

Nebraska Land Use and Ownership

Posted on September 30, 2019

There is no doubt that land is a scarce resource. Therefore, there is a need to use it wisely. One of the ways is through improving the land so that it can produce a lot. In countries like China, there are standard indicators on how land is used for both rural and urban settlements. The land used for water conservancy and transport facilities is influenced by regional and governmental policies. Therefore, it is important to identify ways to improve land efficiency (Huang, Hong and Liang, 2009). There are many ways in which the land efficiency can be improved. This is especially the case when there is population growth. People use the land for building homes, schools, recreational parks and even forests. The land is also needed for agricultural purposes. Nebraska is one of the areas that has a high demand for land use. The demand for food is increasing, and that is putting pressure on natural resources. It is, therefore, important to make changes to help address the issues and move towards sustainable food production and agriculture. There are several principles to help in the change towards sustainable food and agriculture. The principles help in getting more out of land resources.

Natural Resources should be used with a lot of care to ensure that they are used as required. Improving the livelihood of the rural areas is another principle that has to be put into in to consideration in order to have sustainable agriculture. It is in the rural areas where agriculture is being practiced the most. Thus, the land is being exposed to hazards. Having sustainable land use is necessary for sustainability. The land has to be used in such a way that it improves the livelihoods of people and does not cause them harm. The only way to achieve that is through land efficiency. Efficiency is when the land is used to ensure that it gets its full potential. Some of the ways could be to improve the land by using different methods. Tying out new things will help a lot to improve the land resources. There has been an expansion of the built-up land is one of the features of land use changes. It is such actions that have led to inefficient land use and built-up land vacancy (Chen, Chen, Xu, & Tian, 2015). Nebraska has a duty to control any expansion of the built-up land. It is the only way to promote land use.

Land Policy

Federal land policy refers to the ownership and management of land that is owned by the government. About 95 % of the land in Nebraska is privately owned. The feral government had 635 million acres of land by 2012. Such land is used for recreation, grazing, and development of natural resources. Nebraska is ranked 36th in federal land ownership. The federal land policy is used in managing oil and gas, minerals, wildlife and fish, timber and other natural resources. Land management policies are highly debated because of their environmental, economic and social impact. Nebraska has 49.03 million acres out of which 1.12% belongs to the federal government.

Agricultural Land

Every country has a portion of land that is set aside for agricultural use. Nebraska has the highest value of agricultural land resources in the United States. There is more than 95% of the land that has been put to agricultural use. It has the highest percentage in all the states. Over the years, there has been a growth in the population, which has led to the demand for agricultural products. It is necessary to make the decision on the land by using land economics. As such, there is a need to conduct further study on land issues. There are college programs that are emerging in areas like real estate, business, and agriculture. All these are in a bid to have educational inland issues. Inadequacy of land efficiency has become a major problem in the whole world.

Land Use

Land use is considered an environmental issue. It is becoming an import in every part of the world. Worldwide changes to farmlands, forests, and waterways are being driven by the requirement to provide fiber, food, water, and shelter to the six billion people. The urban areas, pastures and global cropland have expanded over the years. There are also increases in the share of plant resources. All these changes have undermined the ecosystem's capacity. The ecosystem is no longer able to maintain forest resources, food production, regulate air quality and maintain fresh water. It has become a challenge to maintain human needs and the biosphere.

There are many ways in which land is used in Nebraska. Coal mining is done in Dunbar, and clay is produced to help in manufacturing tile and clay. The coal resources in Nebraska are limited compared to its production. There is a large acre of Nebraska land that is used for cultivating corn, alfalfa, wheat and other crops. There is also land used for hay production and grazing. Tree percent is occupied by the planted and natural forest. A large percentage of Nebraska land is occupied by airports, public roads, farmsteads, stockyards, parks, game preserves, churches, cemeteries, athletic fields, irrigation works and industries.

