



Indian Knowledge Systems for Global Well-being and Sustainable Development: Relevance and Contemporary Applications in Higher Education

Ms. Varsha Bhatnagar

Assistant Professor, Jagannath Community College
Jagannath University, Bhadurgarh

Contact no: 9899440720 | Email id: Varsha.bhatnagar@jimsindia.org

Ms Namrata Chadha

Assistant Professor, Jagannath Community College
Jagannath University, Bhadurgarh

Contact no: 9810744664 | Email id: namrata.chadha@jimsindia.org

Abstract

Modern development has generated unparalleled advances in science, technology, healthcare, communication, and productivity. Yet, it has also been associated with environmental degradation, climate change, loss of biodiversity, stress, inequality, and unsustainable lifestyles. These developments have generated interest in alternative knowledge systems that prioritize human well-being in social, ethical, and ecological contexts. Indian Knowledge Systems (IKS) consist of diverse traditions of health, Yoga, philosophy, agriculture, water management, architecture, mathematics, ecology, and education. Their significance in contemporary times comes from certain ideas and approaches that they propose to enhance the well-being of people and our planet. This chapter attempts to highlight the contribution of the Indian knowledge systems to furthering global well-being and sustainable development with particular attention paid to higher education. It addresses the significance of Ayurveda and preventive health, Yoga and mental well-being, ethical traditions, agriculture, water resource management, and ecological knowledge for contemporary issues of global well-being, including sustainable development goals. This chapter is based on the traditional knowledge system. Higher education can play a special role in engaging with IKS by advancing curricular innovations, interdisciplinary research, ethical collaborations with traditional knowledge holders, and development of context-specific applications. This chapter, therefore, prioritizes the opportunities for higher education and its role for exploring the relevance of Indian knowledge systems to contemporary issues of well-being and sustainable development.

Keywords: Indian Knowledge Systems; sustainable development, well-being, water management, higher education, Ayurveda, Yoga & mental well-being, traditional knowledge, sustainability and sustainable development goals

1. Introduction

The understanding of development has evolved over time. While economic growth, industrialization, technological change, and productivity have been important goals, they have proven to be insufficient indicators of human well-being. Climate change, loss of biodiversity, water security and health, stress, and inequality are some examples of the complex problems that societies have in development. In this



context, sustainable development goals acknowledge the requirement to achieve economic ends along with other goals like social, health, education, ecology, and institutions. The Viksit Bharat 2047 agenda thus represents a holistic perspective of development, which brings together over all progress of the nation and well-being of its people. Simultaneously, there has been an increasing attention towards traditional and indigenous knowledge systems both at the academic and policy level. The value of these knowledge systems does not lie in the fact whether pre-modern societies were more sustainable and equitable than the present societies or if they can replace. Rather, individual practices and claims need to be examined to identify their potential contributions to contemporary issues of well-being. Indian Knowledge Systems constitute one such set of traditional knowledge that encompasses a variety of philosophical, ethical, health, agricultural, water management, architectural, mathematical, linguistic, literary, artistic, and technological traditions. These systems have evolved over centuries and therefore need to be understood in their multidisciplinary and historical contexts. The National Education Policy (NEP) 2020 recognizes the importance of Indian Knowledge System for India's higher education system. The Ministry of Education therefore encourages universities to promote such systems through curricular innovations, digital content, and use of Indian languages. This has created an opportunity to engage with India's own knowledge traditions while raising the responsibility to examine their potential contributions. The main focus of this chapter is on the contemporary relevance of Indian Knowledge System

2. Indian Ideology and Well-being of Human Beings: Indian ideology connects knowledge with moral values. Self-discipline, responsibility, moderation, non-violence, compassion, and social harmony are examples of how traditional Indian thinkers have connected individual actions and social institutions with human well-being. These moral values have contributed to health care, ecology, and development in Indian communities. The relevance of Indian moral values and ethics comes from their contributions towards developing responsible citizenship, leadership, well-being, and sustainability. Nevertheless, it should be noted that similar ethical values exist within other traditions in different cultures and civilizations. Thus, when considering the contemporary relevance of Indian values and ethics, it is necessary to use a comparative approach.

