depends on the well being of this work force. If the labour force is weak, alienated from the production, then the outcome will be a weak economy. Thus it must be protected and secured from all types of illness, exploitation and alienation which prevent them from creating a better society. Patnaik argues that "those interested in the progress of this country

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[*] Naresh Banerjee, "Health Diseases and Drugs." In *Drug Industry and Indian People,* edited by Amit Sen Gupta (Delhi: Delhi Science Forum and Federation of Medical Representations, 1986), 43, (Hereafter, Banerjee, *Health Diseases and Drugs….*).

must present before the people an alternative agenda of the citizenship that transcends specific identities and ensures for every one the prerequisites for a meaningful life."[3] Thus Affirmation of Life' in labour denotes a healthy contented labour force of a community. This chapter focuses on different approaches and alternatives to have a life affirming labour.

Methodology:

For an accurate understanding of the existing interconnectedness of labour and addicted related health issues, an empirical study was conducted in the five labour crowded areas of Kolkata, West Bengal, India. A questionnaire was prepared and was personally handed over to and answered by the Bihari migrant workers of that area. The Hindi version of the English questionnaire was disturbed. 108 samples were taken along with a few interviews with workers, religious leaders and representatives of the Government.

Counseling

Counseling method helps if there a dilemma of loneliness and alienation. Migrant labourers are disconnected from their community and social support. They need some confidence within themselves to accept the reality around them and the ability to face the challenges. They must develop a powerful mind to say 'no' to certain things that may harm them permanently. Adapting a healthy life style, exercising, breathing techniques, yoga, increasing will power and controlling cravings are the best way to quit addiction. [*] Stanley's study on material dynamics in alcoholism discovered that poor marital adjustment and higher conflict levels were seen in families complicated by alcoholic consumption.[5] Thus to have a healthy personal and family life, the guidance of professional counselors is a vital need amongst migrant workers.

P.Sudhagar suggests starting tobacco cessation centers and 'quit lines', [6] with counseling and nicotine replacement therapy to help people come out of addictions. There are de-addiction centers to give recovery to the addicted persons, particularly at least three of them in 15 km radius of Kolkata, but the cost of counseling treatment is somewhat high to the poor workers. Here the support of charity organization, NGOs and other religious organizations are required.

Conscientization

Awareness and conscientization are the basics, when we dream of a healthy labour community. Many of the migrant labourers having very little knowledge about the present world scenario. The main concern for them is 'survival'. From such a community we can expect nothing other than their primary enjoyment, for which they won't think how it adversely affects their health. Together with tobacco and alcohol. Physical inactivity and unhealthy diets are the common risk factors associated.[7] Smokeless tobacco comes in various forms like *gutka, zarda, mishri, mawa* and *pan masala* and is cold cheaply in small outlets.[8] Smokeless tobacco causes a burning sensation in the mouth, a wet leathery feeling, and reduced mouth opening... it can lead to bleeding gums[9] and may finally lead to cancer. So a thorough awareness is compulsory to the migrant workers regarding the pros and cons of addictive substances.

Along with knowing the health issues, they should know their rights and duties and more particularly should have a "Third Eye" [10] to sense the area of exploitation in day to day life affair.

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[2] "Smoke going down", *Down to Earth* 7/19 (February 28, 1999): 25.

[3] John Philip, "Marital Adjustment Among the Wives of the Alcoholics in relation to Codependency and Selected Socio Demographic Variables," *TAMIC Journal of Counselling* 1/1 (June 2014): (Hereafter, Philip, *Marital Adjustment....*).

[4] P.Sudhagar, "Anti- Tobacco Campaign to be Launched," *The Hindu,* 29 April 2009, 5. (Hereafter, Sudhagar, *Anti-tobacco ....*).

[5] Aarti Dhar, "Frame Work Convention on Alcohol Control Mooted," *The Hindu,* 30July 2008, 5. (Hereafter, Dhar, *Frame Work....*).

[6] R.N. Karla, "Snuff out the cigarette, not life," *The Hindu,* 3 June 2012, 12. (Hereafter, Karla, *Snuff out...*).

[7] Sneha Nalawade, "Wiser man, not a tobacco fan," *The Hindu,* 3 June 2012, 12. (Hereafter, Nalawade, *Wiser man* ...).

[8] C.S. Song, *Third- Eye Theology: Theology in Formation in Asian settings* (London: Lutterworth press, 1980), xi. (Hereafter, Song, *Third-Ey*e *Theology....*).

Thus Gabrielle Dietrich says that the "labourers should understand themselves in a better way."[11] Education should be given to the workers to prepare them for participative management,"[12] The labourer should know their obligations to the family and the country first and should be taught broadly about the economy of the country.[13] As Paulo Freire suggests, conscientization through the action reflection model or dialectical learning[14] is significant, when we educate the labourers.

Care

Addictive drug subsistence affects primarily the mental capacity of a person. As psychologists understand it, it will affect the cognitive process of a person such as perception and attention, and finally destroys working memory.[15] Abnormal usage of alcohol and chewable drugs will result in behavioural sedation and will impair social or occupational functioning even slurred speech.[16] Alcohol affects many parts of the body including stomach, small intestine, blood vessels and heart, and some substances will go to the lungs. This leads to lack of concentration and reduced appetite. Long term usage of this will of course end up in anxiety, agitation and most extreme withdrawal. Tobacco related chewing also drives one to depression, anxiety, restlessness, decrease of appetite and weight loss.[17]

In such scenario, the patients need immediate medical help not to get relief from 'thick' [18] but to get out of all related physical weakness. Unfortunately in Kolkata, there is only one primary health center with a very minimum facility. To a large extent migrants depend upon private medical practitioners and private hospitals, where the payment will be very high. The migrant workers should not be considered as second hand citizens but should be treated as essential citizens to be taken care of.

Fundamentalistic Approach of the State

The fundamentalist approach of the state unveils procapitalistic neoliberal economic policies of the Government and shows how it would be a threat to the affirmation of life.

Agrarian Economy

The new economic policies of successive central governments since the 1990s became more pro industrial and were against the local agrarian economy. Professionalism and hard work become the only way for the working class to lead a meaningful life.[19] "Neo-liberal economic policies mandate low or no investment in agriculture and rural infrastructure."[20] The non- remunerative agriculture, low productivity, absence of adequate procurement of surplus harvests etc. became the main reasons for large scale migration.[21] Now the so called 'Manmohanomies'[22] has been taken up a draconic shape into "Namonomics[23] of the Indian economic dealings, where little importance is given to local and rural economies.

Rapid Urbanization

Prof. Sudhir Kumar, a social activist, warns us that the ever alarming increase of urbanization is the main reason of migration.[24] Consequently, Sudhir finds, it has linkage to the stagnation of agriculture and the agrarian economy. Scholar like Davis argues that third world urbanization is marked not only by its extremely rapid pace, but it is typically propelled by distress migration from collapsed agrarian economies. In other words, third world cities, desire rising unemployment, falling real wages, soaring prices, overcrowding and poor infrastructure, continue to attract an ever increasing number of rural migrants.[25] So a collective rethinking is necessary to counter the existing economic policies and to form an alternative step which does not threaten the livelihood of the common people.

Landlessness

India has the largest number of rural poor as well as landless households in the world.[26] The landlessness of the Bengali people in the Malda region of North Bengal has to be revisited to know why many of them are landless. An interview with one among them reveals that they actually do not know about such details because for generations they have been undergoing the same situations. May be it is due to the uneven distribution of land or because of the dependency of big tenants in the area.[27] If this issue were positively addressed by the Government and initiatives

taken to distribute common lands for them, then people could have means to produce something for themselves. This demonstrates that the new land reform is need of the hour.

Lack of Employment Opportunities

It is important to note that unemployment and uneven development are products of the normal functioning of the capitalist system.[28] Big corporations and MNCs will bring with them plants and equipment, denying opportunities of human power. "Goods produced by MNCs by virtue of the superior technology, attractive packaging and wide-spread and aggressive advertising are likely to result in a closure of local units."[29] This will directly affect the local initiatives of traditional livelihood. Unemployment opportunities are a must for the welfare of the people so that we can utilize the labour in a more productive way, not in the sense of export oriented but for equal sharing within the country.

Working Conditions
Hours of Work and Protection

By and large, the work in the construction field has involved heavy risk which is a serious threat to the workers. Long hours of work, low wages and minimum levels of coverage are reported everywhere. The demand for eight hours working remains an exploitative area still today. The working shifts.[30] To meet the target of production the workers are not even allowed toilets and tea breaks in day is constantly lengthened, so much so that it is not uncommon to hear workers doing 14 to 16 many work sites. Working in multi storied buildings and shopping malls may involve hard labour and risk. In the case of injury there are no first aid facilities, either from the government or from the contractors. Causalities are very common. Thus for a life affirming labour force, we need to ensure all efforts to prove health protection to the labourers. Working time should be strictly limited to 8 hours and the payment of the wage must be justifiable to their labour.

Wage and Legal Bonds

"The minimum wage, usually set governments at impossible low levels, remains a struggle to obtain as a right. Wages are cut for the smallest of 'infractions' and delays, leave is not given and statutory payment remains unpaid,"[31] The structural analysis proved that the workers engage in work without having any legal agreement with the contractors or with any mediators regarding their wages, hours of work, provision of living accommodation. Frequently they have only oral agreements of recruitment. There is no doubt that the contractors are keeping their labourers in inhuman terrible conditions with no amnesties such as water, electricity or toilets.[32] Wages for migrant labour are often paid on the basis of daily wage rates and piece rates. There is no standard wage rate system.[33] Medical insurance coverage is a must for them. The labourers must receive the basic dignity of human life. They should be provided with good accommodation, power supply, latrine facilities and drinkable water facilities, since the researcher had first hand witness of

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[27] Isha Maulavi, *Interview .....*2 June, 2014.

[28] Kumar, *A Class Analysis....*124.

[29] Gupte, *Unemployment....,* 4.

[30] "Dead Labour, Living Labour," *Economic and Political Weekly XL VIII/19* (May 11, 2013): 8. (Hereafter, *Dead Labour...).*

[31] *Dead Labour ....,* 8.

[32] Bhaskar Ghose, "Workers as Slaves," *Frontline* 27/7 (March 27-April 9, 2010): 118. (Hereafter, Ghose, *Workers as Slaves...*).

[33] Pandey, *Seasonal Migrant....*414.

[34] Madhu Bharti, "Impact of Poor Urban Services on Health and Asset Creation- A Case Study Ahmadabad, *"Social Action 56/2* (January, 2006): 159. (Hereafter, Bharti, *Impact of Poor....*).

[35] Gabrielle Dietrich, "Poor against WTO," *The Movement of India* 1/3 (November- December, 2005): 14. (Hereafter, Dietrich, *Poor against...*).

[36] "18 December 2007, International Migrant's Day," *Labour File* 5/5&6 (September- December, 2007): 84. (Hereafter *International Migrant's Day...*)

the contamination of drinking water and "the continuous presence of adour in many of their settlements.[34]

Political Implementations

The Government should reserve its stand on neoliberalism. Dietrich said that "the basic reorientation of economy is an imperative. Self reliance, land for the landless and poor, employment guarantee for all, enforceable right to food, water, housing, maternity benefits for women workers, free compulsory education, health services are our demands. India should be free from enslaving agreements with WB, IMF, and WTO."[35] So this shows the role of political initiative to have a life affirming labour.

The Government must ensure that migrants have access to justice and support services. The migrants accused of committing crimes need to have access to interpreters or legal aid. Migrants, who are suffering abuse, should have access to shelter, legal aid, medical care and temporary residence status. The Government should ensure speedy and transparent system to resolve wage disputes, and they must trial cases against migrants through the criminal justice system.[36] The Government should trace all migrants, who are trafficked in domestic work, or who labour in factories and at construction sites and should show justice to them.

International Measures

The Declaration of Philadelphia (1944) annexed to the International Labour Organization's (ILO) constitution declares that "all human beings have the right to pursue their material wellbeing and their spiritual development in conditions of freedom and dignity, of economic security and equal opportunities."[37] That all human beings are born equal in dignity and before the law is the essence of the Universal Declaration of Human Rights (UDHR). It also states that "everyone has the right to a standard of living adequate for the health and well being of himself and his family, including food, clothing, housing, medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his/ her control."[38] The Human Development Report (HRD) made an assertion that the "ableness to decide where to live is the key element of human freedom."[39] Thus internationally serious decisions and deliberations have been made to support migrant workers, but if these have not become a national responsibility, they will be only a futile noise.

National Measures
Enactment of Laws

There was a time in India when workers were completely at the mercy of employers with no laws to check exploitation. But today at the national level we have plenty of laws[40] ensuring the security of the labourers. But none of these laws of the Government is concretely useful to migration of labourers. The 1979 Migrant Workmen Act is inadequate to the ground realities of migrant workers. The Act does not cover the agricultural field or the workers engaged in framing. The revised version of the Act came in 2008 as the 'Unorganized Worker's Social Security Act' (UWSSA), which gives benefit of the previous Acts passed by the Indian Government to unorganized workers. But the implementation of the Act is not yet done. In various states different welfare schemes have been introduced to help migrant workers. That is a good sign, but they have to be instituted in other parts of the nation. So the implementation of the existing laws and the enactment of new policies and laws to support migrant workers are necessary steps to be taken by the Government.

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[37] D. Pulla Rao, "Status of Women in Informal Sectors in India," *Vikas Vani Journal* VIII/1 (January- March, 2014): 5. (Hereafter, Rao, *Status of Woman….*).

[38] *Hand Book on United Nations Basic Principles and Guidelines on Development- based Evictions and Displacements* (New Delhi: Housing and Land Rights Network, 2011), 3. (Hereafter, *Hand Book on United Nations….*).

[39] *Migrations and Human Development…,* 5.

Addiction- Free Villages

The Government should promote the concept of 'smoke-free and drug free villages' on national scale. Along with the prohibition of liquor or any other drug items, the need for a through conscientization of its adverse effects upon the health of the people specifically labourers, must be promoted.

Linguistic help and Education

Above all the Government should take initiatives to give education to those who have none and those who want to upgrade their qualifications. If linguistic problems are affecting the life of migrants, there should be made available translator assistance in hospitals and other public spaces so that their lives will be more participatory in society. At the same time if migrants take some risk to learn the local language where they work, it will enable them to interact with the place where they stay and can escape from many areas of exploitation.

Health Monitoring

Though the above mentioned government activities are appreciable, the authorities should chalk out master plans for the complete health protection of migrant communities. Since the addicted persons never take initiatives, there is a need for frequent visits of medical aid volunteers in the camps of migrant workers. Health awareness programmes, medical camps, free health services etc. can be a good help to them. The quality of care and the accessibility of the public sector have to be improved and at the same time should be monitored whether the private sector is exploitative or not. The over-use of diagnostics and the over-the- counter sale of drugs must be checked immediately. Financial help and death compensation if any at the work place and ensuring protection of the workers from injury and other ill treatment etc are significant initiatives that the migrants hope to have from the Government.

The Approach of Civil and Political Organizations

There is a need for collective effort to counter all powers which stand against human welfare. Civil society is a collection of individual and collective initiatives for the common public good.[41] Since the root of the problems lies at the social level, we need the co-operation of a creative civil society and a strong political involvement in creating life affirming labour.

