MAO ZEDONG AND THE INDEPENDENT AND COMPREHENSIVE INDUSTRIAL SYSTEM AND THE MODERNIZATION OF NEW CHINA

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Abstract: In 1949, when the new republic was founded, China was a poor and weak agricultural country. Thanks to Mao Zedong and his comrades who were, at the very beginning of the new republic, all clear of the goal of building an independent and self-sufficient economic system so as to gain the core competitive competence in the world, China has become an initially industrialized and modernized country. Such an industrial and national economic system is the outcome of the efforts of Mao and the communist party and the government led by him. The successes and failures of those efforts clearly reflect features of this particular time.

Key words: Mao Zedong; independent and comprehensive industrial system; modernization

In the last 300 years, the developed countries constituted less than 20% of the countries in the world, and the chances for developing countries growing into developed countries were only 5% (He 2011). This limited chance has called wide attention to the industrialization and modernization of the developing countries. China has grown into an initially industrialized and modernized country since 1949 when the new republic was founded and when it was a poor and weak agricultural country. At the very beginning of the new republic, Mao Zedong and his comrades were fully aware that an independent and self-sufficient national economic system was the foundation for China to gain core competitive capacity in the world. Such an industrial and national economic system is the outcome of the efforts of Mao and the communist party and the government led by him. The

successes and failures of those efforts clearly reflect features of this particular time. And those efforts were full of conflicts and contradictions, leaving much room for us to ponder over.

In 1949, new China's national industry was exactly as Mao (2003) described: "incapable of producing a plane, a tank, a car or a tractor." Basic industries such as energy and raw material were very backward. History taught the builders of the new republic that backwardness incurs humiliation and exploitation. So they set industrialization as the primary goal of the national economy. At the time, internally, China faced heavy population and poor infrastructure and, externally, blockade and embargo by developed Western powers. In this situation, how could the country get over poverty and catch up under rareness of capital elements with the process of global modernization? Through a rough and tortuous road, the leaders of new China headed by Mao led the new republic to set up within more than three decades an independent and comprehensive industrial system and national economy. This was an unprecedented success in both the history of China and the history of the world and should be remembered by later generations.

Now we will recap some key points in this period in eight sections.

1. Eliminating Feudal Land System and Opening the Road to Industrialization

During the long period of revolutionary war, Mao realized the close relationship between economics and politics. For example, he drafted a party central committee document entitled Rules on Division and Treatment of Social Classes in Land Reform (Mao 1996, 64). In the first chapter "Chinese social and economic forms, class relationship and people's democratic revolution" and second chapter "Present class relations and people's democratic revolution," he stated that Chinese social and economic forms had since 1840 gradually evolved from an ancient independent feudal society to a semi-feudal and semi-colonial society or a semi-independent and semi-capitalist society. Before the land reform, Chinese peasants were directly or indirectly exploited by landlords and other exploiting classes. Such exploitation could be stopped only when the reform on land system was carried out in a new democratic state. If the Chinese people want to eliminate production relations of imperialism, feudalism, and comprador, win national independence, carry out land reform, expropriate bureaucratic capital, and establish production relation of new democracy so as to promote productivity, they must overthrow the antirevolutionary and corrupted state power which combines foreign imperialists, domestic landlords, and bureaucratic capitalists. In this way, Mao originally put the issue of solving peasants' need of land as the primary task of the new democratic revolution in China. Mao led for nearly three decades the peasants'

land revolution in which the feudal land system was abolished and landlords as a class disappeared. As it was, the biggest obstacle for developing productivity in China was cleared, making way for funding, technology, and talents for the development of industry. This revolution reached the remotest areas of China, laid down the base for national promotion of industrialization, and transformed social resources of traditional community to industrialized social capital. The land reform enabled "land to the tiller," fulfilled peasants' demand on land, reduced industrial construction cost, and provided for peasants in the process of industrialization, urbanization, and marketization. The land reform guaranteed the continuity of national industrialization and social stability (Wen 2013, 55).

