Land

Estimated Abandoned Waste Tire Piles in the Border Region Figure 11	**Type of indicator** State - Response
	Goal and Objective: 3.3
Description of the INDICATOR	
Definition	Estimated Abandoned Waste Tire Piles in the Border Region Percent removed and original number of tires at the site, 2004 -2005
Importance of the indicator/purpose	Throughout the border region, millions of scrap tires have accumulated in several waste tire piles. Composed of tires from both Mexico and the U.S., the piles tend to result from a robust market for partially used tires. Tire piles create ideal breeding grounds for mosquitoes, rodents, and other vectors of disease, which leads to a potential increase in the incidence of malaria, dengue fever, and encephalitis such as West Nile Virus. Further, tire pile fires are difficult to extinguish and can burn for months, emitting noxious fumes and generating liquid wastes that contaminate soil, groundwater, and surface water.
Units of measure	Percent of tires removed (estimated) / Original number of tires at site
Concepts and definitions	The goal of Border 2012 is to clean up three of the largest sites that contain abandoned waste tires in the U.S.-Mexico border region by 2010. The three priority tire piles are: • INNOR located in Mexicali, BC • El Centinela located in Mexicali, BC • Cuidad Juarez located in Cuidad Juarez, Chihuahua
Data collection period	2004 to 2005
Calculation	Calculate the percent of tires removed by dividing the estimated quantity of tires removed by the estimated original number of tires at the site. Plot geographically the percent removed and original number of tires.
Sources of information	Data were provided by SEMARNAT. Subsecretaria de Fomento y Normatividad Ambiental. 2006. (Table 13-1)
References (additional information)	Blackman, A. and A. Palma. 2002. *Scrap Tires in Ciudad Juarez and El Paso: Ranking the Risks. Discussion Paper 02-46*. Resources for the Future. Washington DC. http://www.rff.org/Documents/RFF-DP-02-46.pdf Lin, C., J.D. Miller and J.R. Parga. 200X. *Disposal Alternatives for Waste Tires in the Border Region*. http://www.scerp.org/projs/01rpts/P2-01-2.pdf U.S. EPA. 2005. *Summary Report for the Tire Removal at the INNOR Site, Mexicali, Mexico*. Prepared for the U.S. EPA Region 9 by Tetra Tech. EM Inc. July 29, 2005. SECRETARIA DE MEDIO AMBIENTE Y RECURSOS NATURALES. DIARIO OFICIAL. Miércoles 8 de octubre de 2003. page 10.
Limitations of the indicator	The exact number of tires at some locations is difficult to estimate. This indicator does not take into capture the number of tires being cleaned up from smaller tire piles in the border region.

Amount of Pesticide Use in the Border Region Figure 12	**Type of indicator** Pressures
	Goal and Objective: 4.3
Description of the INDICATOR	
Definition	Geographic distribution of pesticide use in the U.S.-Mexico border region, 2000-2003
Importance of the indicator/purpose	Communities along the border are confronted with a host of environmental problems, including pollution from agricultural activities. Border residents may suffer health problems related to environmental factors including the improper management of toxics, hazardous and solid wastes, and pesticides. Pesticide exposure can cause a variety of occupational illnesses in farm workers, including eye injuries, cancer, respiratory illnesses and dermatitis.
Units of measure	Units of measure were not reported in the source document. It is believed to represent pounds of use by county or municipality.
Concepts and definitions	--
Data collection period	2000-2003. U.S.-Mexico border region
Calculation	None – graphical presentation from PAHO report. According to the report, data presented for California and Arizona are authentic numbers based on the full-use reporting systems under the California Department of Pesticides Regulation (CDPR) and the Arizona Department of Agriculture. New Mexico, Texas, and Mexico do not require full disclosure of pesticide use and thus their numbers are based on estimates.
Sources of information	Pan American Health Organization (PAHO). 2005 April. Final Report Inventory of Agricultural Pesticides Used In The United States - Mexico Border Region. U.S.-Mexico Border Field Office.
References (additional information)	--
Limitations of the indicator	The map may not be completely representative of pesticide use as data were difficult to collect due to reporting practices. Data were not available for Texas and most Mexican states and were estimated.

