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THE IRRATIONAL LAND USE IN CENTRAL-EASTERN EUROPE, EU AND OTHER CONTINENTS

- AN OBSTACLE IGNORED BY NOBEL LAUREATE

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ABSTRACT

Ignored by Schultz and Hirschman, the irrational use of land by able-bodied part-time/absent small farmers earning higher off-farm income without leasing it to full-time farmers to be competitive, has been a global obstacle with both public and private land ownership, traditional and modern agriculture, fragmented small and joinedly enlarged land, low and high income economies, under-self-sufficiency and overproduction, and developing and developed economies, albeit land property rights have been defined and sale/lease allowed, hampering poverty reduction (especially in developing economies like CEE), and causing overproduction and protectionism (particularly in developed economies such as the EU), environmental deterioration, etc. Effective and suitable solutions have been exercised by China for public land ownership to resolve under-self-sufficiency, prevent overproduction and improve the environment, but not for private land ownership, which are proposed here. They have received appreciation and attention of the EU, EU accession countries, OECD, UN, CSD, FAO, UNEP and World Bank.

Keywords: inefficient and irrational land use; part-time and absent small farmers; economic, technological and social buffer; Dual Land System.

1 INTRODUCTION

Section 2 criticizes Schultz's assertions for both low and high income economies. Section 3 presents unsuitable solutions under private land ownership including two Western European legislations at the under-self-sufficiency stage, the dilemmas the EU faces at the overproduction Stage and their unsuitability for the under-self-sufficiency stage. Section 4 submits possibly suitable solutions for private land ownership. Section 5 indicates their potential global relevance.

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2 A CRITIQUE OF SCHULTZ'S ASSERTIONS

This paper is a supplement and development to the author's book (Zhou 2001) and Cambridge paper (Zhou 2003) which provide a first-time systematical and analytical criticism of Nobel laureate Schultz's assertions (1) small farmers are rational; (2) low income countries saddled with traditional agriculture have not the problem of many farmers leaving agriculture for nonfarm jobs; (3) part-time farming can be efficient; (4) economies of scale do not exist in agriculture; and (5) investment in human capital counts much more than institutional changes and is the key to agricultural growth (Zhou 2001: 11, 26-9, 76, 131, 152, 218, 244, 265, 288, 344, 373, 382, 384, 429). The book has cited 763 references most of which serve as evidence against his assertions on Japan (Chapter 4, the Japanese model), other rice-based economies under private land ownership in monsoon Asia (Chapter 5: 184-88), China (Chapters 6-7, the Chinese model), other rice-based economies under public land ownership in monsoon Asia (Chapter 8), the USA (Chapters 9-10, the American model), OECD and EU in general (Chapter 11: 397-8), CEECs-NIS (Chapter 11: 399-430), whereas the Cambridge paper added proofs in West Asia, Africa and Latin America (Zhou 2003: 9-11). The Cambridge paper also indicates that Nobel nominee Hirschman neglects that the irrational land use by able-bodied part-time and absent small farmers has hampered the backward and consumption linkage effects on agriculture, and caused import-oriented consumption linkage effects which have substituted domestic products with imports of agricultural and other goods. Readers are kindly suggested to read them so as to know the context, as the length limit does not allow this paper to discuss them. In this Section, a development of the author's criticism on Schultz's assertions (1), (2) and (3) is presented.

2.1 Definitions of efficiency and rationality

In *Transforming Traditional Agriculture* [1964] (reprinted in 1983 without changing views) which won the 1979 Nobel Economics Prize, 'Schultz makes the very important point that farmers in low income countries are *rational* and make *effective* use of their resources. They are poor because their resources are very limited and because the knowledge is not available that would permit them to *produce the same output with fewer resources or a larger output from the same resources*' (Johnson 1983). 'In the framework of Prof Schultz, the rationality refers to the maximizing behavior subject to certain constraints, which is nothing but standard definition of the rationality in economics' (Commentator A2 2003). Thus, rationality and efficiency (effectiveness) are the same for Schultz.

However, the author differentiates the definitions of efficiency and rationality, and treats the maximizing behavior only as efficiency and regards inefficient land use as denoting land under-utilization. Generally speaking, when

a country has not achieved stable self-sufficiency in staple foods, any land insufficiently cultivated or idled may be regarded as inefficiently used. When a country has encountered constant overproduction, if a land insufficiently cultivated or idled is requested by another farmer for farming, but the landholder does not agree to transfer it out, it may be perceived as inefficiently used; but if it is not needed by any other farmer, it may not. (This dynamic definition is not in the author's 2001 book). A reference for the criterion of insufficiently used land is in the Italian 'Rules for the Utilization of the Uncultivated, Abandoned or Insufficiently Cultivated Lands' of 4 August 1978 (Art. 2): 'Those lands whose average ordinary production in the last three years have not reached 40% of those obtained under the same cultivation, in the same period, on the lands of the same census zone, with the same cadastral characteristics, the cultural features being taken into account, are regarded as insufficiently cultivated'.

