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Environment

Early Soviet Commitment to Environment Protection and its Decline

- Features -

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This paper argues that while the environmentalist movements have often charged that Marxism has been productivist and has ignored the ecological concerns, the reality is more complex. The focus has actually been on Stalinist industrialisation and similar processes. It will be necessary to look at the early Soviet period, when a wide ranging attempt was made at conservationism.

Between 1918 and 1929, through complex struggles, but with a good part of the new state apparatus supporting them, the partisans of ecological conservation scored major victories. What was achieved was well in advance of anything that existed in the capitalist countries. It was Stalin's revolution from above, which ended the last traces of direct working class power and established a bureaucratic dictatorship, that also saw two waves of attacks on the conservationists. The relationship between state, party and scientists and environmental activists was transformed with the proclamation of dialectical materialism as super science over particular sciences.

The attack on Soviet biology and ecology, led by I. I. Prezent and T. D. Lysenko stressed that scientific theory had little use if it did not enhance economic competitiveness with the West or ideologically justify the growing dictatorship. By the mid-1930s, the idea of socialist conservationism was decisively defeated, but this was part of the transformation of the idea of socialism into a bureaucratic rule.

Socialism and Environmentalism

Instead of looking at hostile critics, I propose to start by citing a Marxist political document of considerable importance, adopted in the early 21st Century. In its 15th World Congress, the Fourth International adopted a resolution on Ecology and Socialism. While putting forward a Marxist case, the document stated, as something taken for granted:

"At present, we can distinguish among four currents in parties and unions that claim to speak for the workers: ... d) The fourth current, in the minority, but far from negligible in numbers, is eco-socialism, integrating the fundamental achievements of Marxism - while ridding it of its productivist dross". [1]

In other words, that Marxism meant a productivist approach has become a routine position even among the left. I exclude those on the left for whom any concern with the environment is petit-bourgeois or utopian.

The first problem such an approach comes up against is the set of extensive notes and writings of Marx and Engels. The present writer has discussed that dimension elsewhere, and a much more significant work exists, namely John Bellamy Foster's Marx's Ecology. [2] In this paper we will be more concerned with the argument that twentieth century socialism had a purely productivist orientation, by looking at the experience of the Russian revolution.

In pre-revolutionary Russia there were three conservationist currents. Journals, societies, a semi-governmental commission, and a network of professional ties had linked them. One of these currents, which could be said to be anti-industry, anti-modernism, was represented by A. P. Semyonov-tian-shanskii, I. P. Borodin, and V.E. Timonov. They idealized an agrarian golden age when the earth had not been ruined by humans. They also tended to argue that humans had originally been children of nature, and by removing themselves from nature they were denying themselves the ability to satisfy human aesthetic needs. This current was profoundly influenced by neo-romanticism.

Hugo Conwentz, the German conservationist, influenced Borodin.

A second position was utilitarian. The most important Western study, that of Douglas Weiner [3], uses a translated term – wise-useâ€"to describe them. They were growth oriented and rather statist. They defined resources narrowly, based on the criteria of contemporary utility. For them, conservation was selective. Things and beings whose economic value was as yet unproved were excluded from their excluded from their concerns. The more extreme among them schematically divided life forms into useful and harmful categories, and desired the annihilation of the latter. They were not interested in maintaining the integrity of ecological systems. So they were willing to trim ecological issues to fit them into political and economic goals created without ecological considerations. One can mention here people like A. E. Fersen and the zoologist N. M. Kulagin.

The third position was taken by people like G. A. Kozhevnikov and V. V. Stanchinskii. They presented themselves as politically progressive scientific materialists. It has to be understood that in the context of pre-revolutionary Russia, this was an extremely radical stance. While by the early twentieth century one could be a sort of academic socialist or materialist, it was still hardly a stance likely to get governmental support. The desire of such people for planned and holistic ecological policies led them to become early allies of the Soviet power. These were also some of the key people who would try to resist Stalinist economic policies on ecological grounds. [4]

In the West, the dominant views, including arguments of socialists, are based on Weiner's writing. Weiner shows that he is opposed to the entire revolutionary socialist project, and makes little difference between Bolshevism and Stalinism. [5] The Russian scholar Feliks Shtil'mark, who had done pioneering work in the Soviet era but had not been able to publish till the end of the USSR, wrote and published his own study after 1991. Shtil'mark argues that materialist scientists and activists were also motivated by deeply held ethical and aesthetic feelings about nature. This led them into a series of confrontations with Stalinism from the late 1920s. [6]

A quarter century ago, presenting a paper on Soviet biology and physics in an international seminar organised by Jadavpur University, I had pointed to T.D. Lysenko and I. I. Prezent as the principal immediate culprits for the unscientific attacks on Soviet scientists in the name of Marxism. [7] While studying soviet ecology, I discovered that even before their attacks on genetics, they had targeted ecologists.

