



NAAC ACCREDITED 'A' Grade

Dr. A. H. Manikshete  
M.Sc., Ph.D., B.Ed., D.C.M.

Principal

॥ विद्यया ऽमृतं धर्मं ॥

Shri A. P. D. Jain Pathashala's

Golden Jubilee Year 2011

JR. Index No. J 24.09.003

## WALCHAND COLLEGE OF ARTS & SCIENCE, SOLAPUR

Walchand Hirachand Marg, Ashok Chowk, Solapur - 413 006. +Ph. (O.) 0217-2651863, 2392198

(Affiliated to Solapur University, Solapur)

Minority Institute

Fax - 0217 - 2391849 - E-Mail - principalwcas@yahoo.co.in

Website : www.wcasolapur.org

(R) Ph. : 0217 - 2376371

Cell : 9422460706

Ref.No.: WCS/2014-15/744

Date: - 21-10-2014

To

The Joint Secretary,  
University Grants Commission,  
Western Regional Office,  
Ganeshkhind,  
Pune.

Subject :- Final report & statement of Expenditure of Minor Research Project of  
Mr.S.J.Neela.

Ref. No. :- 23-2194/10 (WRO) dated - 6<sup>th</sup> October, 2010.

Sir,

I am herewith forwarding the final report, Statement of Expenditure &  
other annexures of Minor Research Project entitled, *The Study of Urban Services  
in Municipal Corporation : in the Context of Urban Reform in Solapur City* done  
by Mr.S.J.Neela.

Kindly do the needful and oblige.

With regards,

Yours Sincerely,

(Dr.A.H. Manikshete)

Principal

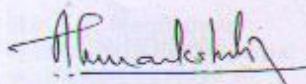
UGC-WRO, PUNE  
Minor Research Project

Utilization Certificate for Total/Utilized Grant


It is certified that the grant of Rs.120000/- (Rupees One Lakh twenty thousand only) sanctioned to WALCHAND COLLEGE OF ARTS & SCIENCE, SOLAPUR - Mr Neela S. J. by University Grants Commission vide their letter No.F.23-2194/10(WRO) dated 06-10-2010 towards Minor Research Project entitled "The Study of Urban Services in Municipal Corporation in the Context of Urban reform in Solapur City" in the subject Political Science has been fully utilized for the purpose for which has been sanctioned and accordance with the terms and conditions laid down by the Commission.

If as a result of check or audit objection, some irregularity is noticed at a later stage action will be taken to refund or regularise the objected amount.

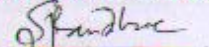
Total actual expenditure incurred for this project is of Rs.1,21,799 /- (Rupees One Lakh twenty one thousand seven hundred and ninty nine only).

  
(Dr. A.H. Manikshete)  
Signature of Principal  
Walchand College of  
Arts & Science, Solapur



  
(Mr S. J. Neela)  
Signature of  
Principal Investigator

FOR PANDHARE & Co.  
Chartered Accountants

  
Sanchit S. Pandhare  
Partner  
M. No.138420  
FRN : 107292W



17 OCT 2014

UGC-WRO, Pune

Minor Research Projects

STATEMENT OF EXPENDITURE

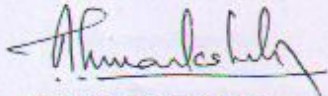
Name of Principal Investigator : Mr S. J. Neela  
Name of the College : Walchand College of Arts & Science,  
Solapur

Date of starting of project 16-12-2010 and date of Completion of Project  
15-12-2012


(For One/Two Years)

Details of Expenditure

| Sr. No. | Heads             | Sanctioned Amount Rs. | Received Amount Rs. | Actual Expenditure |
|---------|-------------------|-----------------------|---------------------|--------------------|
| I       | Books & Journals  | 30,000.00             | 30,000.00           | 30,077.00          |
| II      | Equipment         | 40,000.00             | 40,000.00           | 39,950.00          |
| III     | Contingency       | 20,000.00             | 10,000.00           | 21,855.00          |
| IV      | Field Work/Travel | 30,000.00             | 15,000.00           | 29,917.00          |
| Total   |                   | 1,20,000.00           | 95,000.00           | 1,21,799.00        |

  
(Dr. A.H. Manikshete)  
Signature of the Principal  
with Walchand College of  
Arts & Science, Solapur