In contrast, the author includes social consideration into the definition of rationality. There are mainly two parts of the social consideration, (1) for a basic social welfare of the farmers and (2) for the interests of the society. A non-maximizing behavior is inefficient but may be regarded as rational as long as it caters farmers' basic social welfare. But if the basic social welfare of the farmers has been catered, while the farmers still do not wish to transfer the land to other farmers who need it for effective use, then a non-maximizing behavior is irrational. This behavior may be rational to the egoist and superficial interests of farmers themselves, but not so to the society's and their fundamental interests (such as in the waiting room of an airport at night, while some passengers have no seat at all and have to sit on the ground, others occupy more than one for a more comfortable sleeping). [The division and relationship between the efficiency and rationality are implicit in the author's book (Zhou 2001: 28), but explicit here]. A deeper analysis will be made when discussing the high income economy below.

2.2 At the low income economy

Schultz treats the low income countries as *closed* from the high wage stage or high income economy, as he clarifies ([1964] 1983: 3-4, 11, 15): 'Farming based wholly upon the kinds of factors of production that have been used by farmers for generations can be called traditional agriculture.' 'A major new problem has arisen in a number of high income countries in which the agricultural sector has been most successful in adopting and using modern factors of production. It is the problem of adapting agriculture with its high rate of increase in labor productivity to a high income economy in which the demand for farm products is of slow growth. It becomes an acute problem when the labor force required for farming begins to decline at a substantial rate and many of the farm people . . . leave agriculture . . . for nonfarm jobs'. 'But countries still saddled with traditional agriculture are not up against this particular problem.' Thus, the

'related economic issues' of 'the relatively low rate of increase in the demand for farm products as income rises' and 'the adaptation of the agricultural sector to growth in high income countries' are 'not considered'.

This paper, however, stresses that at least from the early 1950s on, the low income countries still saddled with traditional agriculture have been increasingly *open* to the high income economy, as small peasants there would migrate to those rural areas which have entered the high wage stage, cities and abroad to earn higher income as part-time and absent farmers, thus also are up against the particular problem of adapting the agricultural sector to a high income economy.

For example, although prewar Japan in East Asia was developed, its industrialization from the very beginning on was based on its imports of foods from, and exports of industrial goods to, colonies (Taiwan Province of China during 1895-1945 and Korea during 1910-45), 'as it found that capitalistic rice-growing was a low-productivity undertaking' in its agricultural sector, which was really 'relatively stagnant and "sick" in the decades leading up to World War II' (WWII) (Oshima 1987: 39, 109). After WWII, of all farm households, its full-time households accounted for 50% in 1950, 34.8% in 1955, 33.7% in 1960, and 20.5% in 1965; and of total farm household population, persons engaged mainly in farming (both those engaged exclusively in farming and those engaged in farming for more days than in other jobs) took 53.2% in 1955, 42.3% in 1960, and 38.3% in 1965 (JSY 1977: 99, 103). Schultz ([1964] 1983: 18) also cites that in Northwest Europe (Austria, Belgium, Denmark, France, West Germany, Ireland, the Netherlands, Norway, Sweden, and the UK) employment in agriculture declined over one-fifth during 1950-59.

2.3 At the high income economy

How then about the low income countries which are *open* to the high income economy? Schultz ([1964] 1983: 124) claims that 'in communities where nearby off-farm jobs are readily available on both a part-time basis and a full-time basis the contributions of a human agent become divisible and part-time farming becomes possible; and it can be efficient.'

But this paper emphasizes a reality as contrary to Schultz's assertion. From the natural, economic and technological point of view, when there were few off-farm activities, rural development was at the low income economy or low wage stage, and peasants had to rely on agriculture. As population grew, they had to reclaim uncultivated normal land, then marginal land for food. As relatively easily reclaimable land diminished, shortage of land would appear, and land rent would rise as many tenants competed for land.

From the institutional point of view, under the feudal system, a few landlords owned large areas of land, while most peasants owned none or little and had to be either tenants paying exorbitant rents or wage laborers. Under the

centrally planned economy, land was publicly owned and collectively operated. Both systems could not give enough individual incentives to farmers for production. Hence the land tenure reform for equitable individual ownership or individual possession under public ownership of land, which usually distributed land to families with a combination of good, bad, remote and nearby parcels, resulting in fragmented small farms. The individual farms could raise incentives of individual farmers (private landowners, or individual holders of public land) for production, increase productivity and release surplus peasants from agriculture.