2. Firmly Pushing Forward Industrialization and Bravely Establishing Independent and Self-Sufficient Industrial System

Learning from historical lessons, Mao (1999b) claimed that "if we do not try to change completely within the next few decades the situation in which our national economy and technology lag far behind imperial countries, we are bound to be beaten" (340) and "the speed of industrialization is also a very acute question" (124). The road to industrialization must be tailored to local conditions. Looking at modern history, most of the successful countries which started industrialization rather late relied on a powerful government to guide investment and on coordinated development of heavy and light industries. Drawing on these countries, the new republic of China placed heavy industry as the key for economic development.¹ Mao originally posited that

method of industrialization is mostly linked to the coping of relations between heavy industry, light industry and agriculture. Our economic construction is and must be centered on heavy industry. At the same time, we must pay full attention to agriculture and light industry. (Mao 1999a, 240–41)

Later, he also called for "attending to both heavy industry and the People," "developing industry and agriculture simultaneously," and "taking agriculture as the base and industry as the leading factor" (*People's Daily* 1963). Mao figuratively described the state economy as having two fists and one bottom. The two fists refer to basic industry and national defense industry and the bottom refers to agriculture (Central Committee of the Communist Party of China (CCCPC) Party Literature Research Office 1998, 559).

China and the Soviet Union had argued about how to build an independent and self-sufficient industrial system. The Soviet Union and some of the eastern European countries urged China not to pursue a comprehensive industrial system and to rely on the international labor division within the socialist bloc. Mao disagreed. He believed a state economy as big as China should rely on itself both in terms of carrying out revolution and economic construction. Mao set the completion of industrial system as a criteria for industrialization. He said,

we had called at the first meeting of the 8th party national congress for building a solid foundation for socialist industrialization in the period of the second five-year plan. And we also urged to complete within 15 years or more the building of a comprehensive industrial system. We were inconsistent here because how could we claim to have a solid foundation for socialist industrialization without having a comprehensive industrial system? (Mao 1999b, 103)

Under Mao's guiding ideas, the new republic bravely stepped on the road to establishing an independent and self-sufficient industrial system.

Transfer of rural labor is a big problem in the process of industrialization. If we follow the traditional way of relying on modern industries to gradually absorb depleted farmers, the process would be long-lasting and painful, cause social instability, and delay the process of industrialization. Mao tried to find out a quicker, more efficient, and less painful way through developing rural industries. The initial goal for establishing rural cooperatives and the people's communes was to promote rural productivity and facilitate state control on the flow of agricultural surplus to non-agricultural sectors with lower cost. It was also for reducing unstable factors in the process of industrialization. Mao devoted much of his energy to the development of local and rural industries. In 1958, he urged that "the people's communes should be industrialized" and have their own institutes of higher learning to cultivate higher intellectuals they need. In December 1958, the communist party central committee set up the target of state and commune industrialization in its "resolution on some issues about the people's commune." Since then, commune- and brigade-run enterprises developed rapidly thanks to the backing of state policy, technology, and human resources. In the initial stage of industrialization, the people's communes contributed to the establishment of town enterprises, construction of irrigation works, cooperative medical services, popularization of primary education, and building of a social environment that was helpful for industrialization. They also pioneered the rise of town enterprises that emerged after the reform and opening up.

Under the leadership of Mao, although this independent national economic system was in the rough, the process of building this system was hard and painful, and the cost for it was high, the new republic determinedly stepped on the road to building an industrial country from an agricultural country. This effort had laid the foundation for the economic taking off after the reform and opening up.

