

# “ Food Security”

## Towards to Center of Security Concept !

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### Summary

During the Cold War period, the national security concept , which was generally based on national security and deterrence measures, was changed in the 21st century . Individual security, water, food, energy and environmental security issues are included in the concept. Among these security concepts, water and energy security is mentioned more, but the concept of “new food geopolitics and food security that has emerged in the past 25 years stands out.

The relationship between the development and food security has become more and more decisive since the beginning of 21st Century. This has led to the emergence of a new food geopolitics in the world. In the last 20 years, some countries have started to rent large amounts of land from certain countries .In this article we aim to identify increasing importance of food security

**Keywords:** Food Security, Climate Change ,

### Introduction

Climate change, population growth, change in consumption patterns and the increase in demand for renewable energy sources (such as biofuels) also affect land grabbing demand for investors . The increase of global demand , especially in food, animal feed and biofuel, is the reason for long-term leasing or buying of large agricultural lands in less developed countries.

In fact, one of the main reasons for these large land rental and acquisitions is taking measures to dominate the world food market, which will be tightened by the effect of climate change.

Classical security paradigm has shifted to Water Food, Energy and Environmental security areas since the beginning of 21st Century. Therefore, especially in the developed countries' efforts to provide security in these areas have started to increase.

### New Food Geopolitics !

With the impact of climate change, this process will continue and the effects of new food geopolitics will increase. Some countries with water shortages have not adopted virtual water trade as a solution to ensure food security. Instead, it went to renting large agricultural land and water resources from other countries. In the last decade, cooperates have purchased or rented a wide range of land for particularly in agriculture, especially in developing countries. The governments of the target countries have been very inviting to this hot money input with the

expectation of reviving the economy. On the other hand, those who oppose these land purchases define this situation as land grabbing

Ensuring water security is a process of natural or artificial water supply. On the contrary to this process, food security is an integrated process based on bringing together soil, water and seeds considering climate change, social, economical and marketing factors which is more complex. The ensuring food security is more fragile against climate change due to the time-dependent nature of food production. Therefore, food security is becoming an emerging issue to particularly developing countries mainly dependent on foreign countries. This draws food security towards the center of the countries' security concept.

### **Drinking Water is the First Priority .But!**

During the drought periods, especially in the regions where the climate change effect is experienced more severely, maintaining water security becomes priority. The reason is the priority of daily life water need. Due to continuously demand characteristics of drinking water supply, water shortage effect can be felt immediately in society. This effect can be lessened, either by the efficient use of water or by supplying additional water in soon. This often outshines the long-lasting effects of drought period. Therefore due to its sudden physical and socio-psychological effects, maintaining drinking water supply is considered as first priority. In general, water need for the production of two vital issue such as energy and food production are usually forgotten. But drought periods also have the ability to influence food security in a widespread and permanent way. This feature of the issue has mobilized countries to lease and purchase long-term agricultural land from other countries.

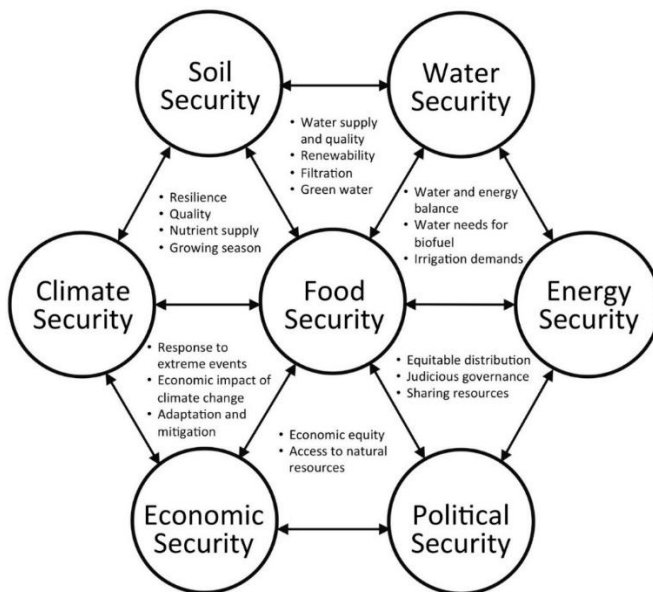


Figure 1. Food Security in connection with other securities.(1)

## Transnational land acquisitions

Transnational land acquisitions refer to the procedure of acquiring land (and freshwater) resources in foreign countries. It is often called 'land grabbing'. Most commonly, investors or investing countries are located in the developed world, while the 'grabbed' land is usually in developing countries.

To date, approximately 227 million hectares of agricultural land in foreign countries was owned by cooperates through procurement or long-term lease. This cooperates are from USA, Malaysia, Singapore, United Kingdom, U.A.E., China, India, Brazil, Canada and the Netherlands. The countries where these cooperates have purchased long-term land-bought land are Papua New Guinea, Russian Federation, Indonesia, Democratic Republic of Congo, Brazil, South Sudan, Mozambique, Ukraine, Congo and Guyana.

