

NATURE REFORM IN CHINA'S RURAL VILLAGE

- The Ta-chai-Type Farmland Construction -

At present in China, in anticipation of the third five-year plan to begin next year, the development of agricultural production and the building of the socialist new rural village are rising to a new height. A model in the construction of the socialist new rural village is the Ta-chai big brigade in southern Shansi. With their own hands, the members of the big brigade have made the great achievement of transforming the appearance of the impoverished mountain village and increasing the grain output to eight times that of before the liberation. The experience in nature reform and farmland construction of this unknown village is being introduced in the entire nation as a model in the building of the socialist new rural village; a great movement to learn from, catch up with, and surpass Ta-chai is underway; the path followed by Ta-chai is blossoming forth everywhere; the second, third, etc. Ta-chai's have appeared successively.

Beginning 1 November, the National Ta-chai-Type Agricultural Model Exhibition was held in the Peiping Agricultural Exhibit Hall, and the superior farmland construction experiences of 52 units from 28 provinces and municipalities (8 people's communes, 21 big brigades, 1 production brigade, 1 cooperative team, 2 districts, 13 hsien, 4 special districts, and 2 municipalities) were introduced. The exhibition received the direct concern of the Chinese Communist Party Central Committee and the State Council. After the inauguration ceremony, party and state leaders such as Chou En-lai, Chu Teh, Teng Hsiao-p'ing, Tung Pi-wu, P'eng Chen, Ch'en Yi, Li Fu-ch'un, Li Hsien-nien, T'an Chen-lin (6223 7201 2651), Po I-po (5631 0001 3134), Lu Ting-i (7120 1353 0001), Ch'en Pai-ta (7115 4101 6671), and K'ang Sheng (1660 3932) came successively to view the exhibits.

To congratulate the holding of the National Ta-chai-Type Agricultural Model Exhibition, the People's Daily of 1 November drew attention to its significance in an editorial, pointing out that "the Ta-chai spirit is a tremendous motive power to promote our rural class struggle, production struggle, and scientific experimentation, and accelerate the construction of the socialist new rural village." It then went on to say:

"The successive appearance of large numbers of Ta-chai-type advanced agricultural units in all areas in the nation is producing a great promoting and encouraging influence on the further development

of the compare-learn-catch up-help-surpass movement on the agricultural front. As a whole, the foundation of our agriculture is still shallow, the output level not high, and the resistance to natural disasters not strong. Is it possible for us to change this condition within not too long a period of time? It is perfectly possible... By developing the Ta-chai spirit, mobilizing the socialist positivity of the large peasantry, relying on their own two hands, and adding state aid thereto, it will be possible to further promote our farm capital construction, develop our agricultural '4-ization' (mechanization, water conservation, chemicalization, and electrification), strengthen our resistance to natural disasters, improve our agricultural technical level, and construct more stable and high yield farms."

The following is an introduction of the farm capital construction experiences of the Ta-chai big brigade and others following its steps.

The People of Ta-chai who Turned Rocky Mountains into Fertile Farms

As a deserted village in Hsi-yang hsien, Shansi, situated on the T'ai-hang Mountain ranges more than 1,000 meters above sea level, Ta-chai suffered from extreme poverty before the liberation. Its name was unknown beyond the villages in its vicinity. The 800 mou of farmland of the village was scattered in 4,700 plots on mountain ridges and hillsides. Some places were so narrow that even mules could hardly turn around. The topsoil was shallow, and it was considered good when the mou grain output reached 50 Kg.

The people of Ta-chai realized production cooperativization in 1952. By the fall of 1953, the "Ten-Year Land Construction Plan" was formulated. By their own effort, they began the great enterprise of turning poverty into wealth. The plan was completed in 1962, one year ahead of schedule. Under the plan, the people of Ta-chai, with their own two hands and hoes and carrying poles, dug out the mountain rocks, scraped the soil on the hillsides, turned the 4,700 plots of barren land into 2,900 terraced fields, and built 170 dikes at seven deep gullies to control flood. In agricultural technique, by successive experiments and reforms, they discovered close planting as a means suitable for the area. By such farmland construction and close planting, the grain output rose rapidly. The mou output increased from the 237 cattles of 1952 to 543 cattles in 1958, which again jumped to 774 cattles in 1962. In spite of the unprecedented downpours in 1963, a good harvest was reaped. The output rose to 809 cattles in 1964. With rocks and earth, the people built terrace fields, with the terraces about half of a man's height. Large rocks weighing between 50 and 100 Kg had to be carried from the foothills to the mountain top. It was a task requiring a tremendous labor. As the topsoil of the hillsides was shallow, earth had to be carried from the

foothills also. Besides, as the soil of some areas was clayish while that of others sandy, it had to be skilfully improved before utilization.

With carrying poles, hoes, and baskets, the people of Ta-chai pared off half of the mountains, moved the large rocks one by one, and built level terrace farms on the hillsides and mountain tops. Though no stream is available for irrigation, the soil can store rain water and serve as natural "dams," since all the farms now have over 30 cm of topsoil which can absorb water.

Ta-chai has seven deep gullies. While they were usually dry, heavy rainfall would form a flood and damage the 200 mou of farmland alongside them. The village people considered building stone dikes to control the flood. However, it was a tremendous task. "The mountain is great and the gullies deep, and our village has only 50 labor force. How long will it take to do the job?..." was a remark of some who hesitated when work first started. However, party branch secretary Ch'en Yung-kuei (7115 3057 6311) flatly declared: "Even if the mountain is greater and the gullies deeper, if it is tackled one by one, there is no reason for us not to succeed. If three years are insufficient, make it five; if five years are insufficient, let us persevere for ten years. If we persevere, we will surely succeed."