The full story shows how a series of institutions were created, with sometimes enthusiastic support from sections of the Bolsheviks. It also shows how the creation of a new state apparatus led to conflicts over control. The most enlightened role was played by the Peoples' Commissariat for Education or Narkompros, headed by Anatoly Lunacharsky, with the Narkomzem or Peoples' Commissariat of Agriculture as its principal opponent. As long as, despite the one party state, there was scope for debate and opposition, it was possible to present and argue and lobby or fight for divergent positions. But from the late 1920s, opposition to the †general line' increasingly became synonymous with counter-revolution. [8] Thereafter, legitimate dissent had less and less space. Between 1929 and 1937, both romantic and materialist environmentalism were smashed.

The Foundations of Conservationism

In 1908, G. A. Kozhevnikov had proposed the setting up of territories where pristine nature would be preserved, since otherwise many species would be doomed to extinction. These were not plans for so-called eco-tourism. Termed zapovedniki, these were to be free of humans, both to protect species, and to study how the environment operated when civilisation was excluded. In defending these areas, he and his associates argued that monocrop agriculture was damaging nature. They pointed out that in monocultures the natural enemies of pests often cannot find appropriate niches to support themselves. A few private initiatives followed, with the support of well to do landowners

like Fridrikh Eduardovich Fa'l'ts-Fein in Askania-Nova, in what later became Kherson Oblast.

This effort was soon to be shattered by the revolutions of 1917. In 1861, when the Russian Tsar Alexander II undertook the emancipation of the serfs, it was a move from above that tried to modernise Russia at minimum cost to the state and the ruling class. Consequently, peasants were given personal freedom, but for land, they had to make a further redemption payment. And not the entire land that they had cultivated as serfs were given to them through their communes.

Landlords retained, under direct ownership, in 1861, about 105,000,000 desiatins of land. Despite the growing crisis of the aristocracy, in 1905, they still had 52,104,000 desiatins. [9] The Royal family alone owned, according to one leading Marxist commentator of the early twentieth century, seven million desiatins. [10] In Kherson, as a matter of comparison, the average allotment for peasants was 0.90 acres, and for allotments of 2.9 to 5.8 acres, peasants had to pay redemption payment of 5 to 10 roubles.

Consequently, 18917 saw in Russia, the combination of a working class revolution, the feature of capitalism in its maturity, with a massive peasant war, a feature of the fall of feudalism and early era of bourgeois revolutions. Under such conditions, the initial hopes of the conservationists were dashed. Kozhevnikov, Fal'ts-Fein and others were part of a liberal conservationist movement.

The period between February and October saw a protracted dual power. Two institutions were created. One was a Provisional Government. It was an ad hoc creation, by liberal bourgeois and landlord figures, who wanted the monarchy to pay attention to it rather than to overthrow it, and who therefore even did not declare Russia to be a republic for several months. But the uprising that had toppled the tsar had been created by workers and soldiers, and they made no distinction between the liberal bourgeoisie and the nobility, but distrusted both. They trusted the socialists.

In the initial stages, with a far greater preponderance of intellectuals, the Marxist current that dominated was the Menshevik wing of the social Democrats. Even stronger, among the soldiers, very often peasants in uniform, were the Socialist Revolutionaries, the heirs of Russia's famous "Narodnik" tradition, who talked about a peasant road to socialism. These two currents, however while setting up a Council of Workers and Soldiers Representatives (the Russian for council being Soviet), did not want power. Instead, they pleaded with the liberals and landlords to take power. But the workers and soldiers trusted only the Soviets.

As a result, while formally the Provisional Government was the government, in reality it had to get Soviet support for its actions. This created a fundamental instability. The peasantry was increasingly insistent that there should be a division of all the landed estates. To argue, in such a situation, that there were also ecological imperatives, would not have been easily understood, especially when the arguments came from people who were landowners themselves.

During the era of the Provisional Government, V. P. Semyonov-tian-shanskii put forward a plan for the creation of a countrywide network of zapovedniki. He suggested that 46 reserves should be created, basing themselves on a broad variety of geographical zones. But the peasant revolts of the autumn came as a blow to liberal policy. Concerned with taking over the landlords' lands, the peasants did not bother to check whether the Provisional Government, a much hated entity, had promised some of that land for conservation.

After the October Revolution, the conservationists had to turn again to the new government. But it should be noted, that though Semyonov-tian-shanskii's proposal lay buried for several years, under changed circumstances, and despite many of the destructive impulses of Stalinism on ecology, by the late 1970s almost 80 per cent of the sites he had listed had become protected territories . [11]

The Bolsheviks

The October revolution brought to power the Bolsheviks, originally in a government responsible to the Soviets. As not only landlord and bourgeois Russia, but even the bulk of the moderate socialist parties rejected soviet power, and even chose to support armed violence against it, the democratic life of the soviets died down. [12] As a result, inclinations and ideas of individual Bolshevik leaders on various issues figure more prominently. While the Lenin cult was a creation of a later period, Lenin, as the Head of the Government, as well as one of the foremost party leaders, certainly exercised much influence. Conservationists also had the advantage of conscious support from Anatoly Lunacharskii, the Commissar for Education.

A brief discussion of Lenin's ideas would be relevant here. Lenin's view that Communism is Soviet power plus the electrification of the whole country has been often quoted. But this is a simplification, for it suggests a narrowly productivist orientation by citing what was after all a speech ranging from the Treaty of Riga to inner-party debates. But the formula involves certain elements that need to be understood. He saw socialism and the overcoming of class antagonisms as a rational process, once the working class held power, where planning and a scientific approach were vital. At the same time, he stressed that it was necessary to understand the forces and laws of nature, because any desire for the increase of productive forces and the growth of socialism had to take place by obeying those laws and acting in tune with them. He was therefore fully interested in cooperating with scientists as scientists, regardless of their political positions.