  
(Mr S. J. Neela)  
Signature of  
Principal Investigator

FOR PANDHARE & Co.  
Chartered Accountants  
  
Sanchit S. Pandhare  
Partner  
M. No. 138420  
FRN : 107292W

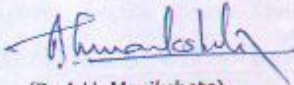


17. OCT 2014

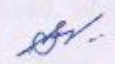
UGC-WRO, Pune  
Minor Research Projects  
ASSETS CERTIFICATE

It is certified that the following Equipment have been handed over to the colleges :

1. HCL Laptop 54 Series Intel Dual core Qty-1

  
(Dr.A.H. Manikshete)  
**Principal**  
PRINCIPAL  
WALCHAND COLLEGE OF  
ARTS AND SCIENCE, SOLAPUR



  
(Mr.S.J.Neela)  
**Principal Investigator**

**ACCESSION CERTIFICATE**

It is certified that the books purchased from Minor Research Project F. No. 23-2194/10 (WRO) dated 06.10.2010 sanctioned to Mr. S.J.Neela are handed over to the college central library. Their accession number is from 58575 - 58580, 59606 - 59614, 61116 - 61201, 61228 - 61229, 61705 - 61719 & Journal



Signature of P.I.



Signature of Librarian with seal



Signature of Principal with seal  
PRINCIPAL  
WALCHAND COLLEGE  
ARTS AND SCIENCE, SOLAPUR



October - 2014

RNI : MAHMUL/2011/38887



Associated & Indexed By EBSCO, U.S.A.

ISSN No. 2231-5063

# GOLDEN RESEARCH THOUGHTS

Impact Factor : 0.1870

International Recognition Research Journal

**Certificate**

*This is to certify that our Editorial, Advisory, and Review Board Accepted Research Paper  
of Dr. /Shri./Smt.: Sangmeshwar Neela & Mallikarjun I. Minch  
Topic:- "Right To Health And Disposal Of Hazardous Substances And Wastes"  
College:- Asst. Professor, Walchand College of Arts and Science Solapur  
The Research paper is Original & Innovative it is Done Double Blind Peer Reviewed  
Your Article is Published on 01.09.2012*

Add:- 258/34, Raviwar Peth Solapur-413005 Maharashtra, India  
Contact Detail:- +91-0217-2372010, Mobile:- +91-9595359435, Email- ayisrj@yahoo.in/ayisrj2011@gmail.com  
Website-www.isrj.net

*Authorised Signature*  
*Yashbaldar*

*Dr. Shree Yashbaldar*  
*Publisher*



## “Right To Health And Disposal Of Hazardous Substances And Wastes”

Sangmeshwar Neela<sup>1</sup> and Mallikarjun I. Minch<sup>2</sup>

<sup>1</sup>Asst. Professor, Walchand College of Arts and Science solapur  
E-mail: sangmeshwarneela@yahoo.in

<sup>2</sup>G. P. Porwal Arts, Commerce & V. V. Salimath Science College,  
Sindgi, Karnataka



### ABSTRACT:

Health means absence of disease according to the biomedical concept of health, but ecologists view health as a dynamic equilibrium between man and his environment.

The key to man's health lies largely on his environment. Protection and promotion of environmental health, thus receives special address today. Not only modulation of the environment, but making them more plastic, is imperative for safeguarding one's health. From another standpoint, adoption and practice of a healthy lifestyle by individuals is also solicited. Health is thus an or spring and a precursor of describable lifestyle.

Right to health is not a proclaimed component in many of the constitutions of the world. Only the Declaration of Human Rights, at the international level stated in its Art 25 thus: "Everyone has the right to a standard of living adequate for the health and well being of himself and his family." Among

the important indicators of health, one major element is environmental indicators. Man is living and working today in a highly combated environment, which is getting complex with the passing of time, when he is becoming more ingenious and technologically advanced. Use of electrical, electronics and telecommunication systems etc. have enhanced the possibility for human exposure to electromagnetic charger. If this trend continues, the quality of life, people cherish may also be endangered. This is the story of the well educated, most sophisticated, working community. The other side of the population lives and works (farms, factories, industries, mines, quarries, hospitals etc.), in most deplorable conditions. A safe and healthy working environment is the basic right of every worker. However the global situation falls for short of this right.

The International Labour Organization (ILO – 1949) aims at encouraging a culture of safety at the workplace with an emphasis on prevention. To quote The Hindu (2006) two million are estimated to die annually owing to work related injury and illness, 250 million suffer occupational accidents and another 160 million falls ill on account of exposure to hazards in the workplace. Additional hazards to life from machines and tools, biological and socio-psychological hazards and musculo-skeletal disorders are also emerging as serious challenges. Though this may seem a global scenario, India is a great contributor to the statistic.