Number of Farmworkers Trained in Safe Pesticide Use in the U.S. Side of the Border Region Figure 13	**Type of indicator** Response - State **Goal and Objective:** 4.3
Description of the INDICATOR	
Definition	Number of farmworkers trained in safe pesticide use in the U.S. side of the border region by state, 2000-2003
Importance of the indicator/purpose	Pesticide exposure can cause a variety of occupational illnesses in farm workers, including eye injuries, cancer, respiratory illnesses and dermatitis. Proper training in pesticide handling and use results in the protection of workers and their families from potential exposures and adverse health effects.
Units of measure	Number of workers trained
Concepts and definitions	
Coverage	2003 – 2005. U.S. side of the border region by state
Calculation	Plot by state and by year and totals for years on the U.S. side of the border. Number of farm workers trained on the risks and safe handling of pesticides are estimated based on attendance at training sessions provided by various organizations within states along the U.S.-Mexico border region Association of Farmworker Opportunity Programs (AFOP) under the AmeriCorps Program offers trainings at several sites within the border region in California, Arizona, and New Mexico. Attendees were asked to sign-in on rosters and these numbers were provided directly by AmeriCorps as listed in Table 15-2. For 2004, funding was lost for the AmeriCorps Program. For this year only, data for California were supplemented with data provided by the Proteus organization This group provides trainings in Tulare, Kings, Fresno, and Kern counties which are not located in the border region. However, as mentioned above it is unknown where the people who receive trainings actually work and a percentage may return to work in the border region. Data on the numbers of farm workers trained in Texas were available through the Texas Department of Agriculture. For 2002-2005 these numbers are presented in Table 15-3 by year and county. This data were generated by manual counts of sign-in sheets from each training session.
Sources of information	Association of Farmworker Opportunity Programs (AFOP). AmeriCorps Program. Proteus organization. http://www.proteusinc.org Texas Department of Agriculture.
References (additional information)	
Limitations of the indicator	In most cases, it cannot be confirmed if the people receiving training return to work specifically in the border region.

Cumulative Number of Farmworkers Trained in Safe Pesticide Use in the Border Region Figure 14	**Type of indicator** Response - State **Goal and Objective:** 4.3
Description of the INDICATOR	
Definition	Cumulative total number of farmworkers trained in safe pesticide use in the U.S.-Mexico border region, 2003-2005
Importance of the indicator/purpose	Proper training in pesticide handling and use results in the protection of workers and their families from potential exposures and adverse health effects. The Border 2012 program has a goal to train 36,000 farmers.
Units of measure	Number of workers trained
Concepts and definitions	
Coverage	2003-2005. U.S.-Mexico border region
Calculation	The total number of workers trained in Mexico in 2004 (from Table 15-1) was added to the total in the U.S. side of the border (Tables 15-2 and 15-3) to calculate a cumulative total number of farmworkers trained. Pesticide trainings offered throughout Mexico are part of the "Train the Trainer" courses sponsored by Programa Nacional Contra Los Riesgos Por el Uso De Plaguicidas. Data provided by the California Department of Pesticide Regulation. 2003: 12,535 (Table 15-2) + 491 (Table 15-3) = 13,026 Cumulative total = 13,026 2004: 4,057 (Table 15-2) + 709 (Table 15-3) + 923 (Table 15-1) = 5,689 Cumulative total = 18,715 2005: 8,026 (Table 15-2) + 942 (Table 15-3) = 8,968 Cumulative total = 27,683
Sources of information	California Department of Pesticide Regulation. "Train the Trainer" sponsored by Programa Nacional Contra Los Riesgos Por el Uso De Plaguicidas. Association of Farmworker Opportunity Programs (AFOP). AmeriCorps Program. Proteus organization. http://www.proteusinc.org. Texas Department of Agriculture.
References (additional information)	
Limitations of the indicator	In most cases, it cannot be confirmed if the people receiving training return to work specifically in the border region.