TPO 48 Integrated part

The reading and the lecture are both about the global declination and extinction of frog species on account of environmental changes, and its critical results in the frogs' ecosystem. The author gives an example of this critical issue by mentioning that frogs protect humans from different diseases by eating disease-carrying insects. The author states that various ways proposed to overcome the problem of frogs' declination and extinction.

To begin with, the author argues that one way which causes serious harm to the frogs, attacks their nervous system, and leads to breathing problems is using pesticides which are chemicals to prevent insects from damaging crops like corn and sugarcane. So, if farmers were banned from using these harmful chemicals near the frogs' habitats, it would remarkably reduce the harmful effects of these pesticides on frogs. This solution is challenged by the lecturer. She claims that this way is not economically practical at all. Because farmers have to use these pesticides to reduce crop loss to stay in competitive markets, so, it is unfair to ban a farmer whose farm is near the endangered area from using pesticides because he will lose more crops and could no longer be competitive compared to the farmers who use these chemicals to prevent crop loss.

A second important cause of frogs' declination is a fungus which has spread around the globe with deadly effect. Frogs use their skin to absorb water which got thicker by this fungus, so, frogs cannot absorb water and their body gets dehydrated which leads to their death. Recently, researchers discovered different treatments for this deadly fungus, including antifungal medications and treatments with the help of heat which makes them die. The article mentions that if these treatments were used for a majority of frogs' population, it would help to prevent frog populations from infection and extinction. The lecturer, however, challenges this by mentioning that these treatments should have been applied to each frog individually, but, doing it on a large scale is extremely difficult because it needs capturing and treating each individual frog in a population. Additionally, this treatment does not transmit from one generation to another, so, it will need to apply again and again to each new generation, so, practically it is not possible because it is so complicated and expensive process.

Finally, the author states that it is a good idea to prevent excessive water use, but it will not save the frogs' populations because the significant reason for decreasing wetland habitats is global warming, not excessive water use. Global warming disappears water and wetland habitats and it leads to the extinction of species. So, prohibiting people from water use or building new habitats for frogs would not prevent changes and damages caused by global warming.