3. Adherence to the Scientific and Technological Policy of Combining External Introduction and Learning with Self-Research and Development

Mao laid great emphasis on the role of science and technology. He pointed out, "All the capitalist countries as well as the Soviet Union had relied on introducing the most advanced technology to catch up with the most advanced courtiers, so should we" (Mao 1999b, 126). In February 1950, Mao and Zhou Enlai went to Moscow to sign a pact with the Soviet Union China, introduce soviet experts and technicians, and countertrade technologies and equipments. In the same year, Zhou Enlai and Chen Yun further discussed with the soviet leaders and set up the plan in which the Soviet Union agreed to fully support the establishment of an industrial system in China. Mao seized this rare historical opportunity to build a planned economic system and guaranteed the success of laying down an initial foundation for the establishment of an industrial system in the period of the first 5-year plan. In the process of introducing equipment and technology, Mao emphasized,

Introduction of new technology should not be conducted by pure copying and imitation. Learning from foreign countries must be combined with originality, with self research. We must examine introduced technology and equipment. Usually imitation comes first, but we should modify and improve them according to our specific need. (CCCPC Party Literature Research Office 1998, 492)

Learning from historical lessons, Mao stressed that in the economic development we should "depend mostly on self-reliance, strive for foreign subsidiary, eradicate superstition, independently develop industry and agriculture, independently carry out technological and cultural revolution, overthrow the thoughts of slavery, and inhume dogmatism" (Mao 1999a, 380). After the Soviet government withdrew its experts in 1960, Mao was determined to develop China's own high technology. He said to a delegation of the Indonesian Communist Party on September 3, 1963,

The Soviet Union had withdrawn their experts and scrapped contracts. This is actually good for us because we had to rely on ourselves, on our own hands. Later the Soviet Union regretted and wanted to send experts again and to do business with us. We refused because if they send experts again, it is possible that someday they may withdraw them again and scrap contracts. They have lost our trust . . . Without a teacher, the student can self-teach himself. Having a teacher has pros and cons. The truth is it is good for a student to read, write and think by himself without having a teacher. (Mao 1999b, 338)

Since then, China has in a rather short period of time established an independent and comprehensive industrial system, produced and tested atomic and hydrogen bombs, and launched missiles and satellites. All those efforts had laid a foundation for the development of high-tech defense industry and aerospace industry.

Mao deemed the development of science and technology as an important function of the state. He pointed out,

The battle of science and technology must be fought and won. In the past, we had fought the battle of ideology: establishing people's power and people's army. What was the aim of this battle? It was for the development of production. The purpose of building ideology and changing relations of production is to liberate productive forces. Now as the relations of production have been changed, our task is to increase productive forces. That cannot be accomplished if we do not develop science and technology. (Mao 1999b, 351)

Among the developing countries, China was the first to develop high technology. Since 1951, China started new industries, including aircraft industry. The government decided in 1955 to develop nuclear technology and nuclear industry. In the first long-term scientific and technological development vision plan for the period of 1956–1967, the 57 key projects and 616 important issues were defined as the most needed scientific and technological fields, including the field of high technology, such as computer technology, semi-conductor technology, automation technology, wireless technology, nuclear technology, and rocket propulsion technology. The plan set up the policy of "focused development and immediate catching up." In the three decades since 1949, China's investment in the field of high technology amounted to more than 100 billion Yuan or 6.3% of the total construction investment. By the end of the 1980s, high-tech industry employed more than 3 million workers and expanded to a considerable production scale. In 1987, the output value of high-tech industry was estimated at more than 74 billion Yuan or 6.8% of the total gross domestic product (GDP; Deng and Yu 1989).

All those examples show the achievement of the new republic in the first three decades in the development of science and technology. Mao specifically instructed that "full efforts should be made to coordinate the leadership" of nuclear industry and high-end weaponry. In November 1962, a special committee led by Zhou Enlai was set up to lead the nuclear industry and the research and development of the atomic bomb. China successfully tested its first hydrogen bomb only 2 years and 8 months after its first atomic bomb test (Ai 1999). In 1965, the Nuclear Power Research Institute of China was set up and within less than a decade the first nuclear-powered submarine was produced successfully. Science and technology had also been promoted in civil fields. With respect to the oil industry, the

