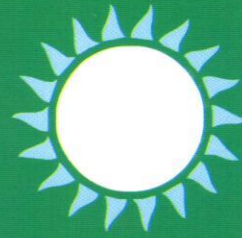


# Environmental Policy



Jiwaji University, Gwalior

**Prof. Sangeeta Shukla**  
Vice Chancellor



**Jiwaji University**  
Vidya Vihar, Gwalior- 474011

## Preface



Hearty felicitations to the environment conscious unit of Jiwaji University i.e. the ultimate platform of higher learning. This is probably the best era, to rise up to cater to the care of planet Earth. Jiwaji University is eco-friendly and committed to build scenario of green environment. The University assures the adaptation of time trusted measures like Rain water harvesting, Water recycling, Solid waste management, Conservation and Efficient use of Energy along with sustainable buildings.

Jiwaji University takes the pledge to raise an environment conscious community of educated fraternity comprising of the faculty, staff and students at large. Each one would adopt sustainable practices to make our surroundings lush green and crystal clean. The green university policy "think green, go green" has been consolidated with a visionary foresight and ultimate optimism, it promises to make our surroundings not only green but also voluminously green.

This realistic policy has been introduced with in-depth vision. There will be whole hearted involvement of faculty, staff and students in promoting awareness towards protection of environment.

It is my genuine wish that these concerted efforts will help create a long lasting effect in accordance with Energy efficiency, Waste management, Bio diversity, Sustain ability and Eco-biological balance.

**(Prof. Sangeeta Shukla)**





## **Introduction :**

The quality of environment affects human life in a number of ways and human endeavors, so called "anthropogenic activities" also determine the quality of environment. Increasing environmental pollution and emission of gases result in (1) greenhouse effect, (2) ozone layer depletion as a result of which global climatic changes and other irregularities and imbalance of nature are caused. It implies that the atmospheric conditions are changing. This is supposed to drastically affect the life of organisms. Climate change, bio-diversity loss, inefficient land use patterns, over consumption, and reliance on unsustainable sources of water, energy and food have created a set of problems for both developed and developing nations that many policy analysts view it as the greatest challenge of present generation. Many of these environmental problems are considered to be due to overexploitation of natural resources, ineffective decision making and outdated policies such as non-judicious use of chemical fertilizers and pesticides. Creating more sustainable societies requires new public policies and visionary plans, along with innovative decision-making processes and well-managed organizations. The Environmental policy makers emphasize on measures to reduce environmental pollution so as to conserve the environment and make sustainable development.

With increasing awareness and concern on environmental issues and emphasis for sustainable development, it is now high time for the University to make an Environmental Policy on the auspicious occasion of Golden Jubilee Celebration and to implement it for future.

## **Scope of Environmental Policy :**

The environment and human activities have close interaction with each other. In order to understand environmental problems and to find their solution, to create a favourable atmosphere for sustainable progress of the society, environmental policy is necessary. Planning with vision and implementation with dedication are the essential parts of environmental policy. University is an autonomous body, its premises are, generally not covered under Municipal Corporation (Nagar Nigam). Therefore own arrangements have to be made for maintenance of clean and green campus for this University needs an environmental policy. Imparting knowledge to the students and society is an integral part of it because University is a site of learning and human resource development. The society looks upon University to provide human force that can contribute, as good citizens, at regional, national and global levels for sustainable progress. Environmental policy of University helps the students to develop professional skills to plan and implement effective policies that underlie environmental problems. In addition, students develop ability of decision-making processes that are scientifically credible, involve a diverse set of interests and lead to the development of organizations that can move society in a more sustainable direction. Tools of implementation of policy include: (1) legal aspects (regulation, penalties, permits and liability regimes), (2) economic instruments (such as expenditure and funding, taxes, incentives, and tradable permits) and (3) instruments aimed at voluntary compliance (such as education and voluntary schemes).





