

Vegetarianism and Organic Farming Save the Earth

素食有機救地球



范明杰 二〇〇八年十一月五日講於萬佛城大殿
 A talk given by Fan Ming-Chieh on November 5, 2008 in the Buddha Hall at the City of Ten Thousand Buddhas
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今晚要報告萬佛聖城的有機農場，如何和外面的社區以及大自然結合。

我們人類需要大自然中的水、能源、空氣，還有各式各樣的物質，才能夠生存。自然跟人類的關係，如果能夠從目前的隔絕變成共生，才能夠達到永續生存。用自然方法來栽種蔬菜、水果，不加荷爾蒙的生長促進劑的時候，生產所需要的時間是比較長，而且得到的產量是偏低的。自然所生產的成本，比大量生產的蔬果要高很多。這就是為什麼很多人買不起自然或者是有機農場品的原因。

大家（包含我們在齋堂）所吃的菜，很多是進口的。我們都認為在同一個時間，能夠吃到很好吃的食物，是理所當然的。事實上，在自然界生長的食物，並不是像我們現在每天都可以吃到四季的水果，不是這樣子。每一種蔬菜、水果，都有它不同的生長

I would like to report about the integration of the organic farm of the City of Ten Thousand Buddhas with nature and the community outside.

In order to survive, we human beings need water, energy, and air in our natural environment, along with all kinds of other materials. If the relation between the natural environment and human beings can change from isolation toward growing together, then both can survive continuously forever. The time needed for the production of the farm will be longer, and the amount of the production will be on the low side, if we use natural ways to plant vegetables and fruit, without adding growth enhancer hormones. Naturally, the cost of production will be a lot higher than the fruits and vegetables that are produced in quantity. That's why many people cannot afford natural or organic products.

A lot of the vegetables that everybody, including those of us who eat in the dining hall, were imported. All of us think that it is right and natural to be able to eat many delicious foods at the same time regardless of season. The reality of nature does not match our current situation of eating fruit of all four seasons everyday. It is not like this. Every kind of vegetable or fruit has a different growing season and area which is suitable for it to grow. Through the twisted means of production and

季節和適合的地區。透過扭曲的生產及貿易的手段，我們人有了多樣的食物選擇。但是可能大家不清楚的是，此舉已經對整個生態環境造成極大的負荷，然而這些都被我們忽略掉。

在生態環境這麼大的負荷裏面，最顯而易見的是運輸耗用大量的汽油，所造成暖化的效應，這也是最近環保人士提倡食物里程概念的原因。他們建議，我們吃的食物來源，是希望在我們生活範圍的一百里之內。他們發現，今天在北美洲大家吃的食物是來自兩千四百公里之外生產出來的。跟一九八〇年來相比，我們食物的來源，有四分之三是從外面進口的，四分之一才是本地生產的。我們還可以再倚賴這些廉價的食物嗎？它看起來很便宜的；但事實上，隱藏在它成本的下面，卻是造成對生態環境以及我們身體的污染。

根據統計，每年美國政府要花費九十億美金，來清理整治被污染的河川、小溪及土壤。這些污染是怎麼來的呢？就是被在生產食物所放的殺蟲劑、除草劑及殺菌劑所污染的。這些化學藥品，不但污染我們的生態環境，也造成人類得到癌症或呼吸感染等等疾病。這種爲了要清理環境及我們身體健康所付出的代價，都沒有算計在食物販賣的價錢裏面。看起來我們買得是很便宜，事實上，很多的社會成本並沒有把它計算在裏面。

剛剛所講的環境污染，都是你能夠看得到的。更大的、更危險的環境衝擊是我們所看不到的。譬如說：土壤酸化，土壤裏面的營養流失了；還有更可怕的一件事情，就是物種的多樣性、多樣化被減少了。一個好的生態環境，應該是植物來滋潤動物，動物反過來來滋潤土壤，土壤再來提供營養給植物，這就是下面要提到的重要性。

在2008年，世界聯合國有一個國際生物多樣化的節日。它鼓吹各國人士，支持永續經營的農業；並且更應該要小心我們所吃的食物的安全性。從聯合國的統計資料裏面，我們可以看到，在世界上所生產的糧食裏面有三分之一至二分之一是用來飼養動物的，不

trade, we have various food choices. But perhaps everybody is not clear that we have already caused a great burden to the whole environment. We have neglected and ignored all of this.

