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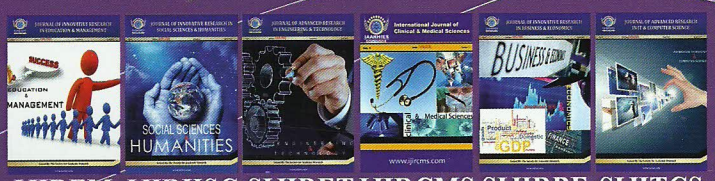

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The Regional Impact of ASIA's Globalization Waves: A Narrative Review

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ABSTRACT: The current age of advancement in robotics and artificial intelligence (AI) has catalysed the paradigm shift to the Asian continent. Sharing of knowledge and technology expansion between the Western and Eastern hemisphere has become a daily norm in integrating widespread growth in major aspects of human life. This status quo review article represents a synthesis of a broad collection of literatures with regards to the ever-growing development and accompanying environmental challenges, particularly in the field of behavioural and life sciences. In the sociology domain, the urban elderly were found to appreciate outdoor activities and social mingle comparing to the oldest-old population who prefer social isolation. Robotics technology has gradually begun replacing human capital often resulting in patchy unemployment in urban cities with consequential socioeconomic glitches. Furthermore, environmental shift has witnessed the rising global warming and pollution issues all around Asia with the growing number of factories emanating biomass smokes. Hence, technological advancement must be dealt in a methodically structured manner with collaborative efforts from multi-agencies to establish a well-rounded society acclimatized to change and a milieu that is both healthy and conducive to modern transformation.

Keywords: artificial intelligence; global warming; environmental pollution; Asia.

1 INTRODUCTION

Urbanization in broader term refers to the physical development of infrastructures and technological advancement aimed to facilitate and simplify daily laborious task. Modernization often relates to the increasing use of robotics and machinery to aid manual labour and is often considered as a luxury, especially in limited-resource settings.

Technological development is casually stamped with a Western origin. The present age of globalization has witnessed the sharing of knowledge between the two hemispheres. Integration of the shared technology comes with the consequential rising living standards. Old techniques are strategically improvised leading to a change in ideology and delivery of services. The use of man-made machinery and artificial intelligence are deemed superior to the conventional techniques, offering a higher degree of precision with the exclusion of flawed human variables.

The acceptance of new technology and advancement appear to be geographically-concentrated. In the 1950s, there were 17.5% (245.1 million population) of Asian population living in urban areas and by 2010, the figure exponentially increased to 44.4% (1.85 billion population).[1] As urbanization crouches throughout the continent, people are forced to either embrace changes or sink deep in the process. People living in areas away from the resources are more resistant to change and prefer to do things the traditional way.[2] They see change as alien and do not readily adapt to adjustment whereas those living geocentrically in areas of abundant resources welcome change more readily. Geocentric urbanization also attracts the younger generation due to job opportunities, hence further divide the age ladder between cities and rural areas.

Urbanization unceasingly brought in enigmatic changes that encourage dichotomous settlements among the population. Sociology impact from modernization has witnessed emerging diseases that are closely related to the advent of technology such as poor sensory development and learning difficulties among children with high exposure to gadgets and prolonged screen-time[3]; and poor

coping behaviour among adults who are complacent to the use of machinery-aid labour. Diseases resulting from environmental effect of urbanization include the unsettling issues of pollution and global warming with its resultant erratic climate changes.

This narrative review aimed to study the impact of urbanization in Asia on the environment, sociology and life sciences and strategies employed by the region to overcome the challenge.

2 PACING UP TOWARDS DEVELOPMENT

Urbanization in Asia and the Demographic Ageing

Asia has experienced an exponential expansion of physical development and robotic technology in the past decade. Such transformation promises an outburst in the country's economy and a shift in the socio-demographic grounds. The life expectancy increases with the improvement of diagnostic modalities and healthcare services. Based on the Health Facts 2017 data released from Department of Survey and Mapping, Malaysia, the percentage of the nation elderly population aged 65 years and above increased from 5.8% in 2015 to 6.1% in 2016.[4]

Modern states often resort to cramped living spaces and subsidized public estates to maximize the growth of industrial and business corners. A study by Sun et al. (2017) acknowledged the notion of environmental gerontology to be further incorporated into nation's developmental plan.[5] Housing typology was found to significantly influence the elderly's attitude towards outdoor spaces in urban areas. Elderly aged 65 years and older living in public housing estates were found to enjoy outdoor events and social mingling compared to those living in private housing.[5] Elderly population from the yesteryears classically continue to perform daily functional activities and still enjoy contributing to their society whereas the elderly living within the city boundaries maintains an active lifestyle for personal gain of good health and vitality.

Urbanization has become a global phenomenon with a direct bearing on the population. The elderly populace is the most sensitive to changes brought about by the modernization wave and they unfortunately received the least attention from the policy-makers. Whilst the younger generations are always out scouring and chasing the deadlines to make ends meet, the elderly are commonly left to scavenge for themselves. There will be a number who are maladaptive, senile and are just incompetent to adjust. The poor populace is often hindered from the rest of the community and is perceived as a burden to the society, particularly those who lacks social and familial support. As our ageing population grows, the policy-makers shall outline a comprehensive plan to cater for the elderly social needs and address their health concern, allowing them to live longer, healthier lives.

