

Agroforestry Pest Farm Bill Survey Work Plan – July 1, 2014 – June 30, 2015

Cooperator:	Kansas Department of Agriculture		
State:	Kansas		
Project:	Agroforestry Pest Survey		
Project funding source:	Farmbill Survey <input checked="" type="checkbox"/>		
Project Coordinator:	Laurinda Ramonda		
Agreement Number	14-8420-1738-CA		
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This Work Plan reflects a cooperative relationship between the Kansas Department of Agriculture (KDA) (the Cooperator) and the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ). It outlines the mission-related goals, objectives, and anticipated accomplishments as well as the approach for conducting an Agroforestry Pest survey and the related roles and responsibilities of the Kansas Department of Agriculture and the related roles and responsibilities of the parties as negotiated.

I) OBJECTIVES AND NEED FOR ASSISTANCE

In the most recent (2009) Timber Product Output Report from the Kansas Forest Service: Many people are surprised to learn that Kansas timber harvests contribute to the state's economy. Though it is a small component of the overall economy (less than 1% of total manufacturing receipts) it is important to the loggers, sawmill operators, and some of secondary manufacturers who process Kansas wood products. There are over 50 sawmills, 40 timber buyers, and 200 secondary manufacturers (cabinet makers, etc.) who rely on local timber harvests. Kansas timber harvests also benefit private landowners and it is not uncommon to make thousands of dollars from periodic timber sales, especially from the sale of black walnut. Timber harvest can also benefit forest health when it releases desirable understory trees or it can lower the quality of the forest if desirable understory does not exist and there is no proper follow up management.

This same report stated: The USDA Forest Service, Northern Research Station, periodically surveys Kansas sawmills to determine the size and composition of the wood that is being processed. The last Timber Products Output survey was conducted in 2009. It suggests that in 2009 1.7 million cubic feet or 20.4 million board feet was harvested from Kansas forests. This is enough wood to construct an estimated 1,700 homes based on an average of 12,000 board

feet of wood per house. However, most Kansas timber is not used for home construction, but ends up as furniture, gunstocks, veneer, pallets, dunnage and other miscellaneous forest products. Black walnut has always driven forest industry in Kansas and accounted for 43% of the timber harvested in 2009. Other important species are bur oak, silver maple, red oak, and ash. About 55% of the timber harvested in Kansas is processed locally while most of the remaining volume was sent to mills in Missouri and Iowa. In 2009 Kansas mills generated 16.6 thousand green tons of sawdust, slabs, and edgings with about 46% used by the mulch industry and 34% for animal bedding, small dimension specialty products, 10% for residential fuel and 2% industrial fuel.

Surveying for pests that can have an adverse effect on the timber industry in Kansas is needed and cannot be done without help through this funding. The status of oak and walnut high-consequence pests needs to continue both locally and nationally especially for newly emerging threats.

II) RESULTS OR BENEFITS EXPECTED

The Cooperator seeks to conduct a program which is expected to result in:

A. What results or benefits will be derived from the cooperative effort?

1. Geographic assessment will occur from data gathered on locations of oak and walnut that are used for logging.
2. Identification of pathways so action can be taken to stop further spread of pests.
3. Support domestic and foreign exports of walnut trees and wood from Kansas.
4. Presence or absence survey of the Oak ambrosia beetle (*Platypus quercivorus*).
5. Presence or absence survey of the Oak processionary moth (*Thaumetopoea processionea*).
6. Presence or absence survey of the Walnut twig beetle (*Pityophthorus juglandis*), vector of the *Geosmithia* fungus that causes thousand cankers disease of walnut.

III) APPROACH

What is the plan of action or approach to the work?

The survey will entail trapping 35 sites in 21 counties using a seasonal staff person from May through August. The traps will be placed in the central and north central part of the state focusing on areas around saw mills, collection points, plantations and reservoirs with walnut trees. Trapping efforts will be concentrated in the part of the state that has had very little pest survey done.