However, in general, the elasticity in consumption of *cereals* is lower than that of *non-cereal agricultural goods* (cash crops, meat, fish, etc.) which in turn is lower than that of *industrial and service products* [keeping in mind that certain special agricultural products (vegetables, fruits, cheese, wine, ham, fish, and even a few cereals, etc.) may only be produced in some special localities and may have a relatively high elasticity]. After people become richer, on one hand, they first tend to consume less cereals and more non-cereal agricultural goods; but the increase of their consumption of the latter may be limited and such consumption may even relatively decline afterwards too (in order to avoid obesity). On the other, they still have to consume certain agricultural goods. Therefore the income of the full-time (or active) cereal farmers would become lower than that of non-cereal farmers, which would be lower than that of off-farm workers. This would induce many able-bodied peasants to first turn to non-cereal production, and then seek off-farm employment, which would result in agricultural labor shortage and higher wage demand. As the economy enters the high income stage, and labor becomes more expensive than large machinery, it would be necessary for the remaining full-time farmers to acquire more land, use large machinery, achieve economies of scale, reduce costs, and be viable and competitive, if the part-time and absent farmers could either sell or lease their irrationally used land to them.

But a global problem has been that under both public and private land ownership, with both traditional and modern agriculture, on both fragmented small land and joinedly enlarged land, in both low and high income economies, at both stages of food under-self-sufficiency and overproduction, and within both developing and developed countries, even though land property rights have been well defined and restrictions on land sale or lease have been removed, many able-bodied part-time and absent small farmers earning higher off-farm income do not have much incentive to sell land, in order to keep security (so that they could return to farming once having lost off-farm jobs), and enjoy the rural environment (for a more natural, primitive, less polluted and vacational living). The modern rural facilities similar to those in cities (car, bus, train, electricity, gas, refrigerator, tap water, washing machine, television, fixed and mobile telephone, fax, computer, Internet, etc.) have made living in the rural areas

convenient. They do not have much incentive to lease it out either, due to low rent (the full-time farmers could not pay high rent because the revenue from production of cereals and many other agricultural goods would not be high due to their low elasticity in consumption), avoidance of possible misuse by tenants (who may apply much chemical fertilizer in order to gain a short-term high output), jealousy in preventing neighbors from prospering, and self-use for family consumption and hobby. The higher off-farm income has made the part-time and absent farmers unnecessary to sell or lease land. These are the major reasons why the free market itself could not effectively lead the able-bodied part-time and absent farmers to transfer their irrationally used land to the full-time farmers. Actually, the higher the off-farm income, and the more stable the off-farm jobs the able-bodied part-time and absent farmers have obtained, the less incentive they would have in selling or leasing their land. The irrational land use by able-bodied part-time and absent farmers tend to expand from seasonal to year-around.

The author, according to his above definitions of efficiency and rationality, raises a hypothesis (which is implicit in his 2001 book but explicit here), i.e., with the same conditions (health, age, gender, diligence, education, skills, intelligence, information, etc.), compared with full-time farming, part-time farming *cannot* be efficient in terms of land use; while that for self-consumption is inefficient but rational, that beyond self-consumption both inefficient and irrational.

This is basically because full-time farmers could have more time to learn and apply modern agricultural science and technology, take care of farming and the environment, cultivate more land to achieve economies of scale and reduce costs, and thus '*produce the same output with fewer resources or a larger output from the same resources*' than part-time farmers. It is important to notice that even if the knowledge that would permit them to produce the same output with fewer resources or a larger output from the same resources is available, the part-time and absent farmers may not have enough time to learn and apply it, especially the modern scientific knowledge, as Schultz himself has admitted ([1964] 1983: 203-4): 'Farm people even more than many workers in nonfarm jobs must acquire skills and knowledge drawn from science if they are to be effective in using modern agricultural factors of production', and 'Much of what is learned that is vocationally relevant at the time will be wholly obsolete as agriculture in the community adopts and uses ever more modern agricultural factors.' They may not have enough energy to take care of their idled or insufficiently used land.

However, part-time and absent farmers may need a part of land for self-consumption without the need to buy (as an economic buffer), for keeping farming skills (as a technological buffer), and for survival once lost off-farm jobs (as a social buffer). Thus, on the part of the land for self-consumption, part-

time farming, though inefficient in comparison with full-time farming, can be rational.

But if part-time (and absent) farmers are not willing to transfer the part of the land beyond self-consumption to the full-time farmers who need it for efficient use by achieving economies of scale and reducing costs, then part-time farming is both inefficient and irrational.