2.1 Ayurveda and Preventive Medicine

Ayurveda being one of the most ancient medical systems is deeply rooted in Indian culture. This medical tradition is concerned about numerous physical and mental diseases and provides a broad set of treatments and recommendations on lifestyle to treat and prevent diseases. It makes Ayurveda very interesting for the modern world, especially concerning the problem of preventive medicine. It is necessary to distinguish between Ayurveda as a historically developed medical tradition and its relevance to today. At the same time, its individual claims and preparations need to be examined using modern scientific methods to identify their potential contributions to public health.

The World Health Organization (WHO) therefore advocates a pragmatic approach to traditional medicine that promotes its integration into national health systems while simultaneously pursuing research into its safety, quality, efficacy, and mechanisms of action. WHO's Global Strategy and Plan of Action on Traditional Medicine emphasizes the need to pursue institutionalization while addressing the challenges of regulation, research, quality, and safety.

Ayurveda can therefore make significant contributions to higher education, where its diverse aspects and claims can be examined using multidisciplinary approaches. By studying Ayurvedic medicine from historical, pharmacological, medical, and socio-ethical perspectives, higher education can highlight its potential applications for contemporary health and wellness priorities.



2.2 Yoga and Mental Well-being

Another example of an Indian tradition gaining popularity abroad during the last century is Yoga. Although today's Yoga practice in the West focuses mainly on physical positions and exercise, it actually represents a holistic approach encompassing ethics, physical positions, breathing practices, focused attention, and meditation. It becomes clear that the relevance of Yoga is especially high in relation to the contemporary global problem of stress among the population. The scientific research about the efficiency of Yoga in lowering stress is quite known. There is the need for a deeper understanding of the role of Yoga in human health. While all trials find a reduction of reported stress levels in the yoga groups. Recent studies confirm that yoga interventions have a positive influence on patients' quality of life. It is also used for stress management and well-being programs. At the same time yoga contributes to the understanding of the relationships between physical, mental, and spiritual well-being. Higher education can therefore engage with yoga as a topic for multidisciplinary study and discussion, emphasizing its development and contemporary findings.

3. Indian Knowledge Systems and Sustainable Development

Human welfare and physical well-being depend on the environmental conditions. This notion is evident from a number of traditional Indian practices and beliefs that relate to the agriculture, water resources, forest resources, and social interactions. Consequently, sustainable development is likely to involve coming back to tried and true ways of living in harmony with nature. However, the Indian society was not immune to unsustainable practices resulting in resource conflicts, degradation of environment, and social inequality. It means that the evaluation of the relevance of traditional practices in relation to the issues of sustainability requires looking at the parts of the whole picture.

3.1 Traditional Agriculture

The Indian farmers applied different traditions, knowledge, and practices to grow staple crops, food crops, forage crops, fibrous plants, and spices. The practices of traditional agriculture are diverse and related to the specifics of the local environment (climate, soil, and water availability). The techniques that are characteristic of traditional agriculture include mixed cropping, diversification of crops, rotations of crops, agroforestry, and biological control of pests. Modern experts consider it necessary to adapt traditional agricultural practices for improving the sustainability and resilience in response to the contemporary challenges of agriculture and environment.

It is important to realize that the traditional agricultural practices needs to work hand in hand with present day technologies which have brought about many innovations like high yield seeds, farming equipment, irrigation, fertilizers, and other technological advancement but at the same time we need to understand that excessive use fertilizers & pesticides pose threat to the overall well-beings of human beings. The contemporary significance of traditional agricultural practices stems from their potential value for developing local adaptation and resilience strategies. It means that higher education can benefit from the consideration of the principles of traditional agriculture for advancing the contemporary agricultural priorities. For example, local crop varieties can be analyzed for the purpose of studying the adaptive features and genetic diversity.

3.2 Traditional Water Management

Water resource management also provides examples of the contributions traditional knowledge systems could make to sustainability. India's varied climates and landscapes contribute to the development of



numerous methods of storing and distributing water resources. Traditional systems of water resource management, such as tanks, ponds, stepwells, reservoirs, and irrigation systems, reflect the way Indians adapt to their surroundings. The reason why traditional water resource management systems could be of interest today is their potential to inform water security and sustainability in the contemporary world. Today, researchers and policymakers understand the significance of localized water resource management and traditional water resource storage and distribution systems. The adaptation of traditional water resource management systems would provide an opportunity to solve contemporary problems in this area, especially those which are relevant to urban areas. On the other hand, the effectiveness of traditional technologies and approaches should be assessed with the help of modern day technology and engineering.