pessimistic assumption that "China lacks oil reserves" or "northeast China lacks oil reserves" used to be widespread. At the end of 1953, Mao asked Li Siguang about his view on the prospect of China's oil reserves. Later, based on Li's theory, Daqing oil field was discovered and developed (Wen 2005). In the construction of steel bases in the inner land of China, advanced technologies were systematically applied to mining, iron works, steel making, and rolling. In respect to theoretical sciences, mathematician Hua Luogeng was the first to combine mathematical theories with production in China. In 1964, he suggested to Mao to promote optimum-seeking approach and critical path method in production. Mao wrote to him, praising his ideas as "highly aspiring and gratifying." Hua went to factories and mines to introduce his methods with simple and plain language to workers and farmers for about 20 years. Later, Mao wrote to Hua, "You are very welcome for serving the people instead of serving yourself" (Wang 2001).

4. Analyzing 10 Major Relations and Exploring the Road of Development Suitable for China

In the period of the first 5-year plan, investment of economic construction was highly controlled by the central government. This guaranteed the construction of key projects, but also brought about the defects of high centralization, lacking flexibility and rigid control of state enterprises and local government finance. When the socialist reform on ownership was completed and the state-owned economy rapidly increased in 1956, the problem was getting worse. Mao disagreed with Stalin, who believed that in socialist society, production relation is completely compatible to productivity, and so is superstructure to economic foundation. Mao proposed that in the social production relations, the basic contradiction still lies in the contradiction between production relation and productivity. He believed that the former should be adjusted to the latter, and superstructure should be adjusted to suit the demand of the economic base. However, he did not have any ready-made answers as to how to make such adjustments.

Beginning in February 1956, Mao engaged himself with a series of investigations and research. In March, he presented a report to an enlarged meeting of the politburo in which he talked about 10 major relations: "All the discussion serves a basic principle of mobilizing all positive factors at home and abroad for the course of socialism" (Mao 1999a, 23). For this purpose, Mao suggested a series of concrete ideas. In the relation between the central and local governments, both should be brought into play, and "the power of local government should be broadened a bit and given more independence so as to allow them to accomplish more" (Mao 1999a, 31). In the relations between the state, productive units, and producers, interests of all parties should be attended to, and enterprises should openly and

legally possess "semi-independence" (Mao 1999a, 53). Also, producers' interest should be attended to. "As workers' productivity increases, their working conditions and collective welfare need to be gradually improved" (Mao 1999a, 28). In addition, the relations between state, cooperatives, and farmers should be properly managed: "State needs to accumulate funding, and so are cooperatives, but both should not over-accumulate. We should try our best to annually increase individual income in normal years as production increases" (Mao 1999a, 221). All those ideas demonstrate sparks of dialectics, and the methods embodied have up till now been applied to determining political principles and decisions. This can be clearly seen in the policy addresses by Jiang Zemin, Hu Jintao, and Xi Jinping.

5. Attempts to Bring Local Governments and Enterprises into Play and Exploration of Reform on Management System

Limited by international conditions, the funding needed to develop heavy industry came mainly from internal accumulation. To concentrate resource elements, and learning from the Soviet Union, the Chinese government charted a general line in 1953 for a transitional period. It set up a policy called "industrialization and socialist reforms" (socialist industrialization and socialist reforms on agriculture, handcraft industry and capitalist industry, and commerce). The government fulfilled the initial accumulation of funding through low-cost harvesting of agricultural products and labor, thus solving the biggest problem of lack of capital in the beginning of industrialization. However, this method also caused the problem of over-centralization of government power. For this problem, Mao pointed out,

Some central departments discriminate local projects and support only their own enterprises. This discrimination harms local initiative. Both the central and local governments should bring enterprises' initiative into play. Last year some units in infrastructure construction applied system of investment responsibility and resulted in giving full play to these units. (Mao 1999b, 126)

Mao attempted to give much more management power to enterprises in 1958 as well as in the period of the cultural revolution, but the results were not good because those policies were not in accordance with economic rules and the problem of "centralization immediately leads to rigidness and decentralization to chaos" could not be solved.