Politicization of Migration

Politicization of migration is the most aggressive form of dehumanization. In many areas it has become a source of communal tensions. In many places local people feel threatened from changing demographic patterns and declining job opportunities. Hate speeches always get some political mileage at election time. Politicization results in the death of several people, gives injuries to hundreds and triggers the displacement of thousands. There are incidents related to sectarian and communal issues along with the 'sons of the soil' argument. Unless the political leadership makes a conscious and forceful effort to get out of these trappings, the issue of migration will not be addressed objectively and effectively. Here everyone should know that the nation is for the people, and in it each individual has a role to play for his /her own sustenance as well as the growth of the entire nation.

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[40] The Indian Labour Union Act (1926) was passed to give legal status to the labour unions and to recognize their right to strike for collective interest. The Industrial Disputes Act (1947) forbids any dismissal unless the employer gives one month's notice or a month's salary to the workers. If the employer makes new appointments, the retrenched worker would have the first claim for job. The Factory Act (1948) was passed to regulate conditions of labour, mainly with safety, health and welfare facilities working hours and provision for annual leave with wages. The Minimum Wages Act (1948) considered low wage and forced labour as a national offence. The Social Security Act (2008) mainly aims to protect the workers of the unorganized sector from unfair bargaining and other exploitation.

[41] Paramjit S. Judge, "An Ambiguous Actor: People in The Movement" *Economic and Political Weekly* XL VI/46 (November 12, 2011). 19. (Hereafter, Judge, *An Ambiguous Actor…*).

Social Security and Welfare Schemes

Social security is another area which needs serious consideration in migrant workers' lives. Rajalakshmi says, "Apart from being paid less than regular employees on corporate pay rolls doing similar tasks, contract workers have no job security and no benefits like medical aid, gratuity, provident fund, educational funds, pension and health insurance and leave benefits." Language and lack of documents providing identity are serious issues which affect their ability to make use of many of the laws and labour welfare aids of the State and Central Government. Even though West Bengalis considered as the first State to establish a comprehensive welfare scheme for migrant workers, the efforts to enroll members have so far not been very successful. Only a few have come forward to register their names. Here the cooperation of the migrant workers is indeed necessary.

Successive Governments in West Bengal are very keen on making budgetary provisions for the betterment of migrants. Along with welfare funds, they have made plans for building permanent camps for them in the three big cities and for providing pensions to them. For the last couple of years the West Bengal Government has provided a goodwill kit, as a special gesture, which contains vegetables and provisions to celebrate several community festivals with the local people.

Workers Union

As far as migrant workers are concerned they face organized deficiency. Normally for the workers of the organized sector, there will be trade unions to assist, but for the migrants there is no such collective support to bring their issues up in the political forum. Actually workers themselves should take initiatives to establish unions to defend their rights and advance their interest at the work place and at the broader social-political level. Otherwise the present trade unions should get the freedom to extend their activities to the unorganized working group, particularly to migrant workers. By nature, a trade union movement should be on the side of the weak, marginalized and the sidelined, within its own country and all over the world. But sometimes even unions are also not free from power, political forces and the capital, which neutralize their aggressiveness. Lack of good leaders, lack of awareness about their own strength and language barriers make it impossible for migrant labourers, to have a political oneness to form as workers unions to fight for justice.

Return to Traditional Activities

In present growth made visible the gap between upper class and lower class and replaced traditional equipments with modern advanced technologies to increase production. As a result, millions of people have been evicted from their own sources of production and have made to be just labourers. The medium and small scale cottage productions owned by many have become absorbed by mega companies which have pushed people out without livelihood. The heavy decline in employment opportunities due to sporadic technological implementations has made worse the condition of rural youth. The urbanization boom provides more possibilities to an emerging middle class to enjoy the same status with the elite.

A recent study in Kolkata concludes that the emigration of workers from Bihar to other parts of the world made a rapid demographic transition in the State. The workers of Bihar demand high wages but reluctant to do hard physical works. This causes the replacement migration in a rapid scale. The West Bengal people's way of sustaining themselves with the remittance of their relatives from abroad made them lazier. They withdraw from local traditional economic activities. This tendency has to be changed. Each job should be dignified and equal importance should be given to agriculture too along with other work.

Recession to Procession: Less Consumerism

Consumerism has been termed as madness in the present generation and analyzing every human action, even labour, in the context of business and benefits. Consumerism gives an argue to become elite and paves the way to consider the workers as their objects to make provision for their betterment. Using the work force to the maximum without considering how it affects the worker's health is part of this mentality. Here the work force is alienated from the production of their labour. Many families do not want to send their children to a hard and tiresome job, but use the weaker sections as servants and slaves. So we need a recession from the consumerist attitude to need oriented society, where every human must be treated as equal and significant.

People's Movement and Resistance

Social movements are understood as organized efforts working towards achieving a change. It is an ideology to identify what is wrong with the present and what needs to be done in the future. When essential services are being privatized and the State is withdrawing from its responsibility, neglecting the directive principles enshrined in the Constitution and in the process trampling the fundamental rights of citizens, the struggle of the people's movement is to assert the rights of the people to resources, land, water, forest and other facilities essential for life affirmation. As a responsible citizen, the migrant labourer should know about how important he/she is in the economic practice of the nation. Thus of course she/he should be conscious enough to understand what are his/her rights and duties as a labourer. Religious or secular movements are needful factors in Kolkata for the migrant labourers' collective resistance. This collectivity will equip them to stand up for common justice, a corruption-free world and a healthy community.

Pastoral Challenges

Creating a communitarian relationship in the locality and inviting the entire community to engage in a wider ecumenical discourse and actions, irrespective of religion and class, are the primary pastoral challenge of the time.

Representation

The attitude towards migrant labour, indeed labour in general, has to be changed. The community often shows elitism in their educational qualifications and pride in their foreign currency from migrants abroad, but at the same time considers Bengali migrants as a cultural symbol of backwardness, dirtiness and trouble, outside their concept of development. Thus "migrants of all classes are constantly subject to discrimination and suffer local prejudice" Here the Bengali community should learn to make an ideological shift in their dealings and should show a communitarian approach to migrant labourers.

Recognition

Recognition is the most basic gesture that any worker seeks as the reward of sincere work. Firstly, to recognize the worker as a co-human; secondly to consider the worker as co-worker; these are relevant in forming a life affirming labour. Solidarity is therefore a guiding principle that can never be compromised when we deal with the labour force anywhere in the world. Solidarity is not about speeches and resolutions of the faith community; it is all about the actions we are prepared to take, the resources we commit and the sacrifices we make to support working people elsewhere. In the time of festivals and special occasions workers should be invited and honored by the local community.

Ecumenical Actions

The analysis clearly shows the absence of recreation and socialization among the migrant labourers. They go to work early in the morning and return home late in the evening. In between they have little time to cook, bathe and socialize. The health of the worker depends to a great extend upon the mental strength at the person, which is absolutely related to how much recreation that person has. So some kind of physical or mental recreational and entertainment programmes are a must for migrant workers to keep themselves strong and healthy. Efforts should be made to gain the confidence of all religious and other sections of people along with migrant labourers to develop common programmes for common growth in order to confront fundamentalism and communalism.

Conclusion

This paper has dealt with traditional, fundamental, and collective approaches to formulate certain proposals to shape a life affirming labour community. The alternative approaches invite a reversal form present economic policies to give more emphasize on agricultural and traditional life styles. A popular movement with the support of a strong civil society is the need of the hour to resist human rights violations in the area of labour. Since the workers expect communitarian respect and, recognition of the service they render, the challenge for the pastoral community is to prepare situations for a wider ecumenical approach. The state has a role to play to uplift its citizens,

wherever they are being neglected. In the case of migrants from Malda, Bengal, there is no Government support as such for agricultural activities, and no water supply and electricity. In certain areas they place offices to register their names, but the agents or the migrants themselves are not interested in it. "Migrants everywhere are employed in difficult and low paid jobs on temporary basis. They cannot expect social security and protection from labour laws, though they toil for the progress of the society" is the attitude of the Government. At the same time there are certain State Governments that provide them with basic relief activities.

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Important Aspects of Controlling

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Abstract

The article considers controlling as a new management concept, generated by the practice of modern management in the construction industry. Organizational and methodological framework is studied in terms of assessing the success of construction projects. A set of key performance indicators (KPI) is developed based on a literature review and the practice of local companies. These figures are considered in close connection with the information environment of its existence – the administrative account and the prism of a general model of controlling. It reflects a way of introduction of indicators of achievement and success of construction projects in wages. Technical capabilities of the domestic market are analyzed to ensure the information unity of all components of the model considered controlling.

Keywords: controlling, management accounting, key performance indicators.

Introduction

Controlling is considered, on the one hand, as a philosophy, a way of thinking leaders focused on efficient use of resources and development of the company in the long term and, on the other hand, focused on the achievement of an integrated system of information-analytical and methodological support managers.

The **problem** is that today in the field of construction insufficient attention is paid to controlling system. The construction industry has been criticized for its lagging behind not only in Ukraine, but also abroad. In the EU, reports Latham (1994) and Egan (1998) stressed the need to improve productivity and performance measurement. Companies are faced with the dilemma of choosing between different performance measurement frameworks.

Theoretical and methodological basis of the study were the works of economists Mann, Khan, Schneider, Meyer, Weber and others. Also, reference is made to national scientists Brohun (2010), Dzioba (2013), Kozub (2009), Storozhuk (2012) and others. Unfortunately, for controlling in scientific thought there was a lack of issues to develop this issue.

Nowadays there is no single definition of "controlling", but almost no one denies that it is a new concept of management, generated by the modern management practices. Controlling (from eng. control - management, regulation, management control) is not limited by the control. However, in the construction industry it is underused. The construction industry in its

development is dynamic by nature, the concept of success of the project remains controversial and a certain little studied specifically for the construction industry. Moreover, enterprises Industry-building complex has a number of specific and unique to his character. This feature makes it relevant to review the issue of key performance indicators in the model of controlling accounting and information management decision-making tool.

The **object** of the research is controlling in the construction industry.

The **aim** of the research to identify a set of common indicators for controlling, which can be used by executives and project managers to measure the performance of the construction at the project level. Achieving this goal is possible by the creation of a conceptual framework for measuring the business performance of the building organizations.

To achieve the aim the following **specific tasks** need to be solved:

- to analyze the state of the construction industry and its organizational structure;

- to identify ways to improve the overall efficiency and effectiveness of the construction companies;

- to identify ways to improve the work of structural divisions of the building enterprise.

Methodology of the research

Methods that are used in the work, based on the general theory of scientific knowledge. These include general scientific methods (analysis, synthesis, deduction), empirical theoretical (formalization, hypothetical) empirical and methodological (cash-analytical, synthesis) methods of research. During the research of important aspects of controlling using the following methods: systems analysis (for opening the category "controlling"); methods of induction, deduction, abstraction and formal logic; comparison, grouping.

Results

Up to this date, the industrialized countries of the West took two basic concepts of controlling due to their functional purpose and institutional design:

- Controlling-based accounting system;

- Controlling with a focus on information.

The concept of controlling oriented accounting system related to the implementation of the goals of information through the use of accounting data. The focus is on cost parameters. It is mainly aimed on ensuring profit. The concept of controlling focused on accounting data, is mainly responsible for operational needs of the company and partially meets the strategic goals of its development.

The concept of controlling oriented information includes not only the use of accounting data (quantitative information) but also qualitative information directly related to the economic activities of enterprises. According to this concept main task consist of controlling information support management decisions by management. It should support intra-process management through targeted recruitment and information processing. This concept involves the incorporation of controlling with a wide range of information problems in the structure of enterprise management. However, the solution to this problem, in practice, is quite complicated. This is a core driving force behind the new views on management, is both internal and external optimization of the company. Of course, this led to a rethinking of the performance management system based on a balanced performance measurement.

The difference between performance management and measurement of effectiveness can be explained as follows: the first concept "... is considered as a closed control system, which deploys the policy and strategy, as well as the ability get feedback from different levels in order to control the efficiency of the system," while measuring system efficiency "... an information system underlying the performance management process and is critical to the effective and efficient functioning performance management system." Thus, measuring the effectiveness of a process "... to determine whether the organization is successful or more persons are successful in achieving the objectives" (Evangelidis, 1992). To achieve this, background information on the company strategy and operational processes is measured in a quantitative form in order to track the "vital signs" of the company.

Regardless of their size of any business can be described as a system of financial relationships and cash flow, driven by a management decision. Such a system is called controlling, we borrowed

it from nature: it is maintaining the necessary balance (for example, temperature, humidity, energy supply - in nature or profit, revenue performance - in the economy). Equilibrium is achieved by the fact that after a certain period of time is compared with the predetermined value and the actual state is determined not require intervention (counteracting measures) to achieve the required or desired state, and it is carried out if necessary (Mann, Meier, 1995).

Set state of the economy determines the enterprise planning, while the actual situation is monitored in management accounting. Therefore, a comparison of planned and actual performance is the core of controlling system. Plan - is an expression of the desired state that we want, the actual state of affairs - a numeric result of our activities that we can analysis of actual and planned targets, comparison of the desired and actual provide an incentive to make better use of their opportunities and in their desires yet remain on the ground.

The complexity of the development and implementation of controlling model based on KPI, for the construction industry management positions and for the service units is a challenge. First of all, due to the fact that results are often difficult to describe quantitatively. Traditionally, the list of key performance indicators of staff was determined on the basis of the mission and vision of the company, its strategic objectives card (balanced scorecard - on BSC). Implementation of KPI system from scratch in the enterprise usually done in several steps.

Step 1. Determine the mission and strategy. In order to achieve results in the long term, the company needs to shape clear mission and a strategy that will achieve the goals and desired outcomes. The company's strategy is to be divided into specific strategic directions in which you can select individual tasks for each structural unit. And it is necessary to ensure the success of this phase is to determine the priorities of the strategic directions and coordination between departments.