3.3 Ecological Knowledge and Biodiversity Conservation Practices

Ecological knowledge and practices associated with the conservation of biodiversity could be viewed as another category of traditional practices relevant to the present times. Local knowledge and institutions helped to conserve ecosystems and their services. In many parts of India, conservation of forests and biodiversity is achieved by relying on traditional practices, such as creation of sacred groves and community-conserved areas. Local people usually know everything about their environment including its biogeography, botany, and ecology.

The contribution of traditional practices to biodiversity conservation should be evaluated using appropriate scientific methodology. Documentation of traditional knowledge often involves identification of the practices that contribute to conservation and sustainability. The role of each traditional ecological practice should be evaluated separately, depending on the environmental, social and institutional context in which it exists. Following this approach would allow the researcher to evaluate traditional ecological knowledge from a scientific point of view.

4. Indian Knowledge System and the Sustainable Development Goals

There are multiple links between Indian Knowledge System and the Sustainable Development Goals however, they require critical consideration. The Sustainable Development Goals reflect a number of universal goals, and Indian Knowledge System represents historically specific practices and traditions. On the other hand, it is possible to integrate various elements of IKS into the Sustainable Development Goals agenda.

The Sustainable Development Goals (Zero Hunger) focuses on poverty and hunger and promotes sustainable agriculture. It has significant overlap with the traditional Indian agricultural practices based on crop rotation and the diversity of crops.

The Sustainable Development Goals (Good Health and Well-being) addresses physical and mental health concerns in many different aspects. Indian Knowledge Systems may play a role in terms of promoting yoga, ethical lifestyle and ayurvedic medicine.

The Sustainable Development Goals (Quality Education) overlaps with traditional Indian knowledge systems in many aspects, such as philosophy, ethics, and sustainable living.

The Sustainable Development Goals (Clean Water and Sanitation) is another area where there is significant overlap between Indian Knowledge Systems (IKS) and SDGs in terms of water management.



The Sustainable Development Goals (Sustainable Cities and Communities) addresses the problem of sustainable and inclusive urbanization, which can be promoted through traditional architecture and communities.

The Sustainable Development Goals (Responsible Consumption and Production) can integrate some of the values and practices associated with IKS, including waste management, reuse, recycling, and proper resource use.

The Sustainable Development Goals (Climate Action) recognizes the necessity to mitigate and adapt to climate change. In this regard, traditional agricultural practices and ecological knowledge can help in adaptation to climate change, and architectural wisdom can promote climate-resilient buildings. Moreover, local water management systems may facilitate climate resilience.

The Sustainable Development Goals (Life on Land) is about the sustainable conservation of ecosystems and biodiversity, which can be informed by traditional ecological knowledge.

However, the connections between and Indian Knowledge Systems and Sustainable Development Goals are the need of the hour. Higher education can make a contribution to this discussion by critically evaluating individual practices and their potential for addressing current problems of sustainability and wellbeing.

5. Higher Education as a Platform for Indian Knowledge Systems

Higher education can play a special role in the study of Indian Knowledge Systems because it balances the need to preserve ancient traditions and advance scientific inquiry. The following recommendations are intended to promote scholarship and practice in this emerging field.

Indian Knowledge Systems presents an opportunity for the unique role of higher education since the latter provides for the need to keep old traditions and do science simultaneously. The following suggestions could be helpful for further development of scholarship and practice in the field of Indian Knowledge Systems(IKS).

First of all, IKS can be included in curriculum of higher education institutions through various means. It does not have to be studied as one of the topics in cultural studies but rather as a multi-disciplinary area that overlaps with ecology, health, architecture, agriculture, philosophy, ethics and water management. In order to achieve this it would be necessary to involve various higher education institutions in the study of IKS. For example, environmental science students can explore traditional approaches to water management, while architecture students can study traditional constructions and their application in modern architecture. Likewise, medical and health students can explore Ayurvedic medicine, and business students can study traditional approaches to ethical leadership and institutions.

