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Issues Related to Legal Protection of Wild Plants

Aida Bagratovna Iskoyan*

Recently, the Soviet public and its government have devoted particular attention to increasing protection of the plant kingdom as a component of the natural environment. The last two decades have been characterized by significant advances in measures that increase protection of the environment and improve the way natural resources are utilized. The greatest progress has been achieved in protection of such environmental components as minerals, water, forests, atmosphere, and the animal kingdom. In contrast, no significant measures have been taken to protect and regulate the use of the plant kingdom during this period, thus causing this area of environmental protection to lag behind the others.

The increasing scale and rate of exploitation of the plant kingdom for industrial and domestic uses has had a negative impact on this component of the environment. It has become essential to devote special attention to this area in order to ensure efficient utilization and protection of plant resources. Social recognition and awareness of this need is reflected in all areas where human activity is regulated — policy, law, administration, education, and instruction.

The vital need to protect and efficiently utilize all wild plants, not just forest vegetation, has led to the appearance in our country of legislative resolutions which refer to the plant kingdom as a natural object, distinct from forests. This type of resolution can be found in republic laws on environmental protection. Thus, according to Section 6 of the Law to Protect the Environment in the Russian Soviet Federated Socialist Republic (RSFSR) of September 27, 1960, not only should

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forests and tree nurseries be subject to protection and regulated utilization, but so too should natural (wild) plants. Natural plants serve as: a diet for free-roaming domestic animals; a source of food products, medicinal and industrial raw materials; a reserve supply of species for those plants under cultivation; a means of soil stabilization; and an important component of the environment which enriches the soil and affects climate and water conditions.[1] Analogous formulations can be found in the environmental protection laws of the other union republics.

The USSR Constitution of 1977 is the first Soviet constitutional legislation to use the concept of "plant kingdom."[2] Article 18 of the USSR Constitution states that in the interest of present and future generations, the USSR is taking the measures required for the protection and the scientifically justified efficient use of the Earth, its mineral resources, water resources, and plant and animal kingdoms in order to purify and enhance the quality of the air and water, in furtherance of the replenishment of natural resources and improvement of man's environment.[3] In the text of this statute, the plant kingdom is cited as equal in rank to the animal kingdom.[4] This implies that the plant kingdom is acknowledged in the USSR Constitution as an independent component of the natural environment and thus, an independent object of protection and regulated use — as independent as the animal kingdom, the Earth and its minerals, water, and air.

If the plant kingdom, like the animal kingdom, is a separate component of nature with similar characteristics and traits, then it follows that this legal concept may legitimately be developed by analogy. First of all, we must start with general theoretical propositions concerning the distinction between natural and manmade objects by dividing all species into categories of either wild or cultivated (agricultural, gar-

1. Journal of the RSFSR Supreme Soviet, No. 40, 586 (1960).

2. Constitution (Fundamental Law) of the Union of Soviet Socialist Republics Art. 18, *reprinted in* The Constitutions of the USSR and the Union Republics, 85 (Feldbrugge ed. 1979).

3. *Id.*

4. *Id.*

den, etc.). In the opinion of the writer, the wild category should include plants which arose through evolution and took shape in the process of historical natural development on Earth, those which grow and retain all the traits of their species under natural conditions without any intervention from man. The category of cultivated species should contain only those plants which were bred by man and can grow and retain all the traits of their species only through man's intervention. Thus, under these categorizations, only wild plants should be considered to be a part of the plant kingdom.

When deciding the question of the species composition of the plant kingdom in specific instances, much will depend on whether a particular species has been officially defined as wild or cultivated. Of course, differences of opinion and disputes might arise over this question and these would complicate any legal regulation and possibly decrease the efficacy of protection of the plant kingdom. In order to effectively deal with this problem, it is essential that a government census and survey or inventory of the plant kingdom be performed. The data generated by the survey will make it possible to decide, when necessary, whether a given species of plants belongs to the category of wild plants, and thus to the plant kingdom. Hence, if a dispute exists on whether a plant belongs to one or the other category, the disputed plant must be considered a member of the plant kingdom and classified as wild until the contrary has been duly established. The burden of proof will lie on the side which asserts that the given plant belongs to the cultivated category. Further, on analogy with the concept of the animal kingdom, only plants which grow in a state of natural freedom, without intervention from man, in any natural medium, on land, in the water, or at the bottom of bodies of water, will be considered wild. Thus, both land and aquatic plants will be considered members of the plant kingdom.