In respect to micromanagement of industrial enterprises, "Angang Charter" was the result of Mao's attempt to break the Soviet pattern of enterprise management (Dai 1998). Anshan Steel was the first restored and rebuilt large iron and steel enterprise after the establishment of new China. It was one of the state enterprises

which succeeded in setting up complete management rules and regulations in an early stage. The so-called great leap, especially the campaign of anti-rightists, led the national economy into recession. This harsh reality forced Mao to rethink the road to socialist construction and the problem of enterprise management. Between December 1959 and February 1960, while reading A Textbook of Political Economics published in the Soviet Union, Mao discussed the problem of enterprise management after the establishment of socialist state ownership. He stated, "After we basically solve the problem of ownership, the most important problem is management . . . That is, the problem of interpersonal relations" (Mao 1999b, 134). Angang Charter tried to solve the following problems: how to let workers participate in management, how to let managers work as ordinary workers, and how to apply democratic management in enterprises. Summarized as "two participations, one reform and three combinations," such a management policy is similar in some ways to modern enterprise management concepts of worker orientation, full participation, and contingency management.² Based on this policy, Mao called for "learning from Daqing in industrial construction" and further explored the industrial management problem during the stage of primitive accumulation of capital. All those explorations ended at raising questions and did not fulfill his aims

6. Responding to Damage on Productivity by High Target in Production, Wind of Boasting, and Wind of Produce

Compared with other countries in the world, the new republic of China had a weak economic foundation, a huge population, and shortage in per capita resources. In the closed environment, relying on only hard work of labor day and night, this agricultural country could not take off the poor cap in a short period of time. But in the late 1950s, Mao did not fully recognize the difficulties, complexity, and objective rules of the economy. He simply attributed the economic accomplishment of the first 7 years in the decade to people's enthusiasm, wrongly criticized those who were practical and realistic and who opposed rash advance. Also the communist party lacked mechanisms of scientific decision making and construction of democracy. So many big mistakes were committed in economic construction. The party and the government launched the so-called great leap forward, encouraged two account books in planning work, and let the left-leaning mistakes spread. Such mistakes featured high targets, coercive orders, boasting wind, and produce wind. Shortly after the launch of the great leap, Mao detected the problem. He said,

Now there is a wind, a scale-ten typhoon, against which we should not fight openly. We should clarify this inside the party, condense the atmosphere, and delete false or

exaggerated reports. We should be practical and we should not contend for a name. It is no good if we set high targets without any measures in store. (CCCPC Party Literature Research Office 2011, 319)

In March 1959, Mao told local party secretary Ji Dengkui in a meeting in Zhengzhou, "I called last year at a meeting at Beidaihe to set up people's communes, not to blow produce wind . . . Reality tells us canteens cannot do. In fact, people's communes cannot do with canteens." In May 1959, the party central committee instructed, "Food should be distributed to households, and individuals should go to canteens on voluntary basis. Provisions should be assigned according to population, and individual savings should all belong to individuals." The central committee also instructed to return private plots to commune members and to allow them to privately raise poultry and livestock. However, for the sake of maintaining the policy of the great leap, campaigns of setting up "two account books," eradicating "white flags" and "rightists" were continuously launched, and bad tendencies such as boasting wind spread widely in 3 years. After June 1959, as the imbalance of proportion of national economy triggered negative chain reaction, serious problems in deeper structure of the national economy quickly surfaced. This reality deepened and sharpened Mao's understanding of the problem of proportional development and aggregate balance. He reflected upon the past lessons: "We lack experiences in construction. I know very little about planning and proportional development. We should do a research on this problem. Now we seem to begin to get in touch with this problem" (CCCPC Party Literature Research Office 2000, 6).

