Letters

Crop Destruction in Vietnam

I am addressing myself in this letter to the practical and the ethical implications of our destruction of rice crops and grain stores, by chemicals and by fire, in South Vietnam. I am *not* addressing myself to the problem of the morality of using chemical agents in wartime, as did our colleagues in their letter in the issue of 21 January, page 309. Nor am I addressing myself to the problem of the general morality of the Vietnam operations, except to say that I think we can all agree that obviously for many Americans the emotions are not as simple as those aroused in previous wars by the unprovoked attack on Pearl Harbor, the gas-ovens of Auschwitz, or the clear-cut violation of the United Nations Korean mandate. With the ends thus debatable—or at least debated—the means become particularly important in their practical consequences as well as in their morality.

In wartime, the ethics of means always pose difficult problems. Having spent five years of war as a forward artillery observer and as commander of artillery units, I know all too well that my contribution to the demise of the Wehrmacht was accompanied by the demolition of houses, churches, and works of art and by the killing and wounding of children, women, and civilian men in Africa, Italy, France, and Germany. Still, while knowledge that this was so forced me—and all Allied officers in similar positions—to extreme care so as to minimize such casualties, some such casualties were in the last analysis unavoidable if we were to conduct successful operations and eliminate the Nazi nightmare.

The situation seems to me entirely different when we consider the crop and stores destruction program in South Vietnam. The aim of the program is to starve the Viet Cong by destroying those fields that provide the rice for their rest—and field—rations. This aim is, in essence, similar to that which every food blockade (such as the one imposed against the Central Powers in World War I) has attempted. As a nutritionist who has seen famines on three continents, one of them Asia, and as a historian of public health with an interest in famines, I can say flatly that there has never been a famine or a food shortage—whether created by lack of water (droughts, often followed by dust storms and loss of seeds, being the most frequent), by plant disease (such as fungous blights), by large-scale natural disturbances affecting both crops and farmers (such as floods and earthquakes), by disruption of farming operations due to wars and civil disorders, or by blockade or other war measures directly aimed at the food supply—which has not first and overwhelmingly affected the small children.

In fact, it is very clear that death from starvation occurs first of all in young children and in the elderly, with adults and adolescents surviving better (pregnant women often abort; lactating mothers cease to have milk and the babies die). Children under five, who in many parts of the world—including Vietnam—are often on the verge of kwashiorkor (a protein-deficiency syndrome which often hits children after weaning and until they are old enough to eat "adult" food) and of marasmus (a combination of deficiency of calories and of protein), are the most vulnerable. In addition, a general consequence of famine is a state of social disruption (including panic). People who are starving at home tend to leave, if they can, and march toward the area where it is rumored that food is available. This increases the prevailing chaos. Families are separated and children are lost—and in all likelihood die. Adolescents are particularly threatened by tuberculosis; however, finding themselves on their own, they often band together in foraging gangs, which avoid starvation but create additional disruption. The prolonged and successful practice of banditry makes it difficult to rehabilitate members of these gangs.

I have already said that adults, and particularly adult men, survive usually much better than the rest of the population. Bands of armed men do not starve and—particularly if not indigenous to the population and therefore unhampered by direct family ties with their victims—find themselves entirely justified in seizing what little food is available so as to be able to continue to fight. Destruction of food thus never seems to hamper enemy military operations but always victimizes large numbers of children. During World War I, the blockade had no effect on the nutrition and fighting performance of the German and Austrian armies, but—for the first time since the 18th century—starvation, vitamin-A deficiency, and protein deficiency destroyed the health, the sight, and even the lives of thousands of children in Western Europe.

We obviously do not want to take war measures that are primarily, if not exclusively, directed at children, the elderly, and pregnant and lactating women. To state it in other words, my point is not that innocent bystanders will be hurt by such measures, but that only bystanders will be hurt. Our primary aim—to disable the Viet Cong—will not be achieved, and our proclaimed secondary aim—to win over the civilian population—is made a hollow mockery.

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Copyright Bill: Taxonomic Works

Congressional hearings on the new copyright bill, H.R. 4347 (identical with S. 1006), have been completed, but no further action has been taken. It therefore seems appropriate at this time to urge that certain works in the field of biology be regarded as in the public domain. The proposed law should specifically provide that copyright shall not extend to an original description or illustration on which a scientific name of a plant or animal (or group of plants or animals) is based, or to any other taxonomic description or key.

In the field of biology, proposals of new scientific names are governed by three international codes of nomenclature—one for botany, one for microbiology, and one for zoology—each a product of an international congress. These codes are among the oldest and most consistently accepted instruments of international agreement. In zoology, the code is administered by the Inter-

national Commission on Zoological Nomenclature, which has been in existence for over half a century. Each code provides criteria for the naming of organisms within its field.

A basic criterion is the law of priority: the oldest name applied to a plant or animal, with a description, and usually also with technical illustrations, is the valid name. To interpret the name correctly, one must refer to the original description. It provides a basis for all subsequent study. There should therefore be no restriction on the use of the original description. Subsequent descriptions, as well as taxonomic keys (by which certain plants or animals may be distinguished from one another), should also be regarded as in the public domain. The new copyright law should make clear that copyright does not extend to any taxonomic description, key, or figure, of a plant or animal.

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NSF: Initiative in National Policy

Greenberg's discussion of a House subcommittee's report on the National Science Foundation ("Daddario study says NSF should be in the forefront of policymaking," News and Comment, 14 Jan.) brings into focus what to me is the most remarkable feature of NSF funds: their availability to those who wish to test hypotheses previously untested or misinterpreted but still worthy of further study. NSF is a reserve that can be drawn on by those whose minds are open to the multitude of physical and biological systems yet to be explored. It is a monument to the belief that one should not have to be born rich in order to engage in learned pursuits of one's own choosing that further man's knowledge and welfare. The soundness of this philosophy has already been demonstrated. We need now to safeguard its future. The fact that the distribution of funds differs markedly from ancestral custom need not be alarming. We can be confident that better use of the funds will be made by allocating them to creative men who come forward with proposals than by the age-old system under which a few persons decide how funds should be spent and then search for someone to pursue that course.

At present scientists seem to be in a very favorable position of trust. . . . As NSF now stands, it is a tribute to both science and management. It demonstrates to the researcher that his course is acceptable to his fellow men, and to managerial authority that scientists have confidence that their needs will be met in the general economy. For these reasons it is to be hoped that NSF will not be required to enter the competitive political arena.

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Commenting on the Daddario subcommittee's recommendation that the National Science Foundation take greater initiative in the determination of national science policy, Abelson (4 Feb., p. 521) says that "science policy cannot be made without reference to national goals," that these are established by politicians, and that "if politicians wish to have a sharper formulation of policy they must provide a more clear-cut description of the goals and of the relative priorities."

It is easy to confuse national plans with national goals.

National goals should arise in the consensus of the population, not in the mind of a politician. If later his speeches seek to articulate a public desire as a means to re-election, this is not the establishment by the politician of a national goal. For example, equality of opportunity is emerging as a national goal. So is a pollution-free environment. Such desires emerge slowly, are difficult to realize, and frequently entail heavy demands on the scientific community, however slow it may be to respond.

The defense industry has an attitude with legitimate roots which dictates passive waiting for government to state the requirements before the industry will open a major campaign. I sense this attitude in Abelson's characterization of scientists. And yet the scientific community should be able to identify and promote some worthy national goals with success at least comparable to that of the radio industry in foisting color television on the consuming public. In short, I don't view with alarm; I call for accepting responsibility.

Finally, Abelson says that because