

## ESSENTIAL SPORTS INFRASTRUCTURE

Sports have always been an integral part of society, not just as a form of entertainment but as a means of fostering physical fitness, mental resilience, and social cohesion. In today's competitive world, the importance of sports extends beyond national pride-it has become a platform for economic growth, youth engagement, and international recognition. Yet, despite the talent pool present in many countries, including India, the lack of world-class sports infrastructure remains a significant barrier to producing champions and encouraging mass participation. The solution is clear: investing in international-standard sports facilities is no longer a choice but a necessity.

The advantages of such facilities are manifold. Firstly, they provide athletes with the environment needed to hone their skills to the highest level. Training on substandard grounds, with outdated equipment and inadequate support systems, can only limit potential. In contrast, facilities meeting international standards offer access to the latest technology, scientific coaching, and proper maintenance-all of which are crucial in a highly competitive global sporting arena. Countries that have invested in infrastructure, like the United States, Germany, and Australia, consistently produce top-tier athletes and dominate international competitions.

Secondly, international-standard facilities encourage broader participation at the grassroots level. Children and young adults are far more likely to pursue sports seriously if they see a clear pathway from local playgrounds to professional arenas. When a community has access to well-maintained fields, courts, tracks, and gyms, it inspires enthusiasm, builds discipline, and channels energy positively. In contrast, poorly maintained public grounds or lack of organized training facilities often drive talent away or discourage engagement altogether. In this way, infrastructure not only nurtures elite athletes but also promotes overall public health and social well-being.

Moreover, modern sports facilities have economic implications. Hosting national and international tournaments can boost local economies through tourism, hospitality, and employment opportunities. The 2010 Commonwealth Games in Delhi, despite its controversies, demonstrated how infrastructure investment can attract global attention and stimulate associated sectors. Cities equipped with international-standard stadiums, arenas, and training centers are better positioned to host major events, which, in turn, generate revenue, create jobs, and enhance a city's global profile.

However, achieving these standards is not without challenges. It requires long-term planning, adequate funding, and proper maintenance. Too often, sports infrastructure in developing nations suffers from neglect once an event concludes, leaving facilities underutilized. This underscores the need for sustainable models, such as public-private partnerships, community-driven sports centers, and strategic planning that integrates sports facilities into urban development projects. Adequate investment in human resources, like trained coaches, physiotherapists, and sports scientists, is equally critical. Infrastructure alone cannot produce champions; it must be complemented by a system that identifies, nurtures, and supports talent consistently.

Another aspect is accessibility. International-standard sports facilities should not be restricted to elite athletes or metropolitan centers alone. Equal access for rural and semi-urban areas can democratize sports participation, ensuring that talent from every corner of the country is identified and given a chance to flourish. Mobile training units, regional academies, and partnerships with schools and local clubs can help bridge this gap. After all, world-class talent can emerge from the most unexpected places, provided the opportunity exists.

Furthermore, the rise of technology in sports-ranging from biomechanical analysis to virtual coaching-demands facilities that can integrate these advancements. Without modern infrastructure, athletes are deprived of tools that enhance performance, prevent injuries, and optimize training schedules. International-standard facilities not only cater to present needs but also prepare athletes for future challenges in a rapidly evolving sporting world.

The need for international-standard sports facilities is urgent and multifaceted. They nurture talent, promote public health, drive economic growth, and elevate a nation's global stature. Policymakers, sports federations, and local authorities must recognize that investing in such infrastructure is an investment in the country's future-both on and off the field.

Countries that aim to produce world-class athletes and host major sporting events cannot afford to lag behind in facilities.

