

## THE ROLE OF PUBLIC CIVIL SERVICES IN IMPROVING WEATHER SERVICES FOR THE POPULATION OF THE MUNICIPALITIES OF THE KYRGYZ REPUBLIC

**Аннотация:** Бул макалада метеокомпаниялардын рыноктык шарттарга өтүү жана өзүнүн иш аракеттерин жергиликтүү калкка жана башка колдонуучуларга акы төлөмдүн негизинде жүргүзүү ситемасына өтүү көйгөйлөрү каралган.

**Аннотация:** В этой статье рассмотрены проблемы перехода метеокомпаний на рыночные условия хозяйствования и обеспечения части своей деятельности за счёт оказания платных услуг населению и субъектам хозяйствования.

**Abstract:** This article deals with the problems of transition of meteorological companies to market conditions of management and provision of part of their activities through the provision of paid services to the population and business entities.

**Ачык сөздөр:** айыл чарба, метеорологиялык кызмат көрсөтүүлөр, агрометеорология, таасирдуу башкаруу, аба ырайы, мобилдик байланыш, СМС билдирүү жөнөтүү, колдонуучулар.

**Ключевые слова:** Сельское хозяйство, метеорологическое обслуживание, агрометеорология, эффективное управление, погода, мобильное соединение, отправка СМС, потребители.

**Key words:** agriculture, meteorological service, agro meteorology, effective management, weather, mobile connection, SMS sending, consumers.

There are quite good conditions for the development of multi sectoral agricultural production in Kyrgyz Republic. There are more than 1.2 million hectares of arable land, that is, a sufficient base for plant growing. However, agriculture is strongly dependent on weather and climate. It needs in reliable forecasting, because such factors as air humidity, soil temperature, rainfall, heat and light influences the productivity of fields. Unfavorable weather conditions directly affect crop yields, and, consequently, production costs, product sales volumes, profit margins and profitability. Such phenomena as drought, rainstorms, dust storms, hail, strong wind, inadequate snow cover in the fields, floods and other natural phenomena can inflict enormous damage to crop production and horticulture. Therefore, the development of meteorological services becomes more relevant, to be precise, agro meteorology.

Meteo service is provided to the population and economic entities based on monitoring of atmospheric air pollution and unfavorable weather conditions for dispersal of harmful impurities in the territory. In our opinion, public authorities poorly control the development of the meteorological services system. Often, because of lack of control, inaccurate information is received by the media, the Internet, which, during periods of abnormal weather and emergencies, misleads the population and causes confusion in the organization of preventive measures. Meteoservice is a useful work of meteorological companies' employees, including the actions of their infrastructural branches, aimed at collecting, processing weather and environmental data provided to the population and business entities to meet the needs. Consumers of meteorological services are the population, business entities, public authorities and municipal government.

Agriculture is one of the priority areas of the economy. It provides employment for half of the able-bodied population of the Kyrgyz Republic and gives a fifth of GDP. More than half of the population lives in rural areas. However, we must admit that the current state of agriculture is far from what is desired. This branch continues to be inefficient and low-profit, with many problems that need to be addressed. Crop yields, livestock productivity have not yet reached even the soviet union level, not mention the level of developed countries in the world. In Kyrgyzstan, the main part of the output in agriculture is provided by farms, (as of October

2014, the number of which is more than 330 thousand). The level of profitability of these farms is different "[1].

According to the opinion of the Jogorku Kenesh's deputy of the KR, economist Ekmat Baibakpaev, "Now compared to 1990, we produce coal 3 times less, 18 times reduced the production of meat and food by-products of cattle, 5 times less the processing of sausages, 6 times less butter production, 15 times lowered the production of sugar, the production of fermented tobacco decreased 8 times, and cigarettes - 4 times.

In 1990 Kyrgyzstan produced 92 million m<sup>2</sup> of cotton fabric and 12 million m<sup>2</sup> of wool, and today we do not actually produce these fabrics. The textile production of Kyrgyzstan has died, then at the same time the production of wool (no fine-fleeced sheep) has decreased threefold in comparison with 1990 and the cultivation of cotton has decreased several times. The same can be said for tobacco, tobacco production was ruined - the cultivation of tobacco crops decreased by 40 times! The production of canned goods has been destroyed - the cultivation of vegetables and fruits has significantly decreased. Fortunately, a sugar refinery is reviving - now farmers are learning to sow sugar beets again. " [2]. The economic success of agriculture is effective management, through the use of science and proven technology, to obtain high productivity.