Of the many burdens to these ecological systems, the most obvious is the global warming effect caused by the transportation which consumes a large amount of oil. This is also the reason why advocates of environment recommended the Food Mileage Concept. Recently they proposed that ideally, the food we eat should be grown within 100 miles of where we live. They also found that the food that North Americans eat is produced more than 2,400 miles away on average. Compared with the situation in 1980, three quarters of our food was imported from abroad, while one quarter was produced locally. May we rely on these kinds of low-priced food again? It looks really cheap. But in fact, the hidden cost is the pollution to the environment and to our bodies.



According to statistics, the U.S. government needs to spend 90 billion dollars annually to clean up the pollution in rivers, creeks, streams, and soil. Where did the pollution come from? It comes from the insecticide, weed killers, and bactericide added during food production. These chemicals not only pollute our environment but also cause cancer, infected airways and other diseases. The cost of cleaning up the environment and maintaining our health is not calculated

and included into the price of food. In other words, though we can purchase it so cheaply, it only seems cheap. In fact, a lot of the social costs have not been calculated and taken into account.

Everyone can see the effects of environmental pollution. However, the bigger and more dangerous environmental shock is invisible. For example: the soil has changed and acidified, and lost its nutrients; and the variety and diversification of species have been drastically reduced. In a good ecological environment, plants should nourish animals, while animals nourish the soil in turn, and soil offers nutrition to plants again. This relates to the following.

The United Nations had one international festival of biodiversity in 2008. It advocated various countries and all people to continue to support the agriculture of sustainable development and management. Furthermore, everybody should carefully maintain the safety of the food we eat. In the statistical data of the United Nations, we can see that

是給人吃的。根據美國農業部門的統計，需要十六克的農作物才能夠產生一克的牛肉。

如果把一公頃或是兩英畝的地來種馬鈴薯，一年收成的馬鈴薯可以讓22個人吃飽。但是同樣的土地，如果種了玉米或黃豆給動物吃，動物吃了之後，長出來的肉，卻只能提供一個人或者兩個人吃飽。

更糟糕的是，這些本來有足夠來餵動物的飼料，也短缺了；譬如遇到天災、人禍等等。沒有足夠飼料怎麼辦？只好到開發中的國家去砍雨林。譬如像巴西亞馬遜的雨林，已經有很多地方的樹被砍倒了，改種大豆、玉米；很不幸的是，這些大豆、玉米運到中國大陸去養動物，動物再給人吃。因為把雨林砍了，所以雨林本來儲存的，二氧化碳（CO₂）就釋放到大氣中，造成更多的溫室效應。這也就是為什麼越來越多的人鼓吹，如果真的愛護地球，應該要吃素，因為吃素可以減少二氧化碳的釋放。

當地、季節性的、小規模的來生產有機蔬菜、水果，這是有機農業的精神。剛剛講到在當地（本地），吃季節性的蔬菜、水果，不須要大規模的耕種。講是很簡單，有沒有實際、大規模的國家或地區做到呢？有，就是在古巴。古巴從一九九〇年來，他們把所要吃的農作物轉成有機生產，主要原因是他們沒有石化原料來運輸。所以古巴政府決定在每一個社區成立一個小型的農場，製造生產他們所需要的食物；這樣子生產出來，就可以給居民吃。政府把以前殖民時代大規模的甘蔗園、甘蔗場，把它變成蔬菜菜園；並且鼓勵住在城市裏面的人，在他的屋頂有一個小花園；或是幾個鄰居大家共同來種植水果果園；用收集水的灌溉系統來澆水；用蚯蚓來做堆肥；用自然生物性的方式來除蟲害及輪耕；並且他們也用牛來耕田。

當地生產的食物就給社區來使用，不要太大規模的耕種，這些都是對抗石油價格的飆漲以及食物短缺最好的方法；並且是一個達成永續經營農業的一個必要的關鍵。以上是我今天早上蒐集到的資料，以摘要的方式跟各位善知識報告。

one-third to one-half of the grains produced in the world are for raising animals, not for people to eat. According to statistics of the United States Department of Agriculture, 16 grams of crops are required to produce one gram of beef.

If you plant one hectare's worth (about two acres) of potatoes, the annual harvest can feed 22 people for a year. But if you plant maize or soybean on the same land as feed for animals, then the meat grown after the animal has eaten the feed can only sustain one or two people.

More terrible things happen when we encounter feed shortage, for example, when natural and manmade calamities happen. What do you do if you do not have enough feed? You have to go to underdeveloped countries and cut down their rainforest. For example, trees have been cut down in many parts of the Amazon Rainforest in Brazil. Those places have been cleared to plant soybeans and maize. Unfortunately, the soybeans and maize are then transported to China to raise animals, and the animals are then eaten by people again. Since the rainforest has been cut down, the carbon dioxide (CO₂) originally stored in the rainforest was released to the atmosphere and increased the greenhouse effect. This is why more and more people advocate that if you really cherish the earth, you should abstain from eating meat in order to reduce the release of carbon dioxide.