Step 2: Definition and cascading critical success factors. In the second stage, the most important factors of efficiency and effectiveness, that is, those aspects of the company, which are vital to meet the goals which were set. Then these parameters are distributed by cascading (decomposition) at lower levels of the company. Consider the process of decomposition of the strategic indicators on the example of investment and construction company (pic. 1).
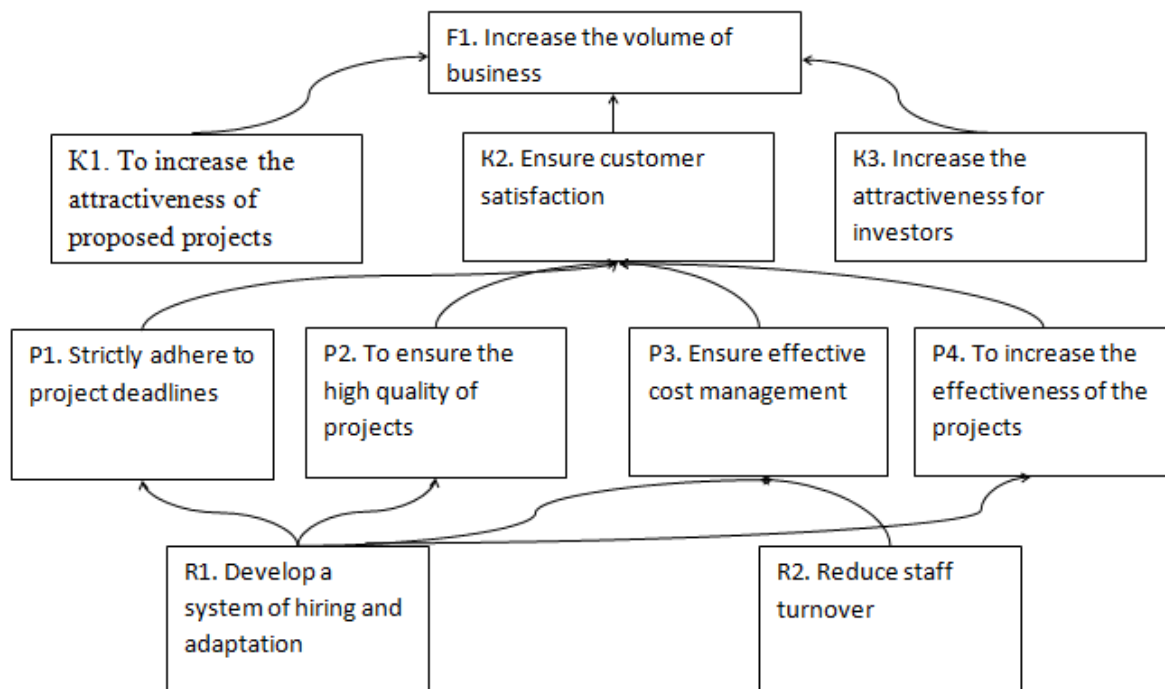
Pic. 1. Strategy Map investment and construction company (Gershun, 2005)

The Balanced Scorecard allows to brake down global strategy from the top level to the lower, from the holding to the subsidiaries as part of the company for each unit within the division to each employee. Each employee becomes responsible for the achievement of an indicator. This technique makes a person think about their long-term goals, the extent of their compliance with the objectives of the company and the possibility of combining them.

Consider the example of decomposition parameters between units (Table. 1).
• Purpose: P1. Strictly adhere to the timing of projects
• Indicator: P111. Project implementation period
• Method of payment: The ratio of the number of projects delivered on time to the total number of projects

Table 1. Sample decomposition parameters between units (Gershun, 2005)

Building area (Bild)	Preparation for construction (PC)	General contract (GC)	The production base (PB)	General designer (GD)	Architecture (A)	Exploitation (Ex)
П11- Bild The term projects	П111- PC. Term transferring the necessary documentation	П111- GC construction period	П111-(PB) term production	П111-(GD). The term in the contract	П111-A. The term in the contract	П11-Ex. Terms implement projects

Step 3: Defining KPI. Stage is characterized by the selection process of concrete measures to implement the strategy. Tools to determine the factors of efficiency and effectiveness are a KPI: quantitative indicators expressed in digital form. With their wide variety of determining a focus only on the most significant of them, that is the key. It is necessary in terms of the reality of their implementation, the quality of monitoring, encouraging employees to exercise appropriate action.

To determine the usefulness and applicability in practice performance data, SMART model is usually applied:

Specific (Specific) - KPI must be one widespread definition, eliminates the risk of free interpretation, thus providing the only reliable standard applications.

Measurable (Measurable) - KPI is an active means of measurement that specifies the standard rate or the budget.

Achievable (Available) - KPI quite clear and is described in detail in order that it can be applied in practice.

Relevant (Relevant) - KPI must be measured real and important aspects of the strategy of organization, directly contributing to the implementation, otherwise, the KPI is simply useless "obstruction".

Time-Phased (timing) - KPI, ideally, should express the relationship between the chosen performance indicator and the time period during which it is considered to set a time KPI comparison criterion in the future.

For each of the key indicators methodology has been developed to allow a calculation of high-quality employee performance.

For example, staff service units following key performance indicators:
• Implementation of the plan of work for the month
• Compliance with document
• Ease of communication and focus on service production units and others.
Each indicator has a weight in the total amount of the premium wage as 100%.

For the employees of construction and installation department key performance indicators in their indissoluble connection with the information necessary for calculating and specifying the documentation where it can be found, it is shown in Table 2.

Table 2. Balanced Scorecard Construction and assembly department

Goal line	Indicator of achievement goals		
	KPI [10]	The necessary information to calculate	Examples of documents used
Operational effectiveness maximization	The percentage of construction and demolition waste that recycled	- Waste by type and construction projects; - Waste subject to reuse;	№M-29 "Report on the actual use of materials in construction in comparison with industrial standards" Welfare report form №M-19 Instructions for terms and conditions of the collection, temporary placement of industrial and household waste in the enterprise
Operational effectiveness maximization	Net revenue per employee Project	Net income for the project in terms of construction stages; The number of workers at each stage	egister of work performed (form number CB-6) Sample form number 1 "Report on the implementation of the contract on the construction site for the period (month / year)"; Sample form number 2 "Summary Report on the cost of work performed under the contract on the construction site"; Sample form number 3 "delivery-acceptance act of construction works."
Operational effectiveness minimization	Cost per square meter	the cost of the project and the total area. Price per square meter is calculated only for new construction and refurbishment projects.	
Operational effectiveness minimization	Actual vs. target time for construction work	Actual hours on the project, written and reviewed against the original plan (basic) man-hours on a monthly basis.	
Operational effectiveness minimization	The actual duration of the project *	Date of commencement of preparatory work, construction date, date last act of the works.	Agreement, contract, deed of transfer, acts of acceptance and help FN№ CB-3

* for example decomposition rate was made between units

Calculation of labor costs and material incentives for staff should possess a high degree of adaptability, flexibility. List of KPI for each employee, as well as its weight, be subjected to adjustment depending on the goals and tasks of the employees. For example, for the implementation of the approved schedule document, you can improve the relevance of the KPI. And as soon as compliance with these requirements will naturally reduce the importance of this factor.

To cascade to the required level management balanced scorecard, go to binding wage for our example the head of the construction project with its objectives (see Table 3).

Table 3. How the employee's salary with his goals

notion	determination	result
Effectiveness indicator (EI)	• or the ratio of the actual value of the indicator to its planned value (for parameters whose values we seek to maximize). Example: Net revenue per employee project. If the value of the planned income last month was equal to 100 USD, and in fact received 75 USD, will dorivnyuty performance index of 0.75 (or 75%). • attitudes or values of the planned its actual value (for indicators whose values we seek to minimize). Example: Percentage marriage. If the percentage of marriage last month, we planned to keep at 12%, but in fact worked for only 8% of Marriage, performance index is 1.5 (or 150%).	allows you to schedule activities to achieve the goals, fill incentive system fact sheet.
The performance goal (PG)	• product performance or other indices related to this goal (indicators are equal significance to us): PG = Pn1 * ... * Pnn • or the amount of performance indicators relating to the purpose of considering the significance of each indicator (indicators have different significance to us): PG = Ci1 Pn1 + * + * Cin Pnn	directs the employee to focus on achieving goals, demonstrates a clear link with the objectives and general productivity of wages.
Effectiveness of the total (ET)	• product performance or other purposes for which the employee (s having equal importance to us): ET = Pp1 *: * Ppn • or the sum of all performance objectives for which the employee, given the importance of each goal (objectives have a different significance to us): ET = Ci1 Pp1 * + + * Cin Ppn	simplifies the calculation of employee benefits, demonstrates its overall effectiveness in meeting the strategic objectives and their relationship to his wages.

Compiled by the author based (Dembskaia, 2010)

Using expert advice for payroll employees will use the formula:
Salary = base rate + ET* Base rate
At this rate base Size recommended Size in set "The average cost specialist in the market" / 1.7. This means, someone from personnel Receive average wage charge Only when the his GENERAL PERFORMANCE 0.7.
Such determined system of indicators are created to show what we actually walk in and get at the start. Maintenance and motivation system is calculated upon based indicators.
Stage 4 Development and evaluation of BSC. For the adoption of management decisions should be designed on financial and non-financial indicators, which will provide necessity and usefulness of information in models controlling.
For joined KPI indicators in balanced way there is a need to follow several conditions. First, we need to understand what specifically are the object of control – specific manufacture process or unit. Secondly, we need to provide exact evaluations of key indicator solutions for strategic problem, which will seize the list of KPI and leave only most significant of them.

Stage 5. Choice of technical security. Not one of the most important stages. Definition for the source data is information filled with indicators. Information used should fulfill the terms of fulfillers, legitimacy, be presented in time be objective.

Consider How KPI system connected with management controlling and accounting. Patriotic exist in practice several options - fully/partially/non related.

If KPI and related budgeting poorly or not related at all - is technically inconvenient – there is a need to implement and support RED Clearing system: one plans KPI, and another - budgets. But this can be a rather small problem in comparison with much wider one - methodological, when systems contradict each other. For example, a company can have KPI and motivation; gain and develop client-oriented quality, and at this same motivation to cut budget expenses. This is an everyday dilemma for managers.

KPI system and budgeting should be closely related, in Ideal, This is a one system at least at methodological level. Information and commercial-architecture in this way can look as following (Starinskij, 2015):
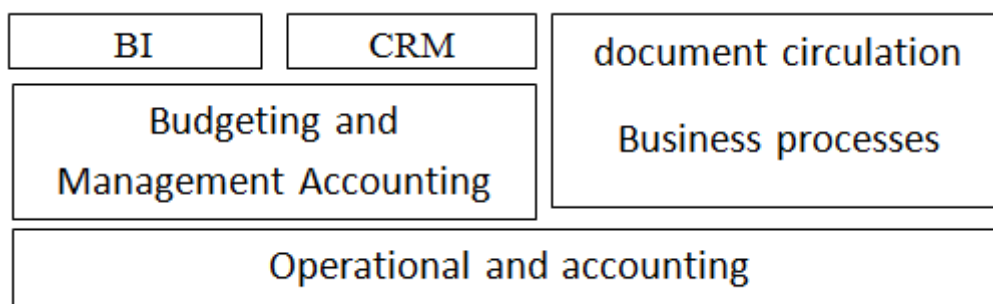
Pic. 2. Information and technical architecture controlling.

Even if every block of the scheme - a separate database with their software, still they are well integrated, as long as data is entered once and at an acceptable speed for business exchange.

Software solution for controlling model building organizations should include the following modules are actually planning module (budgeting);
• Due to the accounting module (management) accounting;
• module connection with the development of design estimates.

Currently, typical complex solutions containing all three modules do not exist. There are separate software products that provide some of the functionality of two of the three modules. It may be, for example, budgeting and accounting, have no connection with the estimates, or estimates program and a program for accounting (for example, the possibility of discharge from the program budget in WinAVeRS <1C: Accounting> Information for operations write-off materials) Non thus with budgeting.

Selecting an automated budgeting system in the enterprise is very important and quite complex. As a rule, he is referring to an assessment of commercially available software for managing and controlling the following criteria: cost of the system, the ability to create, analyze and control the budgets of companies, import / export data to accounting (accounting) system, a skilled developer support, the presence of a number of successful implementations in Ukraine.

Conclusions

Thus, the system of key performance indicators - is an effective tool of information support of management decision making. The management company should try to implement the system in close connection with controlling system, ensure efficiency and effectiveness, as well as timely notification of a fault, the most important economic-financial and operational aspects of the business.

In our opinion, the poor state of the construction industry in its organizational and methodological approaches to management decisions can be resolved is through a system of KPI. Important point here is implementation of the resources and economically viable by improving the overall efficiency and effectiveness of the company's accounting specifics of a particular industry, employee motivation through the connection between their specific duties and mission, strategy and goals of the company. Management unit of the enterprise, having a mechanism for identifying

and measuring the powerful / weak points through a system of indicators, is able to determine the performance of each division and influence the process of a long-term balanced functioning of the company.

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Актуальные аспекты развития контроллинга

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Аннотация. Рассматривается контроллинг как новая концепция управления, порожденная практикой современного менеджмента в строительстве. Исследованы организационно-методологические основы для оценки успешности проектов строительства. Набор ключевых показателей эффективности разрабатывается на основе обзора литературы и практики отечественных компаний. Такие показатели рассмотрены в неразрывной связи с информационной средой своего существования - управленческим учетом и через призму общей модели контроллинга. Отражены пути внедрения показателей достижения результатов и успешности строительных проектов в систему оплаты труда. Проанализированы технические возможности отечественного рынка по обеспечению информационной единства всех рассмотренных составляющих модели контроллинга.

Ключевые слова: контроллинг, управленческий учет, ключевые показатели эффективности.

Social sciences

Социологические науки

UDC 316

Ecological Lifestyle of Residents of the Modern City

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Abstract
This scientific article is devoted to the urgent problem of understanding and formation of ecological way of life of the citizens. According to the results of theoretical and methodological analysis a structure and the concept of ecological lifestyle (ELS) were proposed. As a result of the pilot study identified four groups of respondents with respect to ELS and the major factors influencing its formation.
Keywords: ecological way of life, sustainable development, healthy lifestyles, towns people, social and ecological practices.

Введение
В условиях перехода современного российского общества к модели общества потребления, происходит наложение и подмена традиционных общечеловеческих ценностей и норм новыми – материальными.

Системный кризис, процессы глобализации, коммерциализации, формирование потребительских ценностей, ведут к возникновению локальных и глобальных экологических проблем, что приводит к возникновению негативных тенденций.

На глобальном уровне результатом научных разработок в процессе поиска оптимального соотношения развития и сохранения окружающей среды стала концепция устойчивого развития. Для ее реализации необходимы усилия всех международных организаций, однако на национальном уровне каждое государство само должно претворять в жизнь эту концепцию. Новая экологическая парадигма американских социологов У. Каттона и Р. Данлэпа [1, 41-49], известная с конца 1970-х гг., ставит на первое место зависимость человека от окружающей среды и ограничивает бесконечные рамки прогресса «экологическими законами».

На локальном уровне одним из условий перехода к обществу устойчивого развития является изменение отношения отдельного человека к окружающей среде.

Сложившаяся негативная экологическая ситуация в нашей стране (увеличение объемов твердых бытовых отходов, загрязнение атмосферного воздуха, водных и земельных ресурсов и т.д.) характеризуется высокой степенью антропогенного воздействия на окружающую среду и способствует увеличению рисков для здоровья и жизни людей, формированию инфантилизма и гедонистического образа жизни населения.

В основах государственной политики в области экологического развития Российской Федерации на период до 2030 года [2] одной из основных задач обозначена необходимость формирования экологической культуры, а также развития экологического образования и воспитания. Одним из важнейших индикаторов культурного развития является образ жизни населения. Образ жизни можно определить как форму жизнедеятельности индивида или группы, характерную для исторически конкретной системы социальных отношений, которая проявляется в повседневных практиках, обусловленных установками, системой ценностей и структурой личности.

Для формирования экологического образа жизни населения необходимо решить основные задачи: определить его понятие и структуру, а также выявить отношение современных жителей города к экологическому образу жизни.

Обсуждение

Понятие экологического образа жизни тесно связано с термином здоровый образ жизни, но не исчерпывается им. Часто используемое определение здорового образа жизни – образ жизни, в котором система поведения личности построена таким образом, что обеспечивает ему «физическое совершенство, духовное и социальное благополучие, активное долголетие и благоприятные условия для успешной учебы, эффективного труда и жизнедеятельности» [3] – не включает природоохранное, ресурсо- и энергосберегающее поведение, образование, ценностные ориентации личности. В связи с отсутствием комплексного научного подхода к рассмотрению экологического образа жизни, часто происходит искажение, либо подмена понятия. Экологический образ жизни понятие более широкое, которое включает в себя систему элементов.

