# Applications of Artificial Intelligence in the Attainment of Sustainable Development Goals


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## Introduction to Artificial Intelligence and Sustainable Developmental Goals (SDGs)

In its basic form, artificial intelligence is a multidisciplinary strategy that combines computer science with substantial datasets to solve problems. AI not only is confined to systems that think and act like humans but also provides rationalised thinking to act accordingly. With the emergence of new technologies in the nineteenth century, lots of progress is made in computer sciences which has influenced society Hanson III and Marshall [7]. The majority of technologies were beneficial; however, some have a detrimental impact on society which needs to be criticised rationally and needs to be worked on so that loopholes may be overcome. Artificial intelligence has attained breakneck speed and made progress in every aspect of life and has supercharged humanity. The AI makes further benchmark by incorporating more data computing and other applied areas such as image progressing, artificial neural network (ANN) and Internet of things (IoT). This multiplier effect of AI can accelerate the achievement of objectives and goals of SD Hanson III and Marshall [7]. The application of AI having multiplying effect allows the achievement of the SD goals. This plays an extremely important and a decisive role in the evolution of

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changes towards a new model that involves improving development and accelerating the achievement of objectives and goals of SDs [3].

The entire world is synergising combined efforts to achieve the Sustainable Development Goals (SDGs) for anticipating the future needs of upcoming generations in the developed economy. 'Circular economy' and 'smart cities' are considered as common concepts to boost sustainable development for a nation [3]. Artificial intelligence (AI) has been proved as an efficient and effective tool for developing the economy by contributing to various sectors. According to the latest report published by *Nature*, AI has contributed to the achievement of a major portion of SDGs (79%) [10]. This contribution of AI is the sum of all contributions from various sectors such as agriculture, transportation, manufacturing, construction, etc. AI helps transportation with traffic management and conservative mobility by sharing vehicles that not only save energy and effort but also benefit the environment. It also helps farmers in agriculture for better surveillance and pest control through drones and microscopes that help in enhancing the crop quality by efficient manuring and also stops the damage by effective control [10]. AI helps to overcome major errors which could be ignored by human oversight and helps in improving the overall supply chain management of any industry and manufacturing unit. AI also helps in ensuring the safety of millions of people through quality checks in buildings, dams and other infrastructural units. Hence, the contribution of AI is immense in several fields, and it could help in the near future to the fulfilment of the SDGs through various dimensions [4].

The Sustainable Development Goals (SDGs) are a worldwide plan to end poverty, protect the environment and ensure the prosperity of all people. They consist of 17 goals totalling 169 targets. While the United Nations Sustainable Development Goals (SDGs), which were established as part of the 2030 Agenda for Sustainable Development, do not need a long explanation, their effective implementation certainly requires a thorough assessment of investment and corporate strategies [4]. Fortunately, it was in 2015 that the SDGs had a significant impact on the worldwide investment climate. Their inherent granularity offered the necessary flexibility and universality, enabling investors and private sector players to identify and solve key sustainability issues linked to their business models while staying consistent with their fiduciary obligations. International cooperation's development efforts through 2030 will be guided by these benchmarks and indicators [4]. In order to achieve sustainable development, the 17 goals need to be treated as a whole, and AI aids in giving answers for the difficulties encountered. Our future behaviours will be greatly influenced by AI, which is one of the most rising technologies. AI is anticipated to expand at a compound annual growth rate (CAGR) of 42.2% between 2020 and 2027, according to Grand View Research. Because of its rapid development, technology will be used in many aspects of society, including ensuring sustainability. Though there is no denying that AI is still in its infancy and has the potential to make game-changing advancements, there is a constant need to improve by combining advanced and customised technology [4]. Human interactions, on the other hand, are always vital and must be embraced properly as the need of the hour, particularly in building a sustainable society.