During Lenin's last underground period, after the July Days, his readings included, according to Weiner, some amount of significant ecological material. In addition, as a diverse range of writers from Weiner to Paul le Blanc point out, Lenin had personal interests that tended to make him look favourably upon conservationists. He was well known for preferring hiking and staying in nature. During his years in exile, he found relaxation in long hikes and treks in the Alps, the Jura, etc, rather than going to cinemas and so on.

All this does not prove, and it is not my intention to claim, that Lenin was therefore an expert in conservation or even that there can be something called the Leninist position on conservation. But the foregoing suggests why he responded favourably to approaches by scientists.

The Congress of Soviets in October (November) 1917, that had seized power, had also issued a Decree on Land, whose main text was drafted by Lenin, to which he had attached a whole series of peasant mandates published by the Executive Committee of the Peasants Soviets. This Decree had taken over all forests, waters and subsoil minerals in the name of the state. While the intention was to organise planned tapping of resources, the civil war that broke out from the early months of 1918 and the loss of a number of vital resources to the Whites meant that short term measures predominated economic policies and actions. State-led plunder rather than planning underlay the so-called "war communism".

Responding to the chaos, the council of Peoples' Commissars, or Sovnarkom, issued a law On Forests. According to the Soviet historian Kravchuk, Lenin, who presided over the making of this law, was keenly aware of the need to protect the forests and referred to problems associated with deforestation after the emancipation of 1861, recorded by the economist Shcherbina. [13] The law provided for the creation of a Central Administration of the Forests of the Republic entrusted with the responsibility of planned reforestation and sustained yield.

But by late 1918, fluctuating fortunes in the Civil War made all this little more than a promise for the future. The economy was controlled by the Supreme Council of the National Economy (VSNKh or Vesenkha), in order to centralise all resources for the moment. It was with the end of the civil war and the introduction of the New Economic Policy that the idea of a gradual progress to a planned economy returned. In 1923, a new Forest Code was adopted. Clearing of forests was restricted and made subject to clearance from the Provincial Land Administrations or the

Central Forest Administration (in cases where the area under forests was below 35 per cent). The Act also provided for a category of protected forests including zapovedniki.

Administrative and Political Conflicts and their Resolutions

Running a vast country took more administrative complexity than the bare bones of theory, even when augmented by the experience of the Paris commune and the pre-October soviets, had suggested. Different Commissariats had to be created. And they had overlapping responsibilities. Initially, it was the commissariat of Agriculture that took most conservation and resource utilisation decisions. But in 1919, Nikolai Podiapolskii met both Lunacharskii and Lenin. This resulted in a shift. An agronomist and a deputy commissar of the Astrakhan branch of Narkompros, Podiapolskii wanted support for the creation of a zapovednik in the Volga delta. For this, he met Lunacharskii, his direct head.

Strongly supportive of what he heard, Lunacharskii in turn wrote a letter of introduction to Lenin. Having heard out Podiapolskii, Lenin told him that conservation had to be a priority for the entire republic, and requested him to draft a general decree on conservation. Within a day, a draft had been made, seen by Lenin, and returned via the Secretary of Vesenkha, Dr. V. D. Bonch-Bruevich. Lenin also suggested that the Executive Committee of Narkompos should give the final approval. He did so, according to an eye-witness, because the Commissariat was not involved with the exploitation of natural resources, and could examine ecological problems without a built in bias. [14]

But strong resistance surfaced from Narkomzem, in an early instance of what was only partly intra-bureaucratic conflict, but partly, more ominously, a conflict between a holistic view of the ecology, and of the role of science, and a narrower, utilitarian attitude. Only in 1921was the draft turned into law. But the proposal to set up a zapovednik in Astrakhan was accepted immediately. By 1920, another one was set up in the Urals. This was the first protected territory anywhere to be created by a government exclusively in the interests of the scientific study of nature. This symbolised early Soviet awareness that practical and immediate economic gains should not be allowed to dictate environmental policy. This was wholly in line with Marx's views. Writing about the Paris Commune, he had commented:

"The whole of the educational institutions were opened to the people gratuitously, and at the same time cleared of all interference of church and state. Thus, not only was education made accessible to all, but science itself freed from the fetters which class prejudice and governmental force had imposed upon it". [15]

Meanwhile, F. F. Shillinger, a game specialist, campaigned hard for a law to restrict hunting, so that moose and wild goats could be preserved. In 1920, his efforts also bore fruit, in a law On Hunting, drafted by Narkomzem. With this, however, was institutionalised a bifurcation of Soviet conservation for the next decade and a little beyond.

Between 1920 and 1922, a Department under Narkompros, the State Committee for the Protection of Monuments of Nature became the dominant institution for the conservation affairs.