Pests trapped for:

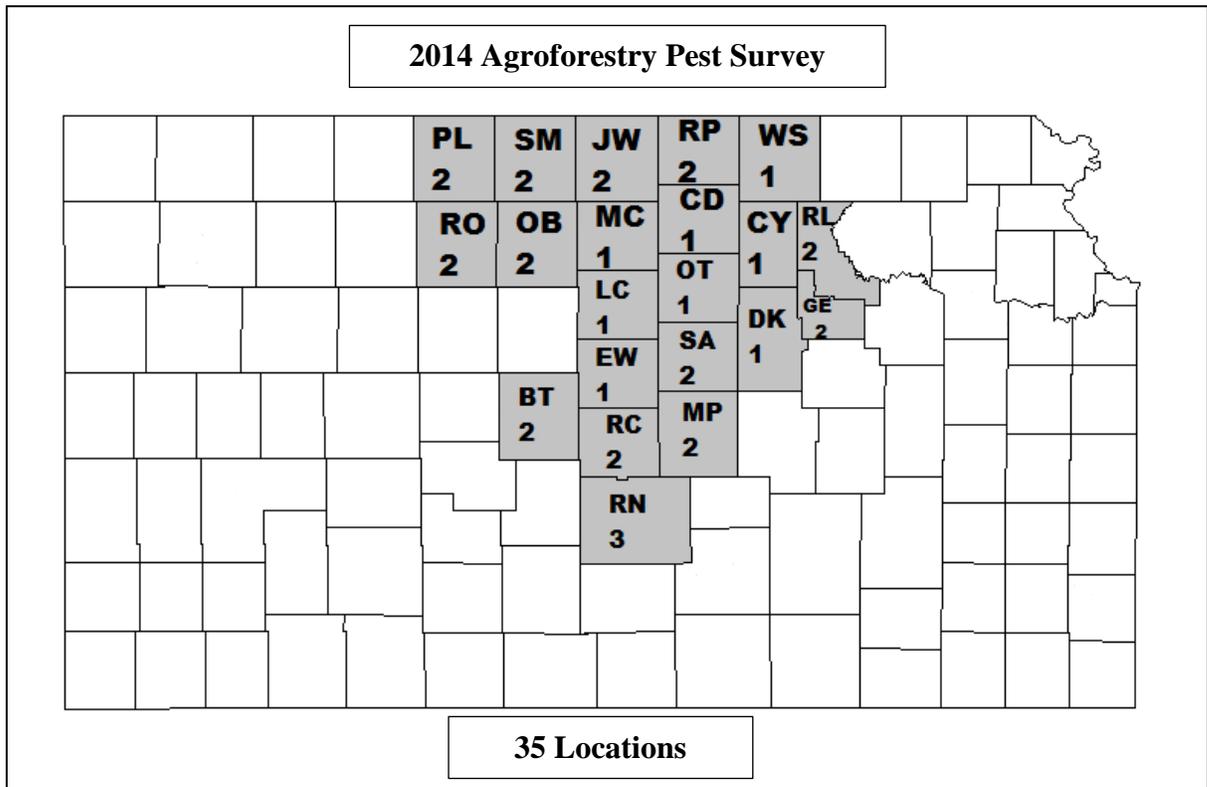
Oak ambrosia beetle (*Platypus quercivorus*) will be trapped using a Lindgren funnel trap with a wet cup (25% propylene glycol) using a *Platypus quercivorus* lure. The lure is effective for 28 days. Trapping will begin in May and end in August. The traps will be checked and specimens collected every two weeks throughout the survey season. Traps will be provided by cooperator.

Oak processionary moth (*Thaumetopoea processionea*) will be trapped using a wing trap using a *Thaumetopoea processionea* lure. The lure is effective for 28 days. Trapping will begin in May and end in August. The traps will be checked and specimens collected every two weeks throughout the survey season.

Walnut twig beetle (*Pityophthorus juglandis*) will be trapped for using four funnel Lindgren traps with a wet cup (25% propylene glycol) and walnut twig beetle lure. The trapping will follow the Thousand Cankers Disease Survey Guidelines. The lure from Contech will be provided by the cooperator. Trapping is expected to begin in May and continue through August. The traps will be checked and specimens collected every two weeks throughout the survey season. Traps and lure will be provided by cooperator.

Suspect target pests from traps will be screened by the state entomologist and if needed sent to a USDA identifier. Trap screening will occur during the trapping season. Seasonal staff will be interacted with at least on weekly basis to check on progress and receive samples from traps.

