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SMART VILLAGE

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A smart village is a community in a rural area that makes important decisions to eliminate problems in certain conditions. They also have communication, information and communication technologies and with it all the amenities that can be obtained through digitalization, that is, the Internet and all the opportunities that it gives. Improving the quality of life thanks to the latest technologies, for example, planting crops with the help of robots and artificial intelligence, this also minimizes costs. And providing yourself with energy using alternative sources. Find out which countries already have the technology of «Smart Villages» and how it can help the sustainable development of rural areas [1,2,3]. «Smart villages» began the appear over The project «Smart Villages in Niger 2.0» is a project of the Government of Nigeria and its partners, which aims to expand Internet access throughout the country, improve broadband infrastructure and provide access to digital technology services in the fields of healthcare, agriculture, education, finance and trade[4,5].

In Russia, interest in Smart villages has also begun to increase, «Remote work will allow evenly distributing the information load from the city (center) to the suburbs, districts and regions, removing excessive load (traffic, population) from the city and allowing the village to develop towards improving the quality of life», this will really help and It will also reduce the same burden on people, since one road already takes quite a lot of effort. Reduce the number of car exhausts and somehow reduce environmental problems.

The main problem in Russia will be its huge territory and it will be quite expensive to connect the Internet in very remote places.

Smart Africa is a bold and innovative alliance whose members have committed themselves to accelerate sustainable socio—economic development on the continent and introduce a knowledge-based economy in Africa, providing affordable access to broadband and providing opportunities for the use of ICT.

If «Smart Villages» appear in Africa, it will be possible to use the latest technologies in order to obtain a large amount of minerals from 30% of the world's reserves, as well as 40% of gold and 90% of platinum and chromium[2].

«Smart Villages» in Azerbaijan (Table 1). A modern settlement has been built on the territory that was recently the scene of fierce battles between the Azerbaijani military and Armenian forces.

It is generally believed that this is a good move, especially after wartime, it is necessary to return production and the economy to normal and strengthens relations between these countries, since they accept both Azerbaijanis and Armenians.

Stimulating the rural economy through connected Internet, «green technologies» and the transfer of many public services to electronic format. This village is promoted by the World Bank. Smart technologies are mainly supplied by China (Table 1) [4,6].

Table 1 – List of Smart Villages and their contribution

Countries,	Features	Contribution to	Environmental	Business
towns		the State	component	activity
Kazakhsta	Highly de-	Delivery of high-	The use of digi-	Willingness of
n, Rodina	veloped	quality agricul-	tal technologies	residents to en-
village	agricultural	tural products to	leads to land	trepreneurship
	production	the country.	conservation,	
	with the		garbage dis-	
	use of digi-		posal, weekly	
	tal tech-		clean-up days.	
China	nologies	Now tooknologies	Rejection of	Implements
China, a village in	Ecological production	New technologies in fruit growing	Rejection of factories, facto-	Implements various projects
Binziong	of fruits	and processing.	ries and indus-	for the develop-
Province	and vegeta-	una processing.	trial waste, en-	ment of produc-
	bles		ergy-saving	tion within the
			lighting system	framework of
				the agricultural
				development
				project.
European		Receiving	Use of solar	High degree of
Smart		agricultural	panels, garbage	cooperation.
villages		products, tourism.	collection	
Azerbaija	Ecovillage		The use of	Ecotourism is
n			smart technol-	developing.
			ogy for garbage	
			collection and	
			disposal, smart	
			stops, smart lights.	
			ngmo.	

The ideas of smart villages are actively spreading in Kazakhstan. So, a smart village has been declared in the Atbasar district of Akmola region. The organizers began with the improvement of the school and water supply networks, which are

equipped with the most modern equipment of the Swiss company «Buhler». And this served as the basis for the sustainable development of this village. The next step in their development will be the connection of high-speed Internet and the development of business activity of the population [1].

Another good example is the village «Rodina» (Table 1), which is characterized by a diversified developed agricultural production, where the most modern digital technologies are used, and the union of science and practice allows the sustainable development of this territory. The partnership makes a worthy contribution to the formation of the food belt of the capital and the implementation of the concept of food security of the country and is engaged in the following main activities: production, storage and sale of high-quality products: grain and elite seeds, milk and its processing, meat, fruit and vegetable products, agricultural services, production and sale of construction materials.

A distinctive feature of Smart Villages is the use of the latest technology. Relatively recently, robots and artificial intelligence have appeared, which have been used in agricultural production. The Ecorobotix robot is a fully automatic drone with built-in GPS, powered by the sun, it uses a sophisticated camera system to determine the location of weeds and spraying. Thanks to his precise movements, he uses 90% less herbicides. Agribotix is a drone that allows you to collect crop data, it is very good at monitoring large crops, it has an infrared sensor that can measure the condition of crops. RoBoPlant is a robot with artificial intelligence, it is able to collect peat seedlings, separate them and plant them in the right order, it also controls the temperature in greenhouses [6,7].

Thus, smart villages will help us keep the planet «alive» longer. And, to raise the level of rural life and agricultural production through the introduction of digital technologies, obtaining new plant varieties, new ecological approaches[8].

Revitalizing rural areas through innovation and increasing incomes of the population, showing business activity, strengthening the cohesion of rural residents for the sustainable development of rural areas.

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