Things changed with the end of the Civil War and the coming of the New Economic Policy. A forced policy of top-down state control had not been the original intention of the Bolsheviks, though once this was practised, and once a bureaucratic control grew up, many people clearly never gave up a hankering for a return to this. But the NEP meant a considerable restoration of the market, private property, and trading. Fiscal constraints now became much more evident. Between 1921 and 1923, budget cuts hit various social sectors. Working class responses included strikes, to which the growing party bureaucracy sought to respond in late 1923 by demanding that party members should inform about strikers. With this kind of situation, it was not surprising that budget cuts almost led to the

elimination of the State Committee, as well as the Main Administration for Scientific Institutions, or Glavnauka.

Between 1923 and 1927, several zapovedniki were nonetheless set up. The State Planning Board, or Gosplan, issued its first set of control figures for the economy. This was followed by the first serious discussions about moving to a planned economy. It was perceived by many people, that non-sustainable growth was bad for the economy as well. By 1927, the moose, the sea otter, the European bison, the European red deer, the wolverine, wild cat, and other fauna were either seriously threatened or even extinct (the bison was recreated from specimens in zoos). But approaches differed. By 1928, both the Commissariat of Trade and the Commissariat of Agriculture were viewing the salvation of hunting in the form of a technological fix. They wanted to save animals in order to hunt them in an orderly manner. To do so, they advocated ranch breeding of commercial varieties, and the acclimatization of new species to supplement the indigenous, exhausted ones. In 1928, S.A. Sidorov, Curator of the aquarium at the Moscow Zoo, published a detailed account of the disappearance of species.

It would be totally erroneous to think, though, that only governmental agencies were at work. A number of societies or associations came up. They concluded the All-Russian society for Conservation (VOOP), the Central Bureau for the Study of Local Lore (TsBK) and others. The TsBK was in fact a mass organisation, with 2270 branches in the late 1920s, and nearly 60,000 members. [16] Many of the activists of TsBK were also important figures in official conservationist agencies.

In the 1920s, the idea that building a communist society meant the creation of a society of associated producers was not yet dead. So it was not yet a straightforward state-directed, bureaucratic operation. Many local attempts at conservation developed. The All Russian Society for Conservation had a central organ, the Okhrana Prirody, which combined theoretical work and research reports with a wide range of more popular essays.

In 1925, the government, then partly directed by Alexei Rykov and Nikolai Bukharin, created a new committee for nature protection, the Gostkomitet. It had certain weaknesses. Placed under Glavnauka, it was thus in the third rung of the hierarchy (a Glav was a main committee or Administration under a Commissariat), and as such it could not approach the Council of Peoples' commissars, but had to move through the Narkompros. But being under Narkompros, it had the support of Lunacharskii. Its leading body had a majority from Glavnauka, in other words it was dominated by scientists, and it had considerable funding.

In 1925-28, research in the zapovedniki were important. From 1923, ecologically representative cases were being selected. Two sets of zapovedniki existed – those selected by Narkompros and those selected by Narkomzem. Overall they covered about 1.5 million hectares of land. By 1929 they had expanded to nearly 4 million hectares.

Apart from these, there were other types of work being done regarding the ecology. In this paper, it will not be possible to discuss issues of public health and urban environment. But important strides were taken there as well. Let me make two crucial points in passing, precisely because I will not be discussing the issues at length. Anti-communist historiography simplifies the picture, and talks only about the exploitation of the peasants and the burdens on the workers. I do not dispute either.

However, it is worth noting that urban Russia in its Stalinist industrialisation phase did not have the slums associated with Britain in the 19th century, or India, or much of Latin America, in the twentieth. And it is also worth noting that public health was improved significantly. It is a hoax, to compare the early Soviet Union with developed capitalism. Trotsky, hardly a friend of Stalin and Stalinism, had argued that Russia in 1917 stood halfway between the developed countries and the semi-colonial and colonial world, and had suggested in his History of the Russian Revolution that but for the October Revolution Russia would have slipped closer, after World War I, to semi-colonial status. From that position, the soviet industrialisation, with all its flaws, and its bureaucratic bosses who rode on the backs of workers and peasants, did create a much improved urban environment. To ignore the consequences of bureaucratic

planning, of Chernobyl, of what critics have called ecocide, would be to whitewash Stalinism. But to ignore the positive developments is also unacceptable.

Leaving that aside, though, other issues in ecology should also be briefly mentioned. V.I. Vernadsky achieved international renown both for his analysis of the biosphere, and as the founder of the science of geochemistry. In 1926 he published The Biosphere. He has been called the first person in history to come to grips with the real implications of the fact that the Earth is a self-contained sphere.

N. I. Vavilov, President of the Lenin Agricultural Academy, determined that there were a number of centres of plant diversity in the underdeveloped countries. Unlike the romantic conservationists, Vavilov called for a dialectical stance. The centres of plant diversity were, for him, the products of human culture. For decades now, Western agribusiness has recognised this, and has been returning to these genetic reservoirs, leading to a struggle for control.

The Zapovedniki in the late NEP Era

Russian agronomists had been treating the forest as a community for a considerable period. But their focus had been on plants, with the assumption that the fauna had a lesser role to play. In the 1920s, this perspective changed, and Soviet ecologists came to appreciate much more the role of fauna in structuring the historical development of such communities in nature. This did not mean there was a total agreement. There were scholars who attempted faulty analogies between human societies and what they called plant societies. Others avoided this line of thinking. Important questions were asked and answers were sought, such as, how far these communities were closed systems, whether there were spaces for new entrants, whether they could be grouped into higher taxonomic units, etc.