For walnut twig beetle, the state entomologist will screen targets and then send targets to Whitney Cranshaw at Fort Collins. If cankers are found on walnut trees then these samples will be sent to the Great Plains Diagnostic Network (GPDN) at Kansas State University for identification. These samples will be double bagged and brought to the lab.



A. The Cooperator and APHIS Mutually Agree to/that:

- Utilize Cooperator and APHIS program funding, as outlined in the Financial Plan, within the authorized parameters to support survey, detection and objectives.

1. What is the quantitative projection of accomplishments to be achieved?

a. By activity or function, what are the anticipated accomplishments by month, quarter, or other specified intervals?

- Trapping will occur from May through August.
- Fact sheets, webpage, resources, and pest reporting will be continually updated as new information becomes available.
- Data will be entered into the APHIS APPROVED database when pest identification is confirmed and/or becomes available.
- GPS coordinates will be included with surveys.
- Geographic assessment will occur from data gathered on locations of oak and black walnut populations.
- Survey for presence or absence of the Oak ambrosia beetle (*Platypus quercivorus*).
- Survey for presence or absence of the Oak processionary moth (*Thaumetopoea processionea*).
- Survey for presence or absence of the walnut twig beetle, vector of the *Geosmithia* fungus.

b. What criteria will be used to evaluate the project? What are the anticipated results and successes?

- Pest detection survey activities completed.
- All data collected from the pest detection survey is entered into the approved database.
- SPHD, SPRO, PSS, SSC meetings to keep updated on issues, if needed.
- Presence or absence of the oak ambrosia beetle.
- Presence or absence of the oak processionary moth.
- Presence or absence of the walnut twig beetle.
- Presence or absence of the *Geosmithia* fungus.
- Increase collaboration potential with other agencies or university.
- Better knowledge for the wood industry.
- Better knowledge of oak and black walnut populations.
- Better knowledge of high risk sites.

c. Methodology used to determine if identified needs are met and results and benefits achieved:

1. Identified needs are met

- Survey completed within specified timeframe.

2. Results and benefits are achieved

- Review of the APHIS APPROVED database to ensure that data from the pest detection activities have been entered.
- Review of the accomplishment reports, supporting outreach materials (if applicable), and maps.
- SPHD, SPRO, PSS, SSC meetings to keep updated on issues.

2. What type of data will be collected and how will it be maintained?

a. Address timelines for collection and recording of data.

All survey data from cooperative agreements involving pest surveys will be entered by the State Survey Coordinator or KDA staff into the APHIS APPROVED database.

The data entry requirements are:

- Enter new national, state, and county records into the approved database within 48 hours of confirmation of a pest or pathogen identification by a recognized identifier.
- Non-time sensitive records, including negative data, must be entered into the approved database within 2 weeks of confirmation.
- Negative data will be entered within 2 weeks of decommissioning a trap, obtaining the results from an identifier, or performing a laboratory assay.
- Survey data will be collected with GPS technology for internal pathway analyses. Survey maps will be developed from approved GIS mapping software.

b. How will APHIS be provided access to the data?

- Complete, accurate, and timely pest survey data will be entered into the APHIS APPROVED database using approved protocol and accessible.
- Semi-annual and annual survey accomplishment reports submitted to ADODR.

B. The Cooperator will:

- Document locations by GPS coordinate.
- Equipment used in this survey will be maintained by cooperator upon completion of project.
- Conduct in north central and central Kansas from May 2014 to August 2014.
- Hire a seasonal staff person to set up and monitor traps.
- Supply GPS equipment.
- Provide KDA staff when needed.
- Provide vehicle and fuel for travel for conducting survey and collecting data.

1. By function, what work is to be accomplished?

- Trapping will occur from May through August for the oak ambrosia beetle, oak processionary moth and walnut twig beetle.
- If samples are taken from walnut trees, the samples will be doubled bagged and taken to the GPDN lab.
- Survey will be done with one temporary/seasonal staff employee. The seasonal employee will be trained and monitored by the State Survey Entomologist and State Survey Coordinator.
- Screening of suspect insects will be done by the state entomologist.
- Data will be entered into the APHIS APPROVED database when pest identification is confirmed and/or becomes available.
- GPS coordinates will be included with surveys.
- Suspect oak ambrosia beetle, oak processionary moth and walnut twig beetle specimens in traps will be sent to a qualified identifier.
- Suspect *Geosmithia* fungus specimens will be taken to the GPDN at Kansas State University.
- Fact sheets, webpage, resources, and pest reporting will be continually updated as new information becomes available.
- Geographic assessment will occur from data gathered on locations of black walnut populations.
- Presence or absence of the oak ambrosia beetle, oak processionary moth and walnut twig beetle.