The High Cost of Modernization and the Environmental Decay

Urbanization era is witnessing the growth of industrial plants and business estates with the entailed unmet environmental needs. Asia is a well-known harbor for a wide range of natural resources, making it a powerful continent to fuel global development. The increasing demand for bio-factories in processing organic fuels to power machineries has inadvertently led to increasing emission of biomass smokes. Biomass smokes are common air pollutants in our region and is a known hazard to health, emitted from the combustion of organic matter such as wood, crop residues and animal dung.[6]

Organic combustion causes accumulation of the carbon dioxide, nitrous oxide and methane, notoriously known as the 'greenhouse gases', which are known to be directly linked to the global warming and its consequent climate changes. The accumulation of the greenhouse gases further cause the thinning of the ozone layer, trapping the sun's radiation in the lower atmosphere resulting in perceptible radiation.[7]

The issue of climate change and the pathological effect of environmental degradation, including the management and distribution of clean water, the management of sewage and solid waste have been the focus subject in international conferences.[8-10] Recent reports showed that the United States and

China collectively contributed to 40% of the global emissions. The 2015 Paris Climate Accord is an agreement within the United Nations Framework Convention on Climate Change (UNFCCC) attempted to mitigate greenhouse gas emissions beginning the year 2020. The agreement was presented before the representatives of 196 parties and a consensus was adopted in December 2015.[11] A number of innovations and plan to further reduce environmental pollution to control climate change and mitigate global warming have been put forth and structurally laid out to ensure the effectiveness of the strategy.

The Influence of Artificial Intelligence Everywhere

The infusion of Artificial Intelligence (AI) in major key areas such as in the healthcare services has showcased the novel application of computer system in healthcare delivery to perform clinical diagnoses and therapeutic recommendation. AI is presumed to be superior as it removes human error from the calculation which traditionally results in litigations. Example include the use of remotely-operated robotics in major surgeries, a form of physical AI; whereas the use of an integrated system to track patients' medical records and data is considered as the virtual AI.[12] The integral use of AI optimizes the labor-intensive work process that normally required painstaking human labor.

AI does not stop at the healthcare industry but revolves around all the consumer-related products, including its use as the modern day social companion, development of a utopia driver-less cars and its use in a real-time translator device to assist in multilingual communication between different continents. Agriculture industry has made use of the AI algorithm to guide the farmers on the best plantation time to maximize the crops' productivity. This is made possible by the implementation of AI to analyze and forecast the weather, and compute the soil component to ascertain the viability status.

Some skeptics are alarmed that the AI technology might relentlessly rule over human, given its due time. Science fiction has a long tradition of being brand as dystopias, immoral and inhumane. The superiority of machines in duplicating the human tasks with more integrity, precision and productivity has raised its standard to be above that of humans'. The human role ultimately becomes expendable, resulting in escalating unemployment rate and entailing socio-economic hurdles, particularly in bigger cities where the industries are continuously thriving.

3 STRATEGIES FOR A HOLISTIC TRANSFORMATION

The community role and organization in ecosystem

Change does not necessarily imply bad transformation. Some people resist change and promote riots to collectively refuse change. Tradition to them is the absolute way of life and any form of determent is deemed disputable. A structurally sound development process will cultivate a steep learning curve which is beneficial to increase productivity and simplify everyday task with the ethical use of legitimate resources. It is crucial to adapt to change while holding steadfast to the core values of ethics and morality.

Nowadays, the expansive use of the Internet has buoyed up the idea of health literacy, globally. Health literacy is a marker of community development to encourage the communities' active involvement in the health policy and practice.[13]

The growing number of population living in urban cities throughout the decade is expected to rise even more in the coming years.[1] Unfortunately, there are also a small group of people who do not readily adapt to change but do not otherwise resist. This constitutes a significant bulk of the population and is mostly among the elderly populace. The aftermath of forced gentrification is detrimental, which includes increasing rate of homeless folks, the unsatisfied need of living expenditures, widespread crime rates and growing social decay.[14]

It is crucial for the global leaders to pay heed and address their needs and concern so as to not lose the human capital that is an essential factor to a nation's holistic development. Skill trainings, such as free-access IT lessons, are important early steps to be introduced to the community to allow a

comprehensive assimilation of technology.

Urban green economy to fuel growth

There have been various accords and ongoing debates to control environmental pollution attributed by the different levels of industrialization. The increasing land use has resulted in population shifts and geocentric development, resulting in patchy developed areas in major Asian cities. This concentrated development causes accumulated environmental hazards including the agglomeration of greenhouse gases, biomass smokes and episodes of flash floods in poorly-planned development.

Industrial developers should collaborate with the environmental specialists to plan a structured planetary urbanization with thorough consideration of the environmental effects.

Policy-makers

A functional institution promises a proper industrial planning and sustainable development, beneficial to the people. The policy-makers are responsible in making the world a better and safer place to live in for the generations to come. In order to realise the not-beyond-reach utopia, strict regulations on environmental-friendly urbanization must be firmly endorsed and enforced.

Uncontrolled industrialization invariable leads to environmental catastrophes and unsystematic development. A joint effort between multi-agencies is necessary to establish a controlled, conducive and solicitous development. As urban cities demonstrate strong leadership in policy enforcements and good environmental practices, considerable avenues for positive outcomes are possible.[15]

4 CONCLUSION

Urban areas have the potential to generate significant environmental achievements by being the primary sites to instigate innovation strategies as they hold the concentration of the resources on site.

It is imperative for the major Asian cities to demonstrate exemplary leadership in holistic urban governance to generate visible changes, such as the breakthrough discovery of feasible renewable energy development, to sustain green economy.

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