

COMPARING OF THE GRAIN PRODUCTIVITY FOR CULTIVATED LAND OCCUPATION AND COMPENSATION IN SOUTHEAST AND MIDDLE CHINA

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In China, the social-economic needs of rapidly increasing population are the main driving force in the allocation of land resources to various kinds of uses, with food production as the primary land use. With the economic and population growing larger intensively, the urban sprawl so quick enough that occupy even more high quality cultivated land. Cultivated land resources are declining both in quantity and quality due to such factors as competition with industrial and urban demands, degradation and pollution. The contradictory between national food supply security and production capacity decreasing became one of the major severe issues in China.

Cultivated land is the source of the food. The Chinese government and the academic sector are pay more attention to the food security issues. The cultivated land is area is $1.218 \times 10^8 \text{hm}^2$, While the world cultivated land totally is $15.0151 \times 10^8 \text{hm}^2$. A new land use administration way which base on the agricultural land evaluation to calculate the index of quantity and quality balance to insuring the balance between the occupation and compensation the cultivated land. Naturally, The Ministry of the Land Resources(MLR) and the Ministry of Agriculture(MA) has make the land use policy for agricultural land protection

which is called cultivated land occupation and compensation balance. Cultivated land loss which is occupied by the urban expansion, compensate by land consolidation and rehabilitation projects.

This paper extends the method to evaluate the cultivated land for occupation and compensation to insure the food security of China. We choose the two pilots of Southeast and Middle China to illustrate regional evolution law of the cultivated land food production capacity for occupation and compensation in China. The results showed that the cultivated land quantity in southeastern China declined faster than middle China, which occupied the higher quality cultivated land and compensated the worse land. The specific value of occupation and the compensation cultivated land was 1.5. The situation was the same as in middle China but the specific value is 2.2 which was more serious than Southeastern China.