The growing interest in such issues was reflected in the growth of the study of ecology in an institutionalized structure. Ecology courses began to be offered, in places as diverse as Tashkent, Moscow, Leningrad, and Kharkov. G.A. Kozhevnikov argued that building game farms was a very inadequate response to the threat to nature posed by industrial society. In Okhrana Prirody, he wrote an article, stressing that research in the zapovedniki should look at revealing the laws of the evolution of the organic world. In other words, at a time when the concepts were still in their early stages, he was moving towards the possibility of a synthesis of ecology, genetics, and evolutionary theory. And he warned categorically that one should not expect quick results.

He did try to explain that a stress on basic science research did not imply ignoring material needs. He was not a romantic, and his writings sought to present common grounds between materialist scientists and Marxists. [17] By the close of the 1920s, the zapovedniki were being used for the study of ecological communities. A crucial development took place in Askania-Nova in the Ukranian steppes.

Askania originated as a huge land grant from Tsar Nicholas I to the duke of Anhalt-Cothen in 1828. Its last private owner was Fal'ts-Fein. At that stage it had sheep breeding, a zoo, an acclimatization park, and a part where the steppe was fenced off from human encroachment. But located close to Crimea, it faced terrible devastations during the Civil War. It was after the final Red victory that Dmitri Manuilskii, Commissar for Agriculture in the Ukraine, took over charge of the reserve. A Ukrainian decree of 1921 gave Askania a wide range of responsibilities.

Tension developed in the early stages between the economic imperatives indicated, and the scientific research orientation of a community of scientists. The proposal to turn Askania into a simple Sovkhoz (state farm) was contested openly by Kozhevnikov and other scientists. While this was blocked, especially after the Ukrainian commissariat for Education played a role similar to the Russian Narkompros, the tension did not go away, because

the production sector retained a large amount of land, and tried to increase profits in a big way.

Between 1924 and 1928, the battle went on. In 1928, M. F. Ivanov proposed a reorganisation that would increase the power and the extent of land under control of the Production Sector. In part, Ivanov did what would become popular in later years – he attacked the scientists (though he himself was a Professor) as elite people and appealed to the "people". The other scientists hit back through a vigorous campaign. They showed that ivanov was painting a false picture of the ecologists as people who wanted to turn the whole of Askania into a zapovednik. The most prominent role was played by Stanchinskii. [18] The Ukrainian Sovnarkom provided considerable support to the Scientific Sector, as well as putting it directly on the Ukrainian central budget.

Stanchinskii wanted to use Askania to develop materialist genetics. He was also interested in studying an eco-system as a whole, tracing the production of the primary biological producers of a given area through all their biotic pathways. [19] V. I. Vernadsky had outlined the chemical cycling and energy flows, or the transformation between matter and energy, carried out by living and non-living matter in complex exchanges. Taking off from that, Stanchinskii wanted to construct the dynamics of an ecosystem and relate it to mathematically expressed regularities. In contemporary terms, he was developing ecological energetic.

Invoking the Second Law of Thermodynamics, he argued that as one climbed up the rung on a ladder in which the living entities are placed, there would be less energy available. This was why there could be relatively few of the large predators. In order to study the entire problem, he set out to determine mathematically the energetic role of each species. He hoped that a successful study would enable humans to perform their economic activities in harmony with the ecosystem. This was to usher in a research programme that was unique for its time, not just in the USSR, but anywhere in the world. By contrast, reserves created by the Narkomzem of the RSFSR did very limited research, looking at the reserves as a space for the replenishment of decreasing stock.

From the All Russian Conservation Congress to the All Union Conservation Congress (1929-1933)

The All Russian Conservation Congress itself deserves a full paper. So here, one can only sketch the bare bones. 124 delegates with voting rights were present, with 64 coming from the provinces and the rest, i.e., just under half, from Moscow and Leningrad. The delegates were in the main people with higher education, and were in their majority non-party. It is significant that the field of ecology was sufficiently moved from core political conflicts, so that while bureaucratic strangulation was ending debates in many other fields, this Congress saw free debates. [20]

Some of the delegates, like M. P. Potemkin, Deputy President of Gostkomitet , warned that the Five Year Plan had set targets that threatened the ecology seriously. Seals, sea otters, whales, were being threatened, said Potemkin. A Congress resolution talked about the progressive decline of game and called for a game census, a game biology institute, and greater powers to Gostkomitet [21] Another debate was over logging and the clearing up of the steppes. It was revealed that the forest of an entire province was being "planned" into `abolition. But despite their stiff opposition, the ecologists were also compelled to shift the grounds and the discourse through which they articulated their concerns. Now they could no longer speak only of the benefits of pure scientific research. In the debate over Askania-Nova, Stanchinskii stressed that while the zapovedniki were scientific institutions, the rationale for them was economic.

