

## Major Social and Economic Campaigns Greatly Shaped Environment in China

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### Abstract

This report briefly reviews the deteriorated environment facing China after six remarkable social and economic development periods since the second half of the last century, which depended preliminarily on the depletion of natural resources and land conversion that have resulted in unsustainable environmental structure and severe impacts on wellbeing and biodiversity.

### Key words

China's major eco-social development periods in recent history; Environmental devastation in China.

## Introduction

China is characterized with its most populous profile, approaching 1.4 billion in 2017, and playing a leading role in global economic development over the last more than 30 years that witnessed real GDP growth of more than 5% per year from 1979 to 2013, except for 1989 and 1990, and reaching the highest of 15% [1]. A great many of studies indicate, however, that such rapid social and economic developments have, unfortunately, resulted in unprecedented environmental challenges, [2-10] which are generally summarized: 1) the increased air pollution; 2) water contamination; 3) desertification; 4) rapid biodiversity loss; 5) unprecedented human health impacts; 6) excessive depletion of natural resources; and 7) over-use of disposable products. As a result, many of China's agricultural fields are now devastated and further exacerbated due to over application of the fertilizers and pesticides [11] and heavy metal contamination [12]. Such consequence has begun to generate heavy negative impacts not only on economic and social developments, but also human lives and biodiversity [9, 13]. Furthermore, such impacts, especially air pollution, has extended to the rest of Asia, particularly its eastern neighbours, such as South Korea, Taiwan, Hong Kong [14-15] and even detected on USA's west coasts [16].

Such impacts and further manifested environmental devastation have been reckoned to be closely associated with a series of unique social and economic developmental campaigns in China since the second half of the last century, which were relied principally on the depletion of natural resources and land conservation [9].

China used to be one of the global leaders in the creation and application of the modern technology and skills, such as the creations of wheelbarrow, the stirrup, the rigid horse collar (to prevent choking),

the compass, paper, printing, gunpowder and porcelain, and its textile industry appeared some 500 years before the England of the Industrial Revolution [17]. Unfortunately, China missed the wave of last industrial revolution initiated and greatly developed in Europe more than 200 years ago [18], so that China maintained as an agrarian-based economic country whose today's rural economic and social developments still play a crucial section of the country [19].

When the current Chinese Government established in 1949, it was confronting with a devastated country after the two consecutive wars – the Second World War for 8 years and the civil war for 4 years [20], and involved with the Korea War in 1950 [21]. In order to establish a new modern China the government started carrying out a series of radical social and economic campaigns initiated through an one-time event in Chinese history including: a) the Land Reform from 1951 to 1952 aimed to confiscate landlords' properties that were allocated to the peasants, but later congregated by the People's Communes – *land nationalization* [22]; and b) the first Five-Year Plan (1953-57) targeted at a "socialist transformation" in which the ownerships of all industrial factories and commercial enterprises were transferred to public ownership – *economy nationalization* – through a program called "joint state-private ownership" [23].

Thus, the New China successfully completed the transition of private-owned agriculture, industry and commerce that had existed for thousands of years of Chinese history into a monopolized nationalization reined by one-party political system, which formed a solid basis of effectively carrying out a series of remarkable social and economic campaigns in the endeavours of building a modern China[9,24]. These include:



**1960-1969:** The Great Leap Forward (1958-1962) driven by the policy of “Steel First” in which a nationwide deforestation occurred in order to supply the fuel for the furnaces of inefficient backyard steel producers [25], followed up by the Great Chinese Famine due to the ignorance on agricultural developments [26-27]. Further the initiation of Learn from Dazhai agricultural program in 1963, targeted at expanding agricultural production by converting mountain forests, bush lands and other arable lands [28] in order to offset the circumstances created by the Great Chinese Famine.

**1970-1979:** The Learn from Dazhai was further promoted by the greatest political campaign in human history, the Great Cultural Revolution, that ended in the late 1970s under the policies of “Grasp Revolution, Promote Production” and “Grain First”, which caused further extensive topographical conversion and the terracing of elevated and sloped terrains into flattened areas suitable for planting, contributing to heavy soil erosion, frequent flooding [24] and increasing desertification [28].

**1980-1989:** Chinese economy entered a new developmental stage marked by the implementation of Opening-Door policy in the late 1970s, following the end up of the Learn from Dazhai and the Great Cultural Revolution [29], the initiation of the Economic Reform guided by “Economy First”. It started in rural areas through the allocation of the lands to peasants under the “Responsibility System” [30], and initiating rural industrial and commercial activities in the course of “Township and Village Enterprises” that were based principally on natural resources for the products of papers, cements and bricks [31]. Due to the lack of suitable technology such activities, which were isolated and a self-contained efforts [30], have caused significant environmental damages and formed major obstacles for the implementation of environmental legislation later in China [32].

**1990-1999:** The extension of economic reform from “Rural Area to City”, a period the state of agglomeration with a Global Moran I value started applying [33-34], indicating that Chinese economy was gaining momentum in clustering and agglomerating, following remarkable dominant privatization and foreign enterprises growth [31], driven by the policy of “Made in China” in the process of economic globalization characterized with the productions made mainly of raw materials [35]. The period further promoted the conversion of large scale of forests to farmland that provided spaces for industry, infrastructure and urbanization [9].

**2000-2009:** The formation of middle Industrialized Stage [29], characterized with the flourishing of urbanization [36], with an accelerated rate of more than 30.00% of the urbanized population [37]. The implementation of environmental modernization policy since the late 1990s [33-34] made many of the Chinese enterprises begin accepting international standardizations (e.g. ISO 14001) in dealing with industrial activities and emissions [38], following up much increased social and political pressures due to further deteriorated environment that had caused severe public health predicaments. On the other hand, from 2005 China started the plans of reducing 10% of emission and 20% of energy consumption [39].

**2010-2017:** The eco-social development was characterized by: the slowing down GDP level [40]; with more attention to renewable energy development – China became the world’s largest manufacturer of wind turbines and solar panels in 2010 [41] and more investment than any other governments in green technologies in 2014 [42]; and remarkable promotion of outbound industrial development under the new strategy of “One-Belt One Road, which, besides political strategic initiative, aimed at alleviating further deteriorated environment.

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