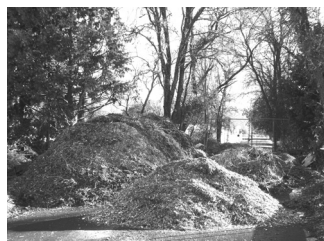
Being local, seasonal, and small-scale in producing organic vegetables and fruit is the spirit of organic agriculture. Being local (here) means eating seasonal vegetables and fruit, and not cultivating on a large scale. It is easy to say, but do we have, in practice, a country or a district that can do it on a large scale? Yes, Cuba has done it. Cuba changed its food crops to organic production since 1990. The main reason was because they had no petrofuel for transportation. Consequently, Cuban government determined to establish a small-scale farm in every community to produce the food they needed. The food produced in this way can be eaten by local residents. The Cuban government transformed the large scale sugarcane gardens and sugarcane fields of the prior colonial era into vegetable gardens. They also encouraged the people who lived in the city to have small gardens on their own roofs. Or several neighbors could plant fruits in the orchard together. They use a water catchment element for their irrigation system, make compost using earthworms (vermicomposting); and use natural, biopesticides and biofertilizers.



The food produced locally should be used for the community. Don't cultivate on a large scale. All these are the best strategies to counteract the soaring price of petroleum and

我現在要報告的是，聖城有機農場這四年來的發展。上個月CCOF認證的檢查員來到菜園，最近我收到他的檢查報告，看了之後，覺得很欣慰。我們不單符合有機規格的要求；更值得欣慰的是，在報告中還特別註明，萬佛聖城是以盡量採用自然的方式來耕種。在我們的菜園裏，可以看得到有孔雀、松鼠、鹿還有野貓，我也看到野狗。

羅馬不是一天造成的，每樣事情都需要花時間，種植農作物也不例外。我們仍盡最大的力量來生產我們所需要的有機蔬菜，但是要有好的有機蔬菜，必須要有好的肥料。而這些肥料是從哪裏來的呢？過去四年，在方丈和尚及法師的指導之下，我們跟本地社區結合在一起。你如果注意，每天都有修樹



公司送進來的免費木頭；如果去買的話，一個yard都要二十塊錢。今年我們也拿葡萄渣進來。我們有個很熱心的義工，Mr. Tom Johnson，很難得看到有一個義工願意，幾乎每天去拿一百磅、兩百磅的咖啡渣回來。

去一天、兩天拿一百磅是很容易，但是願意去一年，我真的是很欽佩他。這三年來，我們一點一滴地做。我相信像這樣走下去，我們不單能滿足我們有機食物的生產，並且可以滿足外面世界所希望的。因為有這麼多義工發心支持，有方丈和尚及法師英明的領導，如果我們繼續這樣生產下去，跟社區跟大自然結合的話，我們會做得更好。

the food shortage. These are also the key points to achieving sustainable agriculture. This is the information I collected and wanted to share with everyone.

Now, I am going to report on the development of the organic farm at the City of Ten Thousand Buddhas over these four years. The inspector authorized by CCOF [an organic certification organization] came to our vegetable garden last month. I received and read his inspection report recently and felt very gratified. We accorded with the demands for organic specification. He also especially remarked in the report that the City of Ten Thousand Buddhas tries its best to cultivate the organic garden by adopting the natural way. In our vegetable garden, we can see the peacocks, squirrels, deer and wildcats. I even saw a wild dog.

Rome was not constructed in one day. Everything needs time to be accomplished. Planting crops is not an exception. In our current organic vegetable garden, we still try our best to produce the organic vegetables that we need, but you must have good fertilizer in order to have good organic vegetables. Where will the fertilizer come from? Over the past

four years, under the guidance of the Abbot and Dharma Masters, we cooperated with the local community. Currently, if you are aware, there are tree trimming companies bringing free wood every day. If you go to buy it, one yard costs \$20. Grape pumice was also brought in this year. We also have a very enthusiastic volunteer, Mr. Tom Johnson. It is very rare to see a volunteer who is willing to bring 100 to 200 pounds of coffee dregs back almost every day.

It is very easy to bring 100 pounds for one or two days. But here is someone who is willing to do it for one year. I really admire him. This is how we have progressed little by little over the past three years. I believe that we can continue moving forward in this way. We will not only fulfill our production goals for organic food, but also meet the expectations of the outside world. Because of the hearty support of so many volunteers and the leadership of the Abbot and Dharma Masters, if we continue working like this, cooperating with nature and the community, we should be able to do even better.