Every year, in winter time, the people of Ta-chai carried hammers and levers to the gullies. Nevertheless, when they came to the Lang-wo-chang gully, their final test, they failed repeatedly. This gully is about 1.5 Km long and 7 m wide. In rain season, the mountain torrent would run wild like a reinless horse. At the beginning, 25 stone dikes were built, but they were washed away in the next summer by flood. Undiscouraged, the village people again set out to conquer the gully. With greater care than before, they rebuilt the dikes, but these were again swept away without a trace by a flood more severe than the previous year.

The flood washed the dikes away, but it could not dampen the revolutionary fervor of the Ta-chai people. Learning the lessons of failure, they planned the task for the third time. The usual method was to partition close alongside the gully and build dikes. After discovering that such dikes were inadequate to check the water, this time they built the dikes in form of arches. They also selected small rocks and reenforced them with concrete, and increased the number of dikes to 32. The rocks required for the project were quarried from the mountains. The construction this time withstood dozens of floods successfully.

A total of over 180 dikes were built for the seven gullies totalling 7.5 Km. More than 100,000 labor force were poured into the construction of the dikes and terrace fields.

The people of Ta-chai also repeatedly experimented on and improved their cultivation methods. The leaders created experimental farms according to the different types of soil and crops, demonstrated

by concrete examples, and introduced the superior methods among the commune members. Every one knew that close planting was a good method. However, what should be the extent of such close planting? The farmland, being narrow, was unsuitable for machine cultivation, but the village people discovered that it constituted a favorable factor for close planting because of the evenly distributed sunlight and good ventilation. They experimented according to the soil and the terrain, instead of purposeless uniform close planting, and finally found the method suitable for Ta-chai. They discovered that, for the corn crop, 1,600 to 2,200 plants per mou, according to the area, could be cultivated, whereas before, 1,000 plants per mou was considered numerous. On the same piece of land, more were planted near the edge, where the sunlight and ventilation were good, than in the middle. Close planting became the major means of Ta-chai's corn output increase, and the mou output increased to 404 Kg, which was eight times the 50 Kg before the liberation. Thus, by self-revitalization, Ta-chai has produced an example of turning an impoverished mountain village into a socialist new rural village.

"The Flower of Ta-chai" - Meng Hsien

Shansi's Meng hsien is a national model in learning the experience and spirit of Ta-chai and building Ta-chai-type farms generally in all areas of the hsien.

Located in the western part of the T'ai-hang Ranges, Meng hsien is surrounded by mountains on all sides. Those on its north are specially steep, around 1,500 m above sea level, and even the lowest spots are around 700 m. Mountainous land constitutes 70% of the hsien. Sixty-percent of the 500,000 mou of farmland of the hsien is found on mountain ridges and hillsides and in ravines, mostly with only around 2 ts'un [1 ts'un = 1.2 inches] of topsoil. To change the appearance of the impoverished mountain village, the people of Meng hsien, several years ago, launched large scale farmland and water conservation construction twice and produced considerable results. However, as they were short of experience at that time, the construction work did not develop its full effect, and portions of it were swept away by flood. The development of agricultural production was not rapid. For example, the food grain output of the hsien was 80,680,000 catties in 1957, and the annual average for the five years between 1958 and 1962 was 91,290,000 catties. Thus, the annual average rate of increase was only 2.62%.

In May of 1963, the Chinese Communist Central Meng hsien commission called an expanded meeting to discuss "why Meng hsien's agricultural development is slow" and "what is the basic means to change its appearance?" The conclusion was to learn the experience of Ta-chai. Thus, in the years of 1963 and 1964, relying on the power of the collective economy built in the past ten years and their

own strength, the people vigorously launched farmland construction. In the winter of 1963, they began over 170 mountain control projects on the mountain ridges and sides, over 300 dike projects in ravines, and thousands and tens of thousands of soil preparation and land adjustment tasks, and undertook the foundational work of dozens of dikes. Between the first month and the end of the fifth month of the moon calendar in 1964, 26 large dikes, totalling more than 1,500 m, were built, 101 ravines and 122 small ravines, totalling 120 li, regulated, 4,200 mou of farmland on mountain ridges and hillsides reformed, and 7,500 mou of farmland in ravines prepared. In the five-month period alone, 40,000 persons were mobilized, totalling 910,000 labor units, and 30,000 m³ of rocks and 300,000 m³ of earth transported. From the winter of 1964 to the spring of 1965, a large scale farmland capital construction was advanced and 101,000 mou of Ta-chai-type farmland completed. In the two years, the building of Ta-chai-type farmland totalled 197,000 mou. As a result, the grain output of Meng hsien greatly increased. From the annual average of 91,290,000 catties between 1958 and 1962, it rose to 110,400,000 in 1963, and 132,000,000 catties in 1964.

As an advanced model in emulating Ta-chai by its flourishing farmland construction and the building of the socialist new rural village, Meng hsien is extolled as "the flower of Ta-chai."