## Use of Biopesticides in Farming

■ PROF. (DR) R. D. GUPTA

The use of chemicals to kill pests is not a new phenomenon but it is as old as 70 A.D. when Pliny Elder gobbled an idea for destroying insects with arsenic compounds. The use of arsenic compounds continued till during twentieth century as reported by Gupta (2006). However, the use of synthetic or chemicals gained momentum around 1940 with the coming up of large number of their manufacturing and formulating units all over the world after the development of Dichloro Diphenyl Trichloroethane (DDT). Although DDT was first discovered by O.Zeidler in 1874 yet P. Miller working for Geigy in Switzerland discovered that it has remarkable insecticidal properties.

In agriculture, use of various pesticides was started with the introduction of high yielding varieties of different crops during the year sixty of twentieth century. In fact, the new introduced varieties of rice, wheat, sugarcane, oilseeds, millets, and many others possessed more response to applied nitrogenous, phosphatic and potassic fertilizers and as such they are liable to become more susceptible to an assault of different insects, diseases and weeds. Crop loss due to pest attack was found to range from 10-30 percent depending upon the crop and environment. The insect pests, diseases and weeds are the important biotic constraints which were always inflicting 20-25 percent loss in agriculture production. According to Saxena (1996) as reported by Gupta (2006) annual crops losses due to pests in India are estimated at Rs.2, 00000 million per year. This crop loss ranged from 10-30 percent depending upon the crop and environment. The recent study conducted by (Rishipal) et al (2013) indicated that pest problem is one of the major constraints for achieving higher production in an agricultural crop. India loses about 30-40 percent of the crops due to pests and diseases every year. The damage due to these problems is estimated to be Rs. 1,40,000crores(14,00000million).

In Indian agriculture, use of various pesticides was started with the introduction of high yielding varieties of rice and wheat during "Green Revolution" which came to fore during 1967-1968. As already stated, the new introduced varieties of wheat and rice had lot of response of added chemicals fertilizers especially nitrogenous, phosphatic and potassic ones, and as a result these varieties of rice and wheat crops became more susceptible to an attack of different insects, pests and diseases. Thus, use of pesticides became an increasing necessary operation for checking pests and in the consistent and economic production of the crops throughout the world. No doubt that uses of pesticides provided an effective control of many pests not only in rice and wheat crops but also in the new introduced varieties of sugarcane, oil seed crops, millets and many others. But at the same time continuous use of pesticides year after year, adversely affected not only abiotic envi-



ronment-land, soil, air and water but also that of biotic one i.e. through "Pesticidal Pollution" and creating ill effects on plants and animals.

## PESTICIDAL POLLUTION

Pesticidal Pollution may be defined as the pollution caused by excessive and indiscriminate use of pesticides owing to their hazardous effects on human, animal and plant life through contaminating air, water and soil.

Presence of high and very high toxic amounts of Pesticidal residues in food grains, food stuff, fruit vegetables, milk and milk products have been detected and reported (Gupta 2006; Gupta 2013; Girieta, 2015). Another study conducted by Sharma (2013) revealed that the number of insects is decreasing continuously due to more use of pesticides. This in turn reduces the availability of food for sparrows, especially for their young ones. It is because many rather most of the pesticides are non-biodegradable. As such they affect all global ecosystems, disrupting the relationship of one kind or the other. For example, use of pesticides by the farmers in the "Floating Gardens of Kashmir", has caused a colossal damage to the flora and fauna of the Dal Lake (Gupta. 2016). Thus, there is a dire need for restoration of wetlands (Sriraj, 2018). It is because wetlands across the world are getting diminished mainly due to policy paralysis, subversion of land use and this does not bode well for the fight against climate change. Currently, more than 14 percent of the world's wetlands have been lost since 1990, and as wetlands are destroyed, more carbon is released into the atmosphere, thereby contributing to a global temperature rise.

Apart from the above, climatic variability directly impacts crop yields by way of effecting soil quality water resources as well as insects' pests, diseases and weeds etc (Laland

Tondon, 2019).