Today, weather services have switched to market conditions of management, to support their activities by providing paid services to the population and business entities, but the conceptual framework and mechanisms for achieving this goal have not been worked out. As a result, the quality of meteorological services decreases, adversely affecting the national economy and the social well-being of the population. At the same time, the vital activity of the population, business entities, state and municipal government bodies largely depends on the quality of the provision of meteorological services, as well as on the possibilities of free access to the information contained in them. Timely weather services containing high-quality information allow the state and municipal authorities, as well as special services of the Ministry for Emergency Situations, to react promptly to storm warnings, floods, earthquakes, the approach of a whirlwind, the precipitation of a large amount of precipitation, a sudden change in temperature, predicted for three days and beyond half an hour before the onset.

According to the press service of the Ministry of Agriculture and Land Reclamation of the Kyrgyz Republic, snowfalls falling on 30-31 March 2015 throughout the country were accompanied by frosts to minus 10 degrees below zero in the southern regions of the republic and below zero in the northern regions. The Ministry sent out telephone messages to the Plenipotentiaries of the Government of the Republic in the regions. According to the preliminary results of the survey, mainly fruit trees, especially apricots, and berry plantations were affected in the Osh oblast, in particular in the Aravan, Kara-Suu, Nookat, Kara-Kulja and Uzgen districts. In the Jalal-Abad oblast, apart from the fruit plantations, potato plantations and crops of vegetables and melons have suffered. In the Batken region, the largest damage is caused to fruit plantations, especially apricots, as well as planting potatoes. The flowering ovary of fruit and berry plantations, as well as the crops of spring crops (perennial grasses, barley, and vegetables) were lost everywhere in Chui oblast [3].

"Weather forecasting has always been considered very important for the economy. According to calculations, 1 dollar of investments in meteorology helps to avoid losses from the influence of adverse weather conditions and natural disasters for up to \$ 15 "[4].

As the experience of other countries shows, timely information about weather conditions can be applied by farmers to optimize the storage and transportation of agricultural products, reducing losses after harvesting. Forecasts can also help in optimizing livestock grazing in livestock and increasing in the level of fisheries, since rainfall impacts on availability of forage crops, and livestock health depends on a control system that takes into account the influence of temperature and wind.

Currently, only the Hydro meteorological Service under the Ministry of Emergency Situations of the Kyrgyz Republic, which has a license for this type of activity, operates on the

domestic meteorological services market. This agency has the right to conduct various scientific research in the field of hydrometeorology, create weather forecasts for which it is legally responsible. We consider that this agency should provide its customers with a quality service, constantly increasing and developing market relations in this sphere of the service sector. After all, this is still an insufficiently mastered segment of economic activity in Kyrgyzstan.

In accordance with paragraph 17 of Article 9 of the Law of Kyrgyz Republic "On the Development of Agriculture of Kyrgyz Republic," information and consulting support for the implementation of the state agricultural (agri-food) program of Kyrgyz Republic, public support for the development of the agro-food sector of the economy of Kyrgyz Republic is carried out in accordance with the legislation of the Kyrgyz Republic, at the expense of the state and local budget.

According to the World Bank and InfoDev, in Kyrgyzstan, 96% of the population is provided by mobile connection, and according to Internet World Stats, Kyrgyzstan leads in Central Asia in terms of Internet usage from 39.3%. Such data testify that today's Kyrgyzstan not only tries to keep up with the rest of the world in the development of modern ICT, but even seeks to take the lead. [5]

According to the "analysis of the needs of Kyrgyzstan's regions in information and communication technologies" of the Soros Foundation-Kyrgyzstan (as for 2012), six mobile operators are in action on the mobile communications market. According to the survey, the mobile market in Kyrgyzstan is mainly divided between two mobile operators: Megacom and Beeline. Megacom is leading with 53% of the total number of cellular subscribers in Kyrgyzstan, Beeline lags behind with 37%, and about 8% from operator "O". The share of the rest of the operators: Nexi, Fonex and Katel - on a country scale is insignificant. Presumably, large cellular operators have in Kyrgyzstan 2-2.5 thousand base stations [6].

Abroad, quite a long time successfully operates a mobile marketing tool SMS sending as an effective resource for increasing profitability in certain sectors of the economy.

From a legal point of view, it's just an offer for a certain period of time with the definition of the cost for meteorological services. For example, in India, the cost of an annual subscription for SMS sending is 999 Indian rupees, about \$ 20. And in China, the cost of meteorological services is \$ 6 per year. Such a low price is due to the social policy of the state. Through mobile communication and various applications, the Chinese authorities intend to reduce the information gap that exists between the city and the countryside.

If the Government of the Kyrgyz Republic, local executive authorities and local self-government bodies in their areas can conclude a three-part contract for meteorological services, with the distribution of rights, obligations, authorities and financial responsibility, it would solve the issues of providing timely information to weather forecast consumers. In conclusion, I would like to note that providing farmers of Kyrgyzstan with operational weather information via SMS would enable them to make informed decisions that will lead to increased production volumes at the expense of loss prevention, or to benefit from productivity gains.

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