The Hsia-ting-chia Big Brigade - the "Ta-chai" of Shantung

With the spirit of self-revitalization and arduous struggle, the Hsia-ting-chia big brigade of the Ta-lu-chia people's commune, Huang hsien, Shantung, devoted its effort to the reform of nature. Beginning in the winter of 1955, they launched water conservation, soil preparation, and afforestation, and turned more than 1,600 mou of barren land into stable and high yield farms. Since 1958, the mou grain output was stabilized at 800 catties (400 Kg) or more, and the 1964 output reached 920 catties (460 Kg), thus far surpassing the 250 Kg goal set for areas north of the Yellow River in the 12-Year National Agricultural Development Outline of 1956.

Hsia-ting-chia, a mountain village in the Chiao-tung Peninsula in Shantung, consists of eight small settlements scattered in the valley along the shores of the Yung-wen River. It has a population of 2,695 in 560 households. Three-quarters of its 2,368 mou of farmland are located on hillsides 700 m above sea level, and the remainder is all sandy soil mixed with pebbles on river banks. The water level of the Yung-wen River is more than 20 m below the banks. Being poor, the mountain village had no funds to utilize the water for irrigation, and the people could only watch the water flowing by. The area suffered from drought nine years out of ten, and the mou grain output before the liberation did not exceed 50 Kg or thereabout.

By the spring of 1957, after the liberation, 20 irrigation wells were dug, but each well could irrigate at most only 5 or 6 mou. Thus, they decided to utilize the water of the Yung-wen River. In the fall of 1957, they began dam construction. In 1958, a 50 m long and 5 m wide dam was completed, and the problem of irrigating the 200 mou of land on the two shores solved. However, the irrigation problem of the hillside land, which constituted three-quarters of the farmland, was still unsolved. To irrigate the hillside land, reservoirs, pumping stations, and irrigating ditches must be constructed. If a reservoir was built on the top of the mountain, it could only gather 5,000 m³ of water. To solve this problem, on-site investigation and planning were carried out repeatedly, and they decided on the new method of blocking the flow and gathering the water on the east and west mountains together by an irrigation ditch. By so doing, the water volume of the reservoir could be doubled, and an increase from 5,000 m³ to 12,000 m³ became possible. The mountain top reservoir was completed in 1963. From the foothills to the summit, three reservoirs at different levels were completed, and an irrigation system unseen anywhere else formed. All the terrace farms on the mountain land were watered by irrigation ditches. The people of the commune proudly call the three reservoirs a "three-story building."

Besides building 1 dam, 4 reservoirs, 14 dikes, 2 pumping stations, and over 150 wells in a little over 8 years, the people of Hsia-ting-chia also dug 6 irrigation ditches (totalling over 5 Km). As a result, the stable and high yield irrigated area was expanded from the 400 mou of before to over 1,400 mou, and water conservation construction was completed on 58% of the farmland.

While pursuing water conservation construction since the establishment of the people's commune in 1958, the people of Hsia-ting-chia began large scale farmland preparation. The mountain land was turned into terrace farms, stone walls built, ground levelled, topsoil added, 1,500 mou of barren and sandy soil reformed into fertile fields, and soil improvement completed on 65% of all the cultivated land.

In addition, trees were planted on bare mountains, water sources protected by banning lumbering where the topsoil was shallow, and orchards created in ravines and low land where cultivation was not suitable though the topsoil was deep.

Together with such farming method improvement as rational close planting, selection of superior seeds, and additional fertilizer, the farm output increased every year. While the mou grain output before the liberation was not more than 50 Kg, it was stabilized at 400 Kg since the communization of 1958, and rose to 460 Kg in 1964. In the seven years since 1958, the Hsia-ting-chia big brigade sold to the state 2,920,000 catties (1,460 t) of commercial food grain, 380,000 catties (190 t) of oil and fat raw material, and 4,780,000 catties (2,390 t) of fruits. Now the big brigade has in

reserve over 70,000 catties (35 t) of surplus grain, averaging 120 catties per household, and its public reserve totals over 260,000 yuan.

The Wu-shen-chao Commune of Inner Mongolia - the "Ta-chai" of the Livestock Area

"Ta-chai" has even appeared in the desert of the Inner Mongolia Autonomous Region. It is the Wu-shen-chao people's commune of Wu-shen ch'i in the Mao-wu-su desert situated in the southeast part of the Ordos Plateau.

More than half of the 1,400 Km² of the area of this commune was sandy. Though the remaining portion was called grassy plains, they were actually waste land where the grass grew only sparsely. In addition, damp alkali spots, hard sandy hills, and stagnate pools dotted the land. The area suffered from sand, drought, submergence, hail, parasites, and poison weeds. For this reason, the population was small, only 2,800 persons in 705 households.

The people of the commune, by their own hands, have reformed admirably the inferior natural conditions. In the past 8 years, they have planted grass and trees in the desert and created pastures of thick and luxuriant grass in the 60,000 mou of sandy land. Where there was not even one tree before, 200,000 have been planted. In addition, 6 drainage and irrigation ditches, totalling more than 50 li, have been dug in low lying pastures to prevent submergence and flood. Before, as the livestock in this area drank dirty stagnate water, they were subject to parasites. Now, more than 450 wells have been dug, and the livestock are supplied with pure drinking water.

In the old days, the herdsmen of the area had no experience in farming, but now they own 3,300 mou of irrigated farmland. In the past several years, 700,000 to 800,000 catties (350-400 t) of food grain and feed have been harvested every year, and the people are 70% self-sufficient in food grain and feed.

As a result of the grassy plain construction, the commune's livestock has increased from the 49,000 heads of 8 years ago to 82,000. In addition, it has sold to the state 30,000 heads of domestic animals, 400,000 catties (200,000 Kg) of sheepwool, and 40,000 pieces of hides. The 1964 income per capita almost tripled that of 1958.