Land Ownership

The Nebraska land was originally owned by the Indians. The lakes and streams were their life necessities. The people who followed the Indians operated differently. The main purpose of the people who settled after the Indians was to develop the country based on private ownership. The public domain was sectioned by the federal government before settlement. However, there was no inventory made of the allocated resources. The lack of inventory led to the scramble for land. Thus, the land went into private ownership. The state owns several acres of land, including schools, recreational centers, fish hatchery areas, wildlife reserves and forest reserves. There is only a small percentage of land that is in the county's possession through tax delinquency. A large percentage of land is privately owned. There has been a trend towards the collective ownership of land.

Costly Experience

The land was destroyed by the settlers who wanted to use the land to establish homes. There is some land in distress. Not all land is suitable for cultivation. Using the land wrongly has led to impoverished soil. The state now has the problem of adjusting to the agricultural procedure., tax schedule and tax delinquency.

One of the principles is improving the efficiency in the use of resources, conservation of the natural resources, enhancing resilience, improving the livelihood of the rural areas and governance. First and foremost, there is a need to improve the efficiency. When the land is put to good use. There is no doubt that land will be used to the maximum. Thus, there will be enough to go around. The second principle is in conserving the natural resources. It is necessary to preserve the natural resources to ensure that they only provide what is required.

Land Ownership

Long ago, Nebraska's land was owned by the Indians. They used the land collectively. There was nothing like public or private property. The land was meant for communal use. However, as more and more people migrated to Nebraska, the Indians lost control of the land. The inhabitant has different ways to use the land. They decided to use the land for building houses and even agriculture among other activities.

	Nebraska		South Dakota	
agency	Acres owned	Percentage owned	Acres owned	Percentage owned
U.S forest service	352,463	64.16%	2,017,435	76.24%
U.S. National Park Service	5,650	1.03%	141,312	5.34%
U.S. Fish and Wildlife Service	173,614	31.6%	205,128	7.75%
U.S bureau of land management	6,354	1.16%	274,437	10.37%

U.S. Department of Defense	11,265	2.05%	7,929	0.3%
Total federal land	549,346	100%	2,646,241	100%

source: congressional research service

Land Usage

There are different ways that the Nebraska is utilized. It is used for recreation, building homes and for economic purposes. Land use refers to the human employment of land. Habitat is important in wildlife and it is related to and use. The habitat has changed over long periods. Even though land usage changes, there is still a need to have quantitative methods to evaluate the habitat.

Recreation

There is a percentage of Nebraska land used for recreation. They are used for national parks and state recreation. There are five national parks, three national forests, three national monuments and five national historic trails. All these occupy Nebraska's land resources.

Economic Activity

The land is also used for economic activity. There are many ways in which land can be used to generate income for the country. One of those ways is through oil and gas. Nebraska has private mining companies. There has been increasing competition in land, and it is crucial for there to be an efficient supply of ecosystem services. Nebraska utilizes its natural resources to make money from oil and gas. The oil and gas sector is one of the ways in which Nebraska is making huge amounts of income.

Human Activities Effect On Land

Human activities affect the quantity, distribution and even the chemical quality of water resources. Human activities greatly affect the groundwater interaction, especially when the surface of the water is broad. Human effects on land are of great concern. To show to what extent human activity affects water resources, both the structures and the features related to human activities are visible on different parts of the landscape. Human activities affect both the quality and quantity of water resources. The human effects are felt on a variety of time and space scales.

Agricultural Development

Agriculture is the reason for the landscape modifications all over the world. One of the ways that agriculture affects landscape is through tillage. Land tillage changes the land surface. Thus, it affects the delivery of water, groundwater recharge, and evapotranspiration. All of these processes either directly or indirectly affect the land resources. The processes by human beings affect the surface water and the groundwater. Agriculturalists know of the effect that agriculture brings on water resources. As a result, agriculturalists have identified the methods that will help alleviate such problems.