2. What resources are required to perform the work?

- State entomologist - screen for suspect oak ambrosia beetle, oak processionary moth and walnut twig beetle specimens in traps.
- Qualified identifiers - confirmation of suspect oak ambrosia beetle, oak processionary moth and walnut twig beetle specimens.
- GPDN lab - tree samples sent for *Geosmithia* fungus identification.
- One temporary/seasonal employee - employed Agroforestry Pest survey to conduct the trapping survey.
- KDA permanent staff - help with training and supervision of seasonal employee.
- GPS unit and map for locations.
- Rental vehicle (shortage of state vehicles) and fuel are required to set up and monitor traps.
- Provided by Cooperator - office space with associated services and utilities, computers and other office equipment for the use of Cooperator personnel. These include digital camera and computer with internet service. Computers will be used for entering survey data into the state survey database and APHIS APPROVED database.

3. What numbers and types of personnel will be needed and what will they be doing?

- One temporary/seasonal employee will conduct the trapping survey.

- Data acquired will be entered into APHIS APPROVED by State Survey Coordinator or KDA staff.
 - KDA staff will help with training and supervision of seasonal employee.
 - Qualified identifiers for suspect oak ambrosia beetle, oak processionary moth and walnut twig beetle specimen identification.
 - GPDN lab for tree samples sent for *Geosmithia* fungus identification.
- 4. What equipment will be needed to perform the work?** Include major items of equipment with a value of \$5,000 or more.
- a. **What equipment will be provided by the cooperator?** N/A
 - b. **What equipment will be provided by APHIS?** N/A
 - c. **What equipment will be purchased in whole or in part with APHIS funds?**
N/A
 - d. **How will the equipment be used?** N/A
 - e. **What is the proposed method of disposition of the equipment upon termination of the agreement/project?** N/A
- 5. Identify information technology equipment, e.g., computers, and their ancillary components.**
- GPS units to document locations
 - KDA computers with internet to enter data
- 6. What supplies will be needed to perform the work?**
- GPS units
 - Computers
 - Alcohol
 - Plastic bags
 - Jars
 - Coffee filters
 - Propylene glycol
 - Tubing
 - Lindgren funnel traps
 - Wing traps
 - Throw bag
 - Oak ambrosia beetle, oak processionary moth and walnut twig beetle lure
 - Poles for hanging traps
 - Rope for hanging traps
 - Rental vehicle
 - Fuel for rental vehicle

a. What supplies will be provided by the Cooperator?

- GPS units
- Computers
- Plastic bags
- Poles
- Lindgren funnel traps
- Throw bag
- Tubing

b. What supplies will be provided by APHIS?

- None

c. What supplies will be purchased in whole or in part with APHIS funds?

- Rental vehicle
- Fuel for rental vehicle
- Wing traps
- Jars
- Propylene glycol
- Alcohol
- Coffee filters
- Rope
- Oak ambrosia beetle, oak processionary moth and walnut twig beetle lure

d. How will the supplies be used?

- For travel to sites.
- For trapping and specimen collection.
- For shipping of specimens to identifiers or labs.

e. What is the proposed method of disposition of the supplies with a cumulative value over \$5,000 upon termination of the agreement/project?

- There should not be any.

7. What procurements will be made in support of the funded project and what is the method of procurement (e.g., lease, purchase)?

- Rental vehicle
- Fuel for rental vehicle
- Alcohol
- Plastic bags
- Jars
- Coffee filters

- Propylene glycol
- Rope
- The Fiscal Department at the Kansas Department of Agriculture will provide most contracts.
- One seasonal employee will be employed by a temporary employment service that has a contract with the state.
- Most procurements will be made by purchase order.
- Some procurements will be made by reimbursable personal expense.

8. What are the travel needs for the project?

a. Is there any local travel to daily work sites? Who is the approving official? What are the methods of payment? Indicate rates and total costs in the Financial Plan.