In reality, if the part-time and absent farmers could be guaranteed with a back-up basic social welfare and provided with appropriate remuneration, then some of them (especially old ones who owing to physical restrictions normally carry out relatively less farm or off-farm activities and wish to earn some rent) would be willing to transfer their irrationally held land in various suitable forms to the full-time farmers for effective use, yet others (particularly able-bodied ones) would still be unwilling to do so. As a result, the remaining full-time small farmers, largely non-viable as the economy develops into the high wage stage, could not easily get the resources irrationally held by the able-bodied part-time and absent small farmers for effective use, although the knowledge and other conditions are available to both the full-time, and part-time and absent small farmers that would permit them to produce the same output with fewer resources or a larger output from the same resources. National food security could only be kept at the subsistence level or could not even be maintained without huge government subsidies. Budget burden, unnecessary food under-self-sufficiency and import, higher domestic and international prices of agricultural goods, artificial food overproduction, agricultural protectionism, insufficient cultivation or idleness of land, waste of other resources, soil degradation, environmental deterioration, etc. would also be incurred. Therefore at least some (mainly able-bodied) part-time and absent small farmers are not *rational* to the society's and their own fundamental interests, even if they may be 'rational' enough to their egoist and superficial interests.

3 UNSUITABLE SOLUTIONS UNDER PRIVATE LAND OWNERSHIP

The author tries to find a new model which would work at both food under-self-sufficiency and overproduction stages with private land ownership, and raises 'the principles of the new model' at (Zhou 2001: 165-6), and several possible applications of them. One application is briefly raised when dealing with the EU (Zhou 2001: 398 second paragraph), which is developed here.

3.1 Two Western European legislations at the under-self-sufficiency stage

They were to oblige farmers to cultivate land or lease it once in Denmark (Agricultural Holdings Act of 17 July 1989), Germany (Law of Cultivating the Land of 31 March 1915) and the UK (Agriculture Act of 6 August 1947) and still in Norway (Land Act of 18 March 1955, the Act of Tenancy of 25 June

1965, and the Concession Act of 31 May 1974); and to give farmers right to till un- or insufficiently cultivated land once in the EU (EC Council Directive 1963/262, 1967/531, 1963/261) and Italy (Rules for the Utilization of the Uncultivated, Abandoned or Insufficiently Cultivated Lands of 4 August 1978).

3.2 The dilemmas the EU faces at the overproduction stage

At the overproduction stage, these legislations ceased functioning because the EU has faced a fundamental and some derivative dilemmas without a solution.

The fundamental dilemma is: still obliging farmers to either cultivate land or lease it for farming would strengthen overproduction; but if not, much land would be held by able-bodied part-time and absent small farmers in irrational use, while full-time farmers could not easily achieve economies of scale to be competitive in front of the USA, Canada and Australia with much larger farm size and much lower general production costs and some developing countries with much lower labor costs, or even be viable. Without a solution, farmers (mainly full-time ones) pressed the governments for a high standard living against the difficulties caused by the lower prices following the overproduction. The governments had to yield in order to get their votes. Thus the EU turned to protectionism of a coupling between subsidies and production, trade-distorting price supports to maintain agricultural products at prices higher than the international levels, export aids for farmers to export products at lower prices, and high tariffs against cheaper imports. The following analysis will mainly be on the coupling.

* The coupling kept the fundamental dilemma and caused derived dilemmas

Concerning overproduction. Under the coupling, if farmers have produced surplus, the EU has to buy it, which has naturally encouraged overproduction. Thus on one hand, the EU intends to avoid the surplus, and has established quotas on some products (e.g., milk, sugar); and set-aside arable land scheme (with subsidies for farmers to join voluntarily) to stop production of cereals (and other arable crops, i.e., food-used oilseeds and protein plants), which includes highly productive land (producing over 92 tons/20 ha in cereals, representing on average 72% of the arable crops area, and at a rate set each year by the EU, from the 2000/2001 marketing year up to the 2006/2007 marketing year 10%) (Council Regulation 1251 of 1999: Article 6; European Commission 2002: 1), and lowly productive land (European Commission 2002: 3). On the other, however, overproduction has not been prevented because the coupling as an engine is still generating it. Derived dilemma 1.

Regarding competitiveness. Under the coupling, farmers' competitiveness through lowering costs seems not so important, because if they could not sell products, the EU would buy them. Thus on one side, the EU has the incentive to make the land use more efficient via economies of scale to reduce the endured

high costs, and has exercised an early retirement scheme in both the EU and CEE candidate countries through SAPARD (2000) to pay old farmers to transfer land to young farmers. But it would in turn contribute to overproduction. Therefore, on the other, irrational land use by able-bodied part-time and absent small farmers exist in many EU states (Finland, France, Germany, Ireland, Italy, Portugal, Spain, Sweden, etc.) and accession countries. Derived dilemma 2.

