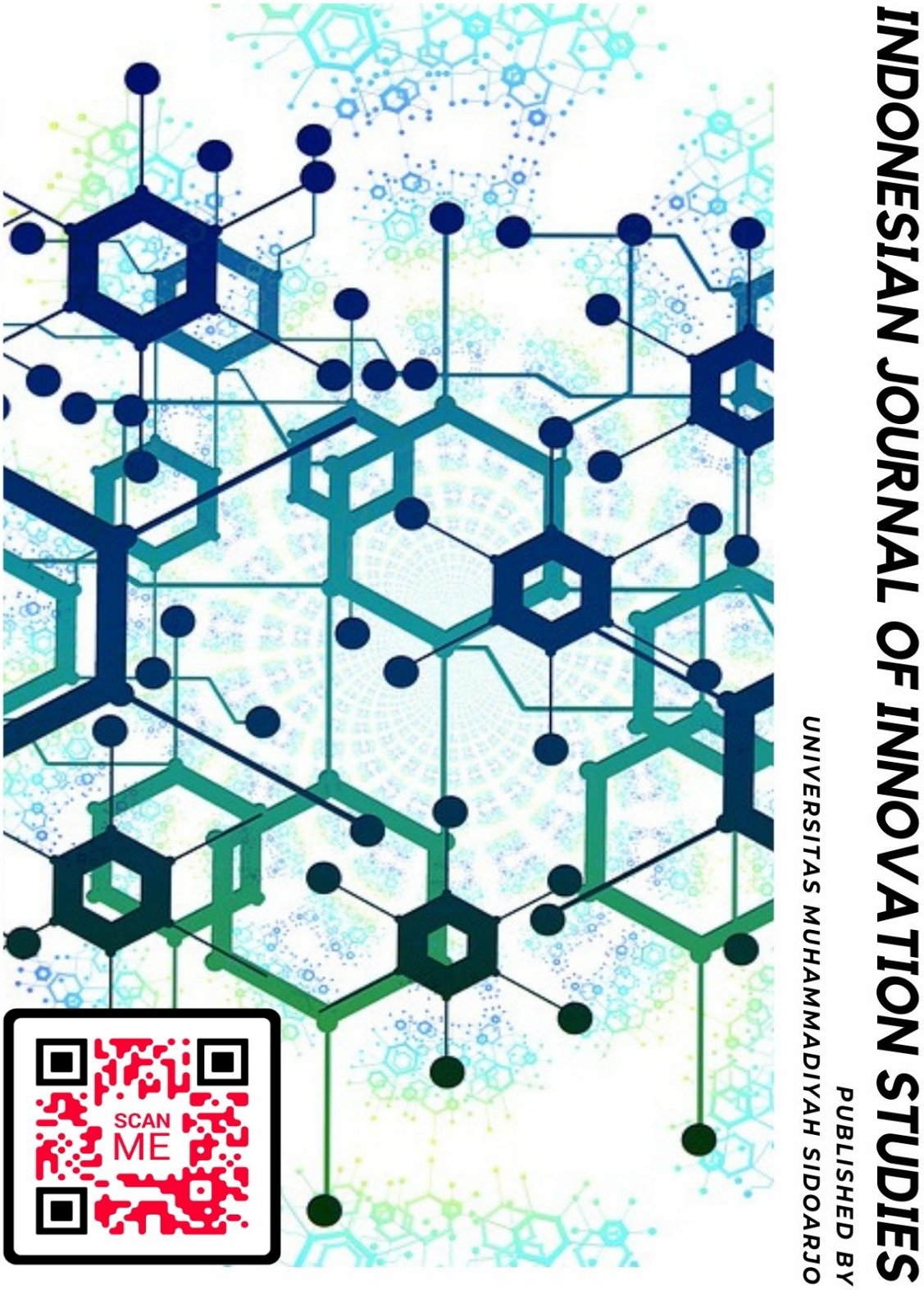
Indonesian Journal of Innovation Studies
Vol. 7 (2019): July . Article type: (Innovation in Ecology)

Table Of Content

ISSN 2598-9936 (online), https://ijins.umsida.ac.id, published by Universitas Muhammadiyah Sidoarjo

Indonesian Journal of Innovation Studies
Vol. 7 (2019): July . Article type: (Innovation in Ecology)



ISSN 2598-9936 (online), https://ijins.umsida.ac.id, published by Universitas Muhammadiyah Sidoarjo

Originality Statement

The author[s] declare that this article is their own work and to the best of their knowledge it contains no materials previously published or written by another person, or substantial proportions of material which have been accepted for the published of any other published materials, except where due acknowledgement is made in the article. Any contribution made to the research by others, with whom author[s] have work, is explicitly acknowledged in the article.

