

the recovery and reuse of this precious metal economical, a strategy that would also prevent its further dispersal into the environment. Previous studies have detected the presence of platinum in roadside vegetation. The Notre Dame study included samples collected on roads that are bordered by agricultural crops, leading to questions about the effects on food. Whether and how these metals are incorporated into food is not known, but the study concluded that “the potential is there,” and warns that the toxic effects of platinum “should not be underestimated.”

—*Chemical and Engineering News*, 24 September; and *Environmental Science and Technology*, 1 October. (P.H.)

RHINO FAMILY PHOTOS

The birth of four Javan rhinos in the last two years in Indonesia’s Ujong Kulon National Park may signal the recovery of one of the world’s rarest large mammals. Ujong Kulon, where an estimated 50 rhinos live, has the only viable population of this species. The new births were documented by photographs taken by cameras placed in the rhinos’ habitat by the World Wide Fund for Nature (WWF) and the national park authority in Ujong Kulon. WWF also studied rhino footprints and conducted DNA analysis of rhino droppings to determine the population inside the park. According to Nazir Foad, deputy director for species conservation at WWF Indonesia, “The births are a significant step and indicate that the rhinoceros are breeding with potential for further gains in population after years of zero growth.” Once the population reaches the park’s carrying capacity of

80, some individuals can be moved to form a new group elsewhere in Indonesia. Since the cameras were set up in January 2000, three calves have been



ILLUSTRATION
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photographed, and the footprints of another mother and calf were located in July 2001, though neither of those have been photographed. When Ujong Kulon was established in the 1930s to protect the rhinoceros, the population had dwindled to between 25 and 30. Foad notes that between 1967 and 1978, the work of park authorities, the government, the local community, and WWF helped to double the population of Javan rhinos. —<http://www.enn.com>, 11 October. (P.H.)

PLOW LESS, GROW MORE

Scientists associated with Washington, D.C.-based Future Harvest have announced that a major agricultural transformation is spreading across Asia’s breadbasket regions that could lead to higher-producing, ecologically friendlier, and more efficient agriculture for farmers in the area. “Low-till” farming, which eliminates repeated plowing of fields, is increasing harvests, reducing water use by as much as 50 percent, and requiring less fuel

for running tractors, according to researchers with the project. Because there are one-half to two-thirds fewer weeds, herbicide use is also reduced. Farmers in Bangladesh, India, Nepal, and Pakistan are practicing low-till agriculture in such numbers that scientists say the impact in the region could be as great as that of the Green Revolution of the 1970s. The success of the approach comes at an opportune time as water scarcity in Asia threatens the region’s rice and wheat yields. The transformation is largely the result of pioneering agricultural research begun in the region by the International Maize and Wheat Improvement Center (CIMMYT), based in Mexico.

Low-till practices are currently being used in Asia to sow wheat after a rice harvest. Previously, farmers had to make as many as 6 to 12 tractor passes across a field to break up the muddy soil enough to plant wheat after rice. “Plowing significantly delays planting of wheat,” says Peter Hobbs, a natural resource agronomist with CIMMYT and one of the lead scientists with these efforts in the region. “As a result, the crop often does not mature before the onset of the hot, dry season before the monsoon. The dry heat shrivels the grain and reduces harvests and incomes.” In addition, plowing exposes the soil to air, which oxidizes the soil and roots. Over time, nutrients and moisture in the soil are depleted, increasing the need for water through irrigation. Low-till agriculture, however, leaves much or all of the soil surface and existing ground cover undisturbed during the planting process. In one pass across a field, a “planter” or “seed drill” places seeds and fertilizer into the soil through the rice straw left standing