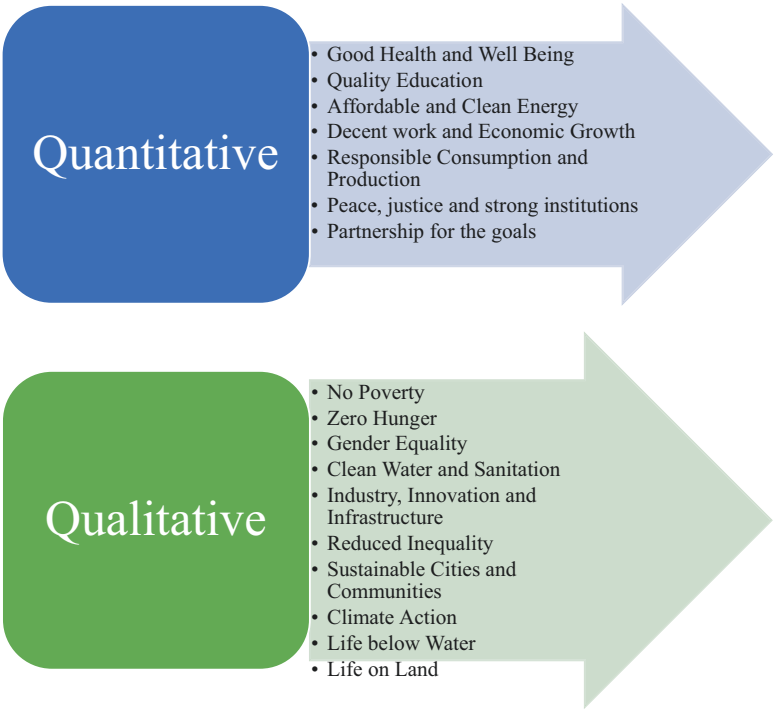


**Fig. 1** Categorisation of SD goals as quantitative and qualitative goals

## Artificial Intelligence and SDGs

Although United Nations SDGs were well elaborated with basic targets and indicators so that the progress can be calculated and tracked still out of 17 SDGs, some goals are qualitative and some are quantitative in nature if we compare with each other based on the extent of quantification of indicators for each SDG. The different SD goals require customised AI technologies and skills for achieving targets [12]. For better understanding, the SDGs can be classified into two categories of quantitative and qualitative (Fig. 1) for proper understanding the concept behind them.

## Role of AI in Quantitative SDGs

### *Good Health and Well-Being*

The 2030 agenda recognises the interdependence between good health and sustainable development. We've made tremendous strides against many major killers with the help of AI and have raised life expectancy significantly by attaining good health

and well-being [12]. This is further achieved by significant decrease in mortality rates of newborn babies and maternal cases, along with halved malaria fatalities. On the one hand, AI addresses fight against hunger through successful implementation of biotechnology techniques to multiply crop yields, while on the other hand, it addresses climate change and environmental concerns, giving earlier predictions and warning sign to farmers for growing crop varieties resistant to inclement weather and pathogens to grow crops accordingly [12].

AI also contributes to the resolution of issues such as no communicable diseases by eradicating poverty and reducing inequality through the successful implementation of universal health coverage [15]. AI open the way to customised precision medicines and treatments for diseases and epidemics. Now it is possible to make projections on diseases and outbreaks, favouring the availability and forecast of health services by utilising big data. With AI, healthcare professionals are more prepared for illnesses and health practices, and patients have more access to treatments and facilities [15]. The artificial intelligence-based identification method outperformed professional dermatologists, according to the findings. Wearable gadgets that can detect early signs of diabetes using heart rate sensor data are another example of how artificial intelligence is being used in the health sector. AI is capable of anticipating and detecting illness at a faster rate than the majority of medical practitioners. In one study, an AI model combining algorithms and deep learning detected breast cancer at a higher rate than 11 pathologists, demonstrating the power of artificial intelligence [13]. Another aspect of healthcare that can be improved through artificial intelligence is drug development. It is possible that the application of deep learning algorithms to whole-slide pathology images would increase the accuracy and efficiency of diagnostic evaluations [15].