Conflict of Interest Statement

The author[s] declare that this article was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright Statement

Indonesian Journal of Innovation Studies
Vol. 7 (2019): July . Article type: (Innovation in Ecology)

EDITORIAL TEAM

ISSN 2598-9936 (online), https://ijins.umsida.ac.id, published by Universitas Muhammadiyah Sidoarjo

Indonesian Journal of Innovation Studies
Vol. 7 (2019): July . Article type: (Innovation in Ecology)

Article information

Check this article update (crossmark)

Check this article impact (*)

Save this article to Mendeley

(*) Time for indexing process is various, depends on indexing database platform

ISSN 2598-9936 (online), https://ijins.umsida.ac.id, published by Universitas Muhammadiyah Sidoarjo

Indonesian Journal of Innovation Studies
Vol. 7 (2019): July . Article type: (Innovation in Ecology)

Salinization of soils of adyr as a result of irrigation farming in the possibility of its elimination

Koriyev Mirzokhid Rustamjonovich, koriev_m@umail.uz, (1)
Namangan State University, Uzbekistan

(1) Corresponding author

Abstract

The article discusses the salinization of adipose soils as a result of the development of irrigated agriculture on these lands, especially because of the cultivation of moisture-loving crops, and a set of measures for its prevention is proposed.

Published date: 2019-10-17 12:12:18

ISSN 2598-9936 (online), https://ijins.umsida.ac.id, published by Universitas Muhammadiyah Sidoarjo

Introduction

Adyrs west of Namangan region, ie Chadaksoying river, partially north-east, kangol polosan Eggalab, Pop, Chust, Turakurgan, Kosonsoy, Namangan, Yangikurgan, Chortok and Uchichi fog. The total area of Adirning is 418 thousand hectares, with firearms in the region with a weapon in the area (dumps are sold at an altitude of 400-600m), typical (600-900m) and hill (dc). 900 to 1600 m) The tugai forests today are widespread. For this purpose, the Adyrs were relocated to the kangaroo scale for irrigation purposes. As the history progresses, in the year 1942, as a result of the Chosin canal, which was 40 km long due to fog in Kosonsoy and Chust, some 4,500 hectares of land have been reconstructed. In addition, the extension of Hodikent's canal also contributed to the expansion of the area. As a result of the construction of irrigation structures and artesian wells in 1966-1970, some 16,700 hectares of men were reconfigured and 6,000 hectares of Adlerin canals were frozen. Therefore, the construction of the canal in Kathmandu has resulted in the addition of 20 thousand hectares of men to irrigated agriculture [3]. This process has continued at high speeds in the years, and today, more than 70% of the newly irrigated men (237.8 thousand [1]) in the province have been formed [2,4].

The most well-known admirers are the eloquent speakers, highlighting the adorable and geoecological problems of the adrenal glands, the uranium mineralization, the laryngeal mineralization, the larynx lizards. However, the bungalow was not taken seriously and the reunification of officials continued. Finally, as the gospel was preached, a number of geo-ecological problems were formed in Adir. These may also include saline precipitation.

Main part

Widespread in the Adyrs, today the salivations are subject to varying salts. Weight of 150-180 cm (100 cm in part cuts), gypsum and salts easily dissolved in salts are dissolved in kang and salt in gypsum packing is 1.1-1,4%. Typically, salts dissolved in saline at a depth of 120-150 cm in saliva range from 0.3-0.5%, but in typical gypsy horizontal horizontally saline salts dissolve in salts 1-1.3% [5] . The canal and salts for irrigated agriculture have been melted down. Tuzning is part of the moist capillaries with the humid Japorigan capsule, the temperature is influenced by the condensation of the canal, and the salt or tuberculosis is deposited in the upper layers. As a result, the problem of tetanus sulfate and chloride-sulfate re-salinization has been formed in adir. Highly saline, highly saline sedimentary canals move from the hills to the hills; Ultimately, the Tekiclars' connections to the Adyrites are still salting, and this process continues unabated. Small sludge springs, which have been cut off from the springs from the Adyrs, have also had a dramatic effect on the rapid rise in rainfall. Irrigation canals and salts with mineral fertilizers, which are used for irrigation, are also one of the most important tools for salinization of irrigation farms.