Studies show that almost nine percent of Africa's total area of arable land has changed owners since 2000. The largest land acquisitions are concentrated in countries with weak governance structures. In these countries, the proportion of hunger and malnutrition in the population is also very high, for example, the Democratic Republic of the Congo, Sudan, Mozambique, Ethiopia and Sierra Leone.(2)

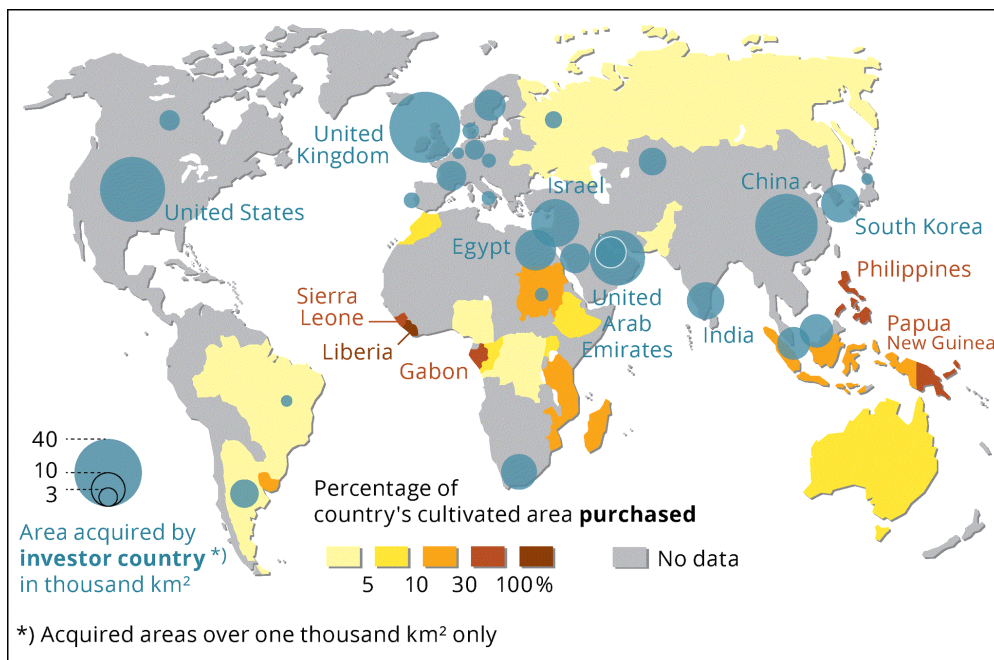


Figure 2. Transnational land acquisitions (3).

Since 2008, the term “land grabbing” gained notoriety around the globe. It refers to large-scale land acquisitions mainly by private investors but also by public investors and agribusiness that buy farmland or lease it on a long-term basis to produce agricultural commodities. These international investors, as well as the public, semi-public or private sellers, often operate in legal grey areas and in a no man's land between traditional land rights and modern forms of

property.(2). In many cases of land grabbing, securing access to water also plays an important role.

### **Reasons Behind the Growing Interest**

There are several reasons behind the growing interest of international investors in large-scale land deals. Firstly, there is an expanding market for agricultural commodities that can be traded globally and are thus not dependent on the purchasing power of local populations. Secondly, the increasing scarcity of fertile soil is a trend that has not gone unnoticed by investors. Thirdly, most analysts agree that although food prices have once again decreased following the spikes in 2007-2008 and 2010-2011, they will remain above pre-2007 levels. The effects of climate change and weather shocks may increase the level and volatility of food prices.(2)

As can be seen, developed countries in other countries where climate change is thought to be less likely to rent and purchase large agricultural lands. In fact, the security provided by the investment here is not only food security but also water and even clean energy security.

Applying this plan, high amount of water can be used for drinking, industrial and environmental purpose in these countries. This greatly reduces the pressures on water management although it makes the country food dependent on agricultural land in other countries. This situation will reveal a situation in which the foreign landowner wants to have more rights in the politics of the home countries where the land is rented. The intensity of climate change will be decisive in the process of creating this influence, defined by some experts as neo-colonialism.

### **Short Final Remark**

As can be seen in Figure 1, food security is directly related to other security areas. The concept of food security also includes food safety, and we have seen in our recent history that the food dependence can bring significant risks to the safety of imported food.

All these show that the concepts of food security and food safety are now placed in more central in the security concept and their relationship with national security increases rapidly. As a result, wise states need to be aware of changing their security paradigm and taking quick steps to develop new strategies.

### **References**

[1] *UNU-FLORES/Rachel Shindelar 2015 Taking Hunger Out of the Poverty Equation: Food Security and the SDGs.* Available at <https://flores.unu.edu/en/news/news/taking-hunger-out-of-the-poverty-equation-food-security-and-the-sdgs.html>

[2] land Grabbing <https://www.globalagriculture.org/report-topics/land-grabbing.html>

[3] Transnational Land Acquisitions Report 2015 European Environment Agency, 2015

## Biography



**Dursun Yıldız** is a hydropolitics specialist and Director of the Hydropolitics Academy Association located in Ankara-Turkey .He is a civil engineer and used to be Deputy Director at State Hydraulic Works in Turkey; completed hydroinformatics post graduate course at the IHE in Delft, Technical training programme in USBR-USA and a master degree in Hydropolitics at the Hacettepe University-Turkey. He has over 5 years of teaching experiences in some Turkish Universities and now works as head of his own Hydro Energy & Strategy consulting company located in Ankara. He has published several international articles and 11 Books. He recieved Most Succesful Reseracher Award on International Water Issues from Turkish Agricultural Association in 2008 and from Central Union of Irrigation Cooperatives in 2016