Though much legislation exists to protect workers rights and health, they are not implemented properly and only influential workers enjoy the benefits. The preamble of the WHO contribution also affirms that. It is one of the fundamental rights of every human being to enjoy the highest attainable, standard of health :  
(Thomaskutty Dr. P. G., George, Dr. Maya, 2009.)

### EFFECT OF DISPOSAL OF HAZARDOUS SUBSTANCES AND WASTES :

After disposal, solid wastes normally are allowed to pass first to container, either immediately or via a refuse chute, then the wastes are generally transported by vehicle either in the original container or after transfer to a larger container, then there may occur a processing stage such as incineration, compaction, shredding or reclamation and so called final disposal must by definition be back to the environment in solid liquid or gaseous form.

### MEDICAL WASTE – A HEALTH RISK FOR MANY

"Hepatitis C is rapidly spreading among young garbage pickers/scavengers, as they pick up used syringes and other clinical waste from different public/private hospitals of the city for recycling..." This story carried in "The News International", a Karachi newspaper in December, 2007 quoted an official as saying that most hospitals in the city were not disposing of their infectious waste properly. The official said a random study estimated that 50,000 garbage collectors, mainly young children whose families fled from Afghanistan, were hepatitis positive as well, because of the contaminated material to which they were exposed.

A significant amount of medical waste is generated through material used for patient diagnosis, treatment or immunization, and

may pose significant risks to human health and the environment if not managed and disposed of appropriately.

The report identifies this waste as consisting of sharps, which include needles, syringes, scalpels and other sharp objects; pathological waste, including blood, mucus and anatomical parts or tissues removed during surgery or autopsy; chemical waste, including the products used during cleaning and disinfecting processes; pharmaceutical waste, which consists of expired, unused, spilled and contaminated pharmaceutical products, drugs and vaccines; and radioactive waste from medical therapy and research.

In his report the Special Rapporteur says the disposal of hazardous medical waste poses significant threats to the enjoyment of human rights, including the right to health, and is particularly problematic in developing countries. It is worsening because of the expansion of health-care systems and services. "Medical waste is often mixed with general household waste," he says, "and is either disposed of in municipal waste facilities or dumped illegally." (<http://www.ohchr.org>)

#### **PUBLIC HEALTH HAZARDS :**

Within a matter of hours in a warm temperature sterile organic matter, like cooked meat, can become a potentially lethal source of toxic or disease producing organisms. The organisms do not have to be originally present in the host material as the environment is normally well provided with spores bacteria, viruses, insects, vermin and other vectors awaiting a favorable site on which to multiply.

It is estimated that 90% of the urban house fly population breeds in the contents of open trash barrels. (Gaur G., 2005.)

Solid waste workers are the most exposed to the risks of parasitic infections and accidents and therefore, a SWM system must include proper mechanisms to avoid these incidences. To the direct and indirect risks through accidents, exposure and spread of disease, we must add the effect of usual pollution caused by litter and nuisance created by smoke and dust at disposal sites.

#### **PUBLIC HEALTH EFFECT :**

##### **(1)Disease Vectors and Pathways :**

Wastes dumped indiscriminately provide the food and environment for thriving population of vermin, which are the agents of various diseases. The pathways of pathogen transmission from wastes to humans are mostly indirect through insects – flies, mosquitoes and roaches and animals – rodents and pigs. Diseases become a public health problem when they are present in the human and animal population of surrounding communities.

##### **(2)Flies :**

Most common in this category is the housefly, which transmits typhoid, salmonellas gastro – enteritis and dysentery. Flies have a flight range of about 10 km. and therefore, they are able to spread their influence over a relatively wide area.

##### **(3)Mosquitoes :**

They transmit disease such as malaria, filarial and dengue fever. Since they breed in stagnant water, control measures should centre on the elimination of breeding places such as tins, cans, tyres, etc. proper sanitary practices and general cleanliness in the community help eliminate the mosquito problems caused by the mismanagement of solid waste.

##### **(4)Roche's :**

These cause infection by physical contact and can transmit typhoid, cholera and amoebiasis. The problems of roaches are associated with the poor storage of solid waste.

##### **(5)Rodents (Rats) :**

They are responsible for the spread of diseases such as plague. Murine typhus, leptospirosis, histoplasmosis, rat bite fever dalmoneiosis, trichinosis etc. The fleas which rats carry also cause many diseases. This problem is associated not only with given dumping but also poor sanitation.

##### **(6)Occupational Hazards :**

Workers handling wastes are at risk of accidents related to the nature of material and lack of safety precautions. The sharp edges of glass and metal and poorly constructed storage containers may inflict injuries to workers.