In respect of the budget. The coupling caused overproduction and unpredictable budget as the overproduction may exceed the expectation, and cost the taxpayers and consumers huge amount of money. The EU wishes to reduce the heavy budget deficits and has introduced in the set-aside and early retirement schemes, which however, have added financial burdens too, meanwhile have resolved neither overproduction nor irrational land use. Derived dilemma 3.

In the field of the international cooperation, the EU aims to help developing countries and has set up programs with economic and technological assistance. But the high trade-distorting coupling, price supports, export aids and import tariffs have just unfairly harmed the interests of the Third World. Therefore, the EU has been continuously criticized in this aspect. Derived dilemma 4.

* The decoupling could not bypass that fundamental dilemma

Realizing some of the shortcomings of the coupling, the EU conducted incremental partial decoupling between subsidies and production during 1992-99, and released the 'Mid-Term Review of CAP of Agenda 2000' (MTR 10 July 2002) as a watershed document in the CAP reform. Its major importance was that the EU had finally proposed to completely decouple the link between direct payments and production, so that farmers would fully compete in the market, rather than gearing production to the trade-distorting subsidies. It would be implemented by the 10 countries to join the EU in May 2004, thus reducing the financial burdens of the enlargement. It would also improve market opportunities for the developing countries, and constitute a good example for the other developed countries (especially the USA, Canada, Japan, South Korea) to follow.

The MTR was very significant also in that the decoupled direct payment to each farm would be conditional upon cross-compliance with the environmental, food safety, animal health and welfare, and occupational safety standards. This would bring about chiefly positive results in these fields, but still could not bypass the above-mentioned fundamental and derived dilemmas.

At the demand side, the decoupling has increased the need for more efficient land use. Under the present system of coupling, competitiveness of farmers seems not so important, because if farmers could not sell their products, the EU would buy them. After the decoupling, however, the EU would cease

doing so. Therefore farmers would have to fully compete in the market for selling their products. Higher quality and localized special trade marks could promote their sales. But with the same or similar quality, in the sea of numerous localized special trade marks (each of which would claim that it is the best), and for many staple foods which could not be easily specialized locally, lower costs would be more competitive. This would in turn necessitate the increase of farm size so as to achieve economies of scale and reduce costs by the full-time farmers.

At the supply side, some MTR measures may strengthen the irrational land use. First, after the decoupling, farmers would have to sell their products in the market because the EU would no longer purchase their surplus, and market prices would be lowered due to more competition. This would lead to a positive result that farmers would no more have the incentive to produce more than what they could sell, but also a negative consequence, i.e., ‘in some cases abandonment of land’, as MTR (10 July 2002: 19) anticipates, rather than leasing it to the full-time farmers who would require it for achieving economies of scale. Second, after the decoupling, a direct payment would be given to each ha (e.g., in the UK 200-250 pounds per year), even if it does not produce any product, as long as the farmer has fulfilled the cross-compliance with the environmental standards (the cross-compliance with the food safety, animal health and welfare, and occupational safety standards would be irrelevant if the farm neither produces any crop, nor raises any animal, nor hires any labor). This would give the incentive to some farmers to just enjoy a direct payment without production, and spend all their time on earning off-farm income, without leasing the land to the full-time farmers who would need it to increase farm size.

Therefore, the decoupling could not bypass the above-revealed fundamental dilemma. Rather, it would only expose it which has been largely covered by the protectionism of coupling. In fact, although the MTR anticipates the risk of land abandonment after the decoupling, it has provided no solution to deal with it. Thus if this fundamental dilemma could not be overcome, then the decoupling might fail, as the full-time farmers would again exert pressure on the political parties to resume coupling so as to guarantee them a high standard living.

This was the author’s prediction in his Cambridge Conference paper (Zhou 2003: 26-7) submitted on 13 June 2003. Unfortunately, supportive evidence appeared so quickly: on 26 June 2003, after about one year’s debates on MTR, what the EU farm ministers adopted (European Commission: 2003) was a retreat from MTR’s ‘*completely decoupling the link between direct payments and production*’ to a *bulk decoupling and limited coupling*: ‘the vast majority of subsidies will be paid independently from the volume of production’, while ‘Member States may choose to *maintain a limited link between subsidy and production* under well defined conditions and within clear limits’, just in order

‘to avoid abandonment of production’. Although called ‘a *fundamental* reform of the CAP’, it was downgraded to be merely a continuation in the same category of the incremental partial decoupling during 1992-99. This has clearly demonstrated that after the complete decoupling, some farmers would irrationally abandon production, rather than leasing their un- or insufficiently used land to the full-time farmers who would need it to achieve economies of scale. Thus, the irrational land use by able-bodied part-time and absent small farmers has become the root of the agricultural protectionism (unfortunately, this root has largely been neglected in both the academic and policy-making fields). As long as it could not be overcome, not only the complete decoupling would fail once it has been exercised, but it may not be started at all.