The Hsin-wu Big Brigade which Turned Alkali Soil into Fertile Farms

An "alkali nest" until 9 years ago, the Hsin-wu big brigade, San-ts'ang people's commune, Tung-t'ai hsien, Kiangsu, has become a "treasury of grain and cotton," and accomplished a tremendous change in its production.

Until 9 years ago, 1,200 mou of its 2,800 mou of farmland

suffered from a high alkaline content. Even in good years, the mou output of grain was only 100 to 200 catties (50 - 100 Kg), and of cotton, 20 to 30 catties.

The big brigade started soil improvement. Between 1956 and 1958, it dug three large drainage ditches measuring a total of more than 10 li, 87 small drainage ditches, and 87 ponds, built 22 flood-gates and 12 bridges, and devoted its effort to the removal of alkali. As a result, the alkaline content in the soil was reduced from .23% to .18%. To further reduce the alkaline content and turn the barren land into fertile soil, green fertilizer crops were planted. At present, 2,500 mou out of the 2,800 mou have become fertile soil suitable for food grain and cotton, and the alkaline content does not exceed .2% in any of the farms. The 1964 mou grain output was 691 catties (345.1 Kg) and the mou cotton output, 179 catties (89.5 Kg). The area is known as a high yield hsien in Kiangsu province.

The foregoing is an introduction of a few advanced units in nature reform and farmland construction in China's rural villages. If the North China Region is taken as an illustration, the measures for such nature reform and farmland construction may be generalized under four classifications: (1) Ta-chai-type terrace farms, (2) garden farms, (3) platform farms, and (4) forestry network ridge farms.

(1) Ta-chai-type terrace farms: The building of level terrace farms on hillsides in farmland construction is the measure adopted by the Ta-chai big brigade, Ta-chai people's commune, Hsi-yang hsien, Shansi, described in the beginning of this article. The soil is turned fertile by the "three-deep" cultivation method (deep plowing, deep seeding, and deep mid-plowing), and ample water, moisture, and fertilizer. Farms of this type are called "Ta-chai farms," and the experience has been introduced in some of the mountain areas in North China.

(2) Garden farms: The building of garden farms is one of the measures of farmland construction in the vast North China plains. By combining irrigation and drainage, land levelling, tree planting around the edges, deep plowing, ample fertilizing, and the use of superior seeds, such farms can withstand drought and flood and yield a stable and greater output. Hopeh's Shih-chia-chuang special district in Peiping's suburbs and Shansi's Ta-ku hsien possess fairly mature experiences in the construction of such garden farms.

(3) Platform farms: This is a measure for farmland construction in low and humid coastal areas where the alkaline content in the soil is high. The earth is heaped high, the water level lowered by draining ditches, and the alkaline content removed. A sample of the building of platform farms is the T'ung-chia-hua-yuan big brigade, Nan-ch'en-t'un people's commune, Ts'ang-chou, Hopeh. The 40 mou of platform farm built by it on waste alkaline land has withstood downpours of 700 to 800 mm and produced good grain crops.

(4) Forestry network ridge farms: This is the measure adopted for farmland construction in wind and sand areas. Together with irrigation, windbreak forestry belts are built to resist wind, stabilize the sand, and reform barren land into fertile soil. Wind and sand areas are found in no small numbers in the North China Region. The farmland of such areas suffers from escape of water and fertilizer, spring drought, low survival rate of seedlings, and extreme low yield ever since ancient times. The Tang-p'u-ti big brigade, Tang-p'u-ti commune, Ch'ih-feng hsien, Inner Mongolia Autonomous Region, is one of the advanced units in the construction of forestry network ridge farms. In the past 15 years, the big brigade has removed over two million m³ of shifting sand, planted windbreak forests, improved the soil, built dams, dug wells, turned the sandy land into fertile soil, and increased the grain output (1964) to 6 times that of before the liberation.

While the concrete measures for farmland capital construction and stable and high yield farms now in progress in China's rural villages vary according to the area and the unit, the following are the three common characteristics. One is to develop the Ta-chai spirit and advance by the people's own effort according to the principle of self-revitalization. Two is to adopt comprehensive measures, including soil improvement, water conservation, and afforestation. The third characteristic is, on the foundation of over-all planning and by concentrating forces, to combine the leadership cadres, technicians, and the people (the "three-combine"), formulate plans in the sphere of the entire hsien or entire commune, concentrate the manpower and material, introduce the improvement measures one by one according to the need and the feasibility, produce results in the year when a measure is introduced, and avoid extending the construction period and waste.