Agricultural development agriculture is the main reason for the modifications in the landscapes all over the world. Tilling the land changes the runoff characteristics of the land. Tillage affects the delivery of water. And evapotranspiration. These processes affect the groundwater interaction directly or indirectly. Agriculturalists know of the effects of agriculture and thus come up with ways to help alleviate them. Tillage practices are modified to help in water retention in soils. It also minimizes soil erosion.

Irrigation Systems

Surface-water irrigation is one of the human activities on land surfaces. Over the years, there has been an increase in the number of irrigation systems. In the 1840s, the number of irrigation systems increased in the western United States. Additionally, surface-water irrigation is like a network of canals of different sizes and those that are used to transport water. There are also drainage systems that are used in carrying water that is not used by plants.

The drainage system includes the underground drains. Most of the irrigation systems that were previously used on surface water are also used on groundwater. The groundwater is used for water irrigation. In some scenarios, the water is used in the canals. The quantities of water go from a few inches to 20 inches of water every year. The water quantity depends on local conditions in the area with crops. In most irrigated areas, there are about about 75 percent of applied water is lost through evapotranspiration. Such water is retained in the plants. The water that remains is infiltrated into the soil zone to help with recharging the groundwater. The water could also be returned to the surface water through a drainage system.

The irrigation water quantity used in recharging ground is compared to the recharge that comes from precipitation. This is due to the fact that the large irrigation systems are in areas with low natural recharge and low precipitation. Due to that, the large volume of recharge can make the water table go up and thus reach the land surface and cause waterlogging. For this reason, the drainage systems maintain the water level to go below the crop's root zone. , it will go below to about 4 feet under the land surface. A permanent increase in the water table that results from continuous recharge of the irrigation return results in more outflow of the groundwater compared to the surface-water body.

Agricultural Chemicals

The land surface is also affected by agricultural chemicals. When fertilizers and pesticides are on the crop's land can result in an increase of contaminants to the water resources. There are some pesticides that are slightly soluble in water. Such pesticides get absorbed into the soil particles. They do not remain in the solution. They have compounds that will cause groundwater contamination. There are those pesticides that cannot be easily detected, but they have high concentrations in both surface water and groundwater. One of the commonly used pesticides is ammonium. It is present in both manure and fertilizer and is soluble in water.

When the concentration of ammonium increases, it can lead to nitrification. Ammonium is found in the surface water and groundwater that is associated with agricultural lands. Additionally, the sources of water contamination are commonly associated with agricultural areas like feedlots. It is immaterial if the first contamination is found in surface water or groundwater. This is because there is a close interaction of surface water and ground water.

The contaminants in streams affect the quality of the groundwater. This is especially true when the streams go to the groundwater. Floods make the stream to be bank storage. Water becomes contaminated as a result of landfills, fluid storage tanks, septic tanks, and industrial lagoons. In case the contaminants are soluble, then they will be moved to the ground water. If there is a low concentration of the ground water, then the land will not be affected that much due to the water.

It will affect the quality of the surface water body. For flat land surfaces, there is a need for drainage to ensure that the land is ready for agricultural developments. Drainage is done by constructing ditches. Drainage of the lakes will change the groundwater distribution. It can result in changes in the chemical processes that occur in the wetlands. The changes can also affect the baseflow to streams, which in turn will affect the riverine ecosystems. Drainage will also affect the water-holding capacity of the surface runoffs. The runoffs that result from drainage systems will reduce the groundwater recharge.

The decreased recharge of the groundwater leads to flooding. Drainage is common in areas with extensive wetlands, like glacial lake landscapes. Having artificial drainage systems is common in areas where there are wetlands because these areas are deep organic soils that are suitable for agriculture. There is more than 50 percent of the wetland areas that have been destroyed in the upper midwest areas. The destruction in Iowa is more than 90 percent. There are those wetlands that were destroyed by drainage, and some were destroyed by filling.