Concerning reducing overproduction, the MTR proposed to continue the set-aside on highly productive land by paying subsidies higher than the normal decoupled direct payment, while lowly productive land would only receive a normal decoupled direct payment (no matter whether it is set-aside or not). This was adopted by the EU Presidency Compromise (30 June 2003: 6, 12, 27) (in agreement with the Commission). Although the new set-aside is called environmental set-aside, it is still aimed at reducing overproduction. Here the EU has again not noticed that its overproduction is not caused by the availability for farming of too much highly productive land, but by the protectionist policies due to its failure to overcome the above-mentioned fundamental dilemma at the overproduction stage. In fact, as long as a complete decoupling has been made, farmers would have no incentive to produce surplus even if much highly productive land is available for farming.

The EU farm ministers’ decision of 26 June 2003 and EU Presidency Compromise of 30 June 2003 have been legalized into Council Regulation (EC) No 1782/2003 (29 September 2003).

3.3 These legislations could not both boost large and keep small farmers

During the incremental partial decoupling of 1992-99, the EU had gradually replaced price subsidies by direct income subsidies, reduced intervention schemes, and successively decreased administrative prices towards the international levels, aiming to achieve a 'farming without subsidies' and let the market decide prices in the long-run. As a result, 'not all EU agricultural production is sheltered by high tariffs and the EU prices may be close to international levels for a significant share of EU production, depending on market price fluctuations' in the view of Beaumont (2002) (although the view of many developing countries may not completely be the same). Such market-oriented measures have been relatively favorable to the large farmers, because they have lower costs due to economies of scale and are stronger in the market competition; but unfavorable to the already weak small farmers, and have led to more exiting by them from agriculture, and consequently encountered protests from farmers out of their gained interests. Thus the EU wishes to both strengthen large farmers and retain small farmers in agriculture, because on one hand, urban unemployment has already been so high and homeless people so many, and on the other, rural development should be promoted to avoid the increase of 'ghost towns' with nearly empty population. (Zhou 2001: 398). But how to combine these two seemingly contradictory aims (which is also an unsolved dilemma persisting in the USA, Canada, and other developed and even developing countries)? The above Western European legislations were not a solution.

3.4 The unsuitability of the legislations at the under-self-sufficiency stage

Now that the above-cited Western European legislations have been successful for overcoming food under-self-sufficiency, why could not they be popularized to many other countries still at that stage? One of the reasons is that it obliges part-time and absent farmers to lease out *all* their inefficiently used land (or gives the right to other farmers to till all of it), so that they may not be able to cater their self-consumption need and keep farming skills; and once lost off-farm jobs, they would either have no access to their land rented out, or have to withdraw it within the contractual period (because many developing countries still cannot afford to provide them with a basic social welfare), hence affecting the lessees.

4 POSSIBLY SUITABLE SOLUTIONS FOR PRIVATE LAND OWNERSHIP

In order to overcome the global obstacle of the irrational land use by able-bodied part-time and absent small farmers and achieve rational, efficient and sustainable land use under private land ownership at both stages of food under-self-sufficiency and overproduction, the author, in a dynamic and variable approach, proposes to introduce in a legislation to oblige farmers to either cultivate their land or lease the irrationally used part of it (i.e., beyond the self-

consumption need) as *land for market* for farming, if a country has not achieved stable self-sufficiency in staple foods; and to grant the right to farmers to lease in the irrationally used part of land of other farmers, if a country has encountered constant overproduction [namely, a farmer may not be obliged to either cultivate his land or lease it for farming *actively*; but if another farmer wants to lease in his irrationally used part of land for farming, he is obliged to agree *passively*; subsidies should be decoupled from production, and the level of the decoupled subsidies, price supports, export aids and import tariffs should be (gradually) reduced to the WTO standards so that farmers would have no incentive to produce more than what they could sell; when a land is not demanded by anybody for farming, the farmer could fallow it but in a good agricultural or environmental condition; environmentally sensitive (no matter whether it is highly or lowly productive) land should be set aside or converted back to the nature to prevent overproduction and improve the environment]. At both stages, the farmers may keep a part of the cultivable *land for self-consumption*, forming a Dual Land System. The maximal length for the irrational use of a land would be one year, beyond which it could be obliged to be leased either actively at the under-self-sufficiency stage or passively at the overproduction stage. The minimum lease term would be one- (preferably five-) year (longer term possible). Having rented in contiguous parcels of different owners, the lessees would have the right to remove their boundaries and join parcels together so as to eliminate fragmentation (which is also a difficult and unresolved task under private land ownership), with the original boundaries recorded in the cadastre and a map and showable by field signs. Once the lease contract is over, the landowners would have the right to withdraw their land. But if they did not use it rationally, they would have to lease it to other farmers actively at the under-self-sufficiency stage; or passively when demanded at the overproduction stage. The lease could be available to the nationals of other countries on a reciprocal basis. This legislation should be implemented through an effective macro-micro linkage between the government and local communities, as the above-mentioned Western European countries have done.