6080
CSO: 12322-D

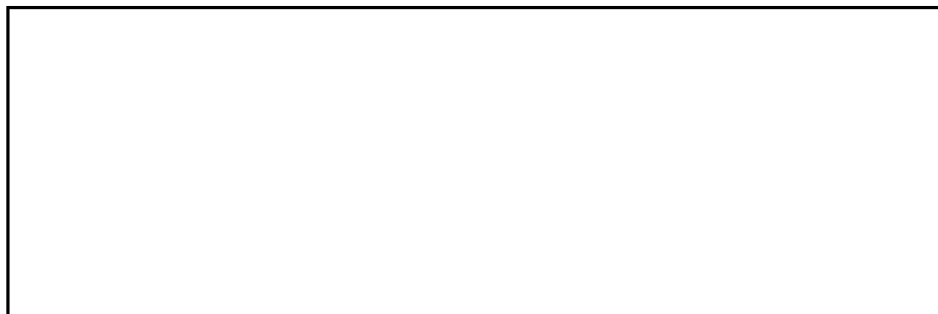
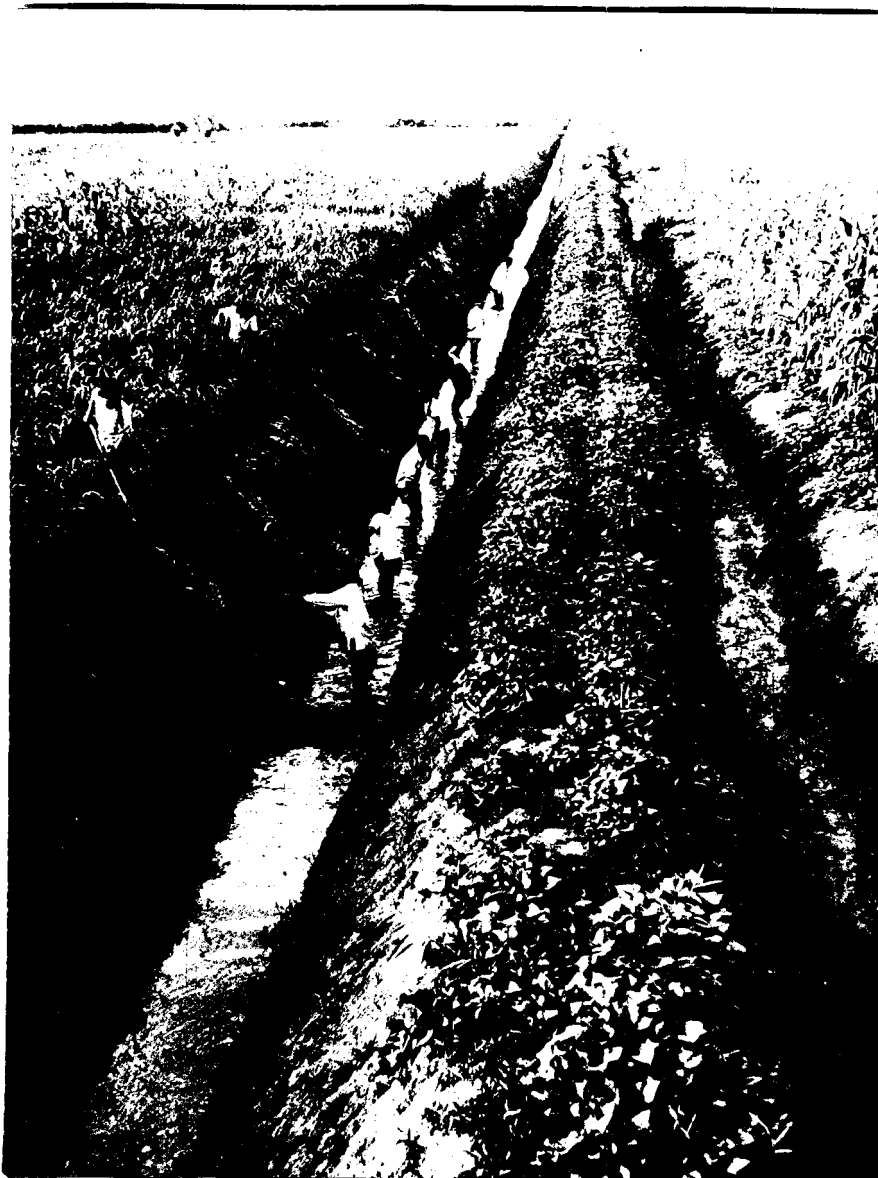
Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4

25X1

CHINA [REDACTED] AN-YANG 36 06 N 114 21 E
Members of Nan-tsui-chuang Brigade of Hung-ho-tun Commune dig drainage &
irrig ditches in order to remove alkali fr soil. [REDACTED] 1965.
Confidential (24) CIA 1096405

25X

Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4



Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4

CHINA C 0335 PI-SHAN HSIEN 37 38 N 78 19 E
Local farmers constructing irrigation ditch in Gobi Desert.

25X1

Confidential

(1-7-24)