### **Environmental Policy, a multi-disciplinary Approach :**

The environmental policy of Jiwaji University is concerned with the human dimensions of environmental problems. It is a comprehensive planning covering all environmental sectors and natural resources including air, water, soil, land, waste, climate, bio-diversity, noise, chemicals and minerals. The policy thrusts on multi-disciplinary view of environment and draws upon concepts from a variety of fields, including life sciences, anthropology, earth sciences, ecology, economics, geography, history, sociology, political science, and psychology. The environment impact is based on human activity in a range of sectors. The policy addresses the environment-economy interaction including impacts of specific key sectors, such as tourism, construction, agriculture, transport on the environment and vice-versa. It has implications on competitiveness, innovation, employment, GDP and environment–society interaction (including health and quality of life considerations).

### **Environmental Issues :**

In formulating environmental policy, the word 'environment' is widely-used. It will be useful to define environment. As per 2010 Environment and Planning Act (Article 2) the definition of 'environment' is:

"Environment" means the whole of the elements and conditions, natural or man-made, existing on earth, whether together or in isolation and in particular, including:

- (a) air, water and land;
- (b) all layers of atmosphere;
- (c) all organic and inorganic matter and all living organisms;
- (d) all ecosystems;
- (e) landscape.

The issues that do not relate to a situation in the physical environment, but affects the quality of life are excluded. For example, changes in the social environment that affect the way people relate to each other would not qualify as environmental issues.

The major environmental issues and problems are concerned with increasing air (airborne dust and bio-components, greenhouse and other pollutant gases), water (high levels of toxicants, their residue, heavy metals, fluoride, calcium, nitrates etc.) and soil (high levels of toxicants, their residue, xenobiotics, salts, heavy metals) pollution, declining natural resources, depletion of potable water, global climatic changes, risks to bio-diversity, ecosystem and human health.





### Objective of Environmental Policy :

To provide clean and green environment in the Jiwaji University campus

### Environmental education and Environmental remedial measures

The campus of Jiwaji University is covered by nice greenery including lush green lawns, avenue trees, departmental and residential gardens. University administration, faculty of Physical Education, Botany, Zoology, Earth Science, Environmental Science, Pharmacy, Neuroscience and others deserve all appreciation for plantation and caring for them. Vermicompost produced by Vermi composting Center of the University is used in lawns and plants. Environmental Science is a multi disciplinary field. Education of different aspects of environment is being provided to the students of different courses run by Jiwaji University and relevant topics are included in respective course curricula. Relevant topics are included in respective course curricula.

### Major focal areas of environmental policy :

- 1. Solid Waste Management:** Major focus of our environmental policy shall be on waste management because waste is the major source of pollution like foul smells, unhygienic conditions, infectious diseases and bad image of the place. The Jiwaji University initiated programmes for solid waste management about 15 years back and have gained expertise.
- 2. Waste materials as source of energy:** Biological waste, especially agricultural bi-products can be used as fuel and for generation of electricity. Collection, transport, storage and use of raw waste biomass pose several problems, briquetting technique solves them out. The shredded biomass is mixed with adhesive and compact blocks or pellets (briquettes) will be prepared. They can be used anywhere where heat is required.
- 3. Waste materials as source of fuel gas:** Some types of waste can be used for production of biogas that is used for fuel purposes. Cattle dung based biogas plants are suitable for rural and semi-urban areas. Mini biogas plants have also been developed in which food based household garbage can be processed. The slurry of these biogas units can be employed as bio-fertilizer. Jiwaji University is planning to install mini biogas plants in guest house, hostels and canteens as model units. If they are successful, attempts will be made to promote them for use by University employees and general public.
- 4. Concept of Bio-toilets:** Enough scope exists for improvement in methods of disposal and management of human excreta. Scientists of Defence Research and Development Establishment, Gwalior have successfully developed eco-friendly method of processing of such waste. A number of bio-toilets have been installed across the country including in passenger trains. The bio-toilets shall be installed in guest house, hostels, administrative office, teaching departments. If successful, the scheme will be implemented to residential campus and general public.





### **Conservation of water and other natural resources :**

In newer constructions of University, roof water harvesting system is followed. A mud pond was made in Charak Udyan that is filled by drainage (nullah) and rain water.