We have been talking about proportional and planned development for years, yet we still neglect this problem. We still pay no attention to aggregate balance. . . . The mistake we made in 1956 is that we should not openly oppose "rash advance." (CCCPC Party Literature Research Office 2000, 22)

"Now it is clear that comrade Chen Yun is right" (Mao 1999b, 78). Mao highly praised Chen for sticking to aggregate balance and opposing publishing high indexes of the great leap. Mao cited many examples in which Chen's right ideas were turned down.

At a meeting I called in early January, Chen said in his opinion the target [of producing 18 million tons of steel in 1959] cannot be accomplished. We should listen to such opinion. At that time some who labeled themselves as one hundred percent Marxists labeled him as a right opportunist, not a Marxist. In fact, what Chen said is absolutely correct. (quoted in Pang and Jin 2011, 1906)

"When targets for production of grain, cotton, steel and coal for 1959 were announced in Wuchang, all but Chen Yun were wrong, Chen, not any others, was also right and thoughtful in early January" (1907). "Truth often lies in the hand of only one individual" (CCCPC Party Literature Research Office 2000, 13). The dispute on "opposing rash advance" and "supporting rash advance" began by overwhelming others by Mao's powerful criticism and ended by his recognition of and conclusion on abiding by the law of proportional development at party meetings. In a situation in which democratic life was damaged within the party, Mao's attitude was really estimable. In November 1960, Mao demanded that "we should be determined to completely rectify the evils of produce wind, boasting wind, order wind, cadre privilege and blind guidance in production, and to priority the first evil as the key" (Mao 1999b, 220). However, mistakes of higher leadership in theory and practice had led the campaigns of attacking "material incentives" and "putting profit in command" in urban areas and promoting "transition by means of the spirit of being poor" and "cutting the tail of capitalism" in rural areas. As a result, the Chinese economy had encountered serious problems. Deng Xiaoping pointed out after introducing the policy of reform and opening up to the world:

in sum, it was due to our lack of inexperience. And of course it was also due to our neglect after the victory. Certainly comrade Mao should shoulder the main responsibility. On this point he had made self-criticism and taken the responsibility. (Deng 1983, 302)

In the 9 months from the first Zhengzhou meeting in 1958 to the early days of the Lushan meeting in 1959, Mao frequently adjusted policies and production indexes to make them more realistic. Those adjustments alleviated economic chaos (Zhang 2013). To correct the mistakes, he pointed out after learning that

as long as two types of ownership coexist, commodity production and exchange are very necessary and very useful... At present we should make use of commodity production, commodity exchange and law of value to serve socialism... Commodity production is capitalist production if it happens in a capitalist system. It is socialist production if in socialist system. (Mao 1999b, 437–40)

In 1961, he called on the party to devote the year to investigation and research and to seeking truth from fact. In the party meeting of 7,000 attendants in 1962, Mao made self-criticism on economic issues. On the other hand, his understanding on economic issues did not go beyond the book *Soviet Socialist Economic Issues* written by Stalin. Mao did not recognize economic elements other than two public ownerships, economic market and market economy, nor did he go deeper to investigate and discuss them. So when the national economy recovered a little, and

influenced by the negative effect of Sino-Soviet dispute, Mao brought up again the theme of "taking class struggle as the key link," heralding the theoretical and social chaos in the great cultural revolution and slowing down the process of industrialization.

7. Attaching Importance to and Promoting Economic Development of Mid-west China and Minority Regions

Independence and unity of China cannot be maintained without an aggregate national economic system. And this system cannot be established without the development of mid-west China and minority regions. After the anti-Japanese war, Tibet was very much infiltrated by Britain and the USA. Mao was very concerned with this problem. He thought the first priority was to build transportation between the inner land and the west. As early as in 1951, Mao called to build highways linking Tibet with inner China. He wrote an inscription for the opening of the construction of Sichuan–Tibet highway: "Overcoming difficulties and working hard to build road for brother minorities!" (CCCPC Party Literature Research Office 2011, 627). Thanks to the army soldiers and workers of various nationalities, Sichuan–Tibet highway, Qinghai–Tibet highway, and Xinjiang–Tibet highway were constructed within the period of the first 5-year plan. This changed the history of transporting goods to Tibet from India and played an important role in maintaining national independence and unity.