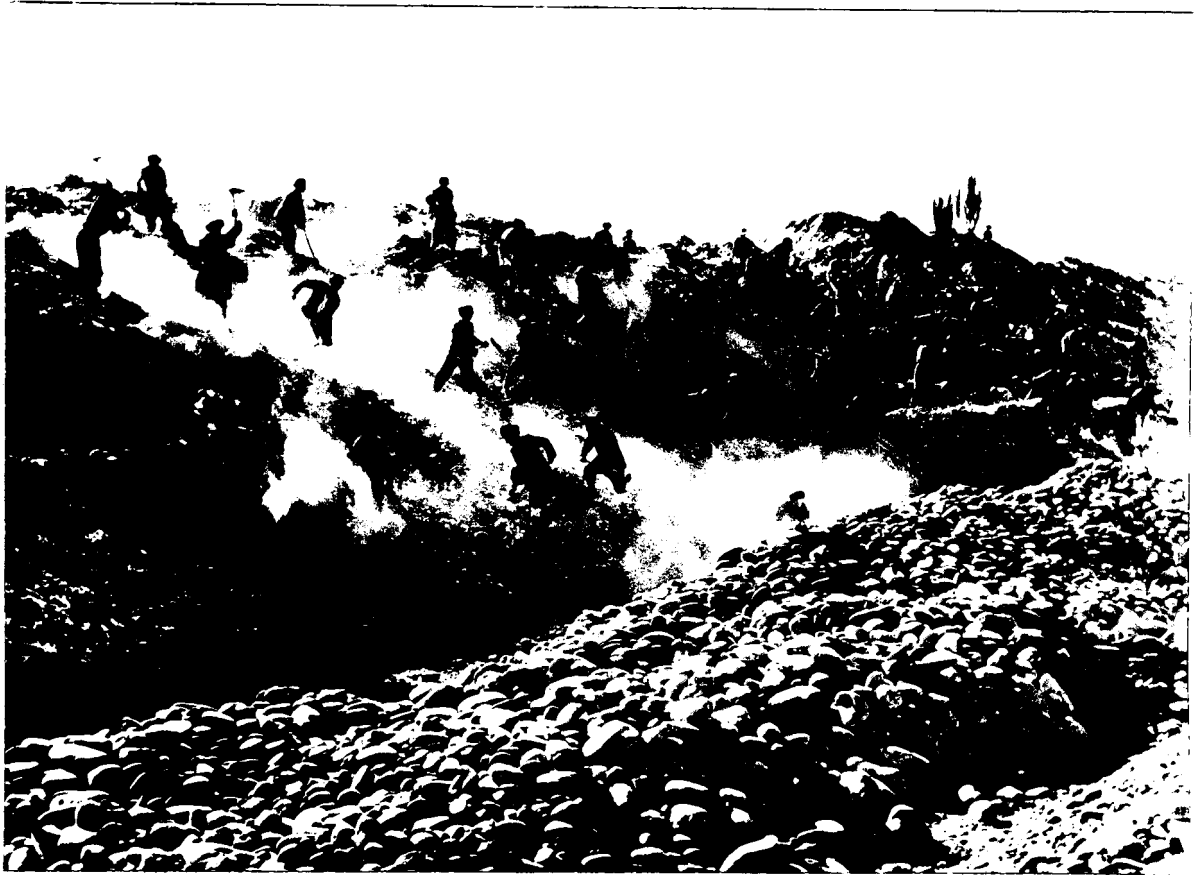
CIA 1096406

25X

Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4

ILLEGIB

Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4



ILLEGIB

ILLEGIB

Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4

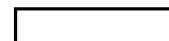


Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4

CHINA B 0384 LUNG-TE HSIEN 35 38 N 106 06 E
Members of Lien-tsai Commune cutting terraces into mt slopes in order to
plant trees which will prevent erosion of crop land.
Confidential (1-24) CIA 1096407

25X

Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4



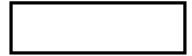
Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4

CHINA C 0381 HUANG-HSIEN 37 38 N 120 30 E
Members of Hsia-ting-chia Brigade of Ta-lu-chia Commune remove rocks fr
mt in order to constr terrace farms (BKG).
Confidential (7-24) CIA 1096409