ЭОЖ можно представить в виде схемы (рис. 1), в которую входят следующие основные элементы:

Рис. 1. Структура экологического образа жизни

• ценностный (природа как ценность) и культурный компонент,

- поведение: экологические практики – энерго- и ресурсосбережение, а также природоохранные мероприятия (поведенческий аспект),
- образование (экологическое образование),
- здоровье,
- состояние окружающей среды,
- развитая инфраструктура,
- социально-экономические характеристики населения,
- социально-демографические характеристики.

Экологическое образование, воспитание и просвещение становятся ключом к решению проблем формирования ЭОЖ. К сожалению, сегодня, как и 20 лет назад экологическое образование держится в основном на огромных усилиях энтузиастов.

Под системой экологического образования понимают непрерывный процесс обучения, воспитания, самообразования, направленный на формирование духовно-нравственной личности, обладающей нормами, ценностями и знаниями, способствующими рациональному природопользованию и сохранению целостности биосферы, которые реализуются в социальных экологических практиках [4, 187-212]. Экологическое образование ставит своей задачей воспитание личности и, как считал Г.А. Ягодин [5, 32-45], является составной частью современного мировоззрения, оно «состоит в конкретных действиях».

В системе экологического образования природа рассматривается как универсальная ценность, и в центре внимания образования оказывается понимание неразрывной взаимосвязи человека с биосферой планеты, осуществляется выработка норм социокультурного и социоприродного существования.

Система экологического образования берет свое начало с дошкольной подготовки, где формируется система ценностей и взглядов на взаимоотношения человека с природной средой [6, 35]. Экологизация образовательного процесса и создание развивающей предметной среды в дошкольном образовании преследуют именно эту цель.

Задачей экологического образования в начале XXI в. является не только приобретение знаний о проблемах окружающей среды, но и выработка возможного их решения. В своих работах Н.Н. Моисеев не раз отмечал, что человечество стоит на пороге новой цивилизации, и именно сейчас, когда «природа из фона исторических событий превратилась в действующий персонаж человеческой трагедии» [7, 274].

Но, вместе с тем, в условиях растущей экологической опасности все более осознается «экологическая недостаточность» общего среднего образования. В «Концепции общего среднего экологического образования» – И.Д. Зверев, И.Т. Суравегина, А.Н. Захлебин, Л.П. Симонова, В.М. Константинов, Н.М. Мамедов, Т.В. Кучер и А.И. Княжницкая, отражены модели, содержание, задачи, принципы построения среднего экологического образования.

Проведение исследовательских и проектных технологий в практиках экологического образования позволяет привить навыки экологически оправданного поведения, привлечь внимание общественности, природоохранных организаций, средств массовой информации к конкретным экологическим проблемам, объединив их усилия.

Но, несмотря на достигнутые успехи в построении системы непрерывного экологического образования в первой четверти XXI в. развернулись дискуссии о содержании экологического образования [8, 69] как феномена, охватившего практически все регионы России, не определена стратегия развития.

Организационная проблема является одной из центральных в экологическом образовании. Во-первых, решение ее лежит в области взаимодействия многих государственных и общественных организаций. Во-вторых, необходимо определить форму экологического образования: концентрированную или интегрированную в учебный процесс. В-третьих, экология – сложная междисциплинарная наука, которая давно вобрала в себя и социологические, и экономические знания, и охрану природы и многое другое.

К сожалению, пока современная образовательная система недостаточно использует наработки экологического образования, не решает новые проблемы и продолжает транслировать в будущее ценности общества потребления, неустойчивого образа жизни.

Приходится констатировать тот факт, что в начале XXI в. уникальная во многом система экологического образования может быть утеряна по многим причинам.

Еще в 19 в. немецкий философ А. Шопенгауэр писал: «Вообще 9/10 нашего счастья основано на здоровье». Здоровье является индикатором развития общества. Всемирная организация здравоохранения (ВОЗ) в Преамбуле к Уставу, принятому Международной конференцией здравоохранения, вступившему в силу с 1948 г., дает следующее комплексное определение здоровью: «состояние полного физического, душевного и социального благополучия, а не только отсутствие болезней и физических дефектов» [9]. Следовательно, здоровье – в том числе и социальный феномен, продукт общественного развития, образа жизни отдельного человека или группы [10].

ВОЗ изменила систему оценки успешности социальной политики конкретного государства, измеряя ее здоровьем конкретного человека и популяции, а не количеством выделенных на здравоохранение денег. В «Государственной программе развития здравоохранения РФ» стратегической целью является совершенствование системы охраны, сохранения и укрепления физического и психического здоровья каждого человека, поддержание его долголетней активной жизни [11]. Тем не менее, анализ данной программы и реальных действий показывает, что основные показатели и предполагаемые результаты направлены на лечение людей, а задачи формирования и сохранения здоровья остаются декларативными [12].

Вместе с тем, отношение человека к здоровью может рассматриваться через три основных элемента: 1) оценку здоровья; 2) формирование «здоровья» как ценности; 3) непосредственную деятельность по сохранению здоровья.

Поведение, направленное на сохранение здоровья, включает в себя правильное питание, гигиену, предупреждение (лечение) болезней и недугов, в том числе предполагает, отказ от табакокурения, алкоголя, чрезмерного потребления продуктов питания. В России, по данным ВОЗ, почти 40 % населения страдают от ожирения, больше половины мужского населения и более 20% женского подвержены никотиновой зависимости, а количество потребляемого алкоголя не представляется возможным [13].

По данным Фонда «Общественное мнение» (1500 респондентов) только 36 % жителей нашей страны оценивают свое здоровье как хорошее, а 44 % считают его удовлетворительным, 19 % – плохим (1 % затруднились ответить). Вместе с тем, 33 % россиян считают, что их здоровье ухудшилось за последние годы, 46 % считают, что не изменилось, и только 5 % отмечают улучшения (5 % затруднились ответить на вопрос) [14].

Важно отметить, что люди отмечают ценность здоровья, но склонны считать, что их состояние здоровья зависит в основном от внешних обстоятельств. В целом, личную ответственность за здоровье осознают в основном, люди с высоким уровнем материальной обеспеченности и хорошим здоровьем [15].

Состояние окружающей среды является одним из показателей качества жизни и здоровья населения. Так, по данным всероссийского опроса 2014 года [16] (1600 респондентов), на качество жизни и состояние здоровья влияет экологическая обстановка (44 %) и климатические условия (19 %).

Вместе с тем, затраты на охрану окружающей среды в РФ составляют немногим больше 0,5 % ВВП, что не идет ни в какое сравнение с такими странами как: Финляндия, Великобритания, Австрия, Китай, Нидерланды, Южная Корея [17].

До сих пор в нашей стране нет производственных мощностей для переработки отходов, соответственно, нет культуры раздельного сбора отходов, городских и государственных программ, которые были бы направлены на создание инфраструктуры и формирование экологического образа жизни.

Существует Государственная программа РФ «Охрана окружающей среды» [18] на 2012–2020 годы, одной из подпрограмм которой является снижение антропогенной нагрузки на природную среду за счет повышения эффективности экономики (переход к зеленой экономике), но в ней нигде не обозначена задача формирования и повышения уровня экологической культуры и образа жизни населения, также как и нет аналогичных целевых индикаторов и показателей.

В Государственной программе РФ «Энергосбережение и повышение энергетической эффективности на период до 2020 года» [19] предполагается проводить мероприятия, направленные на формирование бережливой модели поведения населения.

Социально-экономические характеристики населения также влияют на образ жизни населения. Люди с высоким уровнем дохода больше внимания уделяют своему здоровью как духовному, так и физическому. Доход считается одним из существенных показателей и является одним из институциональных ограничений устойчивого развития.

Социально-демографические характеристики: возраст, пол, брачность, количество детей, – не могут не оказывать влияние на образ жизни человека.

Таким образом, можно сделать вывод, что ЭОЖ – это система жизнедеятельности индивида, которая проявляется в повседневных социально-экологических практиках, направленных на минимизацию вредного антропогенного воздействия на окружающую среду и самого себя, обусловленная системой ценностей, уровнем доходов и экологических знаний.

Как уже было отмечено, в нашей стране негативная экологическая ситуация характеризуется высокой степенью антропогенного воздействия на окружающую среду, а, следовательно, для решения данной проблемы необходимо изучение ЭОЖ городского населения, так как именно города являются основными источниками загрязнения окружающей среды.

Материалы и методы

Отношение современных горожан к ЭОЖ рассматривалось на основе анализа данных пилотажного опроса. Исследование проводилось методом снежного кома, выборочная совокупность составила 110 анкет. Для удобства сбора информации в сети Интернет использовалась он-лайн анкета, созданная с помощью гугл-форм.*

Основные результаты

В исследовании приняли участие Интернет-пользователи разных возрастов, полов, статусов и т.д. (Так, большая часть опрошенных является представителями женского пола (67 %, мужского – 33 %), что может свидетельствовать о большей заинтересованности женщин в теме и цели опроса. Возраст респондентов различен – от 15 до 60 лет: из них большая часть представителей молодежи (78 %) и людей среднего возраста (12 %), что связано с наибольшей активностью данных возрастных групп в интернет-пространстве. Чуть больше половины опрошенных состоят в браке – 59 %. Подавляющее большинство респондентов не имеют детей – 73 %, в семьях остальных 27 % участников опроса в основном один (14 %) или два (10 %) ребенка.

Особый интерес представляют материальное положение и образование. Так большая часть участников интернет-опроса являются представителями так называемого «среднего класса» – могут позволить себе покупку большинства товаров без предварительного накопления (45 %), и «среднего низшего класса» – могут позволить себе крупные покупки только после предварительного накопления средств (43 %), 11 % респондентов находятся фактически за чертой бедности – испытывая трудности даже в покупке еды и одежды. Данные результаты говорят о том, что в большинстве случаев нельзя говорить о материальном факторе, как решающем в области отношения к ЭОЖ.

Важно отметить, что большая часть опрошенных имеет высшее образование (68 %), неполное высшее образование (15 %), либо ученую степень (6 %); только 11 % получили средне-специальное или среднее образование, но некоторые из них еще находятся в процессе обучения.

Другим таким важным фактором являются ценностные характеристики респондентов, так как именно ценности во многом формируют культуру и образ жизни человека. Опрос показал, что для большинства Интернет-пользователей наиболее важными являются ценности семьи (83 % выборов), здоровья (73 % выборов), а также личного самосовершенствования и дружбы (по 52 % выборов каждая). Интересно, что природа как

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* Анкета // Гугл формы. URL: https://www.google.ru/intl/ru/forms/about/ (дата обращения 15.05.2015).

ценность (25 % выборов) находится фактически на 8 месте, после нее в списке находятся такие важные компоненты ЭОЖ и культуры человека как: образование, ответственность, патриотизм и религия (рис. 2).

Ценностные предпочтения респондентов
(% от числа выборов)

Рис. 2. Ценностные предпочтения респондентов

Как уже было выяснено, составной частью ЭОЖ является здоровый образ жизни, который включает в себя внимательное отношение к питанию, низкую заболеваемость, отсутствие вредных привычек, а также спортивных нагрузок и практик закаливания. Так, горожане при покупке продуктов питания чаще всего обращают внимание на срок годности (8% «никогда» либо только «иногда» обращают на него внимание) – это может быть связано с тем, что в магазинах часто продают продукты питания с истекшим сроком годности. Также больше половины участников (60 %) обращают внимание на материал упаковки или тары, что может говорить о том, что упаковка – это один из важнейших рекламных механизмов современного мира, так как сложно предположить, что большая часть респондентов обращает внимание на материал упаковки из «экологических» соображений. Больше половины респондентов (57 %) предпочитают покупать в основном обычные магазинные продукты питания, менее 40 % – не высказали определенных предпочтений и только 3 % чаще всего делают выбор в пользу органических продуктов, либо продуктов с эко-маркировкой.

Больше половины тех, кто сейчас не покупает органические продукты или продукты с эко-маркировкой (61 %) готовы начать даже при условии, что они будут дороже обычных на 10-50 %, но не более. Те, кто уже покупает такие продукты, не готовы переплачивать за них более чем 30 %. В предпочтения относительно питьевой воды мнения опрошенных разделились: 34 % пьют кипяченую воду, 31 % очищают водопроводную воду фильтрами, 21 % используют бутилированную, 5 % предпочитают пить воду из скважины, родника либо источника и только 7 % пьют воду непосредственно из-под крана.

В отношении заболеваемости (количестве заболеваний в год) ситуация достаточно благоприятная – большая часть опрошенных болеет раз в пол года, либо реже, тогда как около 20 % болеют чаще. Также стоит отметить, что интернет-пользователи не практикуют закаливание для поддержания и укрепления своего здоровья (67 % никогда, 32 % редко и только 1 % регулярно закаляются). Спортивные занятия также являются фактором поддержания здоровья и физической формы, несмотря на это, только 14 % регулярно занимаются спортом, 24 % не занимаются вообще и 62 % – только когда появляется

возможность. Возможно, высокая загруженность и темпы современной жизни не способствуют формированию здорового образа жизни, тем более, что вредные привычки – курение и употребление алкоголя свойственны достаточно большой части респондентов. Так, 77 % употребляют алкогольные напитки, из них 21 % отмечают, что делают это часто (причем больше половины из них – женщины). Подавляющая часть респондентов (77 %) не включает себя в категорию курящих в текущий момент, но 23 % опрошенных курят, а 19 % курили раньше, но уже бросили. Важно отметить, что в случае здоровья нельзя с твердостью сказать, кто именно – мужчины или женщины – более внимательны к своему здоровью.

Вместе с тем, здоровый образ жизни не является ключевой характеристикой ведения экологического образа жизни населения. Для нас являются важными повседневные практики, направленные на осознанную минимизацию воздействия человека на окружающую среду. Так, на рисунке 3 показано насколько часто участники опроса стараются использовать доступные практики ресурсо- и энергосбережения в быту. Наиболее часто выполняются следующие действия – выключают свет, выходя из помещения, используют энергосберегающие лампочки. Особенно «редким» для респондентов является раздельный сбор мусора, что скорее всего, связано с тем, что это достаточно трудоемкий процесс, осложненный отсутствием удобного расположения пунктов приема и переработки отходов, а также в целом неразвитостью инфраструктуры по раздельному сбору отходов. Большая часть респондентов использует такого рода практики в быту часто, либо только иногда, а для того, чтобы говорить об ЭОЖ, необходимо действовать в данном направлении регулярно, а не от случая к случаю. Тем не менее, в данном вопросе можно выделить очень маленькую группу респондентов, которая устойчива в своих экологически ориентированных практиках – это всего лишь 8% опрошенных, в то время как пассивных респондентов на 3 % больше.

Рис. 3. Распределение респондентов по частоте выполнения повседневных практик, направленных на энерго- и ресурсосбережение

В связи с этим важно понимать – как оценивают респонденты свое влияние на окружающую среду. Большинство опрошенных осознают в целом отрицательное влияние человека: 53 % считают, отрицательное влияние не столь резким, а 42 % уверены в полностью отрицательном влиянии антропогенного фактора.