Second, it is crucial that universities promote scholarly research on Indian Knowledge Systems using multidisciplinary approaches. Individual practices and traditions will often require different methodological approaches. For instance, historical claims can be examined using historical research methods, whereas ecological claims can be tested using field studies, and pharmacological claims can be examined using clinical trials.



A third recommendation is for universities to promote collaborations with traditional knowledge holders. It is often the local communities that preserve traditional knowledge in varying forms. Documenting Indian Knowledge Systems practices therefore often requires engagement with these communities to understand their approaches, values, and priorities. Intellectual property rights and ethical considerations should also be taken into account when interacting with traditional knowledge holders and using their contributions for research or teaching.

Fourth, universities can explore Indian Knowledge Systems as a source of innovations in response to modern challenges. Traditional principles and practices in ecology, constructions and medicine could serve as a basis for development of modern products, services and systems. However, innovation should necessarily be accompanied by thorough assessment of safety, scalability, economic feasibility and environmental impact of those innovations.

Finally, universities could take part in the study of comparative aspects of Indian Knowledge Systems. India is a country rich with traditional knowledge and it would be necessary to explore relations, similarities and dissimilarities with other countries and cultures as well.

6. Challenges and the Way Forward

There are several challenges that come with promoting indigenous knowledge systems in higher education. Firstly, it is a very broad concept that encompasses numerous cultures with different traditions and practices that cannot be summarized in a few words for the purpose. Secondly, the benefits that Indian Knowledge Systems (IKS) can offer range from extensively researched and proven practices to unsubstantiated claims. Another challenge is the need for specialized scholars to research Indian Knowledge Systems.

With these challenges presented, there are also ways forward in promoting and developing IKS as a field of study. Firstly, researchers need to take a contextualized approach when examining a particular indigenous practice. Secondly, they should develop criteria for evaluating claims related to IKS. Thirdly, researchers should investigate verifiable claims using scientific methodologies to determine their validity. It is also essential that scholars work together with traditional knowledge holders to help document and promote innovations. Finally, the potential benefits of each indigenous practice need to be evaluated independently.

Higher education institution could consider these principles when deciding whether to promote indigenous knowledge systems as an area of research or practice. This will enable the university to be at the forefront of scholarly research on IKS while also promoting the development and validation of traditional practices. In addition, it will raise awareness among the general public and influence policymakers to further innovations grounded in indigenous knowledge

7. Conclusion

Indian Knowledge Systems (IKS) represent one of the pillars of Indian heritage as well as sources of philosophical wisdom, health, and ecological knowledge, and community institutions. Their significance is justified by the contributions of each of its components rather than its holistic understanding or prestige. Thus, for example, the science of Ayurveda contains much wisdom about health, particularly preventive medicine. Yoga has a lot to offer regarding the history of humanity understands of the relationship between specific physical activities and psycho-physical health, as well as its current understanding. Water and agricultural traditions offer knowledge about the relationship



between humanity and its environment, as well as solutions to ecological problems. Ecological traditions offer ways to improve and protect biodiversity based on traditional environmental knowledge. However emphasis should be on that, these teachings are used universally in a better way to solve modern day problems with use of proper approaches towards traditional knowledge system & modern era developments.

Thus, this information suggests that the best way to work with Indian Knowledge Systems (IKS) is to study the potential contributions of each of its components and apply them where they seem beneficial. Traditional knowledge systems can coexist with modern science and offer alternative ways of approaching the same issues without claiming any specific superiority over the other. Indian knowledge systems have much to offer modern society and can serve as sources of inspiration for scientific breakthroughs and practical applications that would benefit the entire human race.

Higher education can and must play a leading role in promoting this approach to traditional knowledge. The academic field is perfectly positioned to make the most out of the opportunities that interdisciplinary studies offer while supporting the holistic approach required for Indian Knowledge Systems (IKS). Therefore, the scholars can make the most impact on society by working toward innovations in the sphere of Indian Knowledge Systems (IKS). Moreover, students can and must play an active role in discovering the principles of ancient knowledge systems, analyzing their potential contributions, benefits, and roles in society. This way, higher education in collaboration with Indian Knowledge Systems can fulfill its potential as a driving force behind progress that would work in the best interests of humanity and serve as a way to work with India's ancient wisdom.