

CHINA AND THE WORLD IN THE NINETIES

by ~~Dr.~~ M.S. Swaminathan *

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I. Introduction

The State Council for Development Research of China organised ^{a few months ago in Beijing} a dialogue on issues relating to China's economic development in the nineties, ~~from May 30 to June 3, 1988, in Beijing.~~ The Dialogue was chaired by Prof. Ma Hong, Director General of the State Council's Development Research Institute. Eighteen international participants had been invited to participate in this dialogue with Chinese Planners, Ministers and top policy makers. Those invited from outside China included : Lord Barber, former Chancellor of the Exchequer, U.K., Dr. Kurt Furgler, former President of the Swiss Federation, Prof. Lewis M. Branscomb, Director, The John F. Kennedy School of Government, Harvard University, USA, Mr. Donald Kendall, Chairman, Pepsico Inc, Dr. Pedro Pablo Kuczynski, Managing Director, First Boston Corporation, General Olesgun Obasanjo, former President of Nigeria, Mr. Andries Van Agt, former Prime Minister of the Netherlands and Dr. Koji Kobayashi, Chairman, NEC Corporation. I was invited to discuss issues in the field of agriculture and rural development.

Discussions were held with Chinese leaders including Mr. Deng Xiaoping, General Secretary Zhao Ziyang and Premier Li Peng.

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The dialogue was characterised by free and frank discussions. ~~A~~ ^{Some} ~~of the~~ ^{A few} important points which emerged during these meetings are summarised in this article.

~~Copies of the papers presented by Prof. Ma Hong, Minister He Kong and a few other Chinese experts are appended (Annexures 1 to 5). The major points which emerged during the dialogue, which was characterised by free, frank and wide ranging discussions, are summarised below.~~

II. China's progress in recent years

During the period 1979-1987, China's gross national product, state revenues and the average income of both urban and rural residents have almost doubled. The overwhelming majority of the population of one billion have secured a life with enough food and clothing. Job opportunities have been created on an extensive scale in both urban and rural areas. 70 million new jobs have been created in the urban areas. In the country side, village and township enterprises have grown rapidly. As a result 80 million peasants have shifted from farming to industry either on a full time or a part time basis.

Out of a population of more than a billion, nearly 800 million live in rural areas. The conservation of natural assets like soil, water, flora, fauna and the atmosphere is receiving high priority. ^{Ecologically} Sustainable development has been accepted as the basic norm of all developmental activity. Considerable efforts have gone into the expansion of scientific, technological and educational institutions, so as to push forward economic development through advances in science and technology. Agricultural production has grown rapidly, particularly after the introduction in 1980-81 of the house-hold responsibility system. Under this system, the land is socially owned ^{but} is permanently assigned to individual farmers.

After giving to the State a minimum prescribed quantity of produce, the rest of the produce can be sold by the farmer to the State or sometimes in the open market. A price support mechanism has been established. This system has unleashed the enthusiasm of farmers for producing more and has led to a quantum jump both in productivity and production.

III. Targets for the year 2000

(a) Population :

Steps will be taken to limit the size of the population to about 1.25 billion. The estimated annual growth rate in population is 1.15 per cent. The average life expectancy will be 72 years.

(b) Per capita consumption :

The average per capita consumption may amount to 712 Yuan (1980 prices), with urban areas having a per capita consumption worth 1200 yuan.

(c) Economic growth :

China's GNP is likely to grow by 7.7 per cent per year during the remaining years of this century. At the end of this century, China will rank 6th or 7th in terms of economic strength in the world.

(d) Agriculture :

The total grain output will reach 520 to 530 million tonnes from the present 400 million tonnes. The value of the total agricultural output will exceed 1010 billion yuan by 2000. This represents a 7.2 per cent annual growth in output value, using 1980 as the base year for price determination. The per capita

land availability will be only 0.10 ha and hence the additional production will have to come from increased productivity and cropping intensity.

(e) Per capita income :

The goal will be the equivalent of US \$1000 per capita.

The VIII Five Year Plan which begins in 1990 will be a plan for the decade of the ninties.