According to Mara Geller (2020), one of AI's possible advantages is keeping people healthy so they don't need doctors as frequently. As AI and the Internet of Medical Things (IoMT) are already benefiting patients, apps and technology promote better behaviour and assist in maintaining a healthy lifestyle to give customers control over their health [13]. Also, AI helps healthcare practitioners better understand their patients' daily routines and requirements, allowing them to offer greater feedback, advice and support for remaining healthy. It helps healthcare companies use cognitive technologies to better diagnose patients and examine and retain more medical data than any person, including every medical publication, symptom and case study of therapy and reaction worldwide [13].

It is also solving real-world healthcare issues alongside doctors, researchers and patients. The technique blends machine learning and systems neuroscience to create neural networks that resemble the human brain. Beyond scanning health data to detect chronically sick patients at risk of adverse events, AI can assist doctors in better controlling illness, coordinating care plans and helping patients better manage and adhere to long-term treatment regimens. Medical robots have been around for almost 30 years. In addition, they may assist a human surgeon or do surgeries on their own. They are also utilised in hospitals and laboratories for repeated activities, rehabilitation, physical therapy and long-term diseases [13]. It is finding widespread use in the assistive and wearable devices market which has huge growth potential.

## *Quality Education*

Certain rising nations' growth has been hampered by poverty, conflict and other difficulties. More youngsters are not attending school as a result of the ongoing armed conflict in Western Asia and North Africa [1]. The gravity of the situation is now becoming apparent. The primary school enrolment rate in Sub-Saharan Africa increased from 52% in 1990 to 78% in 2012, the largest increase of any rising region. As many as four times as many children from destitute homes skip school as those from rich ones. Disparities between rural and urban areas persist.

Quality education for all students is an important part of ensuring a more prosperous future for everybody [1]. There will be free elementary and secondary education for all children of all sexes by the year 2030. Equal access to high-quality education for all students is also a goal of the programme. As per the changing role of AI technology in education, many shifts have been seen especially in distance education where VR emerged as a subtheme to bring vivid experiences to classrooms, big data for student profiling models and learning analytics [1]. It has brought a boom in the field of education and made changes in acquiring education.

AI-based systems can assist students with their learning experience, especially in changing the form and nature of content to suit the student. 'Smart content' is generated to ensure that learning takes place through frequent testing which can be used as feedback to alter the course content and trajectory [1]. AI cannot entirely replace the human teacher, but an AI system can play an intermediate role by providing timely feedback to students and teachers.

While educators, psychologists and parents argue how much screen time is acceptable for children, another new technology, artificial intelligence, and machine learning, is starting to change education tools and institutions, and altering the future of education [5]. According to the study, artificial intelligence market in the US education sector would increase by 47.5% from 2017 to 2021. Even while most experts think teachers' essential presence is irreplaceable, the work and educational best practices will change.

Artificial intelligence (AI) is a strong technology that has a wide range of applications. Globally, the education sector is no exception. Various schools throughout the nation are using AI in education [5]. The application of AI in education has offered instructors, students, parents and educational institutions a fresh viewpoint on education.

Here are some facts about AI in education:

- It will be worth $1 billion by 2020. Between 2021 and 2027, it is projected to expand at a 40% CAGR (GMI).
- It is projected to generate 25.7 billion USD by 2030 (strategic intelligence).
- It is projected to reach USD 3.68 billion by 2023 (markets).

## *Affordable and Clean Energy*

To promote the use of clean and reasonably priced renewable energy by using artificial intelligence (AI), it is possible to coordinate the use of electricity against a wide range of renewable energy sources using smart power grids, for example. However, we must be cautious here as well [5]. The need for ICT solutions is increasing as digital technology advances. As a result, electricity consumption is increasing as a result of the expanding manufacturing of ICT solutions.

As more renewable energy is sent into the system, anticipating capacity levels is critical to maintaining a stable and efficient grid [5]. Because renewables are taking up more grid space, sources like coal, which supply grid inertia through heavy rotating equipment like steam and gas turbines, are losing out. Power grids will be unstable and prone to blackouts without grid inertia [14]. Sensor technology now allows solar and wind production to give massive amounts of real-time data, enabling AI to forecast capacity levels. Before AI, most forecasting depended on specific weather models that only looked at a few factors that influence renewable energy supply [14]. New AI algorithms integrate self-learning weather models, historical data, real-time weather station measurements, sensor networks and satellite and sky camera cloud data.