5 POTENTIAL GLOBAL RELEVANCE

The implementation of the above-proposed solutions may promote fair competition and fraternity among nations of the world.

5.1 Regarding developed countries

In the recent decades, there have been serious conflicts between developing and developed countries, and among developed ones, as most developed nations (except Australia and New Zealand) have exercised highly trade-distorting coupling, price supports, export aids and import tariffs. One of the major reasons for them to rely on protectionism is the above-mentioned fundamental dilemma.

On one hand, following the development of off-farm activities, more and more able-bodied part-time and absent small farmers irrationally use land without incentive to sell or lease it out, while full-time farmers could not easily increase farm size, achieve economies of scale, reduce costs and become competitive. On the other, if the governments obliged farmers to cultivate land or lease it, there would be overproduction. Without a solution, the political parties have had to yield to the pressure mainly from the full-time farmers for a high standard living by coupling so as to get their votes and avoid abandonment of agriculture. The coupling has concealed that fundamental dilemma, since much land is devoted to farming as if land were efficiently used, and the governments even have had to set aside some land to reduce overproduction. But actually the land is not so efficiently used, because if the coupling were lifted, the operation of much land would be abandoned, while the full-time farmers would have much difficulty in becoming competitive (or even viable) as they would not easily get the irrationally used land of the able-bodied part-time and absent small farmers for achieving economies of scale. Rather than the EU which has had the will to implement a complete decoupling but failed to do so in 2003, the USA, Canada, Japan, South Korea still have not established a will to do so and have faced continuous international criticism. Once they have wished to do so, this fundamental dilemma would also be encountered. Accordingly, the above-proposed solutions would resolve it so that both developed and developing countries could compete fairly on the basis of the WTO standards, hence promoting fraternity among nations.

5.2 Concerning land purchase after the EU enlargement

The EU enlargement negotiations have focused on agricultural and forest land purchase. Many EU candidate countries in CEE, fearing that their cheaper land may be bought quickly after the accession, have concluded with the EU for a transition period of seven-12 years during which Western EU citizens could not buy their land (Enlargement April 2002). On one hand, this would hinder the advanced Western EU farmers from working in CEE, hence a separated European 'Union' after the enlargement. On the other, a potential risk has been neglected: once a land has been purchased by Western EU citizens after the transition period, it may still be irrationally used as it could be treated merely as an asset. If the above-proposed legislation could be adopted, then Western EU citizens could *immediately* lease in the irrationally used part of their land for farming in CEE, without affecting its ownership, while the irrational land use by the Western EU purchasers could be prevented, achieving a true European *Union* in agriculture. Moreover, this legislation is an improvement and development of the two Western European ones implemented once in the EU and still in Norway. Adopting it would also promote CEE's integration with Western Europe.

5.3 Relating to free labor movement after the EU accession

In the EU enlargement negotiations, the EU has requested the CEE countries to postpone free movement of their cheap laborers into the Western EU up to seven years after the accession, worrying that they may easily take jobs away from the Western EU workers. Most of them have agreed on a reciprocal basis vis-a-vis the Western EU (Enlargement June 2002), again dividing the enlarged EU. In contrast, the author has discovered that in the agricultural sector, the reality and trend in the world is that many able-bodied farmers are more interested in higher off-farm income, so that allowing the fewer full-time farmers including those from CEE to lease in the irrationally used part of their land would not constitute a competition with the part-time and absent small farmers and crowd them out of agriculture [in fact there is already an agricultural labor shortage in some parts of the Western EU, e.g., the Italian agricultural trade unions have demanded the Labor Ministry and Parliament to permit hiring workers from outside the Western EU (Bani 2002)]. Moreover, while the CEE full-time farmers could benefit the Western EU by their lower labor costs, their Western EU counterparts could help CEE by capital and technology. The competition among Western and CEE full-time farmers in the leasing markets in both the Western and CEE EU would be mutually constructive. Thus at least in this sector there would be no harm for the Western and CEE EU to allow reciprocal free labor movement immediately (or through a much shorter transition period) after, or even before, the accession, hence increasing fraternity between the Western and CEE EU.