ISSN 2598-9936 (online), https://ijins.umsida.ac.id, published by Universitas Muhammadiyah Sidoarjo

Figure 1. *Soils in the northeast of the Namangan region progression of salinity*

Soil salinization in the northeastern hills of the Namangan region is mainly developed in the lower slopes, in the flood plains and in the foothills. In these areas, the proportion of dusts is much higher, with large numbers of salts accumulating on the top of the soil, whitening and visible (Figure 1). And above the slopes in the lower slopes, soil salinity decreases.

According to observations, saline and saline soils are more common on rocky terrain. This is due to the fact that the water soaked in the ground as a result of irrigation is easily formed from the gravel layer near the bottom of the slope. Excessive moisture caused by the evaporation of water during the vegetation period also leads to the salinization of many areas. According to many years of observations, many springs have formed in the foothills of the hill, and their numbers and water have increased greatly as a result of intensive irrigation. The waters of the springs merge to form large and small streams, and they flow towards the plain. With the onset of the growing season of agricultural crops, the intensification of irrigation processes contributes to the increased amount of water added to the streams. Due to the high salinity of these streams (especially during the winter months) they are considered unsuitable for watering livestock. However, the fact that these waters are used for irrigation to soil, which is a living organism, will further aggravate the salinization problem that is currently occurring in large areas. As can be seen from the above, the salinization of the following plains is significantly affected by the salinization of the hill (the fact that the saline groundwater, which is absorbed by the ground, increases groundwater levels in the plains and is used for irrigation of saturated streams from saline springs). Ignoring this can lead to a dramatic increase in the scale of the problem in the future.

Conclusion

In order to further develop ecologically safe agricultural sectors, increase crop yields and, most importantly, prevent soil salinization in the Adir region, the following important measures should be taken:

1. To completely stop the development of hills for irrigated agriculture;

2. Development of low-watering crops (wheat, peas, etc.), severely restricting the planting of many water-intensive

ISSN 2598-9936 (online), https://ijins.umsida.ac.id, published by Universitas Muhammadiyah Sidoarjo

crops (cotton, onions, carrots, potatoes, peppers, etc.);

3. Widespread introduction of low water intake systems (horticulture, viticulture, etc.) due to the low number of crops per unit area;

4. Expanding the network of non-irrigated - rain-fed and semi-irrigated melons (development of rain-fed and semi-irrigated melons in the areas of typical hilly areas with annual rainfall of 250-300 mm);

5. Elimination of water wastage as a result of improper and unauthorized use of water (for this purpose it is necessary to strengthen control measures and, consequently, to provide recommendations of qualified agronomists);

6. Implementation of innovative water saving technologies (drip, sprinkler, fog irrigation, etc.) in the Adir region;

7. Development of rain-fed farming systems based on long-term preservation of soil by creating a suitable barrier against the targeted collection of atmospheric precipitation and evaporation of natural moisture accumulated in the soil. pohol, rice porridge, manure, and the best polyethylene film can be used).

Acknowledgement

We hereby say thankyou to Namangan State University for supporting our research

References

1. A. Soliev. Geography of Uzbekistan. Tashkent. - 2014. - 387 p.
2. A. Kazakov. Use and protection of the Fergana Valley hills. Ecological situation in the Fergana valley and directions of their change // Materials of the Republican scientific-practical conference "Ecological and geographical bases of protection of the nature of the Ferghana Valley" - Namangan.- 2003. 36-38p.
3. O. Mirzamahmudov, K. Boymirzaev. Assessment of landscape and environmental conditions of the hills of Namangan region. T .: 2011, - 122 p.
4. O. Mirzamahmudov. Geoecological problems of the northern Fergana hills. Use and protection of the Fergana Valley hills. Ecological situation in Fergana valley and directions of their change // Materials of the republican scientific-practical conference "Ecological and geographical bases of protection of nature of the Fergana valley" - Namangan.- 2003. 49-51.
5. Sh. Halikulov, P. Uzoqov, I. Bobokhodjaev. Soil science. T .: 2011, - 571 p.

ISSN 2598-9936 (online), https://ijins.umsida.ac.id, published by Universitas Muhammadiyah Sidoarjo