It is important to emphasize that only living wild plants belong to the plant kingdom. Plants that have died from natural causes, which have been collected and separated from their natural living conditions, preserved, bred, and transformed into manmade products, do not belong to the plant kingdom. Similarly, plants which, although living, are isolated

from their natural environment and maintained in artificial conditions (e.g., replanted in pots, winter gardens, greenhouses, plantations, etc.) are not to be considered representatives of the plant kingdom. In the legal sense, they are excluded from the plant kingdom since they have become manmade objects and property of man.

Finally, we must emphasize that only wild plants which grow in a state of nature in the territory of the Soviet Union, on the land and in bodies of water, including the inland seas and the territorial waters of the USSR, belong to the plant kingdom. This is related to the spatial boundaries of the jurisdiction of the Soviet state, its sovereignty over natural resources, and its internationally acknowledged power to regulate by means of its national (intrastate) laws.

The above gives a basis for proposing the following definition of the legal concept of "plant kingdom of the USSR." The plant kingdom is composed of the totality of wild plants, land and aquatic, growing in a state of nature on the territory of the Soviet Union or within the limits of the continental shelf of the USSR.

This definition and the traits described above are of great significance for determining the sphere of legal regulation for the protection and utilization of the plant kingdom through Soviet legislation, and for resolving the issue of the status and condition of the plant kingdom as a natural object. In the legal sense, acknowledging that the plant kingdom encompasses only wild plants growing in a state of nature does not imply that legal regulation of the plant kingdom must be exclusively limited to matters directly concerning such plants. To protect the plant kingdom it is necessary to regulate preservation, trade, and processing of products, the establishment and maintenance of genetic banks either as seeds or as wild plants grown under artificial conditions, and the establishment and maintenance of herbaria and other collections. Such matters, both their current status and future trends, influence the state of the plant kingdom and aid in solving problems related to the protection and maintenance of efficient utilization.

As a result of research performed by botanists, it is clear that there are almost four hundred species, approximately one

fifth of the total flowering and vascular sporophyte plants in the USSR, in need of some kind of special protection.[5]

The essence of protection of the plant kingdom, in our view, is to ensure a state of the plant kingdom which is beneficial and favorable to humans. Such a state can be attained through conditions of continuous and comprehensive economic and social development that increase the utilization of the plant kingdom as a natural resource. There are a number of interrelated tasks entailed by this goal.

One of the tasks involves ensuring optimal functioning of the plant kingdom as one of the major components of the natural environment. As a producer of oxygen it predetermines the state of the natural environment as a whole. Another task is to ensure that the bioproductivity of the plant world is maintained at a sufficiently high and stable level in each individual ecological community in every area of USSR territory. First and foremost, this means supporting the optimum capacity of wild plant communities which serve as food resources for agriculture, sources of medicinal and industrial raw materials, or food for the population. The third task involves supporting useful properties of the plant kingdom as one of the most important factors in the population's good health and recreation, in the national culture, science, aesthetic education, etc. The final task involves protecting the variety of species of wild plants within the plant kingdom in the USSR and not allowing a single species of wild plants to be destroyed.

To perform each of these tasks the state must select and put into practice the necessary techniques and methods of implementation. These techniques are of great significance to the improvement of legal regulation in this area. The issue of precisely how plant protection is to be implemented legally, to accomplish the tasks just listed, warrants scientific discussion.

Conservation of species of wild plants is a rather difficult matter under modern conditions, especially when the indus-

5. Redkiye i Isccchesayushchiye Flora SSSR, Nuzhadyushchiyesya v Oxrane [Rare and Endangered Species of the USSR Requiring Protection] 8 (Academician A. Taakhtadzhyan 2d ed. (1981)).

