THE AGRICULTURAL ECONOMICS LITERATURE PROVIDES VARIOUS ESTIMATES OF THE NUMBER OF FARMS AND SMALL FARMS IN THE WORLD

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ABSTRACT

Again, it can be stated that this study will be a result of my own work, the impact of National Horticulture and livestock project in Afghanistan, and the definition of tasks for the development of livestock and horticultural industries. Taking into account the importance of these sectors in the development of the agricultural sector in the country, in the following years, the state agency for veterinary and Livestock Development, "Afganchorvanasl", the agencies for the development of Horticulture and greenhouse farming, the development of Viticulture were established.

1. History of the study the impact of Farmer Field School Education on livestock farmers in Kabul, Afghanistan farming and cultivation globally.

2. The literature of the agricultural economy gives different estimates of the number of farms and small scale enterprises in the world.

3. To what extent are the new knowledge acquired by livestock farmers during the FFS period.

Base words: *poverty, economic, opportunity, gardening, livestock, labor, efficiency.*

АННОТАЦИЯ

Опять же, можно сказать, что это исследование будет результатом моей собственной работы, влияния национального проекта по садоводству и животноводству в Афганистане и определения задач для развития животноводческой и садоводческой отраслей. Принимая во внимание важность этих секторов в развитии аграрного сектора страны, в последующие годы государственное агентство по ветеринарии и развитию животноводства «Афганчорванасл», агентства по развитию садоводства и тепличного хозяйства, развития виноградарства.

1. История изучения влияния образования в полевых школах фермера на животноводов в Кабуле, Афганистан, сельское хозяйство и земледелие во всем мире.

2. Литература по сельскохозяйственной экономике дает разные оценки количества ферм и малых предприятий в мире.

3. В какой степени новые знания приобретены животноводами в период ПФШ.

Базовые слова: *бедность, экономика, возможности, садоводство, животноводство, труд, эффективность.*

INTRODUCTION

This paper provided a more complete and up to date as well as carefully documented estimate of the total number of farms in the world, as well as by region and level of income. It used data from numerous rounds of the World Census of Agriculture, the only dataset available which allows reader to gain a complete picture of the total number of farms globally.The paper provided estimates of the number of family farms, the number of farms by size as well as the distribution of farmland by farm size. These estimates find that: there are at least 570 million farms worldwide, of which more than 500 million can be considered family farms. Most of the world's farms are very small, with more than 475 million farms being less than 2 hectares in size. Although the vast majority of the world's farms are smaller than 2 hectares, they operate only a small share of the world's farmland. Farmland distribution would seem quite unequal at the global level, but it is less so in low- and lower-middle-income countries as well as in some regional groups. These estimates have serious limitations and the collection of more up-to-date agricultural census data, including data on farmland distribution is essential to having a more representative picture of the number of farms, the number of family farms and farm size as well as farmland distribution worldwide[1].

DISCUSSION AND RESULTS

The challenge of feeding the world's growing population without further damaging the natural resource base is becoming increasingly urgent, and must be met in ways that also allow adaptation to and mitigation of climate change. Agriculture provides not only food, but also fuel, fibre and a wide range of ecosystem services. This paper discussed the principles and practices of agro ecology, and how mainstreaming they can potentially meet the challenges facing agriculture and food production. The academic discipline of agro ecology emerged over a century ago. Subsequently, in response to the social and environmental problems caused by the

1. [1] Directorate of Livestock Extension, Ministry of Agriculture and Livestock.

global industrial agricultural and food system, it has become the foundation of both a set of land management practices and a vibrant social movement. The science of agro ecology is the study of living organisms and their inter-relationships in the context of agriculture and land use, and can be seen as the scientific basis of sustainable agriculture. Agro ecology not only defines, classifies and studies agricultural systems from an ecological and corresponding socio-economic perspective, but also applies ecological concepts and principles to the design and management of sustainable agro ecosystems (Altieri, 1995). This means that it is very useful as a theoretical and practical approach to increasing the sustainability of current agri-food systems. Agro ecology has come to greater prominence since the publication of the 2009 International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) which advocated the use of agro ecological approaches in sustainability initiatives. The following year, the United Nations (UN) Special Reporter on the Right to Food also highlighted agro ecology as a viable approach for working towards food security (De Schutter, 2020).