Under the leadership of Mao, the government conducted two large-scale exploitations. The first one was during the first 5-year plan. In that period, the government placed a considerable part of the 156 projects aided by the Soviet Union and other big projects in inner land where the industrial foundation was relatively weak. Considering factors such as resources, the government located steel works, non-ferrous metal-smelting enterprises and chemical enterprises to mid-west China where mineral resources and energy supply were relatively rich. The government also put machinery processing enterprises near raw material production bases. Among the 150 projects actually constructed, 50 were located in the northeast and most of the rest were in the mid-west. Among the 44 national defense enterprises, except ship-building enterprise which had to be placed on the coast, 35 were located in mid-west China. The 150 projects realized a total investment of 19.61 billion Yuan, among which 44.3% went to northeast projects, 32.9% to middle regions, and 20% to Western areas (Dong and Wu 2004, 413–16). Such an allocation of investment began to change the backwardness of western areas.

The second large-scale exploitation was conducted in the periods of the third and fourth 5-year plans around the construction of the "third line." Learning from

the lessons in the Second World War when the Soviet Union was devastated by German invasion due to the lack of rear bases, Mao decided to build the "third line" to be prepared against war and natural disasters. And he thought this would "solve a long term strategic problem" (CCCPC Party Literature Research Office 2000, 423). He timely approved the reports by Li Fuchun and Zhou Enlai on building the city of Panzhihua and examined with approval the report by Zhao Erlu on power supply for the third line.

In the third 5-year plan period, investment on the construction of the third line accounted for as high as 52.7% in the total investment in national capital construction and 41.1% in the fourth 5-year plan period (Ma 1998, 249–54). Although the economic benefits of the third line construction was low as compared with that of east China in terms of input—output ratio, such investment played a great role in the economic development of inner and Western land of China.

8. Taking into Account of Both Industrial Construction and the People's Livelihood

Prioritizing the development of heavy industry needs enormous investment and long construction circle. One big problem it incurs is how to handle the relations between accumulation and consumption and between economic construction and people's livelihood.

Before and after the eighth national congress of the communist party, party leaders Mao, Zhou Enlai, and Liu Shaoqi stressed that we should not follow the Soviet policy of pressing too hard on farmers. Instead, we should "prioritize both heavy industry and people's livelihood" (Zhou 1999, 336) and "take into account the interests of both the state and the peasants" (Mao 1999a, 30). In the essay "On Ten Major Relations," Mao discussed first the relation between heavy industry and light industry and agriculture:

The ratio of investment in agriculture and light industry should increase a little . . .

Such increase can supply people with better living need and speed up accumulation of fund, therefore enable us to better and more quickly develop heavy industry . . .

We now have two ways of developing heavy industry. One is to develop less agriculture and light industry. The other is to develop more agriculture and light industry. From a long-term view, the first way will make the development of heavy industry slower, or at least its foundation not solid, and when the overall account is added up, it does not seem to pay. The second way will in the long run enable heavy industry to develop faster and larger with a more solid foundation because it guarantees people's livelihood. (Mao 1999a, 24–25)