trial and human impacts on the plant kingdom are increasing in magnitude, rate, and complexity. Legislative acts must incorporate the principle that all species of wild plants, whether beneficial or harmful, are subject to legal protection. All legal standards regulating procedures for utilizing and protecting wild plants must be in accord with this principle. The proposal to introduce such a principle into legislation does not mean that each plant must be left inviolate. Picking wild plants or destroying them in the process of pasturing livestock, haymaking, or weed control is completely permissible and, in some circumstances, essential. However, this must be done in such a way so that no species of wild plant is completely destroyed, including species which are currently considered harmful. This must be achieved through appropriate legal regulation of the use of the plant kingdom. This approach is needed because people's ideas about the utility or harmfulness of species of wild plants are relative and variable. Due to today's level of scientific knowledge and the existing technological devices and production processes relevant to the plant kingdom, certain wild plants may be considered harmful. However, as a result of expanding and deepening scientific knowledge, and the development of engineering and technology, the virtues of these plants may come to light and thus be classified as useful. Moreover, the loss of these species may turn out to be an unforgivable mistake for humanity. In addition, the variety of plants which, obeying the laws of nature, interact in the process of their existence guarantees the viability of entire natural aggregates, ecological communities, and extensive ecological systems.

Two opposite legal principles can be pursued to approach the legal regulation of the protection of wild plants:

1) it is permissible to pick all wild plants, except those which are forbidden; or
2) it is permissible to pick only those plants which have been explicitly permitted by the appropriate state agencies

At present, the first of these principles is operative. Undoubtedly, however, it will come to the point where we have to abandon this principle and begin to regulate in accordance

with the second principle, i.e., introduce a licensing system for the picking of medicinal and industrially useful plants in the wild.

Special attention must be paid to both rare wild plants and species in danger of extinction. Their protection is one of the most urgent tasks within the system of legal measures for protecting the plant kingdom. This issue requires increased attention to a number of points.

On one hand, there is the value of the plants themselves. Rare and endangered plants tend primarily to be those which have properties extremely useful to mankind. The extinction of any of these species would be an irreplaceable loss to humanity. On the other hand, awareness of the need to protect these plants always comes too late. It is no coincidence that twenty-five thousand species of wild plants worldwide are today on the verge of extinction.[6]

In our country, in accordance with the April 12, 1983 decree of the USSR Council of Ministers, entitled "On the USSR Red Book,"[7] plant species included in this book are subject to special protection throughout the territory of the USSR. Picking these plants is forbidden, with the exception of instances where such acts are permitted by USSR legislation on the basis of permission from the USSR Ministry of Agriculture. At present there are 444 species of vascular plants in the Red Book.[8] The plant species included in the USSR Red Book are also included in the Red Book of a union republic if they constantly or temporarily grow within its territory. Of the 444 species included in the USSR Red Book, fifty two species are in the Armenian SSR.[9] However, because of the extensive picking of rare and endangered plants for medicinal or culinary purposes, the actual number of indigenous plants listed as endangered species and still growing in the wild is decreasing sharply. Thus, plants acknowledged to be

6. D. Fisher, N. Simon, & D. Vincent, Krasnaya Kniga, Dikaya Priroda v Opasnosti [Wild Nature in Danger, Red Book] 17-31 (1976).

7. Collected Decrees of the USSR, No. 12 (1983).

8. Krasnaya Kniga SSSR [USSR Red Book] 181-451 (1978).

9. E. Airapetyaan & L. Arytyunyan, Principles of Environmental Protection 125-26 (1983).

rare and endangered, those subject to special protection, must not be utilized, although in actuality, they continue to be picked and utilized. This issue requires special study and resolution at the level of the USSR government.

In the opinion of the writer, the fundamental requirements of plant protection must be directed at protecting the conditions and locations where rare and endangered species of wild plants grow. It is possible that, despite all the measures taken, some species of wild plants will not survive under natural conditions. However, it will still be possible for such plants to be maintained under artificial conditions with subsequent return to the natural environment, as has occurred with certain species in the animal kingdom. For example, as one of the measures directed at protecting and restoring the population of rare and endangered plants in the Armenian SSR, the Armenian Academy of Sciences conducts work necessary for the timely identification of species of plants which require protection and includes them in the Armenian SSR Red Book. Working jointly with similar organizations, the Republic's Academy of Sciences is developing a comprehensive program for protecting and restoring populations of rare and endangered plants (those included in the Red Book) growing on Armenian territory, and has introduced their cultivation in botanical gardens with the goal of replenishing the population and of maintaining a gene bank of wild relatives of cultivated plants.