It is therefore, necessary for waste handlers to wear gloves, masks and be vaccinated. The infections associated with waste handling include :

- 1)Skin and Blood infections resulting from direct contact with waste and from infected wounds.
- 2)Eye and respiratory infections resulting from exposure to infected dust, especially during landfill operations.
- 3)Diseases that result from the bites of animals feeding on the waste.



- 4) Intestinal infections that are transmitted by flies feeding on the waste.
- 5) Chronic respiratory diseases including cancers resulting from exposure to dust and hazardous compounds.

In addition the accidents associated with waste handling include :

- 1) Bone and muscle - disorders resulting from the handling of heavy containers and the loading heights of vehicles.
- 2) Infecting wounds resulting from contact with sharp objects.
- 3) Reduced visibility; due to dust along the access routes, creates greater risk of accidents.
- 4) Poisoning and chemical burns resulting from contact with small amounts of hazardous chemical wastes mixed with general wastes such as pesticides, cleaning solutions and solvents in households and commercial establishments.
- 5) Burns and other injuries resulting from occupational accidents at waste disposal sites or from methane gas explosion at landfill sites.
- 6) Serious health hazards particularly for children, due to careless dumping of lead - acid, nickel - cadmium and mercuric oxide batteries.

#### ANIMALS :

Apart from rodents, some animals (e.g. dogs, cats, pigs, etc.) also, act as carriers of disease for example pigs are involved in the spread of diseases like trichinosis cysticercosis and toxoplasmosis.  
( Ramchandra : 2009 )

#### CONCLUSION:

Recommendations for adoption of the measures below.

##### Awareness-raising:

- 1) At the national level to protect individuals and communities from the adverse impact of toxic and dangerous health-care waste on their human rights, including the right to life, the right to health and the right to a safe environment, States take all appropriate measures to raise awareness of the problems, especially among policymakers and communities living in the vicinity of sites where waste is incinerated or land filled.
- 2) Non-governmental organizations working in the field of public health or environmental protection should include the promotion of sound health-care waste management in their advocacy and conduct programmes and activities that contribute to sound health-care waste management.
- 3) In some cases, a healthy lifestyle represents the most efficient way to avoid medical treatment and the waste it generates as a by-product.
- 4) States that have not yet adopted a specific law on health-care waste management principles of international environmental law, such as the precautionary and the "polluter pays" principles, should be taken into account when drafting such legislation.
- 5) This legal package should specify approved methods of treatment and disposal for different waste categories identify safe practices for the minimization, segregation, collection, storage and transport of waste and outline the responsibilities of public health authorities, the national environmental protection body, managers of health-care facilities and managers of private or public waste-disposal agencies.
- 6) The health authorities should organize educational programmes and training opportunities to raise awareness about health, safety and environmental protection issues relating to medical waste management and occupational risks to which they are exposed and on the correct procedures for handling waste in a safe manner.
- 7) The appropriate personal protective equipment for persons handling hazardous health-care waste should be provided.
- 8) The donor community, international and regional organizations, financial institutions and the private sector to provide developing countries with technical assistance and financial support to help them achieve safe and sustainable management of medical waste. Technical assistance should include the transfer of scientific and technological knowledge, as well as state-of-the-art technologies for the safe disposal of hazardous medical waste, such as autoclaving and non-burn technologies.
- 9) Recycling Waste segregation at source is a basic requirement for the recycling of non-hazardous components of health-care waste. Some kinds of hazardous waste can also be recycled.
- 10) A disposal method of hazardous medical waste be substituted with more environmentally-friendly and safe methods of disposal.

**REFERENCES :**

- (1)Bandela N. N., Tare D. G., 2009, "Municipal Solid Waste Management", B. R. Publishing Corporation, Delhi, P. 162.
- (2)Gaur G., 2005, "Soil and Solid Waste Pollution and its Management", Sarup & Sons, New Delhi, P. 375.
- (3)Narasimh M. L., 2007, "Poor and the Human Rights", Discovery Publishing House Pvt. Ltd., New Delhi, P. 185.
- (4)Ramchandra T. V., 2009, "Management of Municipal Solid Waste", TERI Press, New Delhi, P. 321.
- (5)Thomaskutty Dr. P. G., George, Dr. Maya, 2009, "Human Rights and Values in Education", Discovery Publishing House Pvt. Ltd., New Delhi, P. 381.
- (6)<http://www.ohchr.org/EN/Issues/Environment/Toxicwastes>

**Golden Research Thoughts**