The outcome is a 30% increase in solar forecasting accuracy, leading to numerous benefits. According to IBM Distinguished Researcher and Chief Scientist for Geoinformatics Hendrik Hamann, better solar predictions lowered operating energy production costs and reduced start-up and shutdown costs of conventional generators [14]. It is possible to forecast the basic factors, such as wind speed and global horizontal irradiance, together with the resultant power production, minutes to hours ahead (for grid stability and resource dispatching), days ahead (for plant availability) and even weeks ahead (scheduling maintenance). With bigger datasets available, computers may now be trained to anticipate more spectacular events [14], e.g. the extra electricity consumed during a vacation or large-scale international event, or how altitude affects a community's energy use. It also enables generators and dealers to better plan their production and bid in the wholesale and balance markets – all while avoiding fines.

## *Decent Work and Economic Growth*

Employees living in extreme poverty have reduced by a third in the last 25 years, according to a news report. In developing countries, the middle class rose almost thrice between 1991 and 2015. The global economy is rebounding at a slower rate because of a growing workforce. The International Labour Organization (ILO) estimated that 204 million people were looking for work in 2015. Aiming towards the SDGs helps to boost economic growth, worker efficiency and technological advancement. This can only be accomplished via the promotion of commerce and

the creation of jobs, as well as the elimination of slavery and other forms of human trafficking. These targets must be accomplished if we are to have full and productive employment for all women and men by 2030. Experimentation is no longer an option for established businesses. Large corporations are pouring money into AI technology and applications. Since 2010, the number of patents registered on AI technology in G20 nations has grown at a compound annual growth rate of more than 26%. The amount of money invested in AI companies has increased at a compound annual growth rate of almost 60%. Governments in the G20's most powerful nations are embracing AI for the greater benefit.

With the exponential increase, invaluable data and computer power are being used by both public and commercial entities all around the globe [2]. With the recent convergence of a revolutionary collection of technologies, economies are entering a new age in which artificial intelligence (AI) has the potential to transcend the physical constraints of capital and labour, opening up new sources of value and development. In India, the stakes for AI are enormous. The country is still the most competitive in South Asia, although it lags behind several other G20 nations in terms of AIQ. Despite Indian businesses embracing AI on a wider scale, the country's expenditures in digital infrastructure and its people's increasing computer abilities, this remains the case [2]. To fully exploit AI's potential, India's policymakers, universities, businesses, entrepreneurs and workers must work together and accomplish much more. Indeed, India must leverage both an inventive private sector and a supportive governmental and regulatory environment to increase its AIQ, adopting a balanced approach to AIQ improvement across stakeholders.

## *Responsible Consumption and Production*

To accomplish this objective, proper management of natural resources and the disposal of hazardous waste and pollutants are both responsibilities we all share. By 2030, we should assist developing countries adopt more environmentally friendly consumption patterns by encouraging businesses and individuals alike to recycle and reduce their own personal trash [2]. More than half of the world's population does not consume enough food. Global food waste per capita must be reduced in order to improve production and supply chain efficiency. Food safety and resource conservation may be improved as a result. With vertical green farms, artificial intelligence is achieving optimum consumption and output levels while reducing waste and increasing yields and resource efficiency [2]. Individuals may interact with others and monitor personal progress on daily habits via the United Nations Campaign for Individual Action Act Now, which enables them to make a difference and have an effect for the better. On a global scale, 79 nations and the European Union stated that they have implemented at least one strategy to encourage sustainable consumption and production. In addition, 93% of the world's 250 biggest corporations are now required to report on their environmental and social performance [6]. The United Nations Development Programme (UNDP) collaborates with governments

and organisations to develop carbon-neutral economic models. Individual towns and nations across the globe, including Bhutan, Chile, Costa Rica, Norway and Morocco, have made commitments to achieve carbon neutrality by 2050.

