



# Health risks from infectious diseases in a changing climate

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Climate change is now becoming a critical public health challenge by increasing exposure to rising temperature, extreme weather, declined air quality, and new pests and pathogens. Actions can be taken to lessen the effects of climate change and to build resilience to reduce the impact on human health. A multidisciplinary and collaborative effort from the scientific community is needed to establish a comprehensive understanding of these topics, which motivates the launch of this special issue.

This special issue presents original research covering a wide range of topics relevant to climate change, human health and environmental policy, with a particular focus on relevant actions or policies in China. It consists of 18 peer-reviewed articles, which were originally selected from 29 articles submitted by researchers from various fields. Here is a summary of the topics covered by these articles.

1. Several studies explored some interesting topics on the relationship between climate change and human

health. Tan et al. analyzed the direct and indirect effects of carbon emissions on public health; when the average temperature of the year exceeds 17.75 °C, an increase in greenhouse gas emissions will have a more significant negative impact on public health. Through an extensive review of environmental inequality, Shao et al. highlight some negative effects of air pollution on public health, education and labor productivity. Actions responding to climate change and their positive effects on public health are also discussed, including emission trading system, fiscal spending on environmental protection as well as supply of environmental public service, which were discussed by Shao et al., Sheng et al. and Ma et al., respectively.

2. As for the effect of policy enforcement on alleviating environmental impacts, Li et al. found that the strategic interaction of environmental regulation among provinces is inconducive to improving air quality, which might be correlated with low environmental standards, weak regulation enforcement and the “free-ride” motive in China. Wan et al. explored the relationship between government environmental enforcement, corporate environmental responsibility consensus (CCER) and environmental emergencies, with the intermediary role of CCER being verified. Li et al. investigated the mechanism underlying environmental stressors arising from the cross-provincial transfer of coal resource-based enterprises. Chen et al. pointed out the potentially exacer-

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bated effects of the promotion pressure on local officials on regional carbon emissions and highlighted the necessity of a sustainable-oriented promotion mechanism. Concerns regarding corruption issues in energy-intensive industries are also discussed by Chen et al.

3. Factors that affect the public acceptance level towards personal carbon trading (PCT) policy are examined. Gao et al. found that resident acceptance of PCT policy is significantly affected by PCT knowledge, perceived benefit, perceived cost, perceived policy effectiveness and environmental awareness. Another contribution by Gao et al. revealed that political trust has both direct and indirect positive impact on public acceptance of PCT policy, while the perceived uncertainty exerts a negative effect on public acceptance and shows a significant substitution effect on political trust.
4. Lastly, special focus was given to the impact of COVID-19. Song et al. forecast the influence degree and influence cycle of COVID-19 on the PV industry. They found that the impact of COVID-19 on the PV industry shows a time-

delay effect and is stronger for the upstream firms. Ji et al. explored the effectiveness of population mobility restriction in alleviating epidemic transmission during different stages of the outbreak. The results reveal the inhibitory effect of traffic flow control on epidemic transmission and highlight the necessity of quick response regarding lockdown decisions at the very early stage of the pandemic.

We hope that this special issue raises the awareness of climate change and human health issues and exhibits a wide range of problems that need to be addressed especially from the perspective of government's policies and enterprises' actions. We are excited by all the contributions to this special issue and look forward to seeing more scholars getting involved in this area.

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