Since now we have approached to 21<sup>st</sup> century so there is an increasing demand on conservation of biodiversity, unpolluted environment and to sustain high yields in various crops of agriculture as well as of horticultural fruit trees and olericultural/ vegetables production and sericulture/ mulberries production vis-a-vis various aspects of animal husbandry and bee farming.

To face the various kinds of pests instead of chemical pesticides, we have to tackle these challenges through the use of various kinds of Biopesticides (Mahajan and Gupta, 2009; Mahapatra 2012). It is remarkable to note that applied pesticides do not kill only the insects but always reside in the soils, fruits and vegetables (Kyu, 2007). When absorbed in the animal's body including those of human beings they can do serious harm to their bodies and even their effects can be seen in the coming or next generations.

Several large national and multinational companies have now entered in to the fresh and processed food industries with a great thrust on exports as was referred to by (Dhall and Garg, 2008).

However, one of the most important constraints faced by the farmers of our country i.e. the Indian farmers today in the production of high quality vegetables is their frequent and heavy infestation by several kinds of insects pests which survived extremely well under irrigated and highly nutrients rich environment in the fields. To combat insects pests in vegetables farmers use several kinds of insecticides which are generally applied somewhat close to the harvest or picking time of vegetables. As a result, the residues of these chemicals remain in the vegetables and soil, water, air and environment. The farmers are therefore, required to use green pesticides and bio-control agents in the Integrated Pest

Management (IPM) modules so that safe and quality produce can be obtained for domestic and international markets.

Although pesticides are found quite effective in pest control yet are proved to be toxic(Gupta,2013). It is because after their application they leave residues in food stuffs i.e. food grains, vegetables and fruits. Studies have revealed that with the daily food and water intake, high number of pesticides, pathogens and bacteria vis-à-vis heavy metals are ingested. And they then pose increased risks to diseases like cancer, high blood pressure in women and men, and mental impairment of children. It is point to mention that most of the plant insecticides act as contact poisons being absorbed through the cuticle of the insect (Selvietal., 2008).

Researchers found that pesticides like pentachlorophenol, DDT and Methylparathionate recommend levels were present in farm soils interfered the leguminous plants like alfalfa peas and soybean significantly and symbiotic bacteria also(Girieta,2015).

Pesticidal pollution in the air and in water are, in fact, making our world increasing hostile to our good health and wellbeing (Husain, 2016). But lately there has been higher awareness of pollutants and how they lead to a build-up of toxins in the system. Our lifestyle can compound the problems further.

According to Shiva (2006) farmers suicides in various districts of Punjab state, were a direct result of debt and debt is a direct result of dependence on costly seed which require costly fertilizers and even more easily pesticides. costly Meantime, the prices of agricultural / horticultural commodities keep falling due to dumping and imports of artificially cheap, subsidized cotton, soybean, sugarcane, milk etc.

(The writer is Former Associate Dean Cum Chief Scientist KVK, SKUAST, Jammu)

## Caring for Elderly Parents: A Shared Social Responsibility

■ MOHAMMAD HANIEF

Caring for elderly parents is one of the most profound responsibilities faced by families and societies today. It is a subject that goes beyond private homes and enters the public domain, touching upon values, social structures, healthcare systems, and economic priorities. As life expectancy increases and family patterns evolve, the question of how societies care for their ageing population has become more urgent and complex. A comprehensive approach to elder care is no longer optional; it is essential for maintaining social balance and human dignity.

The world is witnessing a demographic shift marked by a growing elderly population. Advances in medicine and improved living conditions have allowed people to live longer lives, but longevity often comes with chronic health conditions and reduced physical strength. Elderly parents may face mobility issues, declining vision or hearing, and illnesses that require ongoing medical attention. At the same time, adult children are navigating demanding careers, urban living, and nuclear family structures. This convergence of ageing and modern pressures has reshaped the traditional model of elder care.