Интерес к экологическим мероприятиям и участие в них также является важным фактором, влияющим на формирование ЭОЖ, так как наличие заинтересованности может дать ощутимые результаты в будущем, а если после этого человек решает посещать

мероприятия, направленные на повышение грамотности в сфере экологии, то этих людей можно отнести к «переходному типу» респондентов, которые, возможно, пока еще не ведут активный ЭОЖ, но стремятся к этому (рис. 4). Так, опрос показал, что только немногим больше половины респондентов проявляют интерес к экологическим мероприятиям, причем сложно говорить о постоянном интересе, так как ровно половина респондентов проявляет заинтересованность только иногда и лишь 10 % постоянно интересуются. В то же время, достаточно большая часть респондентов вообще никогда не интересуются экологической тематикой.

Рис. 4. Интерес к экологическим мероприятиям

Посещают экологические мероприятия постоянно только 6 % (из 10 % постоянно интересующихся) и 12 % при наличии свободного времени; при этом 22 % посещают, если тема является интересной для них и, что важно – 50 % не посещают экологических мероприятия разного рода вообще. Можно предположить несколько вариантов причин такой ситуации: 1) возможно, мероприятия такого рода являются скучными для представленной группы респондентов; 2) не несут в себе практической значимости и ценности; 3) не отражают реальной ситуации в мире, стране, городе и т.д.; 4) низкий уровень экологической культуры населения – особенно молодежи.

На рисунке 5 представлена средняя оценка некоторых показателей качества окружающей среды района проживания и города. Оценка проводилась по 5 бальной шкале на основе самоощущения респондентов. На основе анализа было выявлено, что в целом показатели района проживания являются более высокими, чем показатели города. Большая часть респондентов отмечает низкое качество воды, высокий уровень шума и низкое качество атмосферного воздуха в районе проживания, в целом, по городу на первое место по обеспокоенности граждан выходят шум, низкое качество воздуха и только на 3 месте – вода. Наиболее благоприятная оценка была дана озелененности территорий города и района.
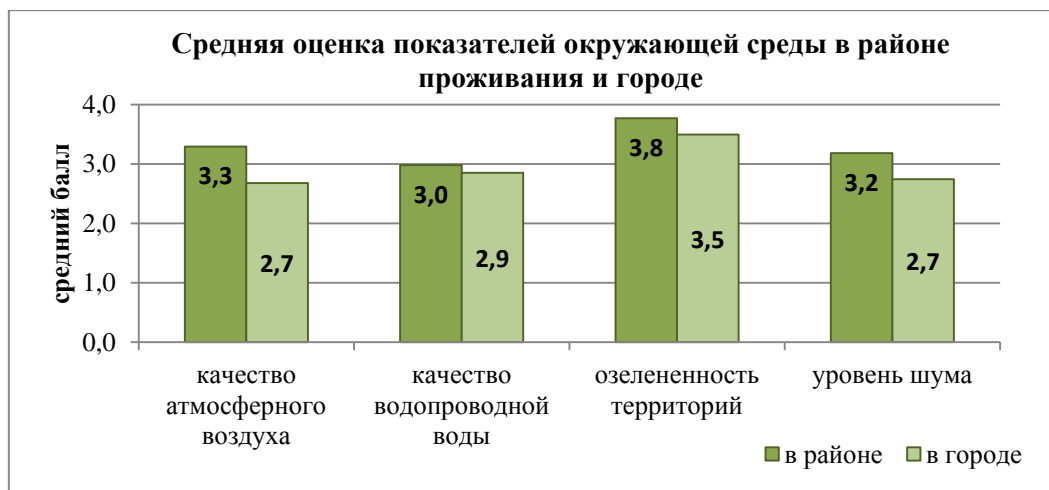
Рис. 5. Средняя оценка показателей окружающей
среды района проживания и города

Выводы

С распространением общества потребления происходит насаждение приоритета материальных ценностей и формирование культуры человека потребляющего, что, в свою очередь, не может не отразиться на образе жизни людей, а, соответственно, на их взаимодействии с окружающей средой. В этой связи встает вопрос о необходимости формирования и повышение уровня экологической культуры населения. В связи с этим было предложено определение ЭОЖ, как практического компонента экологической культуры и описана его структура. С методологической точки зрения, выделенные критерии могут стать основой для дальнейших научных разработок концепции ЭОЖ.

Основными ценностями для респондентов являются семья, здоровье, дружба и самосовершенствование, а необходимые для формирования ЭОЖ природа, образование и ответственность – не являются приоритетными.

Городские жители не осознают важности личных повседневных практик, направленных на минимизацию вредного воздействия на окружающую среду и на самих себя в том числе. Важно, что есть те, кто изменил свой образ жизни и те, кто заинтересован в его изменении. В результате проведенного опроса, можно выделить 4 основные группы респондентов по отношению к ЭОЖ:

• *«экологически активные»* – небольшая группа (7-9 %), со сформированными установками ЭОЖ и реальными регулярными действиями, минимизирующими воздействие человека на окружающую среду, постоянно интересующаяся экологической информацией и повышающая свой уровень знаний в данной области;

• *«переходная группа»* – группа людей (12-15 %), которые интересуются получением новых знаний, иногда или часто ведут себя как люди с ЭОЖ, группа, которая может стать как активной, так и нейтральной;

• *«экологически нейтральные»* – большая часть опрошенных (58-62 %), не выявили определенных оценок, не определились в отношении экологизации образа жизни, несмотря на наличие образования и понимания отрицательного антропогенного воздействия на окружающую среду;

• *«экологически пассивные» (18-20 %)* – обладают высшим образованием, осознают влияние человека на природу, но не интересуются и не желают изменять свой образ жизни на более дружественный окружающей среде.

Неразвитость городской инфраструктуры по раздельному сбору отходов влияет на воплощение ресурсосберегающих практик в быту.

Несмотря на то, что здоровье является одной из приоритетных ценностей для жителей городов, повседневные практики не направлены на его сохранение и укрепление (23 % курящих, 77 % употребляют алкоголь), что входит в противоречие с пониманием ценности здоровья в контексте ЭОЖ.

Состояние окружающей среды оценивается респондентами в целом как удовлетворительное, практически все участники опроса отметили, что человек отрицательно влияет на окружающую среду, возможно, это связано с ответственностью и особенностями менталитета, но данный вопрос предполагает более глубокое исследование.

Наибольший интерес к исследованию проявили женщины, скорее всего, потому что они принимают большее участие в домашнем хозяйстве и воспитании детей.

Опрос показал, что стабильное материальное положение и наличие высшего образования не являются критериями, влияющими на ведение ЭОЖ. Более значимым фактором, как показало исследование, являются ценностные характеристики и наличие заинтересованности у респондентов. Развитие всеобщего экологического образования и просвещения, где будут формироваться социальные экологические практики, возможно, сможет повлиять на формирование ЭОЖ.

Если экологически ориентированный образ жизни осознается населением как важная компонента высокого качества жизни, то это стимулирует внедрение его элементов в повседневную жизнь.

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УДК 316

Экологический образ жизни жителей современного города

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Аннотация. Данная научная статья посвящена изучению актуальной проблемы понимания и формирования экологического образа жизни горожан. По результатам теоретико-методологического анализа была предложена структура и понятие экологического образа жизни (ЭОЖ). Проведено пилотажное исследование, в результате которого были выделены четыре группы респондентов по отношению к ЭОЖ, определены основные факторы, влияющие на его формирование.

Ключевые слова: экологический образ жизни, устойчивое развитие, здоровый образ жизни, горожане, социально-экологические практики.

Pedagogical sciences

Педагогические науки

UDC 37

Iconographic Analysis of Media Texts on Media Literacy Education Classes

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Abstract

Iconographic analysis is associative analysis of the media texts' images (eg, water, fire - as symbols of purity and destruction) associated with the semiotic analysis. Art historians, scientists, semiotics, media theorists and practitioners of media education have written thousands of volumes, which convincingly proved that the decoding / decoding of audio-visual images sometimes difficult, requiring considerable knowledge and skills of the process of intellectual and creative work. Iconographic analysis of media texts based on the key concept of *media language*, and suggests that media education aims to develop knowledge of the ways in which media texts express his idea, and develop the knowledge, improving skills of textual analysis that can be attached to fixed or moving images recorded on the medium of sound or any combination of the above.

The initial stage of the iconographic analysis of media texts offer students concentrate on careful perception of audiovisual images on the description of their characteristic features. The audience learns conventional codes of media texts, followed by a smooth transition to the interpretation and evaluation of media texts. As a result, the audience media competence is developing in relation to visual images.

Keywords: iconographic analysis, media, media texts, media education, media literacy, media competence, students.

Introduction

Iconographic analysis is associative analysis of the media texts' images (eg, water, fire - as symbols of purity and destruction) associated with the semiotic analysis. Art historians, scientists, semiotics, media theorists and practitioners of media education have written thousands of volumes (among the most striking works I can recall the works of Y. Lotman, U. Eco, M. Yampolsky and many others), which convincingly proved that the decoding / decoding of audio-visual images

sometimes difficult, requiring considerable knowledge and skills of the process of intellectual and creative work.

Iconographic analysis of media texts based on the key concept of *media language*, and suggests that media education aims to develop knowledge of the ways in which media texts express his idea, and develop the knowledge, improving skills of textual analysis that can be attached to fixed or moving images recorded on the medium of sound or any combination of the above. In the critical work is usually done by analyzing the individual images or short fragments of a media text, offering a detailed account of what actually seen and heard - before moving on to the interpretive comments and express their reaction [Bazalgette, 1995, p. 31].

Here, cultural and aesthetic approaches in media literacy education (as well as an approach that focuses on the formation of "critical thinking") in common with the "semiotic" theory and methods of media education, involving reading and analysis skills, as a synthesis of signs and symbols, "codes".

The initial stage of the iconographic analysis of media texts offer students concentrate on careful perception of audiovisual images on the description of their characteristic features. The audience learns conventional codes of media texts, followed by a smooth transition to the interpretation and evaluation of media texts. There is also practiced training games' content: crop images and photos (the study of plans), shooting a video camera at different angles (the study of the concept of perspective), etc. As a result, developing audience media competence in relation to visual images.

Materials and methods

We use the materials of modern Russian and Western literature about un iconographic analysis [BFI, 1990; Semali, 2000, pp.229-231; Berger, 2005; Nechay, 1989, p.267-268]. We use also methods of creative tasks, contributing iconographic analysis of media texts, designed for gaming, role-playing possibilities of the pedagogical process, developing imagination, fantasy, associative thinking, the perception of nonverbal audience, media competence.

Discussion

In this case, of course, we take into account the curriculum developed by C. Bazalgette and her colleagues [BFI, 2003, p.7]: *"freeze frame", "sound and vision"; "spot the shots", "top and tail", "attracting audiences", "generic translations", "cross-media comparisons", "simulation".*

Quest *freeze frame* is that the teacher using the "Stop" the image of the video text, and students are trying to analyze the composition, lighting, color, angle in the frame, etc. Thus, an educational goal: the audience realizes that every element of the visual image has its value.

Quest *sound and vision* is based on the fact that the teacher closes the monitor screen and the students can hear only the sound track of a media text. After that, they will have to guess the content, genre, style proposed fragment, they try to think about what else may be possible musical accompaniment and the noise in the media text. Here the students to understand the importance of practice and especially sound solutions movies or TV shows, especially the combination of a number of sound and image.

Creative activity *spot the shots* is intended for the final students' understanding of the fact that each frame has some information that there is a mounting frame rate, etc. That is, here again studied language media.

Creative activity *top and tail* provides viewing audiences elementary media text frames, on the series of which they must guess the genre of the work.

Studying the mechanisms of *attracting audiences* is intended that students collect a package of various kinds of information on media culture (reviews, advertisements, photographs, soundtracks, etc.), on the basis of which it is possible to prepare the group "presentation" of a media text or make a collage its theme.

Quest *generic translations* develops students' ability to "transfer" of media texts from one type to another (ie, from a literary text in the screen and, on the contrary, from the newspaper - in verse, etc.).

Creative activity *cross-media comparisons* is that students are asked to compare the two fragments of different works for different audiences. For example, it is necessary to compare the

key episodes of the literary text and its two adaptations. Or compare the interpretations of the same themes in fiction and documentary form.

As we can see, in general, this technique is fully consistent with the theory of the six key aspects of media literacy education, which is among the supporters - Cary Bazalgette, Andrew Hart, and many other media educators.

Knowledge and creative skills, obtained an audience with the development of introductory, practical steps, prepare them for classes, to develop the perception of media texts created by professionals contributed to the beneficial implementation of the educational process within the specialization "Media Education". Argue that with sufficient confidence, as in the experiment tested two versions of media insight: 1) with discussions of media texts professional writers; 2) the same, but with a preliminary cycle of practical creative tasks, introduces the audience to the laboratory creation of media texts. The second option was more productive. After media literacy education classes, creative nature of the audience is not only fluent in more specific terminology, but also faster, described in detail in speech iconographic elements. Knowledge and skills related to "kitchen" of the creative process of creating media texts to help students accurately express their feelings about what they saw and heard, indirectly, to develop their abilities to perceive, to a certain extent prepare them for subsequent critical analysis skills (because without the ability to describe their experience we can not talk about the full analysis of media texts).

W rely also on the idea of outstanding Russian media educator Yury Usov (1936-2000), that "the perception of sound and vision image is a visual experience of tempo, rhythm, form the subtext of plastic film narration; the result of this experience is sensual and intellectual associations that arise in the process of perception of the sound and vision series of plastic composition and its components are synthesized in the figurative generalization which contains in itself the author's concept, multi-dimensional artistic ideas"[Usov, 1989, p.235].

Results

Iconographic analysis of media texts implies a number of students of creative tasks [BFI, 1990; Semali, 2000, pp.229-231; Berger, 2005; Nechay, 1989, p.267-268; Fedorov, 2004, p.43 -51; Fedorov, 2006, p.175-228, but I substantially supplemented and revised the cycle of works): literary and analytical, drama, role-playing, fine-simulation. Each of these tasks involves analysis of the key concepts of media literacy education (*media agencies, media categories, media language, media technologies, media representations, media audiences*, etc.).

Cycle of literary analytical creative tasks that contribute iconographic analysis skills in the classroom at the student audience:

Media agencies:

- analysis of the logos of famous media agencies / firms with visual (composition, color, etc.) point of view.

Media / media text categories:

- analysis of the volume of a media texts (newspapers, Internet), dedicated to the image (photographs, drawings, etc.), or promotional materials, and volume for verbal texts (articles, dialogs, etc.).

Media technologies:

- analysis of the technologies of visual media texts in a number of specific types and genres.

Media languages:

- comparison of the composition in painting, drawing, sculpture, photography, film / TV;

- View DVD / video media text's episode without sound, in order to focus on the characters' facial expressions, gestures, a color, lighting in the scene and shoot types (plans, camera angles, camera movement); view the same episode with the sound, to get a clearer picture of how the effect is achieved by a media text on the audience (including the impact of specific techniques).