IV. Strategies : (a) Science and Technology

China will like to derive full benefit from the "advantages of backwardness". Since the global economic structure is determined largely by technological changes, the technical skills of the Chinese people will constitute the greatest asset of the Nation. Agricultural research, biotechnology, information technology, new materials, new products, new energy sources and new processes will be given considerable attention. China has 9 million scientists and technolgists and they will be directly linked with farm and industrial enterprises. For example, since software will constitute 70 to 80 per cent of the cost of computers in the coming years, training in software engineering will receive high priority. An "open door" policy will be adopted with regard to the introduction of new technologies and ideas. The underlying principle will however be self-reliance and sustained economic advance. Since doubling in energy supply could help in quadrupling GNP, the efficient use of coal, and expansion in hydel and nuclear power will receive attention. Steps will be taken to ~~develop strong~~ ^{strengthen further the} scientific and economic ties with integrated Europe (after 1992), United States of America and

Japan. In the case of manufactured products, quality control will be strictly enforced. The aim will be to make better and cheaper products, keeping in view the preferences of the consumers of importing countries. Scientists and technologists are being encouraged to set up factories. A National Science Fund has been set up to promote basic research. Steps will be taken to take advantage of the technical know how of non-resident Chinese and to stop brain drain by providing better facilities for basic research.

(b) Economic strategy :

A priority task will be the containment of inflation. Economic reform in China has reached a critical stage. Given the size of the Chinese economy, it is very difficult to undertake price reform across the board. It is therefore, being done selectively. Introduction of the market mechanism is causing temporary difficulties but there is no intention to go back. However, de-regulation will be done only in a non-inflationary environment.

China will like to take advantage of the expanding world economy. In the field of borrowing, to the extent feasible the aim ~~the policy~~ will be "Encourage foreign investment and discourage foreign borrowing". China will continue to shift from a centrally planned economy to a commodity and market oriented economy. Handling the problem of prices will however receive continuous attention.

(c) Agricultural Strategy :

An annual increase in production of 7.7 to 10.0 million tonnes of additional foodgrains will be needed during the next 13

years to achieve an over all production of 500 to 530 million tonnes. 44.4 per cent of the total foreign exchange earnings come from the farm sector and attempts will be made to consolidate and expand agricultural exports. Basically, the aim of the agricultural policy will be

(i) to increase production entirely through yield and cropping intensity improvement, i.e. the emerging technologies should be land saving

(ii) to promote animal husbandry in a manner that the demand for feed grains ~~will~~ ^{does} not expand

While the production of animal products expands

(iii) to create about 200 million additional jobs in the off-farm rural sector based on the expansion of rural industries and the services sector.

Six strategic measures will be initiated to achieve these goals.

First, a greater integration of the economies of the city and the country side will be achieved through appropriate industrial and investment policies. Village enterprises specially designed for exports will be fostered all along the coast. Coastal area planning will involve integrated attention to agriculture, ~~and~~ and export-oriented industries and aquaculture. A mutually beneficial feedback relationship will be developed between agriculture and industry.

Second, farm prices will be rationalized and ~~new types of~~ ^{a better} integration of production, supply and marketing will be achieved.

Third, investment in the farm sector will be increased, so that there is adequate supply of production inputs such as farm

machinery, mineral and bio-fertilizers, pesticides, diesel oil and plastic goods, etc. The development of rural infrastructure such as communication, electrification and marketing facilities will receive high priority.

Fourth. The two level system of collective and farmer household management will be perfected. Continuous improvements will be sought in the efficiency of small farm management *through integrated attention to individual initiative and group endeavours.*

Fifth. there will be a considerable step-up in investment in scientific research. The aim will be to make agriculture highly skilled and knowledge-intensive. The share of science and technology in improving agricultural production will grow from the present 30 per cent to 50 per cent to 60 per cent in the year 2000.

Finally. every effort will be made to stabilise population growth and prevent the diversion of good farm land for non-agricultural uses. A major constraint in Chinese agriculture is the low per capita availability of natural resources such as land and water. Conservation based agriculture is therefore a must for China. Scientific land and water use planning and the strengthening of the ecological infrastructure essential for sustained agricultural advance will provide the foundation for China's agricultural expansion.

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VI

Political Perceptions: *Discussing with Mr. Deng Xiaoping, Mr. Zhao Ziyang and Premier Li Peng brought out the following perceptions in*
~~(a) Mr. Deng Xiaoping~~
China likes to absorb the experiences of others and then to

perceptions

relation to china
and the world in
the coming decade.

develop its own policies and programmes which can help the large population of the country to give their best for national development. The household responsibility system has led to rapid progress in agriculture and rural development. The "One Nation - two systems" policy adopted in the case of Hongkong is an example of the resilience of the approach of the Government of China in the matter of national integration. China will continue to pursue the path of socialism with its own distinctive characteristics suited to the needs of the country.

~~(b) Mr. Zhao Ziyang~~

The economic system will be a socialist system with Chinese characteristics. The State will regulate the market and the market will regulate production. Market-driven enterprises ~~will~~ ^{may} constitute about 60 per cent of the economy, and the rest will be subject to State planning and pricing. The focus of current reforms is on prices and wages. China's international trade balance is favourable and within the next 3 to 5 years a new economic order will be brought into existence.