Physical health remains a central concern in caring for elderly parents. Age-related ailments often require regular monitoring, medication management, and assistance with daily routines. Proper nutrition, physical activity suited to their abilities, and preventive healthcare significantly influence their quality of life. Safe living environments are equally important, as minor hazards can lead to serious injuries for older adults. Thoughtful home adjustments and consistent medical follow-up can reduce risks and promote independence for as long as possible.

Equally significant is the emotional and psychological dimension of ageing. Elderly parents may experience loneliness, insecurity, or a sense of loss as their social circles shrink and their roles within the family change. Retirement, declining health, and reduced independence can affect self-esteem and mental well-being. Emotional support, therefore, becomes a cornerstone of effective elder care. Regular interaction, meaningful



engagement, and a sense of being heard can help older adults feel valued and connected. Mental health challenges such as depression or cognitive decline require timely recognition and compassionate intervention.

Preserving dignity is fundamental to a comprehensive approach to elder care. Ageing should not strip individuals of their autonomy or self-respect. Elderly parents often fear becoming dependent or burdensome, a concern that can deeply affect their emotional health. Allowing them to participate in decisions, respect their preferences, and maintain control over aspects of their daily lives reinforces their sense of purpose. Support should aim to empower rather than replace, ensuring that assistance enhances inde-

pendence instead of diminishing it.

Family remains the primary pillar of support for elderly parents, but the responsibility of care must be shared. When caregiving falls on one individual alone, it can lead to physical exhaustion and emotional strain. Cooperation among siblings and extended family members not only eases the burden but also strengthens family bonds. Beyond the family, community involvement plays an increasingly important role. Social networks, neighborhood initiatives, and community organizations provide opportunities for interaction and engagement, reducing isolation and enriching the lives of senior citizens.

The economic aspect of caring for elderly parents cannot be overlooked. Healthcare costs,

caregiving services, and daily living expenses often place significant pressure on family finances. Many elderly individuals lack sufficient savings or social security to meet long-term care needs. Financial planning and access to affordable healthcare are therefore critical components of elder care. Transparent discussions within families can prevent misunderstandings and ensure that resources are managed responsibly. At a broader level, effective public policies and social welfare systems are essential to support families in meeting these challenges.

Professional caregiving has become an important element of modern elder care. Trained caregivers, home nursing services, and assisted living facilities offer specialized support that

families may not always be able to provide. When used thoughtfully, professional care can complement family involvement rather than replace it. Emotional connection, regular communication, and continued participation in decision-making remain vital in maintaining trust and well-being, regardless of the care setting.

The well-being of caregivers themselves is an integral part of the caregiving equation. Long-term caregiving can take a toll on physical health, mental resilience, and personal relationships. Without adequate support, caregivers may experience stress, fatigue, and emotional burnout. Recognizing these challenges and encouraging self-care is essential. Access to support systems, respite care, and flexible work arrangements can help caregivers sustain their role without sacrificing their own well-being.

Planning for the later stages of life is a sensitive but necessary aspect of comprehensive elder care. Clear understanding of medical preferences, legal arrangements, and financial responsibilities helps families navigate difficult situations with clarity and respect. Early planning ensures that elderly parents retain control over their choices and reduces uncertainty during emergencies. Such preparation reflects respect for their wishes and provides reassurance to both parents and caregivers.

Caring for elderly parents ultimately extends beyond individual families to society as a whole. Governments, institutions, and employers all have roles to play in creating environments that support ageing with dignity. Accessible healthcare, age-friendly infrastructure, and inclusive social policies are essential in addressing the needs of a growing elderly population. Public awareness and cultural attitudes toward ageing also shape how seniors are treated and valued.

In conclusion, caring for elderly parents is both a personal responsibility and a collective obligation. It demands compassion, patience, and thoughtful planning across physical, emotional, and social dimensions. While the challenges are undeniable, a holistic approach can transform elder care into an experience grounded in respect and shared responsibility. The manner in which societies care for their elderly today will shape the moral and social fabric of future generations.

(The author is a senior analyst)