The increasingly high profile of agro ecology is reflected in the growing body of evidence on high performing agro ecological management practices. For example, a 3-4 years back study (Pretty, Toulmin and Williams, 2020) examined 40 initiatives employing agro ecological production methods in 20 countries, involving 10.4 million farmers. These included agro ecological approaches to aquaculture, livestock and agro forestry, conservation agriculture, and crop variety improvements with locally appropriate cultivars and cropping systems. Analysis of project outcomes demonstrated not only an average crop yield increase of 113%, but also numerous environmental benefits, including carbon sequestration and reductions in pesticide use and soil erosion. Agro ecological practitioners design food production systems which aim to maintain the functions that natural systems provide, both internal and external to production, and which are robust, productive and equitable. This means integrating instead of segregating, closing systems and relying on local inputs, increasing biological and genetic diversity, and regenerating instead of degrading[2]. Agro ecosystems managed according to these principles look very different from industrial agricultural systems, and are based on a different paradigm. Increasing the use of agro ecological approaches in order to enhance the sustainability of food production would demand social and institutional changes in agricultural communities, the commercial frame work of agriculture, the wider food system, and

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policies for agriculture, development and trade. The UN Special Reporters on the Right to Food identifies scaling up agro ecological approaches as one of the main challenge of our time, noting both a need for increasing the areas cultivated using agro ecological practices and an enabling frame work for farmers using these practices (De Schutter, 2020).

There are significant barriers to achieving this. They include the economic viability of agro ecological approaches in competition with industrial approaches, an international economy dominated by neoliberal narratives, and the vertical, integrated structure and entrenched political interests of agri-businesses. Although informed citizens and markets are powerful mechanisms for shaping resource use and production, and for stimulating creativity and innovation by communities, concerted government action is needed to speed up the spread of agro ecological production, especially while some countries are still moving their agricultural sectors in the opposite direction. Supportive policies will be required if crop and livestock production systems are to be managed as ecosystems, with management decisions fully informed of environmental costs and benefits. Agricultural Development Economics Division Food and Agriculture Organization of the United Nations Sarah K. Lowder, Jakob Skoet and Saumya Singh, April 2020 Agriculture employs 80 per cent of Afghanistan's 30 million people, but three decades of war cut agricultural productivity by three percent every year, and droughts in the past ten years killed roughly half the nation's livestock.

Today, Afghan agriculture has begun to recover. The country came close to self sufficiency in cereals in 2019 and 2020, and 25 million head of livestock approaches the pre-war level of 28 million. Farmers are experimenting with new, potentially lucrative crops such as saffron, while learning to quadruple the yield of traditional favorites such as pomegranates[3].

Afghan agricultural investment and active agribusiness have grown rapidly, spurred on by unexpected global demand for its products, ranging from fresh fruit and vegetable exports to India and the Middle East; raisins (with ISO-9000 certification) to America; concentrated juices to Canada, Britain, Austria and the region; and vigorous sales at trade fairs from Kabul to Dubai to Dushanbe and Moscow.

Eight years of failed agricultural development is being reversed. Poor prioritization of projects, duplication of effort and a lack of cooperation from donors

2. [3] Livestock farmers in 7 regions of Afghanistan (interviewed).

have been replaced by a practical, Afghan-generated, agricultural plan that has the full backing of the international community.

Today, Afghans provide the assessments, priorities and diagnostics which only they know best, while the donors follow with financing and technical expertise. Four key ministries (Agriculture, Energy & Water, Rural Rehabilitation and Development, and Counter Narcotics) have been grouped into a team, the Agriculture and Rural Development Cluster (ARD), to more swiftly and efficiently improve rural economics.