- Travel will occur to trapping locations.
- Procurements will be made by purchase order.
- Some procurements will be made by reimbursable personal expense.
- Provided through the KDA fiscal department.
- The KDA Plant Protection and Weed Control Plant Program Manager is the approving official.
- Costs are included in the financial plan.

b. What extended or overnight travel will be performed (number of trips, their purpose, and approximate dates). Who is the approving official? What is the method of payment? Indicate rates and total cost in the Financial Plan.

- There should not be any.

c. What is the method of payment? Indicate rates and total cost in the Financial Plan.

- Method of payment is by purchase order.
- Some payments will be made by reimbursable personal expense.
- Costs are included in the financial plan.

9. Reports:

a. Submit all reports to the APHIS Authorized Department Officer's Designated Representative (ADODR). Reports include:

1. Narrative accomplishment reports in the frequency and time frame specified in the Notice of Award, Article 4.
2. Federal Financial Reports, SF-425 (replaces SF-269 October 1, 2009) in the frequency and time frame specified in the Notice of Award, Article 4.

10. Are there any other contributing parties who will be working on the project?

a. List Participating Agency/Institution:

- KDA
- USDA/APHIS/ PPQ
- Kansas Forest Service
- GPDN

b. List all who will work on the project:

- KDA
- USDA/APHIS/ PPQ
- Kansas Forest Service
- GPDN

c. Describe the nature of their effort:

- KDA – trapping, tree sampling, site selection, outreach
- Kansas Forest Service - site selection, outreach
- GPDN – *Geosmithia* fungus identification
- USDA/APHIS/PPQ – funding, taxonomic support and some traps and lures

d. Contribution:

- Funding
- Site selection
- Outreach
- *Geosmithia* fungus identification

C. APHIS Will:

1. Outline the Agency's (USDA APHIS PPQ) substantial involvement.

a. Include any significant Agency collaboration and participation

- Provide any new information that becomes available on the oak ambrosia beetle, oak processionary moth, walnut twig beetle and the *Geosmithia* fungus.
- Review data.
- Provide funds to the Cooperator to cover costs outlined in the Financial Plan.
- Help to make arrangements for Taxonomic support in identification.
- Provide input and oversight in the development and execution of the survey to ensure it meets national program goals and APHIS mission needs within the state.

b. Project oversight and performance management

- Review of data results submitted to the APHIS APPROVED database.
- Review data and submit accomplishment reports to ADODR.
- Provide training, when necessary.

2. What equipment will be needed to perform the work? Include major items of equipment with a value of \$5,000 or more.

- Vehicle
- GPS units
- Computers

a. Will Equipment be loaned or provided by APHIS? Yes No

If Yes, please list:

b. How will the equipment be used?

- Trapping for the oak ambrosia beetle, oak processionary moth and walnut twig beetle.

IV) GEOGRAPHIC LOCATION OF PROJECT

A. Is the project statewide or in specific counties, townships, and/or national or state parks?

Possible counties for trapping: Barton, Clay, Cloud, Dickinson, Ellsworth, Geary, Jewell, Lincoln, McPherson, Mitchell, Osborne, Ottawa, Phillips, Reno, Republic, Rice, Riley, Rooks, Saline, Smith, Washington

B. What type of terrain (e.g., cropland, rangeland, woodland) will be involved in the project?

Many types of terrain will be involved.

C. Are there any unusual features which may have an impact on the project or activity such as rivers, lakes, wild life sanctuaries, commercial beekeepers etc? (list all that apply)

There could be many unusual features which may have an impact on the project or activity such as rivers, lakes, forests and wildlife sanctuaries. Areas might have disruption through human contact and dust, dirt and debris.

D. Identify the kind of data to be collected:

The kinds of data to be collected will include, but not limited to, observation number, observation date, data source, state/county, site code, pest code, pest status, GPS location and survey method.

E. Establish criteria to evaluate the results and successes of the project:

1. Results:

- Pest detection survey activities for the project completed.
- All data collected from the pest detection survey is entered into the approved database.
- Maps of the pest detection survey activities are produced to aid in planning of future pest detection surveys, pathway risk analysis, and outreach activities.
- State CAPS and KDA meetings to keep updated on issues.

2. Successes:

- Presence or absence of the oak ambrosia beetle, oak processionary moth and walnut twig beetle.
- Identification of high risk areas.
- Increased knowledge of resource locations.