Within a short while, the situation changed dramatically. As the targets of the Plan were raised and a crash course collectivization began, the ecologists faced an uncertain future. Okhrana prirody in 1930 had an article that cautioned

about the ecological dangers of rapid and full-scale collectivization. Another article argued that increasing mechanization of agriculture following collectivization would lead to standardized and homogenized landscape, and warned that unless protective measures were taken promptly, there would be great destruction of life of various kind.

The early 1930s were not a good period for such critical voices and viewpoints. This was the period when the so-called cultural revolution was being launched. In the life sciences, there were a considerable number of attacks. Among scientists and philosophers of Marxist inclination, debates had been going on for a considerable period. Two major wings had formed – the Mechanists and the Deborinists. [22]. The Deborinists were winning by the late 1920s. But a much cruder form of "Marxist"-scientist layer began forming from this point. Two figures who would play a devastating role in all aspects of Soviet biology were Trofim Denisovich Lysenko and Isai Izrailovich Prezent.

Most notorious for the attacks on genetics [23]]], Prezent and Lysenko had also attacked the ecologists. It is due to the general lack of awareness about the significance of ecology that this has been discussed much less than the attacks on people like Vavilov.

Present was a graduate of a three year programme of the Faculty of Social Sciences who went on to specialize in the philosophy of the life sciences.

Initially he had been a Deborinist, and had attacked neo-Lamarckianism. He had even received an initial backing from Vavilov, which however ended as Vavilov found him unsuitable for productive work. Prezent left the All-Union Institute of Plant Breeding, led by Vavilov, and attempted to create his own power base. By 1931, he had founded and was leading the kafedra [sub-department] of the Dialectics of Nature and Evolutionary Science at the Leningrad State University. Also, by 1930, he had become aware that Stalin was about to take on the Deborinists and had jumped away from them.

In order to ideologically control scientists, measures were taken from top, and these were supplemented by drumming up a spurious "proletarian" anti-scientist ("anti bourgeois scientist") campaign.

All plans for scientific work and educational programs were required to be presented to the Association of Natural Science of the Communist Academy. The previous organizer of the worker's militia in Germany, E. Kol'man, became the Association's Director in 1931. Kol'man was even ready to rework Newton's Laws, and Boyle's Law from the perspective of diamat. He asserted that biology in the USSR was swarming with saboteurs; geneticists were supporting eugenic measures, zoologists and botanists were resisting the creation of giant Soviet farms, ichthyologists were unnecessarily lowering the capacity of ponds and rivers. [24]

At one level, a close study of names involved in the conflicts show that the fight for positions, and for gaining support for one's position, led a number of "bourgeois" scientists to also throw in their lot with the campaigners for diamat. In other words, the struggle for position, for privilege, were parts of an ideological (in the sense that Marx condemned ideology) construction of a spurious Marxist biology. But Prezent brought in a degree of single-mindedness that won him greater backing than most others. For he was the campaigner, who, later in alliance with Lysenko as well, took up the position that readiness to blindly follow Stalin's politics, and to alter one's views accordingly, had become the single criterion of truth in biology.

The rise of Stalin had been sealed politically by the late 1920s. But as it had been argued – including by Trotsky in exile – there was a potential for opposition till the early 1930s. The publication of the Ryutin document shows that it had a good bit of support even at the leadership level. [25] Between 1932 and 1937-38, all oppositional voices were smashed and vast numbers perished. [26] Other Bolshevik leaders of the first generation had different views on Marxist philosophy and its relationship with science. But Trotsky and Bukharin, two of the intellectual leaders, had both supported the autonomy of distinct levels or spheres of knowledge. The rise of Diamat saw an end to that. And the rise of Stalin's absolute power meant that strategists like Prezent were going to get the better of scholars like Vavilov and Stanchinskii (both would fall victims).

As the Five-Year Plan proceeded, over-optimistic demands for upward revision of targets increased. In the newly created Western Oblast, which included Smolensk province, for example, the target of turning the oblast into one vast granary meant disastrous deforestation. The collapse of the world capitalist economy, rather than the dawn of sense among Soviet planners, saved some of the forests, as the demand for timber went down. Yet this was also the time when ecologists were producing some of their major works. Weiner mentions that in 1931, Daniil Nikolaevich Kashkarov published his Environment and Community [27].

In 1933, the first All-Union Conservation Congress was held. By this time, the situation had changed much, compared to the All-Russian Congress a few years earlier. Of the 92 voting delegates to the congress, only just over one third had higher education, compared to three quarters for the 1929 Congress. Nearly two-fifths were party members this time. The major debate in this congress was over the fate of the zapovedniki. P. Smidovich, the Old Bolshevik who had long been associated with the ecologists, gave a guarded speech defending basic research. But a huge attack was launched by those who demanded that the needs of applied approach must dictate the work of the zapovedniki. A massive struggle had in fact opened up over the fate of Askania-Nova, outside the Conference. Stanchinskii, the moving spirit of Askania-Nova, was accused of many sins, one of which was the mathematisation of biology. But the core struggle was over whether Askania should be converted into a stockbreeding station or retained as an ecological research place.

