

Read each passage and choose the best answer from among the four choices for each question. Then, on your answer sheet, find the number of the question and mark your answer.

Rebuilding a Rainforest

Microbiologist Willie Smits, attracted to the incredible biodiversity of Borneo, settled there in 1985 to work as a forest researcher. However, it was not until four years later — when he discovered an unsold baby orangutan left to die in a garbage heap at a market — that his life changed forever. By 1991, rehabilitating orangutans that had been retrieved from poachers and returning them to the wild had become Smits’s passion. By a sad irony, however, Borneo’s rainforests, which provided a habitat for the orangutans, were disappearing. Loggers were cutting down valuable hardwood trees, and other indigenous trees were being burned to create space for plantations of profitable oil palm trees.

Smits spent years attempting to stop the devastation. Despite his efforts, however, the problem only worsened. In 1997, after two years of drought, logging practices caused uncontrollable wildfires. Sweeping through Borneo’s rainforests, these fires caused the release of up to 40 percent of the world’s total CO₂ emissions that year and further destroyed the orangutans’ habitat.

Smits decided a rethink was necessary. In 2001, he purchased 2,000 hectares of land that had earlier been used for oil palms. The land supported little more than a poison-producing grass called alang-alang, which kills most plants around it. Smits hired local villagers and instructed them to produce compost for soil enrichment and to plant fast-growing trees to provide shade, which kills alang-alang. The new forest is now divided into three zones: an outer ring of sugar palms, an inner ring of local rainforest trees, and a central zone hosting a sanctuary for orangutans

and other primates. The sugar palms, besides producing edible fruit, are an excellent source of biofuel: sugar water tapped from the trees can be used to produce ethanol, thereby reducing the villagers' dependence on wood. Smits believed getting the villagers involved from the beginning would help them understand how a renewed rainforest could bring such practical benefits. Sugar palms are also fire resistant, so they protect the inner forest from wildfires. The rainforest zone now supports 1,300 different tree species. Many native birds, reptiles, and mammals have returned to the area, and Smits claims rainfall has increased despite drought elsewhere.

Not everyone is so enthusiastic, however. Some scientists believe Smits's refusal to allow independent scientific analysis of his work means it is impossible to objectively measure the success, or otherwise, of his project. Some environmentalists think the time, energy, and money Smits invested would have been better spent on saving existing rainforests from destruction. Others worry the project could provide the justification to continue irresponsible cutting and burning if it shows a rainforest can be recreated from almost nothing.

Smits defends his project, believing the wasteland-turned-rainforest proves Borneo's rainforests have a viable future. Still, he stresses that in an ideal world his work should not be necessary. At a 2009 talk, when he explained he was rehabilitating 1,000 orangutans, the audience, impressed by this accomplishment, erupted in applause. "No, no! Don't you understand?" Smits shouted, "I care for more orangutans than all the zoos in the world because we're so bad at protecting them in the wild."

(11)

Why does the author of the passage refer to the situation in Borneo in the early 1990s as a “sad irony”?

- 1 Owners of oil palm plantations were struggling to find a way to stop their own trees from growing out of control.
- 2 Orangutans that had been successfully rescued from poachers were left without a forest habitat to be returned to.
- 3 Farmers on valuable oil palm plantations caused fires that destroyed many of these plantations, leaving them with no income.
- 4 Orangutan poaching was allowed because the presence of poachers actually helped keep loggers out of the orangutans’ habitat.

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(12)

One reason Willie Smits hired local villagers to help restore the rainforest was that he

- 1 wanted them to see that the results of their work would lead directly to improvements in their lives.
- 2 believed sugar palms would provide them with enough income to continue working in the rainforest full time.
- 3 thought their familiarity with local primate species would be a great benefit to the sanctuary.
- 4 needed their knowledge of native trees and plants so that he could find a way to destroy alang-alang.

(13)

Why are some environmentalists critical of Smits's efforts?

- 1 They argue it is not possible to maintain a balance among plant and animal species in a man-made rainforest.
- 2 They feel that recreating the rainforest has led local villagers to grow too dependent on a small area of land for food.
- 3 They fear that his rainforest's success could actually encourage further destruction of the environment.
- 4 They think his rainforest will fall victim to drought in the near future, so it is not worth the financial investment.

(14)

Smits reacted negatively to applause at the 2009 talk because

- 1 the audience interpreted the fact that he cares for so many orangutans as a sign that conservation efforts are succeeding.
- 2 he wanted the audience to understand that building more primate sanctuaries is the best way to save Borneo's orangutans.
- 3 the audience only seemed to understand the importance of his efforts to protect orangutans, not his efforts to help villagers.
- 4 he felt the audience was not convinced that more orangutans lived in his sanctuary than in all the world's zoos.