F. Methodology used to determine if the results and benefits are achieved:

1. Identified needs are met:

- Survey completed in specified timeframe.

2. Results and benefits are achieved:

- Review of the APHIS approved database to ensure that data from the pest detection activities have been entered.
- Review the accomplishment reports, supporting outreach materials (if applicable), and maps.
- State CAPS and KDA meetings to keep updated on issues.

V) DATA COLLECTION AND MAINTENANCE

All survey data from cooperative agreements involving pest surveys will be entered by the State Survey Coordinator or KDA staff into the APHIS approved database using approved protocol.

VI) TAXONOMIC SUPPORT

A. Person or Institution that will screen targets (Name & Contact Information)

State Entomologist
 Kansas Department of Agriculture
 PO Box 19282, Forbes Field, Bldg. 282, Street I
 Topeka, Kansas 66619

*All insect specimens will be screened by the state entomologist.

*Walnut tree samples, if needed will be taken to the Great Plains Diagnostic Network at Kansas State University.

OR

B. **Request for taxonomic support.**

For walnut twig beetle:

Region 2 (CO, KS, NE, SD, WY)

Thousand Cankers Disease

Ned Tisserat
C137 Plant Sciences
1177 Campus Delivery
Fort Collins, CO 80523
(970) 491-6527

Walnut Twig Beetle

Whitney Cranshaw
C201 Plant Sciences
1177 Campus Delivery
Fort Collins, CO 80523
(970) 491-6781

VII) SIGNATURES

ROAR

Date

ADODR

Date

Detailed Farmbill Financial Plan

PROJECT: Agroforestry Pest Survey

COOPERATOR NAME: Kansas Department of Agriculture

AGREEMENT NUMBER: 14-8420-1738-CA

TIME PERIOD: July 1, 2014 – June 30, 2015

Financial Plan must match the SF-424A, Section B, Budget Categories

ITEM			APHIS FUNDS	COOPERATOR FUNDS (Show even if zero)	TOTAL
PERSONNEL:	Hours	Salary			
KDA staff - Paid by APHIS funds	0		\$0	\$0	\$0
KDA staff - Paid by Cooperator funds	20	\$25	\$0	\$500	\$500
Subtotal			\$0	\$500	\$500
FRINGE BENEFITS:	Percent (enter as decimal not %)				
Paid by APHIS funds			\$0	\$0	\$0
KDA staff - Paid by Cooperator funds - 22% of salary for permanent employees	0.22	\$500		\$110	\$110
Subtotal			\$0	\$110	\$110
TRAVEL:	Cost	Length of time			
SUV rental for temporary staff for 4 months/seasonal staff @ \$979/month (shortage in state vehicles) **	\$979	4	\$3,916		\$3,916
Subtotal			\$3,916	\$0	\$3,916
EQUIPMENT:	Cost				
			\$0		\$0
Subtotal			\$0	\$0	\$0
SUPPLIES:	Cost	Length of time			
Polypropylene glycol.	\$350		\$350		\$350
Fuel - 4,268 miles/20mpg x \$3.75/gallon - for seasonal staff rental vehicles**	\$800	4	\$3,200		\$3,200
Traps and lure provided by USDA	\$0		\$0		\$0

Subtotal			\$3,550	\$0	\$3,550
CONTRACTUAL:	Cost	Length of time			
Key Staffing (seasonal staff) \$20.00 x 640 hours	\$20	640	\$12,800		\$12,800
Subtotal			\$12,800	\$0	\$12,800
OTHER:	Cost				
Shipping samples to identifier	\$50		\$50	\$0	\$50
Subtotal			\$50	\$0	\$50
TOTAL DIRECT COSTS			\$20,316	\$610	\$20,926
	Percent (enter as decimal not %)				
INDIRECT COSTS (19.7% on Total Direct Cost of salary and fringe benefits)*	0.197		\$0	\$120	\$120
TOTAL			\$20,316	\$730	\$21,046
COST SHARE INFORMATION (Percent)			97%	3%	

*Kansas' Negotiated Cost Rate (Salary + Fringe Benefits x %=Indirect Cost)

** There is a shortage of state vehicles. We give the option of renting a vehicle or using personally owned vehicles. If renting we pay for the fuel and if a personal vehicle is used we pay mileage