The importance of legal protection of rare and endangered species of wild plants in the Soviet Union, as throughout the world, was underestimated and only minimally observed for a long period of time. Recent work in this area, however, has increased substantially and a variety of legal forms of protection have appeared. These protections developed in the past, are used in combination today and fall into four categories:

1) establishment of preserves, reserves, national parks, and natural monuments which, taken together, are referred to in the literature as the "preserve form" of environmental protection;
2) bans on picking certain wild plants in a given area, on

producing raw materials out of these species, and on selling products made from them, accomplished by decrees of the Council of Ministers of the union and autonomous republics and by resolutions of the ispolkoms of local councils of People's Deputies;

3) establishment of the USSR Red Book and Red Books of union republics and inclusion of rare and endangered plant species in them, with all the legal attendant consequences; and
4) conserving (restoring) rare and endangered wild plants under artificial conditions.

From the first years of its existence, the Soviet state devoted a great deal of attention to issues of environmental protection. In those early years, the scientific concepts of rare and endangered wild animals and plants had not yet been developed; however, the Soviet state demonstrated concern with their conservation by establishing preserves for unique natural formations. The first Soviet preserve, the Astrakhanskiy Nature Preserve created in 1918, stipulated strict protection of wild plants (virgin growth) along with other elements of the natural environment, particularly the water lotus, water chestnut, and salvinia, whose special value and uniqueness was recognized even then. Thanks to the creation of the Astrakhan Preserve, thickets of these plants belonging to the plant communities of the Volga Delta have been preserved. In view of the scientific and practical significance of wild wheat, a Decree of the Armenian SSR government organized the Erebuniys Preserve in 1981 where the only wild wheat in the territory of the USSR has been grown. Work has continued on the improvement, enrichment, and more efficient use of the gene bank of the Preserve.

The "preserve form" of conservation of rare and endangered species of plants is currently used extensively in the Soviet Union. However, its effectiveness depends on how strictly the protection requirements of the state nature preserves, reserves, and natural monuments are enforced.

How should the legal protection of rare and endangered plants be implemented in state nature preserves? This question is quite important, since its answer may entail very sub-

stantial restrictions on economic activity in extensive areas, and this, in turn, affects the economic and social development of regions and sectors of the national economy. It is not surprising that in recent years both open and clandestine opposition of environmental protection measures has been increasingly encountered. For example, ginseng, a rare species, has been included in the USSR Red Book and its picking is forbidden. However, in actuality, ginseng processing continues. The question arises as to whether the USSR can totally stop the picking, processing, and purchasing of wild ginseng if medicinal preparations made from it remain in medical practice. Analogous questions can be formulated with regard to many other species of wild plants included in Red Books. It is evident that this issue requires special study and solution at the level of the USSR Council of Ministers. In the opinion of the writer, the fundamental principles and requirements of protective measures should be directed at protection of the habitats of rare and endangered plants. Habitat protection, however, also entails some curtailment of the rights of users of land, water, forests, and the animal kingdom. For this reason, the type of protective measures must be carefully thought out and weighed so they do not subsequently prove to be unenforceable in practice. In practice one cannot totally prevent the disappearance of species in the wild, despite all the measures taken. However, a species may be maintained under artificial conditions, followed by its return to the natural environment. This type of function is currently assigned to state botanical gardens and arboretums.

On the basis of the above discussion, the writer concludes that protection of the plant kingdom through Soviet legislation can be ensured in the following ways:

1) establishment of rules and standards for efficient use and replenishment of the plant kingdom;

2) establishment of bans and limitations on use of the plant kingdom;

3) protection from unauthorized use and other violations of the established utilization procedures;

4) protection of the conditions under which wild plants grow;

5) prevention of the extinction of species of wild plants through industrial use;

6) creation of preserves, reserves, and other protected areas;

7) cultivation of rare and endangered species of wild plants in artificial environments;

8) restriction of the picking of wild plants and their fruit for the needs of the population and economy;

9) performance of measures to transplant and acclimatize species of wild plants;

10) organization of scientific research directed at establishing the scientific bases for measures to protect the plant kingdom.

This discussion has shown that today the USSR has no legislative act specially and completely devoted to the protection and utilization of the plant world, and that this situation is not consistent with the growing requirements for protection and improved utilization of plant resources. For this reason, it would seem expedient for a USSR law, as well as laws of the Union republics or other legal instruments, to be adopted concerning the protection and utilization of the plant world. Such laws would help to solve problems involving the legal regulation and utilization of wild plants.