In a time of material deprivation, Mao pointed out, "Of all the things in the world, people are the most precious" (Mao 1991, 1512). In a time of relatively tense balance in the initial stage of industrialization, and in an international environment of blockage and sanction, the state applied "control on procurement and distribution," coupon-based supply of basic living materials, and the policy of reducing income difference in order to maintain social reproduction under a situation of minimum living and consumption. At the same time, Mao called on popularization of education and medicine. The new republic was able to provide universal access to primary education under a situation of very low per capita income. In 1949, more than 80% of the total population were illiterate, school-age children enrollment rate was around 20%, and workers could hardly go to school. In the three decades after 1949, the government had applied the policy of "opening school to workers and peasants," raising the level of people's education. In 1965, school-age enrollment rate for primary school was 89% and that for secondary school was 51.8% in the late 1970s and early 1980s; national urban illiteracy rate accounted for 16.4% and rural illiteracy rate was 34.7% (National Statistics Bureau 1984, 484-87). China's public education was obviously in advance position among backward countries. At the same time, China established basic medical and health systems. Before liberation, major death causes were epidemic and parasitic disease. In a short period of time after 1949, they had been changed to cardio-cerebral-vascular disease and cancer. Average life span was also greatly extended. Amartya Sen, a Nobel Prize winner, believed India was behind China because India did not have a sound basic education system and a basic medical and health system. These two systems were established in China in the period of Mao's leadership, and they were the basis for the great economic leap forward in three decades of time since 1978 when the policy of reform and opening up was introduced.

As for the relation between industrialization and urbanization, Mao preferred raising of rural living conditions to expansion of urban population. He believed that

in the process of socialist industrialization, and accompanied with the development of agricultural mechanization, rural population will decrease. If we let the reduced population come to cities, urban population will over-expand. That will not be good. From now on, we should take notice and prevent this. If we want to prevent this, living conditions in rural areas should be raised to or even better than the level of cities. (Mao 1999b, 128)

Mao's ideas reflect his ideal and are enlightening for the new type of urbanization of today.

To sum up, Mao relentlessly explored Chinese way of development. His brave, daring, and venturous spiritual endeavors have become our national spiritual wealth. Under his leadership, the new republic had established an independent and comprehensive industrial system and national economic system and laid down a solid material, human resource, and technological base for the reform and opening up. The twists and turns in his exploration were learned by the generations to come and became their motivation of reform. In 1978, the third plenary session of the 11th central committee of the communist party changed the party's ideological line and work focus. The new policy of reform and opening up to the world is partly the result of Mao's exploration. With a deep vision of a philosopher and a theory of "three worlds," Mao gradually changed China's world position. He pushed the renewal of Sino-US relationship and China's return to the United Nations, thus laying down a foundation for the country to step on the world stage. The communist party led by Mao safeguarded national independence and unity with excellent political and military strategy and won the country the opportunity to develop economy and realize industrialization. Under the leadership of Mao, the party followed the high ideal of "serving the people" and the policy of mobilizing all positive factors for construction of socialism. Honest and diligent, the party united all its members, the people and nationalities, and gathered all resources. Mao Zedong thought had educated several generations of cadres and party members to devote themselves to overcoming difficulties encountered in the process of industrialization. Limited by historical conditions, Mao did not consistently explore economic laws. The big mistakes he made in the "great leap" and the cultural revolution delayed the process of industrialization. The experience and lessons learned from those mistakes, especially in respect of scientific decision making and building of democracy make us reflect deeply. On the whole, those great achievements and great cost should be objectively and accurately recorded in order to realize the great dream of the Chinese people.

Notes

- 1. According to those notes, until 1952, when the national economy recovered, industrial output of northeast China accounted for 110% of 1943. National output (35 major products) accounted for 126% of the highest annual national output. Products of light industry contributed most to output increase. The recovery of heavy industry was relatively slow and had to rely on imports. China imported 380,000 tons of steel for machine building in 1950, 420,000 tons in 1951, and 500,000 tons in 1952. Because of insufficiency of energy and raw materials, some products of light industry were under-produced. Productive capacity of matches accounted for only 30%, cigarettes 39%, and wheat flour 51%. See Xue (1952).
- 2. The management policy of "two participations, one reform and three combinations" has called attention of management experts at home and abroad. *An Encyclopedia of Management* published in Japan cited this policy in its first entry in section 1, chapter 1. See also Dai Maolin (1998).

3. In and before the time of his writing Properly Dealing with Contradictions among the People, Mao believed that classes always exist in human society, and there are contradictions and cooperation among classes. However, the theme of "taking class struggle as the key link" in economic construction betrayed his earlier and correct belief.

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