China will actively support east-west detente and the resolution of regional conflicts. China is a small nuclear power. After the superpowers agree to disband nuclear arms, China will join them and work for preventing the production of nuclear weapons. The aim will be to promote peace and stability in all parts of the world, since a stable political environment is a must for economic reform and quality of life improvement.

Much has been done to allay fears concerning the investment climate in China. Foreign investment is welcome and a flexible

approach with reference to the proportion of the products to be exported and that to be sold locally will be adopted while finalising collaborative agreements. Foreign investors bringing frontier technologies are particularly welcome.

China will give high priority to energy conservation and environment protection. The development of Hainan island will become a prototype for achieving accelerated economic growth on ecologically sound principles. China has to place heavy reliance on coal for its energy needs and non-polluting technologies will be welcome. China is very much aware of global atmospheric changes caused by carbon dioxide increase and will collaborate in international efforts to manage this problem. *and prevent drastic changes in climate.*

~~Agriculture and rural development constitute the most important sectors of the Chinese economy. The house hold responsibility system will be further strengthened, so that an optimum blend of individual initiative, group endeavour and government support can be achieved. South - South collaboration in economic development will receive strong support.~~

(c) Premier Li Peng

China will work towards achieving a per capita income of US \$1000 per year by 2000. Food Grain production will have to be increased to over 500 million tonnes from existing land and this is going to be a challenging task. More attention will have to be given to helping small farmers increase productivity and the terms of trade will be made to favour agriculturists. China's trade with Europe is higher than that with USA and this will be further strengthened when a unified European community emerges in 1992. The biggest hurdle to development is "red tape" and a war

on "red tape" is essential for progress. Intellectual property rights are becoming important in developed countries but this should not become an impediment in sharing the benefits of progress in science and technology. Education holds the key to progress and there can be no modernisation without education.

Tribute to India's progress in agriculture

Mr. Zhao Ziyang paid rich tributes to the progress made by India in agriculture and animal husbandry. There is much that China and India can learn from each other in agriculture. He hoped that the visit of the Prime Minister of India to China will help to strengthen the bilateral relationship between the two countries in agricultural research and development. The diversification of the rural economy in order to generate more skilled jobs in rural areas is a challenge common to the two countries. Also, both China and India will have to produce more food from less land in the coming decades in an ecologically sustainable and economically viable manner. Thus cooperation between the two countries will be mutually beneficial. (Annexure-6)

V Science and Land Saving Agriculture

China and India have both no option ^{option} except to adopt agricultural technologies which can ^{help} to increase yield ~~and~~ continuously over time, without ecological harm. It ~~would be interesting to describe~~ I would like to give one example of the scientific strategies adopted ~~by~~ in china to achieve this goal. China's total sown ^{sown} area in 1986 was 144 million hectares. hectares. Out of this 32.26 million hectares were under rice. The total rice output during 1986 was nearly 173 million tonnes, with an average yield of 5.4 t/ha. Four major scientific breakthroughs were responsible for ~~the~~ such a high average yield ^{over} ~~on~~ a very large area. First, in the fifties, Chinese scientists introduced the semi-dwarf plant architecture in commercial rice varieties. This gave birth to high-yielding,

management responsive varieties of ~~the~~
indica rice. The second important advance
 achieved during the seventies was the
 development of hybrid rice, using a
 male ^{sterility} mechanism identified from
 a wild rice in Hainan island. Hybrid
 rice now covers nearly 9 million hectares
 in China. This is the first example

of such widespread exploitation of
 hybrid vigour in a self-pollinated
 and seed propagated ~~cereal~~ ^{crop} plant. ^{crop}
 The third innovation used effectively
 in the development of superior varieties
 is the use of another culture for
 producing stable diploid hybrids.

Finally, during 1988, ~~the~~ Professor
 Chen Jian-Sun of the Chinese Academy
 of Agricultural Sciences, succeeded in
 developing a new apomictic rice variety
 released under the number "84-15".

apomixis

The use of the gene for apomixis makes the purchase of hybrid seeds every year unnecessary. Variety "84-15" has a good plant type with narrow, erect flag leaf, big panicles, early maturity, ~~top~~ lodging resistance, wide adaptability, good resistance to diseases and satisfactory ~~heter~~ hybrid vigour. According to yield trials conducted in the Hubei Province in 1987, "84-15" yielded 10.88 tonnes per ha, which was 22.2% more than the best local strain.

These four major contributions of Chinese rice scientists over the last 3 decades indicate how, given a clear sense of goals and appropriate scientific efforts, the national imperative of producing more food from less land can be achieved.

Imperative