25X

Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4

ILLEGIB



ILLEGIB

ILLEGIB

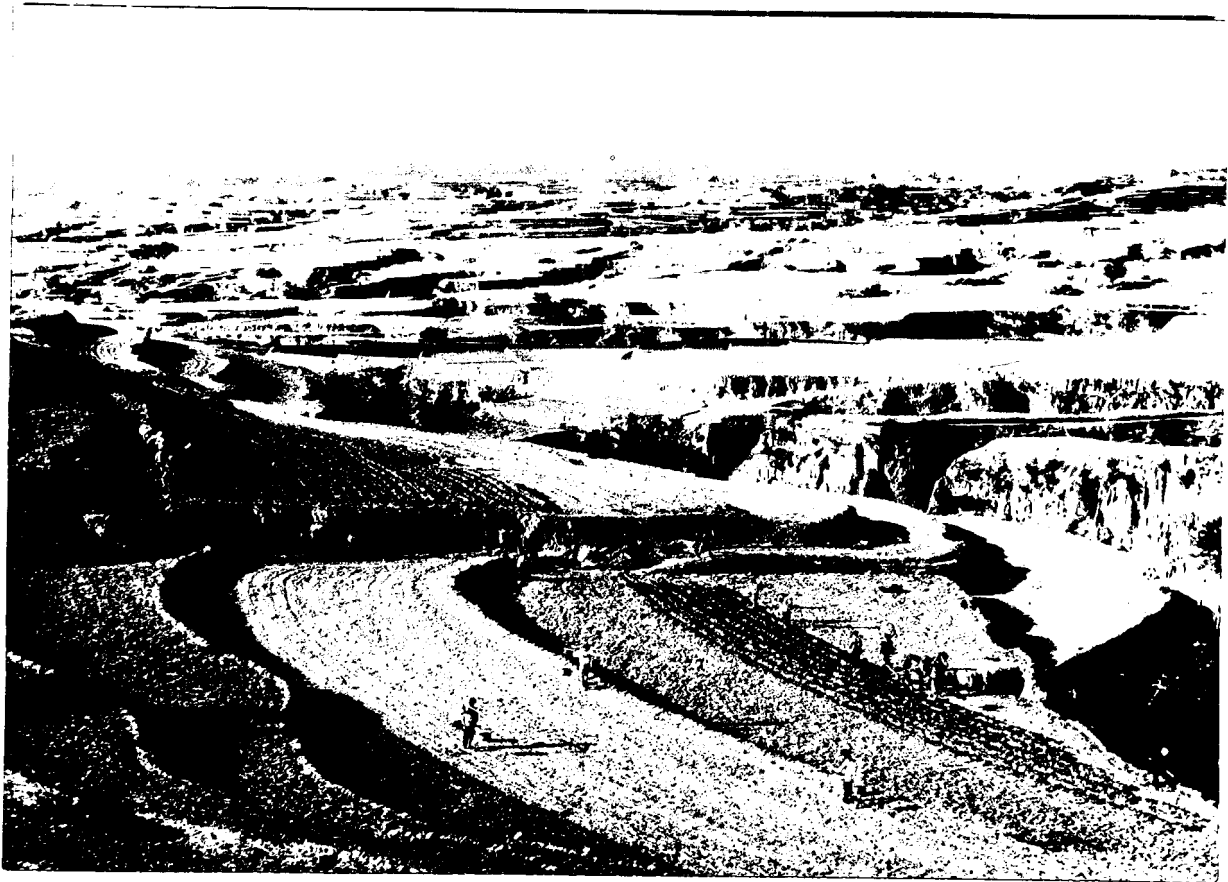


Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4

CHINA C 0382 HSI-YANG HSIEN 37 37 N 113 46 E
Terrace farms built by Ta-chai Production Brigade in order to increase
food production.
Confidential (24) CIA 1096410

25X1

Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4



Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4

CHINA D 0385 TAI-HSING SHAN 33 54 N 109 05 E
Hung-chi irrig waterway (70km long) built by people of Lin Hsien.

25X1

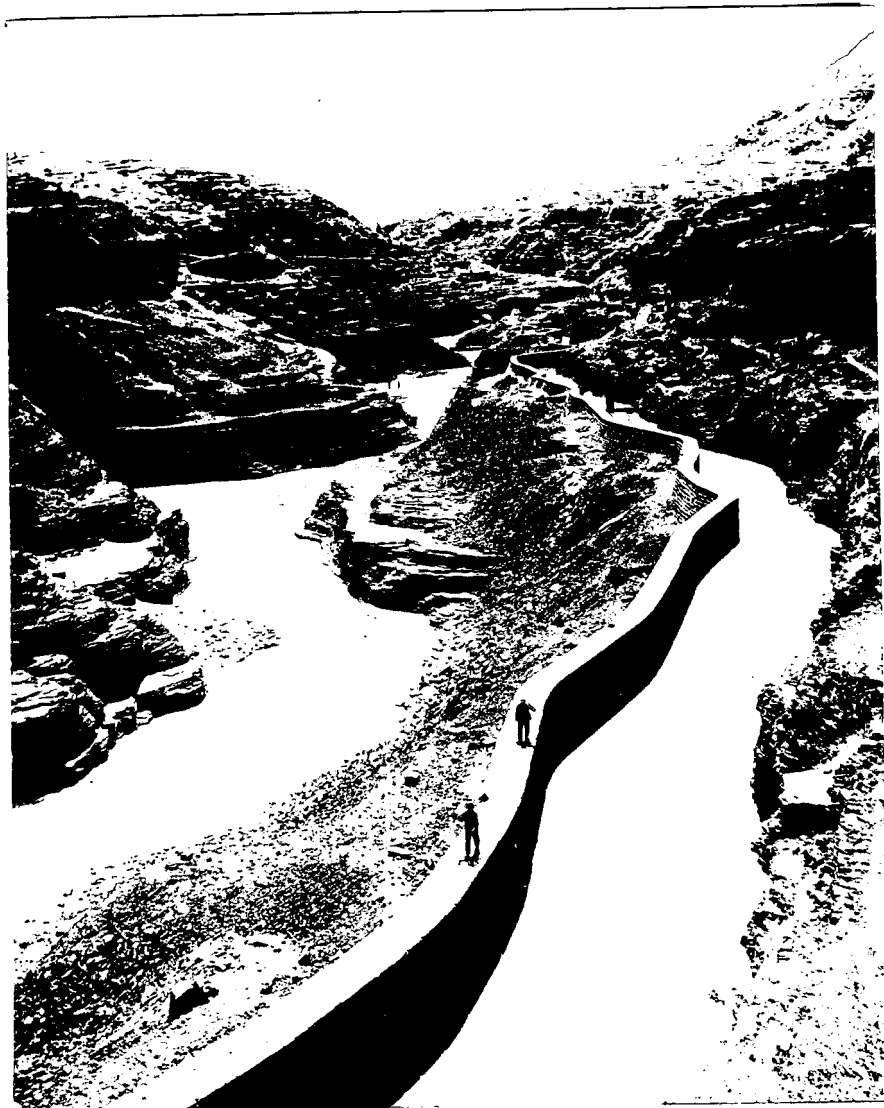
Confidential

(1-24-29)

CIA 1096411

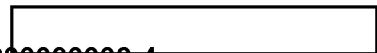
Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4

