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## Impact of Artificial Intelligence on Climate Change and Sustainability: Energy and Agriculture

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Statement of the Problem: Artificial intelligence (AI) is the future of innovation technology and it is an area of computer science devoted to developing systems that can be taught or can learn to make decisions and predictions within specific contexts. However AI can impact the sustainability of Agriculture field both positively and negatively.

The widespread use of AI for the automation of farms may destroy natural ways of life of farmers, including the environment and ecosystems. Profits AI generates may go to the large corporations that own the technology. AI would help furthering social causes and enable human beings to live more fulfilling lives.

AI has potential to address challenges such as inadequate demand prediction, lack of assured irrigation, and overuse / misuse of pesticides and fertilizers. Some use cases include improvement in crop yield through real time advisory, advanced detection of pest attacks, and prediction of crop prices to inform sowing practices

AI may increase inequality, social unrest with the technologically disadvantaged and underrepresented faring the worst. AI is also likely to marginalize the poor and disadvantaged especially on women creating more gender biased.

AI is being used in energy sector in making energy clean, affordable and reliable. Google has used DeepMind for predictions on loads at different points and controlling equipment's efficiently. India has taken a unique approach to its national AI strategy leverage AI not only for economic growth, but also for social inclusion call this approach as #AI4all

AI has tremendous potential to accelerate the global energy transition and lowest-cost energy transition, with potential applications ranging from optimizing and efficiently integrating variable renewable energy resources into the power grid, to supporting a proactive and autonomous electricity distribution system

AI is key strategy for mastering some of the greatest challenges of our time, such as climate change and pollution.

### Biography

Dr. Shilpy Gupta is Doctorate in Atmospheric Science, Certified Energy Manager & Certified sustainability Assessor having more than 18 years of professional experience working on Urban Infrastructure, Renewable Energy & Social sector. She has worked on multi-sectoral projects focusing on Climate Change, GHG Mitigation, Renewable Energy, Energy Efficiency, across different continents in Africa, Middle East, Europe, USA and South East Asia in more than 25 Countries on Bilateral, Multilateral & Government funded projects involving institutions like ADB, World Bank, KfW, AfDB, UNFCCC etc. Dr. Gupta has worked as Environment & Social Specialist at the National Institute of Urban Affairs (NIUA), India for the CITIIS program for the implementation of Environment & Social Safeguards across 12 Smart Cities. At present she is working as GM – Environment and Sustainability at URS. Her inclination towards academics and research has led to her association with different academic institutions as a visiting faculty for youth empowerment.

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