Natural resources will be better managed through reforestation, rural electrification and expanding irrigation. Improving rural roads, another ARD priority, will increase farmer access to markets and local governance is being strengthened to better serve the agriculture sector. Agricultural research and extension reform will introduce new, more profitable products and increase harvests from traditional crops, plus introduce better techniques for dry-land farming while value chains are being built linking fields to farms, to markets, factories and airports.vii. Economic growth and food security depend upon natural resource management, increasing agricultural production and productivity, improved physical infrastructure and market development. This is the path to poverty reduction, licit crops and national security. This is the mission of the Ministry of Agriculture, Irrigation and Livestock[4]. But our vision cannot be achieved alone. It will require the concerted effort and support of our regional neighbors and international partners. This paper identifies four priority areas 4for regional and international support with recommendations which complement the Afghanistan National Development Strategy, the Agriculture and Rural Development Cluster Strategy and the National Agricultural Development Framework are designed to take forward the regional aspects of outcomes which were supported by regional and international partners at the London and Kabul Conferences. Fourth Regional Economic Cooperation conference on Afghanistan in Istanbul 2020,

By 2050, global livestock production is expected to double—growing faster than any other agricultural sub-sector—with most of this increase taking place in the developing world. As the United Nation’s four-hundred-page report, Livestock’s Long Shadow: Environmental Issues and Options, documents, livestock production is now one of three most significant contributors to environmental problems, leading to increased greenhouse gas emissions, land degradation, water pollution, and increased

1Baseline survey of NHLP/MAIL 2018 (Baseline survey annexes).

health problems. The paper draws on the UN report as well as a flurry of other recently published studies in order to demonstrate the effect of intensive livestock production on global warming and on people's health. The paper's goal is to outline the problems caused by intensive livestock farming and analyze a number of possible solutions, including legislative changes and stricter regulations, community mobilizing, and consumers choosing to decrease their demand for animal products. Intensive Livestock Farming: Global Trends, Increased Environmental Concerns, and Ethical Solutions Ramona Cristina Ilea, 2020[5].

Approximately 56 billion land animals are raised and killed worldwide every year for human consumption. By 2050, global farm animal production is expected to double—growing faster than any other agricultural sub-sector—with most of those increases taking place in the developing world (FAO 2020) This figure would be even larger if we also looked at fish and other aquatic animals. According to this report, global meat production will increase from 229 million tons in 2019/2020 to465 million tones in 2050, while milk output is expected to go from 580 to 1043 million tones. According to the United Nation's recently published four-hundred-page report, Livestock's Long Shadow, the livestock sector generates 18% of greenhouse gas emissions, more than all transport (FAO 2020), usually thought to be the largest cause of greenhouse gases. Furthermore, 70% of all agricultural land, and 30% of the Earth's land surface is directly or indirectly involved in livestock production (FAO2020)[6].

As a result, the livestock sector is now one of the top two or three most significant contributors to environmental problems, leading to land degradation, water pollution, and increased health problems (FAO 2019a).These problems will not go away if more farms shift from being traditional, extensive, decentralized family farms to having more and more intensive livestock production and intensive livestock farms. Intensive livestock farms, also called Concentrated Animal Feeding Operations (CAFOs) raise animals in confinement at high stocking density, using economies of scale, modern machinery, and biotechnology. Intensive animal agricultural methods are the norm in Europe and North America and are increasingly common in Asia and Latin America (Nierenberg 2020). Africa and a few parts of Asia are mostly using traditional (extensive or pasture-based) farming methods, although they are also seeing the introduction of intensive farming methods. According to a 2020 report about green house gas emissions from agriculture,

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globally ‘‘in recent years, industrial livestock production has grown at twice the rate of more traditional mixed farming systems and at more than six times the rate of production based on grazing. As the UN report on the environmental effects of livestock production points out, these global trends and the environmental problems that accompany them have not been given enough attention (FAO2020b). *Intensive* Livestock Farming: Global Trends, Increased Environmental Concerns, and Ethical Solutions Ramona Cristina Ilea.

CONCLUSION

Therefore, a completely new system will be introduced in the field of horticulture to all 34 provinces specializing in fruit and vegetables. According to him, with the participation of exporters having their own brand in foreign markets and processing enterprises, cooperations are organized in these regions. In each region, the placement of crops is carried out on the proposal of cooperations, which will facilitate the supply of seedlings to livestock and horticultural vineyards, increase productivity. Also, in each region and district specializing in horticulture, the task is to open training centers for the correct implementation of agrotechnical activities.

REFERENCES:

1. Baseline survey of NHLP/MAIL 2018 (Baseline survey annexes).
2. Directorate of Livestock Extension, Ministry of Agriculture and Livestock.
3. Livestock farmers in 7 regions of Afghanistan (interviewed).
4. Animal health department of Ministry of Agriculture and Livestock.
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