ILLEGIB



ILLEGIB

ILLEGIB



Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4

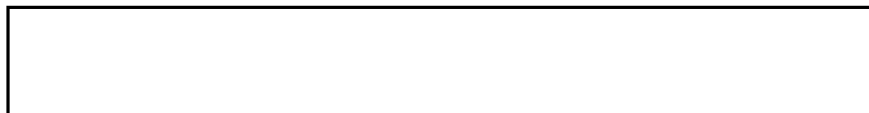
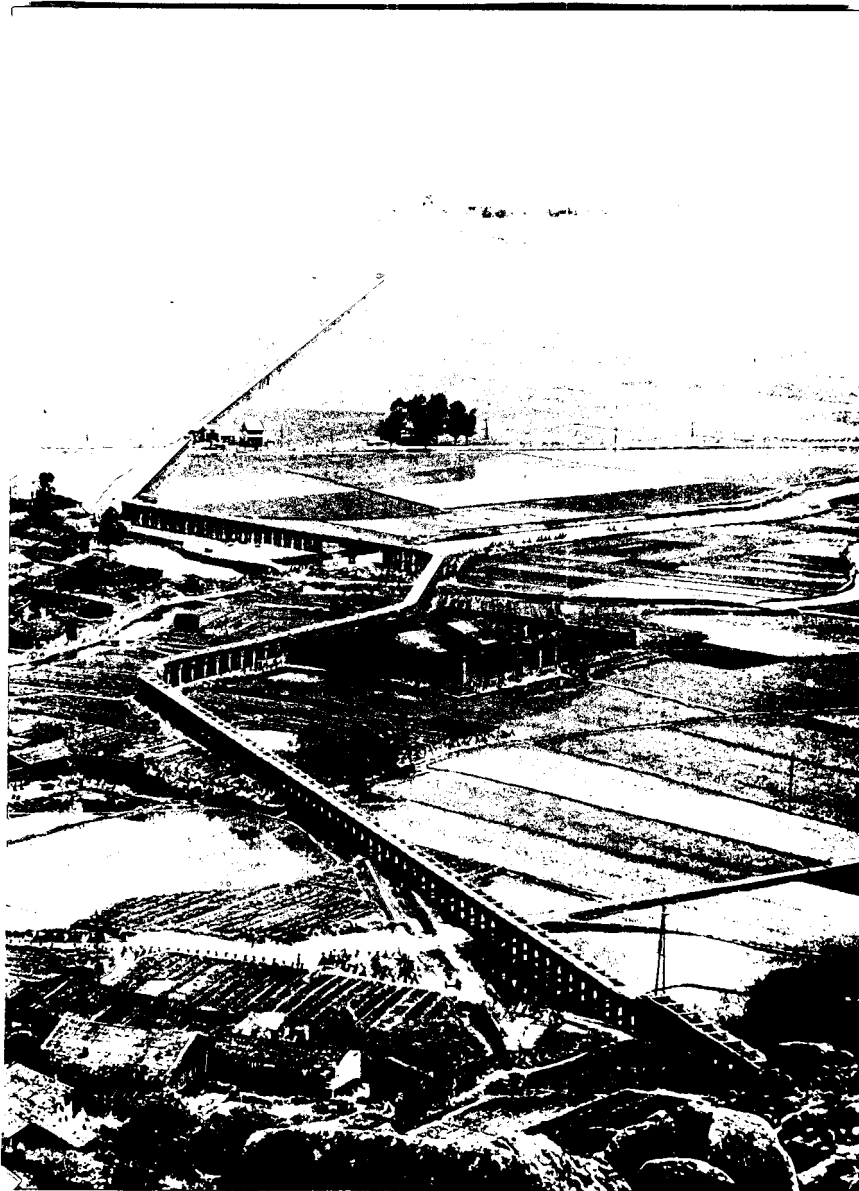
CHINA D 0499 CHANG-LO HSIEN 25 58 N 119 31 E
Irrigation aqueduct (15km long) on Wen-wu-sha Farm.
Confidential (7-24)

CIA 1096412

25X

Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4

ILLEGIB



ILLEGIB

ILLEGIB



Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4

25X1

CHINA [redacted] CHI-TUNG HSIEN 31 49 N 121 40 E
Lu irrigation canals (100km long) dug to bring fresh water fr Yang-tze R
to farm lands. [redacted]

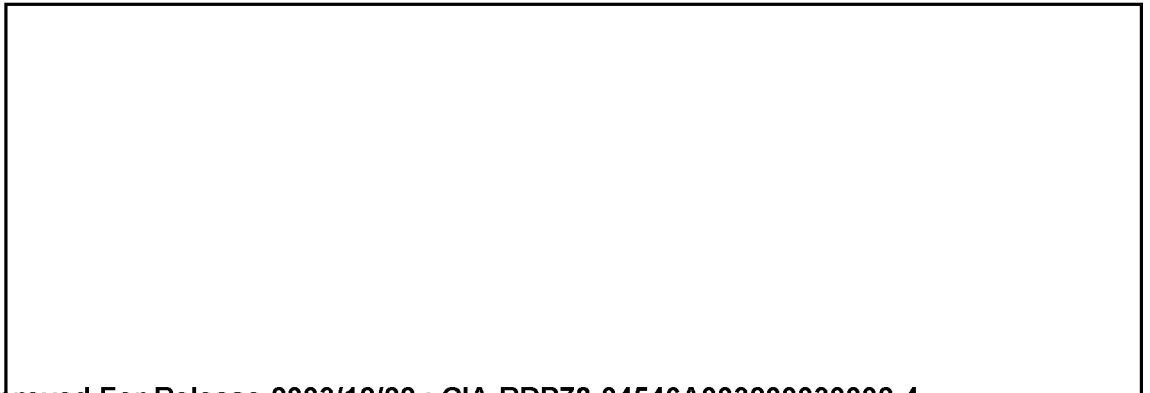
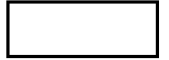
25X1

Confidential

(24-29)

CIA 1096413

Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4



Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4

CHINA A 0289 CHIH-FENG SHIH 42 17 N 118 53 E
Farms belonging to local commune. Note windbreakers.
Confidential (1-7-24)

CIA 1096414

25X

Approved For Release 2003/12/22 : CIA-RDP78-04546A003200030002-4