- 1. Waste water remediation and water recharging :** The University will focus on judicious use and conservation of water by checking overflow and leakage of water. Attempts will also be made to collect rain water and to divert it recharge ground water table by making suitable system. Roof water harvesting in old buildings will also be done.

- 2. Conservation of energy (electricity) and promotion of alternative source of energy:**

Rules will be framed and they will be strictly followed to reduce the consumption of electricity. In place of conventional bulbs and tube lights, use of CFLs and LCDs shall be promoted. In order to reduce the load of electricity, alternative source of energy shall be tapped. Use of solar energy for water heating and lightening shall be encouraged. No attempts have been made so far for use of wind energy in the jurisdiction of Jiwaji University, Gwalior. Now attempts will be made to promote the same.

Efforts will be made to reduce the consumption of petrol and diesel by promoting the scheme of car pool and by providing, free of cost, shared vehicle to the employees.

- 3. Conservation of threatened and endangered species of plants and animals:**

Declining biodiversity is also a serious concern among the environmental issues. For protection and conservation endangered biodiversity efforts will be made to strengthen the existing Charak Udyan into a Biodiversity Park.

- 4. Promotion of green technologies:**

The University is also planning to promote green technologies like Biodegradable packaging, Organic Farming and Sustainable Agriculture, and Chemical free pest management tools.

- 5. Joining hands with NGOs, Nagar Nigam and Industries:**

We intend to join hands with NGOs, Nagar Nigam and green-technology industries on various issues on mutual interest basis.

### Strategies and Plans of Environmental Policy:

1. Promotion of plantation for purification of environment.
2. Promotion of naturopathy and herbal medicines.
3. Prohibition of burning of organic waste in the University campus.
4. Recycling of different kinds of waste through vermicomposting and initiation of several vermicomposting units in the campus.
5. Recycling of shredded waste paper by *Trichoderma* inoculation and vermicomposting.
6. Recommendation of establishment of vermicomposting (waste management) units by affiliated colleges.
7. Promotion of recycling of household (garden, food & kitchen) waste by "Home Vermicomposting" system developed by our faculty.
8. Installation of food waste based mini bio-gas plants in hostels, guest houses and residential campus.
9. Purification of sewage waste water by certain kind of aquatic plants and grasses.
10. Establishment of bio-toilets.
11. Implementation of water harvesting and ground water recharging systems.
12. Solar systems shall be used and promoted.
13. Consumption of electricity will be reduced through controlling misuse and promotion energy saving devices, CFLs and LCDs.
14. Promotion of wind energy systems.
15. Prohibition of plastic carry bags in the University campus.
16. Prohibition of plastic and thermocol based disposal items in functions and parties in the campus.
17. Promotion of eco-friendly consumer goods.
18. Collaboration with eco-friendly industries especially dealing with biodegradable plastic and insect and mosquito traps.
19. Installation of hoardings in the campus displaying notification of prohibition of smoking, burning of waste and use of polythene carry bags etc.
20. Preparation and release of Environmental calendar of Jiwaji University, Gwalior in which all important days related with environmental issues shall be depicted. A list of activities to be organized on respective days will also be prepared.





### **Task Group Members of Environmental Policy**

1. Prof. Sangeeta Shukla, Vice Chancellor
2. Prof. R. J. Rao, Rector
3. Prof. O. P. Agrawal  
School of Studies in Zoology
4. Prof. Ashok Jain  
School of Studies in Botany
5. Prof. Rekha Bhadoria  
School of Studies in Botany
6. Prof. Rajeev Jain  
School of Studies in Chemistry
7. Prof. Avinash Tiwari  
School of Studies in Botany
8. Prof. A. K. Singh  
School of Studies in Ancient History
9. Dr. Nimisha Jadon  
School of Studies in Environmental Chemistry
10. Dy. Registrar (Adm.)







वर्मीकम्पोस्टिंग एवं जैविक खाद केन्द्र  
प्राणिकी अध्ययनशाला, जीवाजी विश्वविद्यालय  
ग्वालियर - 474011



VERMICOMPOSTING HUT