It is necessary to store water in a reservoir to prevent the steam flow. The steam flow can be highly variable. There are those times when it is abundant, but it occurs when the water is not required. The steam flow varies depending on the weather patterns. The reservoirs are affected when there is groundwater. The reservoirs can cause water to rise, and the change can be permanent. When the water rises, it can cause damage even to a far distance from the reservoir.

Removal Of The Natural Vegetation

In order for the land to be available for agricultural purposes and urban growth, there is a need to cut down the forests and even remove vegetation. There is no doubt that forests play a vital role in the hydrologic regime. Therefore, deforestation will increase the storm runoff and decrease evapotranspiration. It also causes soil erosion. Deforestation will also lead to infiltration of the ground. An increase in soil erosion and storm runoff will lead to the base flow of streams. Cutting off the riparian vegetation can lead to increased streamflow. The riparian vegetation is important because it protects the land from soil erosion and helps with flow mitigation, water maintenance and preservation in the aquatic habitat. Therefore, destroying the riparian vegetation means that their land will be exposed to soil erosion, flood and aquatic habitat. Therefore, it is necessary to preserve the riparian vegetation since cutting it off will mean that the land will be affected. The vegetation is important, but human beings remove them without knowing that they are destroying the land.

Nebraska has a land area of about 77,510 square miles. Out of this, 495 square miles is the river surface, 230 square miles is intermittent lakes, and 163 square miles is lake and reservoir surface. The primary land resources in Nebraska are soil and groundwater.

Nebraska seeks to improve its land use efficiency. Producers can remain in agriculture by integrating cattle.

Nebraska has intensively irrigated and cultivated land in the country. As a result, groundwater has been contaminated by chemicals. Nebraska has 23 natural resources districts. In an attempt to do a groundwater management plan has monitored the levels of contaminants.

There are several ways in which Nebraska can improve land use efficiency. It can be used for agriculture, recreation and other economic activities.

The project seeks to analyze the utilization of Nebraska land resources to improve land use efficiency. The agencies that are vital in the national resource inventory are the Nebraska municipalities, national resources inventory, congress and environment control. Congress has the role of establishing land use regulations. The Nebraska environmental control control has the duty of preparing the implementation plans. Nebraska municipalities have to determine the process that is needed to dispose of water. The Nebraska Water Resources Association is responsible for preserving and managing water resources. Cell 3,1 Nebraska state constitution delivers to the property tax laws. Nebraska state provides the required criteria for the land evaluation of tax laws.

Every farmland has different methods to be valued differently depending on the type of soil. According to the research conducted by Jim Jansen and Roger Wilson (2016), there is agricultural land in Nebraska valued at \$3,135. Pivot irrigated land was the most expensive since it was valued at \$6,990. The nontillable grazing land was the cheapest, going for \$980. It shows that the agricultural land is highly priced. It is because of the benefits that it has to offer. Agricultural land offers people a

way to produce food. No nation can survive without food. As such, it is one of the ways in which

In cell 6,5, the Nebraska farm delivers to the Nebraska state legislature. In cell 1,12, the property law delivery to the cell equalization assesses the tax implemented. The commission takes data from property tax laws. In cell 10,5, the Nebraska Supreme Court to Nebraska state legislature, the Supreme Court is responsible for delivering the state legislature. In cell 2,1, changes in land value to the property tax laws, the property tax laws have to be informed of the changes in the farm's value. Even if the land does not have to increase only when the property tax increases. Agricultural land is valued depending on the market value. Even though the problem of rural land tenure is a main category of agricultural and rural development. The issue of agrarian transformation is something that has to be looked into from a broad and long-term perspective.