## *Peace, Justice and Strong Institutions*

Armed conflict and instability impede the expansion of a country's economy and breed resentment across generations. Governments must protect people who are most at risk from crimes such as sexual assault, crime, exploitation and torture that are frequent under conflict and lawlessness [6]. The SDGs work with governments and communities to eliminate conflict and insecurity by partnering with them. Rule of law and human rights, as well as reducing illegal arms transfers and increasing the participation of poor countries in global governance organisations, are critical. One of the most interesting applications of artificial intelligence is in the criminal justice system [6]. AI may assess the danger posed by a criminal and assist courts in making sentence choices. Understandably, the application of artificial intelligence in criminal justice is raising concerns about the technology's inherent bias.

Criminal activity like money laundering and terrorist financing can be detected by using artificial intelligence to help law enforcement agencies better prosecute these crimes. This includes more mundane offences like employee theft or cyber-fraud or fake invoices, which can also be detected using artificial intelligence [6]. The use of artificial intelligence technologies may aid in the monitoring of content. Content monitoring may aid in the prediction process. And, in the long run, anticipating crimes will assist in their prevention. Artificial intelligence can assist in monitoring a person's digital traces and identifying any odd behaviours.

## *Partnership for the Goals*

It's simpler than ever before. Improving access to technology and knowledge encourages people to share their ideas and be more creative. It is vital to coordinate strategies to assist rising countries in controlling their debt in order to achieve long-term growth and development. Through the support of national plans, the goals seek to strengthen North-South and South-South cooperation. Promoting international commerce results in a global, rules-based and equitable economic system that is fair and open to everyone.

Despite the fact that the Sustainable Development Goals (SDGs) did not enter the global lexicon until 2015, investors have been known to direct their focus and concerted efforts towards 'socially responsible investments', which were essentially designed on an early premise of 'social screening', which had enabled them to weed out companies with detrimental business models and/or obvious exacting environmental impact. Investors were better able to match their interests and tactics with

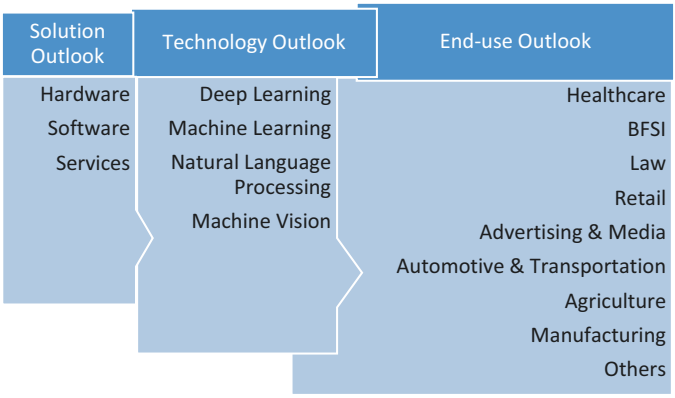


**Fig. 2** Categorisation of global intelligence market (revenue, USD billion, 2017–2028)

broader societal aims once the UN Principles of Responsible Investing embraced ESG (environmental, social and governance) issues in 2006. This paved the way for ESG investing to gain traction. Surprisingly, the global movement now has over 1600 participants managing over USD 70 trillion in assets, indicating rapid global expansion. Despite this positive market response, corporate participation and activities frequently fall short of both commitment and output, which is often attributed to their inability to integrate sustainable business practices into their overall business plan. Investors and enterprises, it is claimed, have challenges in terms of thinking and direction in order to maximise capital utilisation for social and environmental development. While ESG investing has paved the path for more rapid and meaningful market reforms, there has always been a considerable disconnect between possible investment opportunities and their execution. Unfortunately, chronic hunger and malnutrition continue to obstruct many countries' progress. In 2017, it was estimated that 821 million people were chronically hungry, owing to environmental deterioration, drought and biodiversity loss. Obesity affects around 90 million children under the age of 5. Undernutrition and severe food insecurity seem to be rising in virtually all African and Latin American areas. For this study, Grand View Research has segmented the global artificial intelligence market report based on solution, technology, end-use and region (Fig. 2).