Yakovlev, the USSR Commissar for Agriculture, had declared that it was now possible to solve problems in a short time. This meant that the "bourgeois" approach of scholars like Stanchinskii, were passé. Present argued that results on a mass scale alone validated the truth of a scientific theory. As the notorious "Lysenko affair' shows, this approach meant that gross inaccuracies or downright falsifications were resorted to, in order to get official seals for scientifically invalid ideas. [28]

One of the issues in conflict was, for Prezent, ecological research meant large scale acclimatization of exotic life forms. Stanchinskii used sophisticated dialectical explanations to argue that what was desired was a search for optimal conditions, not a huge growth that would lead to exotics becoming pests. This was clearly not what the authorities wanted to hear. By this date the campaign was one that did not seek at all to convince the ecologists, but to convince the party-state authorities that the ecologists were bourgeois scientists obstructing the growth of socialism and true socialist science. In 1934, Stanchinskii was arrested. I have seen only one study of the archives after they were opened to scholars, so the precise role of Lysenko and Prezent are still a little uncertain. [29]

However, Sergei Medvedev, colleague of Stanchinskii who was also arrested, wrote to Semenov-tian-shanskii about the role of Prezent. [30] Stanchinskii's confession under torture included the comments: "the theoretical problems of ecology and biocenology that I posited were completely removed from economic exigencies ...", He said that his wrecking activities included fencing off 5400 hectares of the steppe. [31]

Why did Prezent and Lysenko adopt their strategy? At this remove it is difficult to provide a full explanation. I have argued however that they represented a social layer seeking to capture positions. It seems that neither of them had much knowledge of mathematics. So they could not police ecology as long as it was mathematically modelled. This included other works, such as Alpatov's work on the role of densities in the regulation of animal population. This might also explain one aspect of their attack on genetics.

In conclusion

The career of Stanchinskii, however, exemplifies not only the problems with Stalinism but also the positive developments in the early Soviet Union. The high status given to science, and to ecology within science, particularly

when formulated in terms of energetic, put Soviet ecology in the 1920s and all the way till 1932-3 miles and years ahead of its counterparts anywhere else. Indeed, his career would not have been possible without the opportunities provided by the expansion of education and the opening of so many science research institutions. When not reduced to a set of dogmatic utterances, Marxism, in fact, challenged scientists into questioning issues and doing creative thinking. One need not argue that even in the 1920s it was all "protective colouring' in order to survive, unless one has an axe to grind.

The difference that Stalinism brought is best represented by the fawning passage of Maxim Gorky, an opponent of the October Revolution who managed to reconcile himself with the Stalinist regime:

"Stalin holds a pencil. Before him lies a map of the region. Deserted shores. Remote villages. Virgin soil, covered with boulders. Primeaval forests. Too much forest as a matter of fact; it covers the best soil. And swamps. The swamps are always crawling about, making life dull and slovenly. Tillage must be increased. The swamps must be drained. ... The Karelian Republic wants to enter the stage of classless society as a republic of factories and mills. And the Karelian Republic will enter classless society by changing its own nature." [32]

[1] Fourth International - Ecology and Socialism, in http://www.internationalviewpoint.o...

[2] John Bellamy Foster, Marx's Ecology, Monthly Review Foundation, New York, 2000

[3] Douglas R. Weiner, Models of Nature. University of Pittsburgh Press, Pittsburgh, Pa. 2000.

[4] An interesting aside – Weiner is unhappy with their position. He would like to speculate that even though their opposition was based on ecological issues, this was really protective colouration for a struggle against collectivization and proletarianization. This is at par with his view that though Lenin supported ecological conservation, he was "really" a proponent of the "wise-use" or utilitarian position.

[5] The present writer makes a clear distinction between revolutionary democratic socialism, with which Lenin was associated, though in the period 1918-1922, it is possible to show him, or other Bolsheviks, making errors under tremendous pressures; and Stalinism. See on this, for my own positions, Kunal Chattopadhyay, The Marxism of Leon Trotsky, Kolkata, Progressive Publishers, 2006, especially chapter 7. See also Leon Trotsky, Stalinism and Bolshevism, in Kunal Chattopadhyay and Paul Le Blanc (Eds), Leon Trotsky: Writings in Exile, Pluto Press, London. 2012, 67-83. For later Marxist discussions of the Soviet bureaucracy, see Ernest Mandel, Power and Money: A Marxist Theory of Bureaucracy, Versoo, London 1992.. For a historical study looking at the transformation from bolshevism to Stalinism see Soma Marik (note 12).

[6] Feliks Robertovich Shtil'mark, Istoriografia rossiiskikh zapovednikov, 1895-1995, Moscow, LOGATA, 1996

[7] Kunal Chattopadhyay, †Class Struggle among the Molecules: The Rise of "Proletarian Science", J.U. Journal of History, vol. XV, 1996-97, pp. 35 â€" 46

[8] See Kunal Chattopadhyay, †Trotsky, Lenin, and the Stalinist General Line', <u>http://kunal-radicalblogger.blogspo...</u>. This was written for a Greek Marxist periodical, and the English exists only in the form of the above mentioned blog.

[9] Gearoid T. Robinson, Rural Russia Under the Old Regime, Berkeley, University of California Press, 63, 131

[10] V.I. Lenin, †To the rural Poor', http://www.marxists.org/archive/len...

[11] Weiner, p.20.