Cell 8,9 shows that there is government delivery to the Supreme Court. The judicial system of Nebraska is elected by all the divisions in the government. Thus, the government will be in a position once the decision has been made by all the divisions, which means that there will not be any kind of biases. In cell 8,1, the government delivers agricultural policy. The government is responsible for making decisions in the agricultural policy. There is no doubt that the agricultural policy influences the farmers. In cell 5,4 the agricultural development bank provides credit to the farmers and financial services. Farmers can improve their land because of the loans that they receive from the agricultural development bank. In cells 8,1, the industry delivery to the agricultural users in the industry can provide the agricultural users with productions. It will make it a lot easier for the farmers to get the materials they need in cell 3,9 the public delivery to the Supreme Court, thus providing the reserve requirements needed for agricultural development. The public delivery ensures that the public has everything they need to improve their land.

The reform was designed in terms of the distribution of private land to the tiller and prohibitions on transfer-of-use rights by sale, exchange, succession, mortgage or lease, except upon death and only then to a wife, husband or children of the deceased. Current land tenure and problems thereof: After the downfall of the Derge, the Transitional Government of Ethiopia declared that the right to ownership of rural and urban land, as well as of all natural resources, is exclusively vested in the state and in the people of Ethiopia. "Land is a common property of the Nations, Nationalities and peoples of Ethiopia and shall not be subject to sale or other means of exchange." There was a consensus that the current system, because it does not guarantee the security of tenure and undermines incentives, has detrimental effects on agricultural productivity and natural resource conservation and does not provide incentives for investment in improvements.

The land tenure system is a controversial issue in Ethiopia: The advocates of the existing land policy believe that if the farmers are given the right to own land privately and are allowed to sell, many farmers will become landless and exposed to various hardships. The critics argue that the existing land tenure arrangements have contributed to increased degradation of farmers' land, resulting in soil erosion and poor productivity levels of various crops. A recent World Bank report says that strengthening people's right to own land and secure land tenure is a precondition for productivity

increases in agriculture.

Farmers with ownership rights and secure land tenure are more likely to make long-term investments in their land. Farm income: The main sources of income for the farmer were derived from both farm and non-farm activities. Based on the existing farm situation and prevailing price levels, farmers of HIG and LIG were obtaining 4491 and 2176 birr as gross margin to meet all expenses such as subsistence requirements, clothing, land tax, hiring of labor and other variable input expenses etc. (Table 1).

The LIG farm income was not covering all his expenses. So, the farmer in this group is expected to reduce either the variable costs or subsistence requirements, which may lead to undernourishment. The LIG farmer, to cover his expenses, needs additional income from non-farm activities. Among the various types of farm activities (Data not shown) that are currently performed by the farmer, wheat contributed 33 percent of farm income. Though the contribution of livestock and eucalyptus tree enterprises was very small, this was an additional source of farm income. The income of the farming population closely follows the patterns observed for the size of holdings. When disaggregated by cropping pattern, wheat ensured the highest per capita household income, followed by teff. Hence, the availability of land and crops grown were major factors determining household income.

The rather low level of income of Farm productivity: The low level of income of farm households is a result of both the small size of landholding and the low level of productivity in Ethiopian agriculture. As can be seen from Table 2, the average cash income per hectare of cultivated land (an indicator of land productivity) averages Br 1173 and Br 454 on HIG and LIG holding, respectively. The average gross margin per labor force employed and available (a proxy measure of labor productivity) stands at Br1.45 & 1.05 /manhour on HIG and Br 1.12 & 0.67 on LIG holdings. This, again, is a clear indication of the close link between the size of holding and labor productivity in Ethiopia. Coming to the farm size and household food security, the average holding size in the study zone (0.78 hectares) was not enough to produce sufficient food for their families. Optimal land management practices: About two-thirds of the land area is regarded to be potentially suitable for agricultural production, and less than 10 percent of this potential land has been cultivated, which is estimated at about 7 million hectares in any one-crop season. Around 95 percent of the cultivated land is under smallholder farming, and the rest is under state/commercial farms.

