**Student Title: Magee, Tim OL 241 Assignment 4 Field Guide**

**Student Date: Date of Student Assignment Here**

**Assignment 4 Field Guide on Participatory Mapping of Soil and Water Resources**

**Online Learning. OL 241 Writing Your Local Climate Action Plan:** <https://training.csd-i.org/courses/writing-your-local-climate-action-plan/>

**Center for Sustainable Development:** <https://training.csd-i.org/>

**Introduction**

Participatory mapping is an excellent way of learning in greater detail about a community, their resources, the hazards they face, and how the town, agricultural fields, roads, hills and water sources interrelate. It is also a method for the community members to see things they take for granted every day through a new lens. Participatory mapping is a tremendous tool because all workshop participants can engage in the activity.

Organize a 4-hour workshop with 12–15 members of your community. This can also be done in two, 2 hour workshops. The purpose of this workshop is for them to understand the impact that wind, soil health, location of water sources, variable rains, runoff, floods, and drought have on agricultural productivity, on the town's water supply, and on damage from torrential storms.

**Geography of the Community**

Because the area surrounding Willcox is quite large, consider choosing one small section of a watershed near to the town for the map.

I visited this section of watershed the day before the workshop to tour the farm fields, forests, and water sources with one of the community members. I also met in advance with a hydraulic engineer for background information on soil restoration, water conservation and water management so that I was better prepared.

**Drawing the Basic Map**

Tape several sheets of newsprint together and place them on a table. A suggestion is to begin with a black marker to draw the basic outline of the town, roads, watersheds, and major farming areas. You can then use different colors for houses, rivers, and agricultural fields. Another suggestion is to take 15 minutes and have community members draw a small preliminary map of the area first. This will accomplish two things: you can quickly solve spatial problems by moving things around on the preliminary drawing—and you might discover that there is a good illustrator in the group. Let your group artist transfer this basic outline of the community onto the larger piece of taped together sheets of newsprint.

**Indicating the Location of Community Features**

Take colored sheets of paper and cut them out to represent additional features. These could be individual farm fields, farm houses, and parts of the town itself. Stick them to the map with removable tape so they can be moved or adjusted; by removing these bits of paper completely, the map can be used again for a different assessment.

**Features Important for Soil, Water and Agriculture**

The following are important features:

• sources of both domestic and agricultural water and their relationship to the village/ farmlands rivers and streams

• seasonal availability of both domestic and agricultural water

• the location of steep hillsides or canyons

• community land, forest boundaries, grazing/pasture lands

• the location of different crops, orchards, pastureland

**Indicating Community Hazards on the Map**

When everybody at the workshop is satisfied with the basic map, begin applying specific information. Examples could be:

• farmlands vulnerable to drought (or insufficient access to water)

• farmlands vulnerable to flooding, too much wind exposure, and other weather-related hazards

• areas that suffer from excessive runoff

• areas of high erosion and gullies

• the location of different crops, orchards, pastureland

• forest cover and areas of deforestation

Which parts of the community, which people, which personal assets, which environmental resources, and which livelihoods are the most vulnerable to the hazards as identified on the hazard map?

**Conclusion**

To reinforce what has been learned

1. discuss and review what has been learned

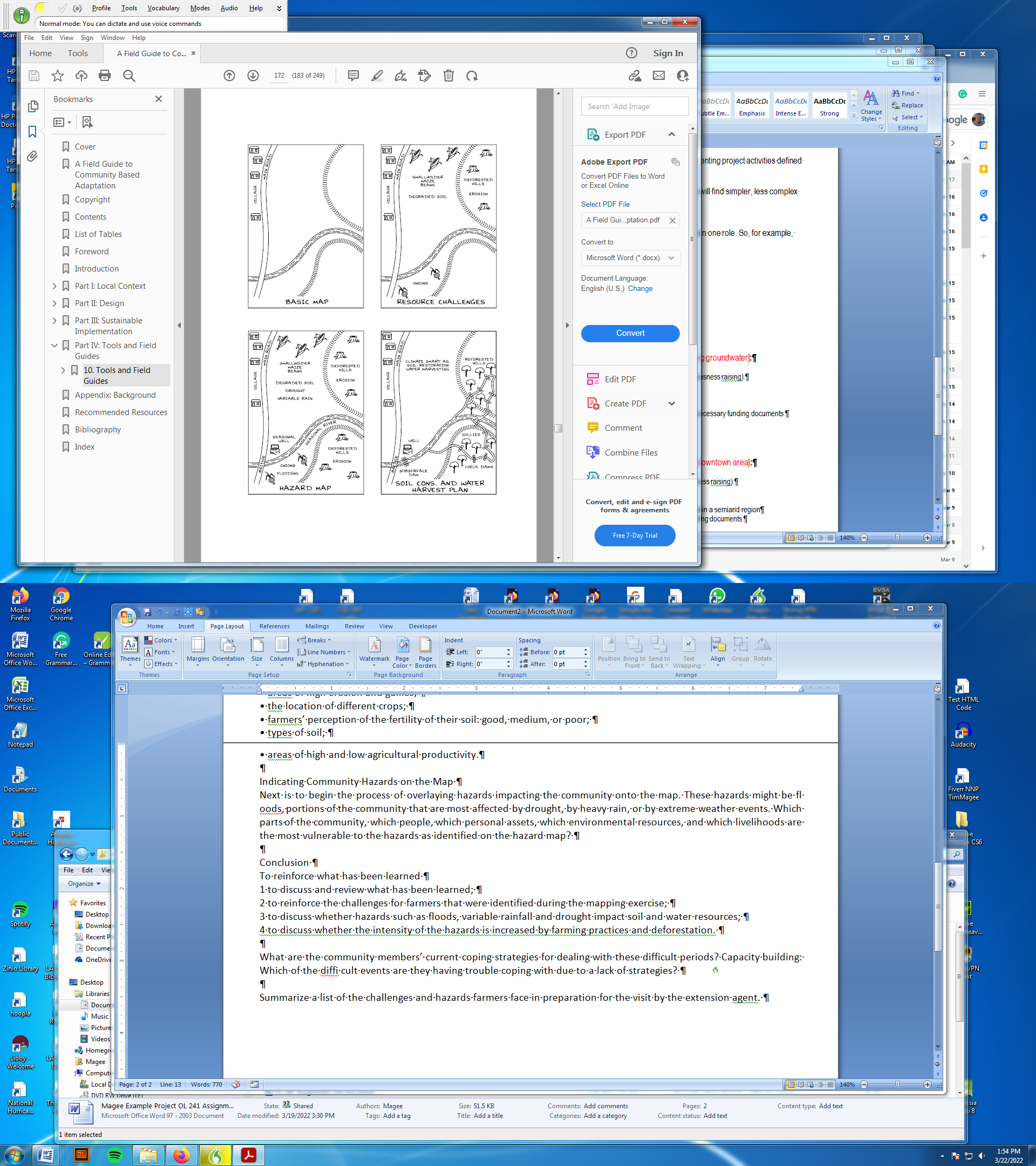
2. reinforce the challenges for farmers and townspeople that were identified during the mapping exercise

3. discuss whether hazards such as floods, variable rainfall and drought impact soil and water resources

4. discuss whether the intensity of the hazards is increased by farming practices and deforestation

What are the community members’ current coping strategies for dealing with these difficult periods? Which of the difficult events are they having trouble coping with due to a lack of strategies? Summarize a list of the challenges and hazards farmers face in preparation for the visit by the extension agent at a future workshop.

Here is an example of a map:



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