Media representations:

- comparison of two frames (two photographs, drawings), where the same scene is depicted in various ways. Thinking about how to change the angle affects your perception, understanding the relationship of media text characters to each other;

- analysis of promotional posters of media texts (visual and written information, the most important part of this information, indicate the genre of media texts, composition posters); predicting the success of a media text advertised in the audience;

- selection of multiple advertisement texts from the expensive and cheap magazines; determining the difference as an advertisement in the nature of the advertised goods and services in the exterior image of a male and female characters;

- selection of multiple photos or posters of different years, depicting beautiful women and men; determination of the total in these images, the changes over the past decade, the criteria of human beauty and the way in which media texts reflect these changes.

Media audiences:

- analysis of a number of images from the media texts with various uses of space; conclusions about the taste, social class, gender and age of the people, which the authors regard as the target audience.

It is also possible iconographic analysis of media texts (drama, melodrama, comedy, detective story, thriller, western, science-fiction, horror, TV news, TV interview, reality show, game show, talk show, etc.) using tables with typical iconographic stereotypes, typical visual images of feelings' conventional codes (hunger, thirst, satiety, fear, terror, joy, delight, sexual attraction, sexual aversion, love, hatred, pity, compassion, indifference, envy, jealousy, timidity, shyness, aggression, arrogance, etc.), visual images of typical places for media texts (reach/poor house, saloon / bar / restaurant, business office, educational institution, army barracks, ship, submarine, police department, prison, etc.).

Cycle theatrical role-creative tasks that contribute to the iconographic analysis of media texts in the classroom at the student audience:

Media agencies:

- business game "Create a newspaper / magazine / internet site";

- pantomime's presentation of media logo.

Media / media text categories:

- preparing pantomime within any genre media relying on a certain visual plastic solution;

Media technologies:

- practically implementation (in small creative groups, armed, for example, digital video camcorder) to certain media technology based on one or another way of viewing.

Media languages:

- shooting short movie (duration: 2-3 min.) "The game of chess", "My class", etc. using different methods of visual recording;

- shooting TV news using various visual ways of shooting;

Media representations:

- "frozen" figure on the themes of the stories and characters of media texts;

- pantomime on topics of plots and characters of media texts;

- role game on the topic of "International meeting of media critics" with discussion about various aspects related to the iconographic analysis skills.

Media audiences:

- preparing pantomime, visually reflecting different emotional audience's reactions (audience can be different ages and social status) to media texts.

The purpose of many of these creative tasks: the development of students' media competence in area of visual media texts. These tasks prepared students for the creation of mini-movies, radio / TV programs, interactive newspapers and magazines, Web sites, computer animation, etc. (with a pre-written plans and scenarios).

Implementation of theatrical role-creative tasks based on role game: students have the function of "directors", "operator", "actors", "journalists" and so forth. After the rehearsal period the students' team to begin practical establishment media text (short video or television program, Interactive website, newspaper, etc.). Their interpretations are compared, discussed the advantages and disadvantages.

The role of the teacher in the process of performing such tasks: to demonstration for the audience the media technology (video, video recording and video projection, computer), tactful correction to the implementation of tasks and participation in the discussion of the results. In other words, the audience receives the greatest possible scope for imagination, personality expression of his thinking and creativity.

The specific tasks to help iconographic analysis of media texts:

- "journalist" (practical layout of Interactive newspaper or magazine, the selection of the most spectacular illustrations, photographs);

- "directing" (guide the process of shooting, including: the definition of the main decorations, sound and music, light-color solutions, taking into account the genre and stylistic features of the product, etc. ;

- "camera man" (practical implementation of the plans, perspectives, staging, camera movement, frame, light, etc.);

- "decorative-art" (the use of natural scenery, costumes, design Interactive sites, computer animation, etc.).

Undoubtedly, this kind of classes are purely educational and are not intended to create media texts that claim to professional level. But the process of students' understanding of audiovisual language, the development of students' creative abilities is important.

As a result, theatrical-game tasks, as well as literary simulations, help to form the following qualities corresponding to various indicators of individual media competence: knowledge of the basic steps in the process of creating media texts; use of media works functions in different forms and genres; emotional, artistic motives for the contacts with the media (motivational indicator); creative, artistic ability in the works for own media texts (creative indicator).

Graphic-cycle simulation creative tasks that contribute to the iconographic analysis skills in the classroom at the student audience:

Media agencies:

- transformation of a logo of some well-known company, the justification for that visual changes.

Media / media text categories:

- preparing pictures, posters, collages, reflecting the visual stereotypes of a media texts' genres.

Media technologies:

- selection of image media technologies (tools and forms images in photographs, drawings, magazine illustrations, etc.) for the simple story;

- experiments with various forms and technologies in order to study how they are used for the transmission of specific texts, "messages" of visual symbols;

- use of different techniques in the planning and creation of media texts, careful and critical analysis of the results obtained;

Media languages:

- preparation of a series of frames that could be used as a basis for chase scenes in the detective story (with support for various types of crop - the general plan, close-up, detail, etc.);

- creation and presentation of visual media project based on graphic symbols.

Media representations:

- analysis of the frame (photos, advertising posters) from the point of view of what is happening there. Manufacturing clippings figures or objects depicted in photographs or poster. Different arrangements of these clippings in the "frame". Meditating on the fact whether the changed attitude of the characters and items after these transpositions;

- creation of a different visual angles based on the same image (with a change in its components);

- read scenic line (for example: "He is standing on the bridge, takes a few puffs and throws himself into the water"). Training (using sheets-frame) series of frames "the film adaptation of" this scenic line;

- creation of a poster or collage based on texts and images clippings from old newspapers / magazines;

- creation of a diorama scene of media texts;

- creation of a picture book;

- creation of a advertising billboards for own media texts (variant: posters for professional media texts) with the help of photo collage with additional drawings or based on their own original drawings;

- creation of a cartoon "comic" based on those or other media texts;

- creation of a game based on the popular media texts;

- development of a maps with the media text's history;

- manufacturing of finger puppets depicting certain scenes of a media text, staging puppet show in some episodes;

- creation of animation: your own animated version of the characters, the writing of dialogues;

Media audiences:

- creation of visual media texts intended for a specific audience, foreseeing how the audience might react to such media products;

- creation of pictures or draw comics, reflecting different emotional reactions audiences of all ages and social status to certain media texts.

After performing the above tasks is a contest of creative posters, collages, drawings, comics, visual projects students can discuss, compare their advantages and disadvantages, answer the questions from the teacher and audience, etc.

The main indicator of these works: the ability of students in the non-verbal forms to express their impressions about the media text. My experiments showed that the written work and oral interviews can not always afford to fix accurately the true level of students' media competence. And students often simply not able (undeveloped speech, shyness, lack of practical skills of public discussion about media text) transfer his impressions in words.

For example, in individual conversations with the help of leading questions I have been able to establish that some students who was in the written work and group discussions in the level of "primary identification" (ie, the perception of the chain of events of a media text, without realizing the position of heroes and authors), actually see and understand much more about the characters in the media text and media environment. And creative nonverbal tasks can to maximize their level of media competence. For example, painting advertising posters, students (even with poor vocabulary and complete writing inability) found sometimes "hidden" creative thinking, the ability, based on intuition, to create a piece of paper (using paints, markers, pencils, clippings from illustrated magazines and applications), reflected the concept of media text.

Series of media literacy education classes designed to develop skills in the audience to the iconographic analysis skills using creative tasks to restore the memory of the dynamics of audiovisual images episodes of media texts in the process of collective discussion.

In addition, the most important indicator for full perception of audiovisual media texts in the course of lessons to keep in mind the audience mastering features of the composition frame, its spatial, light-color, sound, field-aligned solutions, which in synthesized form carries meaning. The audience should also possess a kind of mounting thinking: emotional state of the semantic elements of the narrative, their rhythmic, plastic compound in the frame, episode, scene, so that eventually the perception of media texts based on the relationship of several processes:

- perception of dynamically developing visual images; stored in the memory of previous audio-visual, spatial and temporal elements of media image;

- prediction, foreboding probability of a phenomenon in the media text. In order to carry out these tasks in relation to the audiovisual media, the audience is invited to make an attempt to describe the dynamics of the deployment in the media image rhythmically organized plastic narrative form. The basis of this process can be a discussion of the mounting (with the rhythm, tempo, etc.) a combination of frames (taking into account their composition: the front, depth-aligned, light-color, etc.) and episodes, as the dynamics of the formation of the audiovisual image it manifests itself in the interaction of training and installation.

The purpose of these studies is that the students, talking to the media, to develop their emotional, creative activity, non-verbal thinking, sound and vision memory, because of what facilitated the analysis and synthesis of the sound and vision, space-time image of the media text.

Here are excerpts from the analytical work of students related to the iconographic analysis of media texts:

"It is very interesting final of media text. A picture of the broken, looted, burned with fire New York XIX century. And gradually, this image is replaced by today's New York. Against this background, the music sounds. This technique the authors would like to say that life is changing, and the people and the problems remain the same. New people new world do not remember or do not know their history, and therefore make the same mistakes as their ancestors ..." (Maria B.).

"Sad mood shown by means such as wet weather is rainy, gray streets. Loneliness hero stressed uncomfortable situation apartment, his monologues facing the dead wife. (...) The idea of authors show that the deceived person deprived of life of the rod, condemned to death" (Ellen G.).

"In the final episode, we see an empty car with fading in the twilight of the sounds of a mobile phone lights. Gradually the lights will go out of the machine, and the phone is switched off ... These two symbols indicate that they have recently used by people who are no longer alive. The essence of the author's message: do not "chase the death" and too much to hope for good luck. This frame is a pity the lost characters who flew dangerous to life at full speed ..." (Anna M.).

Questions to the iconographic analysis skills in the classroom at the student audience [Buckingham, 2003, pp.54-60; Berger, 2005, p.49, 92, 99, 124, 145; Media ... 2005, p.365 Fedorov, 2004, p.43-51; Fedorov, 2006. pp.175-228]:

Media agencies:

Does media agencies use in their logo images reflecting their real activity? If not, why not? What visual solutions, denoting a particular company, the most common?

Media / media text categories:

Is there a difference in the approaches to the use of color and light in media texts of different types and genres?

As visual codes and conventions occur in different types of media texts?

Media technologies:

As visual technologies influence the creation of media texts?

Media languages:

What fonts are used in media texts, and what information they carry?

What is the relationship between image and text elements in printed advertising media text?

What style of language and speech techniques used in the text posted on this promotional poster?

As space is used on posters? Why do you think it's done this way?

What angle used in this poster / photo / frame? What type of lighting? How to use color?

As media use different forms of visual language to convey ideas or values?

How is the use of visual language becomes clear and generally accepted?

What are the effects of the choice of certain forms of visual language media?

What is the relationship between the various objects that we see in the picture?

How to depict people and objects in a particular episode?

Do you see the visual symbols, signs in this in a media text? If so, what?

If the advertising poster depicts people and / or animals, describe how they look? What does the background on which they are depicted? How this relates to the background image acts?

Do you see the tradition of the great masters of painting in the visual range of contemporary media texts?

Can you think of examples of landscapes, portraits, still lifes in media texts?

Media representations:

Whose eyes see (someone told) events in a particular episode of a media text?

As the authors of media texts can pictorially show that their character has changed?

Do you know the sound and vision signs for the creation a sense of danger or surprise in media text?

What the photos from your family archive of different years can tell us about you and your family?

Record the same "news of the day" with two TV-channels, compare the visual and verbal organization of these two options (display order fragments, visualization, comment, work of operators). What can you say about the differences that are found?

Media audiences:

What about the audience's emotional reaction to the iconic series of media text?

What is the difference between pictures / movies made in relation to the same object for tourists or research scientists?

What do you know about the influence of light and shade on the perception of the audience?

Conclusions

In this article I presented the main directions for Iconographic Analysis on media education classes for student audience, including the examples of creative problems and issues associated with this type of the analysis in the context of media education problems, ie based on six key concepts of media literacy education: agency, category, language, technology, audience, representation. I suppose that the Iconographic Analysis of media texts on media education classes can significantly develop media competence of students, including critical thinking and media perception.

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УДК 37

Иконографический анализ медиатекстов на медиаобразовательных занятиях

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Аннотация. Иконографический анализ – это ассоциативный анализ образов медиатекстов (например, вода, огонь – как символы чистоты и уничтожения), связанных с семиотическим анализом. Искусствоведами, учеными-семиотиками, медиатеоретиками и практиками медиаобразования написаны тысячи томов, где убедительно доказано, что декодирование аудиовизуальных образов иногда трудный процесс, требующий значительных знания и навыков в процессе интеллектуального и творческого труда. Иконографический анализ медиатекстов на основе ключевого аспекта «язык медиа» предполагает, что медиаобразование стремится развивать знания о путях, где медиатексты выражают свою идею, повышать умения анализа медиатекстов, который может относиться

как к фиксированным, так или движущимся изображениям, записанным на любых носителях.

Начальная стадия иконографического анализа медиатекстов предлагает студентам сосредоточиться на тщательном восприятии аудиовизуальных образов, на описании их характерных особенностей. Аудитория изучает стереотипные коды медиатекстов, с последующим плавным переходом к интерпретации и оценки медиатекстов. В результате, развивается медиакомпетентность аудитории в отношении зрительных образов.

Ключевые слова: иконографический анализ, медиа, медиатексты, медиаобразование, медиаграмотность, медиакомпетентность, студенты.

UDC 37

GIS as a Tool for Education Decision Support System: A Demonstration with Public Primary Schools in Zaria City Kaduna State Nigeria

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Abstract

This paper aimed at demonstrating the use of GIS in the display of data about primary schools in the walled part of Zaria city, Kaduna State. It is hoped that the database and its graphic display in maps will guide decision making at the primary education level in the study area. Coordinates of the schools were obtained with a handheld GPS receiver, while their attribute data were obtained from the local education authority and triangulated with questionnaires administered to the headmasters of the schools. ArcGIS 9.2 version software was used for buffer zone (1 km). The result indicates that there are 31 public primary schools in the study area. The oldest was established in 1921 and the latest in 2007. Graphic displays of some attributes of the schools were produced. The buffer zones produced suggest no pupil walks more than a kilometer to reach school. It is recommended that in the future, GIS tools should be applied when managing school data. Capacities to achieve this should be developed.

Keywords: primary school, GIS, digital map.

Introduction

Education is one of the most important factors in human capital development. Ehiozuwa (1997), defined education as a deliberate and systematic process of leading persons out of ignorance through instructions, discipline and collective development of physical, intellectual, aesthetics and spiritual faculties of the persons. Therefore, it is generally seen as any act or experience that has a formative effect on the mind, character or physical ability of an individual. It develops the intellectual and critical skills of individuals, societies and nations thereby making it one of the main factors in the spread of civilization. Little wonder governments prioritize the provision of education to its citizens. In fact in tune with Article 13 of the United Nations 1966 international covenant on economic, social and cultural rights, the governments of most recognize basic formal education as a human right. Individuals also strive to acquire it and support those under their care to be educated Jaiyeoba (2007).

