

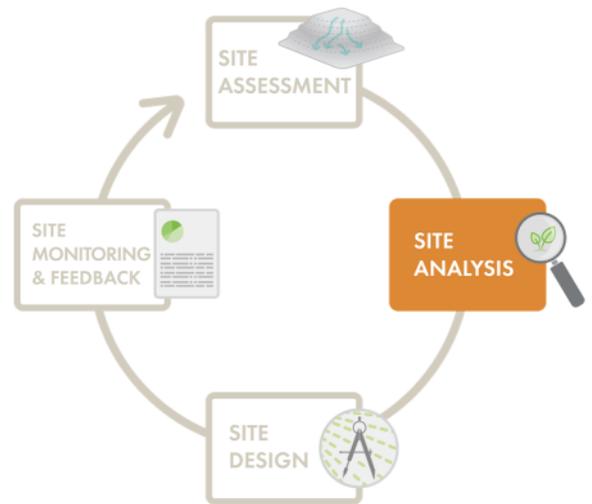
## Tip Sheet

### Step 2: Site Analysis

**Aim:** Critically analyze the information gathered in the Site Assessment to inform and initiate the site design process.

**Key Takeaway:** Analysis is necessary to understand resources and influences effectively.

**Summary of Step 1 in Practice:** Using all the information collated in the site assessment, assemble and organize the information into useable data that will inform the most effective, resilient design to create more beneficial connections between resources and influences.



**1. RESOURCES:** Analyze the resources (animals, crops, structures, water and soil) identified during site observation to identify what is growing or working well, what is not, and how resources might link together. Consider:

- What are the most important resources and critical functions?
- What is growing or working well and what are its characteristics?
- What is not growing or working well and why?
- Are there resources that could support or link to other resources (e.g., a chicken fertilizing a garden)?



**2. ENERGY:** Look at the resources identified in the Site Assessment and in the resource analysis to determine how much energy is required to maintain them. Consider:

- What source of energy (electrical, human, gravity) powers the resource? Does it come from on-site or is it imported from off-site?
- How often do resources need tending?
- Who in the household (e.g., male, female, youth, or hired labor) provides the labor energy for a particular resource, and how much time does it require?



**3. EXTERNAL INFLUENCES:** Look at the external influences identified in the Site Assessment. Analyze them in relation to the resources on the farm site. Consider:

- Where is the sun's seasonal path through the sky (where it rises and sets) and how does it change throughout the year? How does direct exposure to that sun enhance or decrease plant growth in different seasons?

# RESILIENCE DESIGN IN SMALLHOLDER FARMING SYSTEMS

- Where is the wind coming from? Where are the winds erosive and dehydrating? Where do they bring resources (e.g. seeds, nitrogen rich leaves)?
- Where and what are the animal—domestic and wildlife—influences (e.g., paths and grazing)?
- Is there risk of flooding on the farm? Where would the flood come from?
- Where are the roads and paths? Are they bringing or draining resources such as water, nutrients, and sediments?



## 4. SLOPE: Determine how the slope of the land moves nutrients and water into, across, and out of the site. Consider:

- How steep is the slope and how is that affecting water and nutrient flows?
- What is upslope from a site, e.g., are the hills above forested or bare?
- Where are the nutrient sources, and where are they needed?
- Where can water harvesting structures be added to bring added value to the agricultural production area?



## 5. ECONOMIC: Evaluate market constraints and opportunities for products that are already being produced, and opportunities for new ones. Consider:

- Is there is a high demand for certain commodities that could be enhanced or incorporated into the system?
- Are there limitations on access to any inputs? What local inputs are readily available?
- Are there any local agricultural incentives such as fertilizer subsidies?



## 6. SOCIAL AND GENDER: Evaluate gender issues within different age groups and the social and cultural patterns or norms that may influence the farm site. Consider:

- Which resources and agriculture activities are tended by which gender?
- Can resources under the control of the female or male be located together to reduce labor (energy) requirements?
- What are the cultural norms and laws that might affect selection and placement of resources (such as land tenure)?
- Who do farmers go to for advice and information that influences farm decisions?
- Are there social tensions within the community (different religions, social groups, internationally displaced people or returnees, livestock or water management) that may affect farm decisions?