[12] There is a vast debate on this. The rightwing position is taken by Richard Pipes, Russia Under the Bolshevik Regime, 1919-1924, Harvill, London, 1994, or Orlando Figes, A People's Tragedy: The Russian Revolution 1891-1924, London, Jonathan Cape, 1996. Figes is different, in so

far as he holds the masses, not merely the Bolsheviks, to be responsible for violence and destruction. Among leftists too, there have been long debates. Sam Farber, Before Stalinism, Polity Press, 1990. Soma Marik, Reinterrogating the Classical Marxist Discourses of Revolutionary Democracy, New Delhi, Aakar, 2008, or Simon Pirani, The Russian Revolution in Retreat, 1920-24: Soviet workers and the new communist elite, London, Routledge, 2008, are some of the relatively new studies, and they also cover a survey of a wide range of earlier works. For an account of the civil war, see W. Bruce Lincoln, Red Victory: A History of the Russian Civil War, New York, Simon and Schuster, 1989

[13] Iu. P. Kravchuk, â€~V. I. Lenin o lesakh', Okhrana prirody Moldavii, 1970, no.8, p.14.

[14] Weiner, 27-28.

[15] https://www.marxists.org/archive/ma...

[16] Weiner, 45.

[17] Weiner p. 69 uses a language that suggests he is skeptical about the sincerity of Kozhevnikov's use of materialist philosophy. This is part of his recurrent sub-text, where he tries to flatten as much as possible the differences between Stalinism, and Marxism on one hand; and on the other hand present as much gap as possible between the scientists and Marxism. Given the subsequent debasement of Marxism, its transformation into a state ideology of a bureaucratic elite, and the ecological disasters of the Soviet Union, this is something that many readers will accept. But it suggests that the scientists of the 1920s were hypocrites. Even though stated in a subdued way, this ends up, surprisingly, accepting or tacitly supporting the Stalinist attack on the scientists.

[18] Apart from Weiner, detailed biographical discussions on Stanchinskii will be found in a Russian language study, N.T. Nechaeva and V.S.
Shishkin, "V poiskakh estestvennykh system (nauchloe nasledie V. V. Stanchinskogo) [In search of natural systems (the scientific heritage of V.
V. Stanchinskii), Voprosy Istorii Estestvoz-naniya I Tekhniki 2 (1994): 87-97.

[19] Biotic components are living things that shape an ecosystem. Abiotic components are the non-living components of an organism's environment, such as temperature, light, moisture, air currents, The biotic components include autotrophs (or producers), heterotrophs or consumers, and detrivores or decomposers. Plants, animals and fungi/bacteria represent the three categories.

[20] In 1927, the Fifteenth Congress of the CPSU (B) expelled the United Opposition. Soon after, Stalin rounded on Bukharin, Rykov and Tomsky, and by 1929 they were routed.

[21] Trudy Pervogo Vserossiiskogo s"ezda po okhrane prirody, Moscow, 19309. Pp192-3.

[22] I have dealt with this to a certain extent in my essay †Bijnaner Itihas Charcha, Marxbadi Itihas Darshan O Boris Hessen', Sectional Presidential Address, Countries Other than India, Paschim Banga Itihas Samsad 22nd Annual Conference, Narendrapur, 2006, published in Itihas Anusandhan -21, (Proceedings of the PBIS 22nd Session)

[23] [[Kunal Chattopadhyay, Class Struggle among the Molecules: The Rise of "Proletarian Science"; Michael Lowy, †Stalinist Ideology and Science', in Tariq Ali (Ed), The Stalinist Legacy, Harmondsworth, Penguin, 1984.

[24] A. Kol'man, â€~Vreditel'stvo v nauke', Bolshevik. 1931. ?. 2. Pp. 73-81

[25] Sobhanial Datta Gupta (ed.), The Ryutin Platform: Stalin and the Crisis of Proletarian Dictatorship: Platform of the "Union of Marxists-Leninists." Pranab Ghosh and Susmita Bhattacharya, translators. 24 Parganas, India: Seribaan, 2010

[26] For the purges, see Robert Conquest, The Great Terror: A Reassessment. Oxford University press, Oxford, New York, etc. 2008. This is a reissue of his earlier study, with an introduction based on the archival material from the former USSR.

[27] Weiner, p.164

[28] On this see further David Joravsky, The Lysenko Affair, Cambridge, Harvard University Press, 1970.

[29] The bureaucratic system was so extensive in Stalinist USSR that even minor figures had pages and pages of documents attached for the charges, the "confessions" extracted if any, the $\hat{a} \in \tilde{c}$ confrontations' and denunciations, etc. This is explained at length by Conquest in the introduction to the 2008 edition of his book.

[30] See Vladimir E Boreiko, Istoriia zapovednogo dela v Ukraine, Seriia: Istoriia okhrany prirody no.2, Kiev: Kievskii ekologo-kulturnyi tsentr and Tsentr okhrany dikoi prirody SoES, 1995, pp. 82-83.

[31] Ibid p. 84, citing the Ukrainian KGB archives.

[32] Maxim Gorky, Belomor, 1936, cited in Chris Williams, Ecology and Socialism, Chicago, Haymarket, 2010, p.187 .