Education can either be acquired informally or formally. Informal education is that acquired outside a school environment. On the other hand, formal education occurs in a structured environment whose explicit purpose is teaching students by trained instructors. This happens in school set ups with requisite infrastructures (classrooms, furniture, books, toilets, libraries, laboratories, etc). Formal schools have a chronology of kindergarten (pre- primary), primary (elementary), secondary, and tertiary levels. Such schools can be owned by individuals (private) or governments (public). Both are however, expected to operate within government prescribed guidelines and standards. In public schools, the onus for providing their operational requirements is on the governments through relevant agencies. Primary schools, which are the focus of this study, are schools for children between the ages of 5 and 11. They are not only the foundations of the educational system that determines its success or failure, but are also the largest sector. Thus public primary schools are primary schools owned by the government.

In Nigeria, the government recognized the right of the citizens to primary education in 1976. Section 3 of the National Policy on Education is specific on primary education (FRN, 2004). Among other things, the section specified the objectives of primary education and a teacher—pupil ratio of 1: 35.

Some studies have highlighted the problems of primary education in Nigeria. The problems identified include problems of shortage of classrooms leading to overcrowding, shortage of teachers, libraries and other learning infrastructures (Domike & Odey, 2014). These problems are mostly narrated in analogue texts which deteriorate with time. Compared with maps, these texts are less discernible and more difficult to update.

The advent of Geographic Information Systems (GIS) has made it possible to display a variety of phenomena in graphic forms (maps and charts) that are easily appreciated. GIS tools have been used to create comprehensive data bases that provide the framework and organization of spatial as well as non- spatial data thereby making it helpful in planning and decision making. In the education sector, GIS has been applied as a tool for Educational Decision Support System (EDSS). This realm of GIS applicability EDSS has been demonstrated in various studies. These studies include Banskota (n.d), Hite (2008), Aliyu, Sule & Youngu (2012), Abbas (2012) and, Olubadewo, Abdulkarim & Ahmed (2013). This paper is a further demonstration of how GIS can be used to display education information graphically. Zaria, a town in Kaduna State, Nigeria is the locale of the study that is concerned about public primary schools in a part of the town. It appears such a study has not been done before now. It is hoped that the study will help in the management of the schools involved. A 1 km buffer zone was created to investigate whether there are pupils that have to walk more than a kilometre before getting to school. Apart from attributes of location, year of establishment, enrolment, number of classrooms and teachers, other aspects of school attributes were not included.

Aim and Objectives

The aim of this study is to map and produce a digital map showing the spatial distribution of all public primary schools in the walled part of Zaria city. The specific objectives of the study were to:

(i) Identify and locate all public primary schools in Zaria City
(ii) Obtain the attribute data of the public primary schools
(iii) Map the public primary schools in the study area and create a 1 km buffer zone for the schools

The Study Area

The study area is located between latitude 11º 15' N and 11º 04' N of the equator and longitude 07º 30' E and 07º 42' E of the Greenwich meridian. It is about 78km South of Kaduna, the Kaduna State Capital. It has been the administrative capital of Zazzau emirate established by the Sokoto caliphate and a Local Government head quarter since 1976. The settled population in Zaria is pre-dominantly Hausa and Fulani. According to the last census conducted in Nigeria in 2006, the population of Zaria was 408,198 people (NPC, 2006). The town is reputed as a center of both Islamic and western education. In addition to several primary and secondary schools, the Ahmadu Bello University, and Nuhu Bamalli Polytechnic are sited in the town.

Methodology

A trip was made to schools in the study area and coordinates of each school were obtained using the Garmin 75S Handheld GPS receiver and the attribute data was obtained from Zaria Local Education Authority (LEA) which includes the names of existing schools, street, year of establishment, school code, number of teachers per each school, number of classrooms each school. This information was further confirmed at the schools through questionnaires. These data are useful for various types of analysis which will greatly assist in the efficient and effective planning and management of school resources. The digital base map of the study area was obtained by digitizing Google Pro 2008 satellite image. In digitizing the feature classes, the Google satellite image was used to map the features classes. First, it was downloaded from the internet so that the satellite image could be seen for accurate mapping. The digitizing exercise then started by adding the layers that were created in Arc Catalog. The start editing was activated in the editor tool and features classes were digitized by selecting the "create New Features" in the Task drop-down menu. The pencil icon was clicked and the pointer becomes a small crosshair symbol. A homogeneous area was picked and the vertices of the poly-gon were created by "tracing" the boundary and clicking at each vertex.

The coordinates of the schools that were obtained using the hand held GPS receiver were imputed into the computer in notepad with .txt format. The ArcGIS software was used in plotting these coordinates using the following procedure: First, the software was launched. The base map was added by clicking add data and georeferenced using (UTM) coordinate system. The points defined by coordinates were plotted onto the base map, by selecting tools and add XY data.

Results

As revealed by Table 1, there are 31 public primary schools in the study area. Their names and coordinates are as displayed by the table. The schools are named after prominent citizens of the study area. Figure 1 is a representation of the data in Table 1 in form of a map.

Table 1: Public primary schools and their locations

Shape	S/NO	NAMES OF SCHOOLS	NORTHING	EASTHING
Point	1	ABDULKARIM	1223957.71	358395.69
Point	2	ABDULSALAM	1221536.53	358395.69
Point	3	AHMAD FATIKA	1224050.27	359454.17
Point	4	ALIYU LIMAN KONA	1221805.43	357701.8
Point	5	ALKALI GAMBO	1224410.97	357557.22
Point	6	ALU DANSIDI	1224625.53	358381.64
Point	7	AMBASADA LAWAL SAMBO	1221272.8	358742.35
Point	8	DAHIRU KANTI	1222212.69	360093.09
Point	9	DALLATU SAMA'ILA	1224225.36	357652.4
Point	10	DANMADAMI(Dr.AMINU LADAN)	1221377.03	356772.02
Point	11	DR.NUHU BAYERO	1222050.74	359012.52
Point	12	DR.SHEHU IDRIS	1223146.67	358532.06
Point	13	GALADIMA ADAMU	1221284.41	358321.47
Point	14	JUSTICE BASHIR SAMBO	1224197.13	360179.24
Point	15	LAWAL ALIYU MAGAJIN MALLAM	1223961.69	358694.44
Point	16	LIMAN KWAIRE	1224062.73	360506.68
Point	17	DR.MOH'D JUMARE	1224758.62	356841.69
Point	18	NUHU BAMMALLI	1224539.48	358450.08
Point	19	NUHU BATUREN MAKARANTA	1222567	359054.83
Point	20	SARKI MUSA	1224577.8	359363.48
Point	21	SARKI JAFA'ARU	1222025.65	359050.54
Point	22	SARKI SAMBO	1223483.33	358477.66
Point	23	TURAKI ALLI	1223078.79	358761.69
Point	24	WAZIRI LAWAL	1222436.18	359798.59
Point	25	YAHAYA HAMZA	1221473.39	357155.95
Point	26	YA MUSA	1221557.42	359976.01
Point	27	ZAGE ZAGI	1224288.46	359793.78
Point	28	KOFAR KIBO	1224558.5	358984.96
Point	29	KUSFA	1220882.82	358486.38
Point	30	PROF.IDRIS ABDULKADIR	1221785.76	359366.16
Point	31	ZUBAIRU ISAH RAKA	1222250.65	358555.27

Figure 1: Spatial Distribution of Public Primary Schools in Zaria City

The chronology of the years and the number of schools established in each of the years is: 1921 (1), 1942 (2), 1945 (1), 1960 (4), 1962 (1), 1966 (1), 1969 (1), 1970 (1), 1975 (2), 1976 (11), 1977 (1), 1997 (1), 1998 (1), 2000 (1), 2005 (1), and 2007 (1). The highest number of new schools in a year was in 1976 when 11 schools were established. The enrolment of pupils in the schools range from 367 in Zage zagi primary school to 2641 in Dr Shehu Idris primary school. As for the number of classrooms, Ya Musa primary school has the least (2) while Dr Shehu Idris primary school which has the highest enrolment, also has the highest number of classrooms (23). Waziri Lawal primary school has the highest teachers (65) while Professor Idris Abdulkadir primary school has the least (7). Table 2 shows the names of the schools, the names of the wards in which they are located, the years they were established, the enrolment of pupils, the number of classes and the number of

Table 3 presents the enrolment of the schools, the number of teachers available and those required, the number of classes available and those required. In deducing the number of teachers and classes required, the teacher pupil ratio of 1: 35, as recommended by the National Policy of Education was used. The additional teachers and classes required range from 10 in Zagezagi primary school to 76 in Dr Shehu Idris. To demonstrate how GIS can be used to depict information about schools, Figure 2 display the schools with at least 15 classrooms, Figure 3 show schools that were established in 1976, while Figure 4 show schools with at least 17 teachers. Assuming that primary school pupils (on account of their young ages, 6 to 11 years) should not walk longer than 1km to reach their schools, a buffer radius of 1km was chosen. The buffer created is shown in Figure 5.

Table 2: Attribute Information of Public Primary Schools in the Study Area

S/N	NAME_OF_SCHOOLS	LOCATION	YEAR_OF_EST	SCH_CODE	N0_OF_PUPILS	NO_OF_CLSS	NO_OF_TEAC
1	Abdulkarim Primary School	Anguwan Alkali	1975	1923122020	994	9	9
2	Abdulsalam Primary School	Anguwan Bisha	1975	1923027120	827	10	29
3	Ahmad Fatika Primary School	Anguwan Fatika	1969	1923031120	1408	9	26
4	Aliyu Liman Kona Primary School	Limancin Kona	1998	1923034120	1188	10	20
5	Alkali Gambo Primary School	Anguwan Alkali	1976	1923035120	803	7	24
6	Alu Dansiail Primary School	Jamawa	1942	1923036120	1581	20	43
7	Ambassador Lawal Sambo Primary Sc	Kofar Kona	1976	1923037120	670	8	15
8	Dahiru Kanti Primary School	Rimin Danza	1976	1923045120	1007	11	25
9	Dallatu Sama'ila Primary School	Kofar Jatau	1976	1923047120	1501	10	20
10	Danmadami Primary School	Fan Wanki	1977	1923049120	1618	14	40
11	DR.Nuhu Bayero Primary School	Kaura	1960	1923052120	1871	18	36
12	DR.Shehu Idris Primary School	Babban Dodo	1960	1923053120	2641	23	48
13	Galadima Adamu Primary School	Kofar Galadima	1976	1923056120	388	8	17
14	Justice Bashir Sambo Primary School	Lemu	1960	1923061120	1243	11	36
15	Lawal Aliyu Magajin Mallam Primary S	Ban Zazzau	1976	1923055120	865	13	40
16	Liman Kwaire Primary School	Alfadarai	1960	1923066120	1348	6	21
17	DR.Moh;d Jumare Primary School	Jushi	1976	1923070120	1599	8	25
18	Nuhu Bammali Primary School	Kwarbai	1976	1923071120	691	11	21
19	Nuhu Baturen Makaranta Primary Scho	Anguwan kahu	1945	1923072120	1640	15	38
20	Sarki Musa Primary School	Kwarbai	1966	1923081120	857	15	44
21	SarkiJa'afaru Primary School	Mazangudu	1942	1923082120	2616	12	41
22	Sarki Sambo Primary School	Fada	1962	1923083120	1566	18	36
23	Turaki Ali Primary School	Magajiya	1970	1923088120	1131	13	31
24	Waziri Lawal Primary School	Anguwan Iya	1921	1923090120	2561	18	65
25	Yahaya Hamza Primary School	Anguwan Lima	1976	1923091120	715	12	33
26	Ya Musa Primary School	Rimin Doko	1976	1923092120	806	2	17
27	Zage Zagi Primary School	Zage - Zagi	1976	1923049120	357	6	17
28	Kofar Kibo Primary School	Kofar Kibo	2000	1923123120	589	8	17
29	Kusfa Primary School	Kusfa	2005	1923128120	743	9	11
30	Prof.Idris Abdulkadir Primary School	Karufin Taba	2007	1923129120	587	4	7
31	Zubairu Isah Raka Primary School	Salmanduna	1997	1923096120	948	6	19