## Role of AI in Qualitative SDGs

### *No Poverty*

Getting rid of poverty is one of the most serious challenges in the world at the moment. People in severe poverty reduced by half between 1990 and 2014, yet far too many still lack even the most basic necessities in their homes. 738 million

people were living on less than $1.91 a day in 2016. Food, clean water and sanitation are all in short supply for many people [9]. Millions have been lifted out of poverty as a result of globalisation, yet development has been uneven. Poor women have less opportunities for paid work, education and property than wealthy women. South Asia and Sub-Saharan Africa, which account for 80% of the world's impoverished, have made little progress. Climate change, war and food insecurity all mean that lifting people out of poverty will take more effort [9]. By 2030, the SDGs indicate a firm commitment to eradicating poverty in all of its forms and dimensions. Aiding communities affected by war or climate-related disasters necessitates a focus on the most vulnerable. People, particularly in underprivileged communities and remote or resource-poor places, can receive education, thanks to online access and 5G reach. We can mimic scenes that we conceive in fiction using virtual reality.

## *Zero Hunger*

In order to feed the world's population by 2050, the United Nations estimates that we would need to increase the global food supply by 70%. AI systems may be used to speed up the discovery of possible answers when time is of the essence [8]. As a result of rapid economic growth and increased agricultural output, undernutrition has dropped by about half in the previous two decades. There are no longer any famines in many developing countries. In Central and East Asia, Latin America and the Caribbean, extreme hunger has been considerably decreased. The progress of a child's cognitive growth and physical health may be tracked using AI-based solutions [8]. The early detection of diseases, such as stunted development and epidemics, may be helped by image recognition systems. Using this information, the programme officers may then propose remedial measures. The AI systems may help with the identification of issues such as drought, poor sanitation and insufficient supply by integrating information from various sources [8].

'Precision farming' can be developed with the assistance of AI. *Scientific American* reports that techniques have resulted to more efficient use of inputs and greater harvests. Sensors measure the moisture content of the soil and the condition and colour of the leaf. The system uses this data to calculate how much water and fertiliser are needed. It also identifies which section of the plant requires these resources. Higher yields and lower agricultural inputs have also been reported for these systems. It's important to keep in mind that under Indian circumstances, farmers have far smaller land holdings and are less well-off.

Around half of the food produced today is thrown away, a shocking statistic. When it comes to food, AI can classify it as either 'good' or 'bad'. This is terrible. The use of big data and machine learning may help identify areas that are particularly vulnerable to food shortages, droughts and floods, as well as to increasing food prices and the deterioration of agricultural land. One example of how AI may be used is to better predict the spread of illnesses and viruses by integrating many types of alternative data, such as geolocation information (such as social media data), telecommunications data (such as Internet search data) and vaccination data.

## *Gender Equality*

A growing body of research shows that empowering young women and girls has a positive impact on the nation's economy. This commitment to gender equality is a 20-year-old UNDP priority. Since 1990, the number of girls attending school has increased, and gender parity has been attained in most regions of primary education. Land, property, sexual and reproductive health and technology must all be accessible to women on an equal basis. Gender equality will be achieved if more women are given the opportunity to serve in high-ranking positions in the public sector. Algorithms and artificial intelligence (AI) provide enormous potential for human advancement, but they also represent significant dangers. But technology frequently absorbs and reproduces restrictive conceptions of gender and race that are then perpetually re-enforced. Consequently, the use of AI technology necessitates a highly advanced and well-planned infrastructure. When bias is present in AI systems, gender preconceptions and prejudices are reflected in the outputs, leading to discriminatory behaviours and choices.

Policymakers seem to have fallen short of adequately addressing the issues of an algorithmic society, according to this analysis. Research on how to include human rights into AI is still lacking, despite all the reports and plans about AI's role in reaching sustainable objectives. There is a significant issue with the lack of gender diversity in the AI industry, which is exacerbated by language processing and biassed ML algorithms in several sectors. Some of the Sustainable Development Goals' social objectives are hampered by these issues.

## *Clean Water and Sanitation*

As temperatures rise, the number of individuals affected by water shortages is expected to climb as well. Despite gains in sanitation for 2.1 billion people, there is still not enough water on every continent. Several countries are already experiencing worsening conditions due to drought and desertification. At least one in four individuals will be affected by water shortages by 2050.