5.4 Pertaining to all countries of the world

If all countries of the world could adopt these suggestions and allow not only nationals but also foreigners to lease in the irrationally used part of the land of their part-time and absent farmers, then resources would be efficiently and rationally used, environment improved, sustainable rural development achieved, fair competition boosted, and fraternity among nations advanced. There is already a successful example: China has allowed external and foreign farmers to lease in its land for agriculture, and farmers from Hong Kong, Taiwan Province, Australia, Brazil, Canada, Germany, Israel, Japan, Singapore, Thailand, the USA, etc. have indeed done so there (see Zhou 2001: 258-9), while Chinese farmers have rented land in other countries, e.g., Hungary and Russia, for agriculture.

REFERENCES

Bani, Marco Alessandro (8-11 April 2002): Introduction of the Land Use Situation in Italy, in the Fifth IFSA European Symposium on Farming and Rural Systems 'Research and Extension, Local Identities and Globalization', the International Farming Systems Association - European Group, in Faculty of Agriculture, University of Florence, Italy.

- Beaumont, Hans-Christian (6 March 2002): Email, Directorate-General for Agriculture, European Commission, Brussels.
- Commentator A2 (20 March 2003): Comments on an Earlier Version of the Relevant Parts of this Paper.
- Council Regulation (EC) No 1251/1999 (17 May 1999): *Establishing a Support System for Producers of Certain Arable Crops*, Official Journal L 160, 26/06/1999 P. 0001 – 0014, (http://europa.eu.int/eur-lex/en/consleg/main/1999/en_1999R1251_index.html).
- Council Regulation (EC) No 1782/2003 (29 September 2003): (http://www.europa.eu.int/servlet/portail/RenderServlet?search=DocNumber&lg=en&nb_docs=25&domain=Legislation&coll=&in_force=NO&an_doc=2003&nu_doc=1782&type_doc=Regulation) (http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l_270/l_27020031021en00010069.pdf).
- Enlargement (17 April 2002): 'Chapter 4 - Free Movement of Capital', *Progress in the Negotiations*, Enlargement Website, European Commission, Brussels <<http://europa.eu.int/comm/enlargement/negotiations/chapters/chap4/index.htm>>.
- Enlargement (14 June 2002): 'Chapter 2 - Freedom of Movement for Persons', *Progress in the Negotiations*, Enlargement Website, European Commission, Brussels <<http://europa.eu.int/comm/enlargement/negotiations/chapters/chap2/index.htm>>.
- EU Presidency Compromise (30 June 2003): (http://europa.eu.int/comm/agriculture/mtr/index_en.htm), (<http://register.consilium.eu.int/pdf/en/03/st10/st10961en03.pdf>).
- European Commission (2002): *Evaluation of the Impacts of the Community Measures on Land Set Aside*, (http://europa.eu.int/comm/agriculture/eval/index_en.htm), (http://europa.eu.int/comm/agriculture/eval/reports/gel/index_fr.htm), Synthèse (http://europa.eu.int/comm/agriculture/eval/reports/gel/sum_en.pdf).
- European Commission (26 June 2003): 'EU fundamentally reforms its farm policy to accomplish sustainable farming in Europe', (http://europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&doc=IP/03/898|0|RAPID&lg=EN&display=).
- Johnson, D. Gale (1983): Endorsement Quote, in Schultz, Theodore W. [1964] *Transforming Traditional Agriculture*, reprinted in (1983), Chicago: University of Chicago Press.
- JSY: *Japan Statistical Yearbook 1977*, Statistical Bureau of Japan; Tokyo: Japan Statistical Association.
- MTR - *Mid-Term Review of CAP of Agenda 2000* (10 July 2002): European Commission, (http://europa.eu.int/comm/agriculture/mtr/index_en.htm), (http://europa.eu.int/eur-lex/en/com/cnc/2002/com2002_0394en01.pdf).
- Oshima, Harry T. (1987): *Economic Growth in Monsoon Asia*, Tokyo: University of Tokyo.

SAPARD (2000): 'Special Accession Program for Agriculture and Rural Development' of the Candidate Countries of the European Union, European Commission, <<http://europa.eu.int/comm/enlargement/pas/sapard.htm>>.

Schultz, Theodore W. [1964]: *Transforming Traditional Agriculture*, reprinted in (1983), Chicago: University of Chicago Press.

Zhou, Jian-Ming (2001): *Sustainable Development in Asia, America and Europe with Global Applications: A New Approach to Land Ownership*, Cheltenham, UK: Edward Elgar Publishing.

Zhou, Jian-Ming (17-19 September 2003): 'An Obstacle Neglected by Theodore W. Schultz and Albert O. Hirschman – Overcoming Inefficient Land Use in Asia, Africa, Europe, and South and North Americas', Economics for the Future Conference, organized by 'Cambridge Journal of Economics' and Faculty of Economics and Politics, University of Cambridge, UK (<http://www.econ.cam.ac.uk/cjeconf/delegates/zhou.pdf>).