Table 3: Teachers and Classes Available and those Required

| S/NO	NAMES OF SCHOOLS	PUPILS	TEACHERS AVAILABLE	TEACHERS REQUIRED	CLASSES AVAILABLE	CLASSES REQUIRED
1	ABDULKARIM	994	9	29	9	29
2	ABDULSALAM	827	29	24	10	24
3	AHMAD FATIKA	1408	26	41	9	41
4	ALIYU LIMAN KONA	1188	20	34	10	34
5	ALKALI GAMBO	803	24	23	7	23
6	ALU DANSIDI	1581	43	45	20	45
7	AMBASADA LAWAL SAMBO	670	15	19	8	19
8	DAHIRU KANTI	1007	25	29	11	29
9	DALLATU SAMAILA	1501	20	43	10	43
10	DANMADAMI(Dr.AMINU LADAN)	1618	40	46	14	46
11	DR.NUHU BAYERO	1871	36	54	18	54
12	DR.SHEHU IDRIS	2641	48	76	23	76
13	GALADIMA ADAMU	388	17	11	8	11
14	JUSTICE BASHIR SAMBO	1243	36	36	11	36
15	LAWAL ALIYU MAGAJIN MALLAM	865	40	25	13	25
16	LIMAN KWAIRE	1348	21	39	6	39
17	DR.MOH'D JUMARE	1599	25	46	8	46
18	NUHU BAMALLI	691	21	20	11	20
19	NUHU BATUREN MAKARANTA	1640	38	47	15	47
20	SARKI MUSA	857	44	25	15	25
21	SARKI JAFARU	2616	41	75	12	75
22	SARKI SAMBO	1566	36	45	18	45
23	TURAKI ALLI	1131	31	32	13	32
24	WAZIRI LAWAL	2561	65	73	18	73
25	YAHAYA HAMZA	715	33	21	12	21
26	YA MUSA	806	17	23	2	23
27	ZAGE ZAGI	357	17	10	6	10
28	KOFAR KIBO	589	17	17	8	17
29	KUSFA	743	11	21	9	21
30	PROF.IDRIS ABDULKADIR	587	7	17	4	17
31	ZUBAIRU ISAH RAKA	948	19	27	6	27
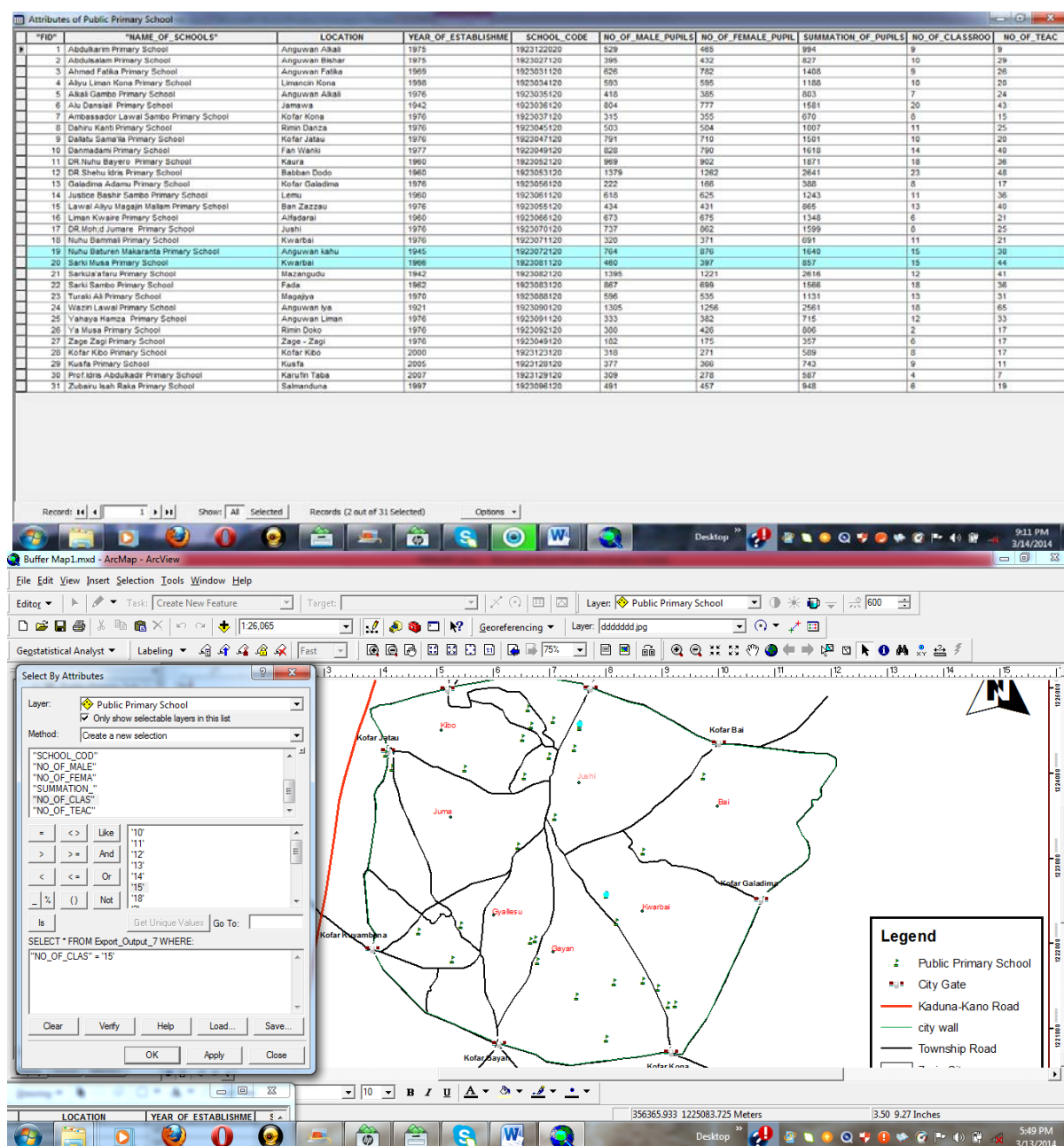
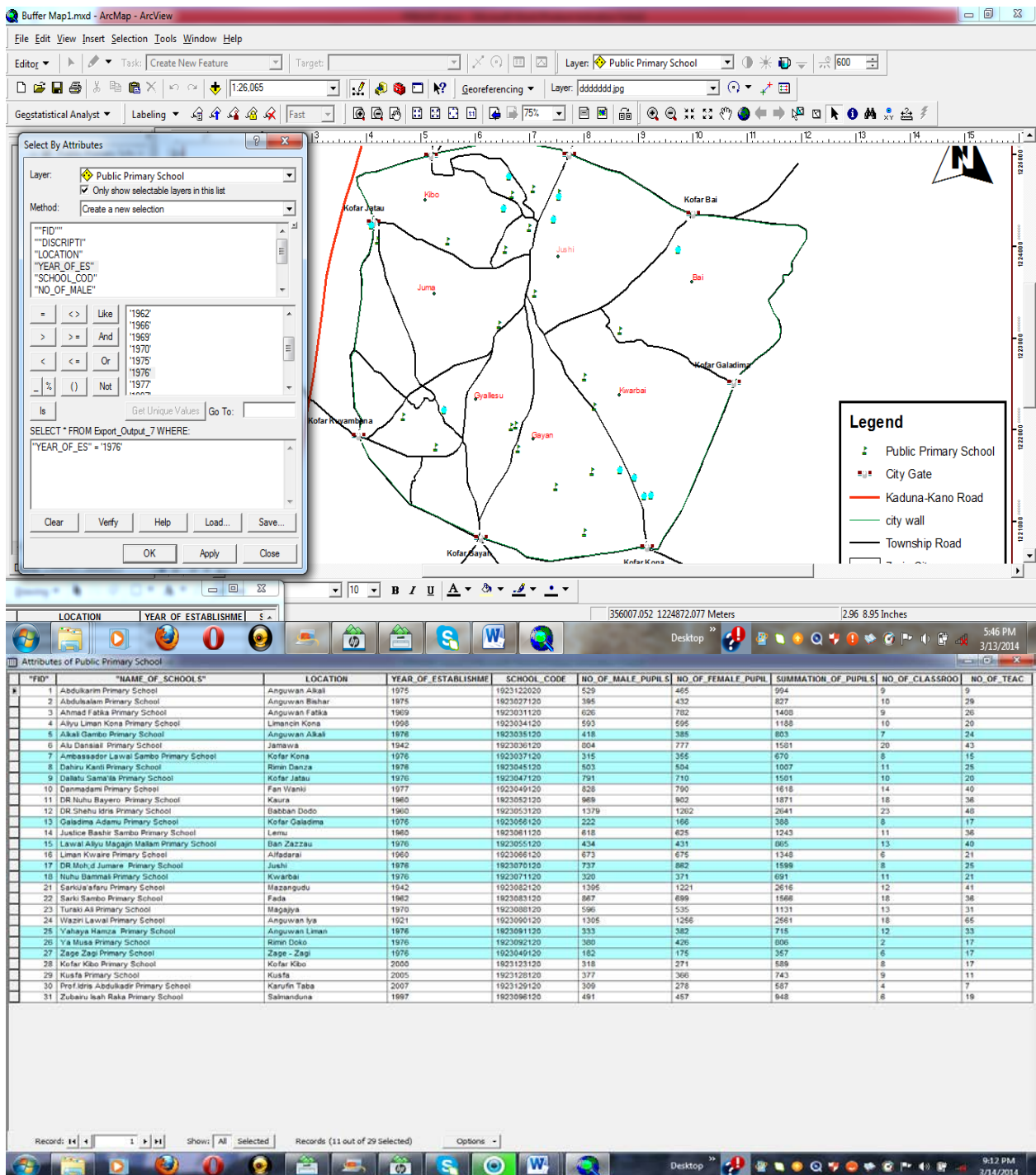FIG 2: Query on schools that have ≥ 15 classes
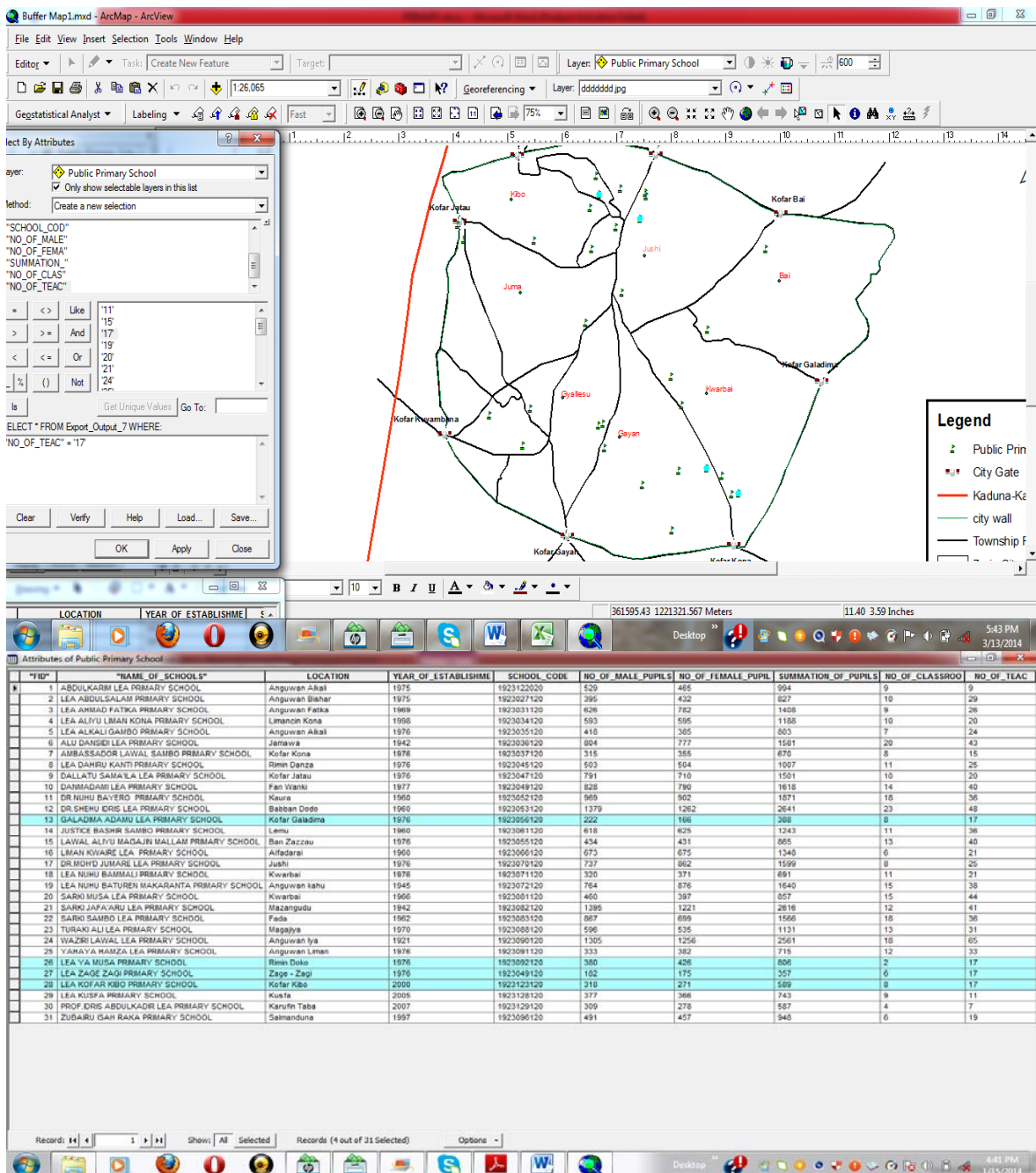
Figure 3: Schools established in 1976

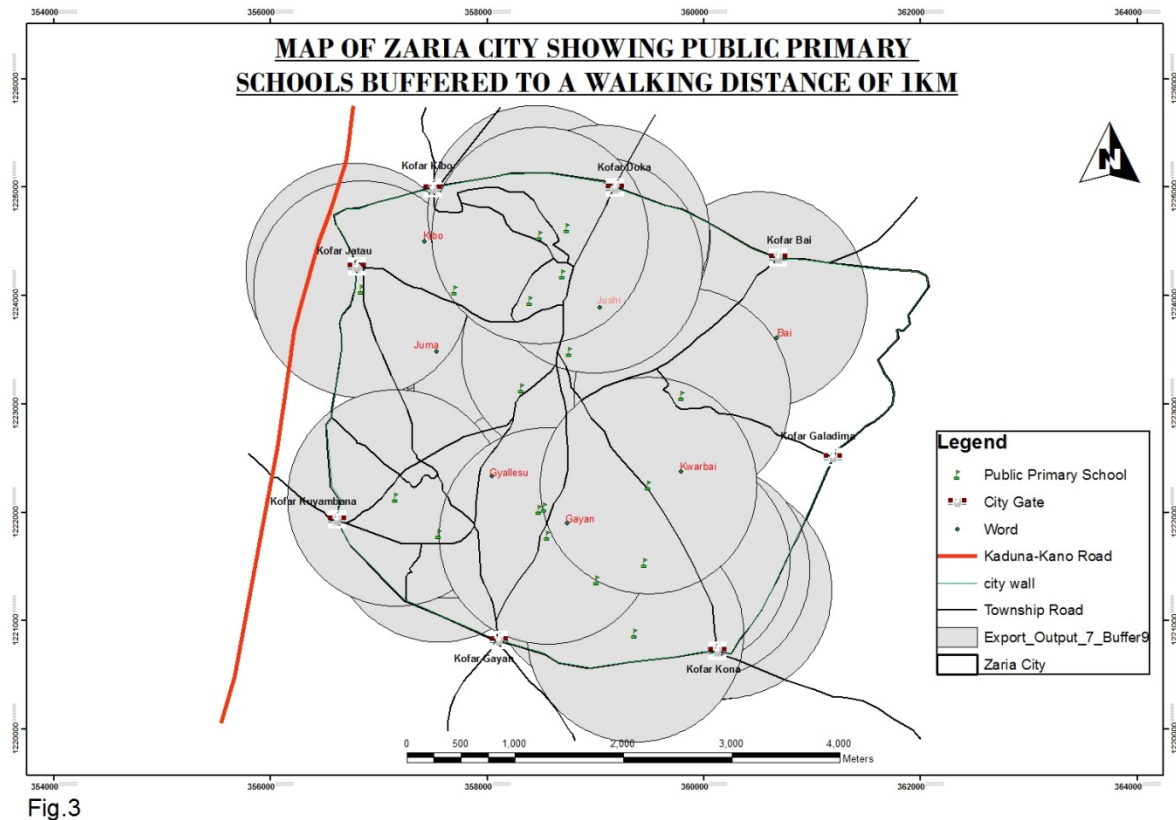Figure 4: Schools with 17 teachers in the study area

Fig.3

Figure 5: Map of Zaria city showing public primary schools buffered to a walking distance of 1 km

Discussion

As depicted in Figure 1, public primary schools almost evenly spread in the study area. It appears there was a deliberate attempt at achieving spatial balance in the distribution of the schools. While this appears to have been achieved to a certain extent, it is obvious that GIS technology was not used largely because of its relative recency. Access to the schools by pupils is correspondingly expected to be even. Table 2 shows that western style education started in 1921 in the study area. When viewed from the colonial history of northern Nigeria, this can be considered as early. The table also indicates that 11 primary schools were established in 1976, the year primary education was made free and compulsory in Nigeria. This was the highest number established in a year. Since 2007, no primary school has been added in the study area. Figures 2, 3, and 4 are demonstrations of how the data collected about the schools are queried using various themes and the resulting maps depicting the themes. Table 3 indicate that all the schools require additional classrooms. As a coping strategy, it is observed that the schools run two morning and afternoon shifts, i.e. some pupils attend school in the morning while others attend in the afternoon. The 1 km buffer zone for the schools indicates overlap of the zones. This suggests that, except for a personal preference for a particular school that may be far from their homes, no pupil treks for more than a kilometer to reach a school.

Conclusion

Thirty one public primary schools are in the study area. GIS methods were used to graphically depict the location of the schools the years they were established, their enrolment and, number of teachers and classrooms. The national teacher student ratio of 1:35 was used to determine the adequacy of classrooms and teachers available. All the schools require more teachers and classrooms to meet the required national standards. A buffer zone of 1Km was created for each of the schools to determine if the pupils have to walk longer than that distance to reach their schools. The schools were found to be evenly spread to allow access by pupils who do not have to walk more than a kilometer to reach their schools.

The use of GIS in displaying educational information was demonstrated. As a consequence it is recommended that education authorities employ GIS methods to depict and analyse educational information because of the advantages they offer. Towards this end, efforts should be made to acquire the needed hardware, software and personnel.

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