For the year 2030 to be a reality, we must put money into infrastructure, sanitisation and personal cleanliness. Protecting and restoring aquatic environments is essential.

## *Industry, Innovation and Infrastructure*

Eco-economic development is fuelled by investments in infrastructure and innovation. There is a pressing need for public transportation, renewable energy and new businesses, as well as the use of ICT in cities. Technology aids in the creation of new jobs as well as the promotion of greater efficiency in the use of energy. One of

the most effective ways to encourage long-term progress is to provide resources to scientific research and development.

People in developing nations account for 90% of those without Internet access, according to a recent report from the World Bank. Access to information, knowledge and entrepreneurship is critical if the digital divide is to be closed.

## *Reduced Inequalities*

The richest 10% of the population earns up to 40% of global income, while the poorest 10% only get 2–7% of world income. When population growth is taken into account, inequality has increased by 11%. Inequality has increased over the world over the last several decades, although at different rates. The lowest and highest points may be found in Europe. There must be policies that empower low-income earners in order to achieve economic equality for everybody.

It is critical to address global wealth disparities, control the financial system, and promote foreign direct investment in regions with the highest need. The importance of ensuring the safety and mobility of people cannot be overstated.

## *Sustainable Cities and Communities*

For the most part, our lives are spent in cities. More than 6.5 billion people will live in cities by the year 2050. Cities must undergo significant shifts in their design and management in order to expand sustainably. A result of population growth and migration, especially in developing countries, are the proliferation of megacities and slums. Creating employment, affordable housing and resilient communities and economies are essential to making cities sustainable. There is an emphasis on public transportation, the creation of green public spaces and the improvement of equitable urban planning and management. AI might also be used to keep tabs on the health of public transportation networks like trains and bridges. Traffic light systems, for example, may be modified using real-time traffic camera data and Internet of things sensors in order to enhance vehicle throughput.

## *Climate Action*

Goal 13 and other SDGs are directly supporting underprivileged regions. Catastrophe risk reduction, sustainable resource management and human security must also be included in national development plans in order to keep global average temperatures from rising by more than 2 °C above preindustrial levels. Moreover, we also need strong political will, more investment and the best available technology.

### *Life Below Water*

Oceans also take up around 30% of the $CO_2$ that is created by humans, and since the Industrial Revolution, there has been a 26% rise in the acidity of oceans. There is a concerningly high level of pollution in the ocean; around 13,000 pieces of plastic rubbish are found in every square kilometre of water. One of the Sustainable Development Goals (SDGs) that takes into consideration ocean acidification is included in this list. The improvement of ocean conservation and the usage of resources in a sustainable manner via international legislation would be beneficial to our waters as well.

### *Life on Land*

Each year, 13 million hectares of forest are cut down, and 3.6 billion hectares of dry land are turned into desert. This has a disproportionately negative effect on individuals who are already living in poverty. On the other hand, just 15% of the land is protected in some way. The illicit trade of animals and plants involves around 7000 different species. The illegal trade in wildlife leads to the loss of biodiversity, exacerbates existing conflicts and fosters corrupt practices. The conservation of natural ecosystems and biological diversity is an immediate need for achieving global food and water security, mitigating and adapting to the effects of climate change and maintaining peace and security. Technologies that are driven by AI may be utilised to construct automated processes that gather data about biodiversity via the use of remote sensing. This data may assist stakeholders in recognising trends in the behaviour of the species and acting appropriately when they see anything that is not typical.

Therefore, technologies that are based on AI have the potential to play a significant role in the preservation of the environment. A more in-depth comprehension of the particular behavioural patterns of the inhabitants of protected areas allows for more efficient administration of such regions.

## Conclusion

The advent of modern technology such as artificial intelligence and machine learning has led to their massive applications in almost all known fields. They have led to opening up of new areas having immense potential for sustainable development and growth. This would allow efficient, quality-based task accomplishment and ease of doing business. It would also help in achievement of the sustainable goals as decided by member UN nations, thereby improving human life and opening new avenues.

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