The country has not been self-sufficient in food and is chronically dependent on food aid. Of the various reasons responsible for the food deficit, low/poor land productivity is the most crucial. The average yield for grain crops has remained around 11 quintals per hectare. This meager land productivity is not because of poor soil fertility but rather a result of ill management of the limiting factor of production, i.e., land. The issue of tenure form of ownership. One of the key issues related to land tenure is the degree to which the tenure arrangement encourages sustainable farm practices. It is generally believed that a more secure tenure system provides the necessary incentives for farmers to manage their land more efficiently and invest in land improvement. Assessment of better land management is evaluated in relation to farm practices such as crop rotation, terracing, fallowing and

tree planting. In general, the prevailing land management practice does not encourage agricultural sustainability in the country. Therefore, the security of tenure is more important than those of plot size or land availability. Farm productivity: The optimal land management practices for both income groups showed a significant change in the production pattern, resource use, farm income and returns to farm resources over the current practices. The model favored wheat for both income groups.

The result is compatible with farmers' enterprise prioritization for food security goals together with the consideration of production per unit area. Marginal Value Product of Major Resources under optimal farm practices: The marginal value of land is Birr 1305 and 960 per hectare for HIG and LIG, respectively. The marginal value of land for LIG was small compared to HIG due to the inadequacy of capital available for farmers in the LIG, hindering the cultivation of highly productive crops. Working capital has a marginal value of Birr 1.837 and 2.7 for HIG and LIG, respectively. Labor has a marginal value of 0.24 per person per hour. The size of the holding is of considerable importance. With minor exceptions, the larger size of the holding is of considerable importance. With minor exceptions, larger-size holdings perform better than smaller-size holdings. The farmers' involvement in land transactions despite restrictions by law suggests that a suitable land policy will facilitate the operation of formal land markets to enable better allocation of this important resource. A conducive environment must be created to encourage rural land markets in view of their role in improving resource allocation, efficiency, productivity and mobility. Policy-makers and agricultural development experts must give serious consideration to the fact that there is limited room for intensification with the prevailing mini-plots operated by subsistence farms.

Conclusion

In conclusion, improving land efficiency requires that there is a lot of work to be done. There are problems that have to be addressed in order to have sustainable land use. Some of the problems include agricultural chemicals, irrigation systems and human activities. Human activities are the actions of people that affect the land surface. Irrigation systems also affect the land. Getting rid of these problems will help Nebraska improve its value of land. It is, therefore, important to preserve land to take care of the problems that Nebraska is facing. It will There is no doubt that Nebraska has done a lot to ensure that there is land use efficiency. Nebraska still has a lot to do when it comes to improving its land. People cannot live without land, it is necessary to it is important that land is used in the right way. It is the only way in which land will remain productive and, at the same time, provide value to residents. Nebraska is a place with a lot of potential, and thus, the land is one of the ways to ensure that the state makes good use of the natural resources. The natural resources should not be misused if the land is to achieve its full potential.

The study provides a hint that the issues faced by Nebraskan agriculture are related to the landholding system, even though not all the time. The problem of tenure security is a vital consideration more than the type of ownership. Therefore, the government action should be to improve the tenure security and the land rights transferability. By doing so, it can improve land

productivity and rural investment. The size of the holding is also an important consideration. There should only be minor exceptions; the larger size holding should be of importance. Therefore, it is important that land be utilized in order to improve its efficiency. There is still a need to conduct further research on land use efficiency. If utilized well, land can be a great resource for human beings.

References

Jim Jansen and Roger Wilson (2016),

Foley, J. A., DeFries, R., Asner, G. P., Barford, C., Bonan, G., Carpenter, S. R., ... & Helkowski, J. H. (2005). Global consequences of land use. *science*, 309(5734), 570-574.

Meyer, W. B., & Turner, B. L. (1992). Human population growth and global land-use/cover change. *Annual review of ecology and systematics*, 23(1), 39-61.

Huang, Hong and Liang, 2009. Analysis and evaluation of industrial land efficiency and intensive use in Fujian province

(Chen, Chen, Xu, & Tian, (2015) Building up and efficiency in urban China: insights from the general land use plan.