LIONS, ZEBRAS, & GIRAFFES - OH MY!

How I used systems engineering to plan my African Safari Mary Compton, Sandia National Laboratories Enchantment Chapter Board Member, Treasurer 8-Dec-2017

PLANNING: IDENTIFY THE MISSION

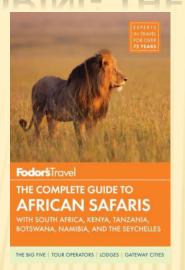
- Go someplace special for our 30th anniversary
- Realize a 25 year dream

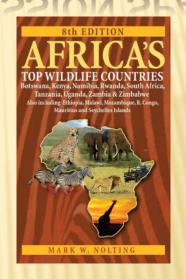


PLANNING: EXPLORING THE MISSION SPACE

*Read:







*Seek advice:



DEFINING OUR REQUIREMENTS: WHAT

× See the Wildlife:





Experience the Culture:





DEFINING OUR REQUIREMENTS: OTHER

- **×** Constraints:
 - + Time: How long? 2 weeks? 3 weeks?
 - + Money: Limit to how much money can spend
 - + When: Itinerary must include November 28, 2017
- Join a Group Safari? Plan a Private Safari?
 - + If a group safari small group (<=20 people)
- Pace Limit 1-night stays; eliminate if possible
- **×** Accommodations:
 - + Relatively comfortable
 - + Not luxurious

DESIGNING OUR TRIP

- We applied our requirements and the information gathered to
 - Decide whether to join a group or plan an individual safari
 - Includes selecting an outfitter/touring company
 - Decide what part of Africa to go to (eastern vs. southern)
 - + Pick an itinerary (maximize our experience; minimize one-night stays)
 - + Determine cost & schedule, i.e., maximize our time and dollars

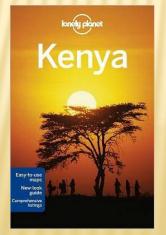
GROUP VS, INDIVIDUAL

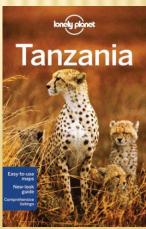
- + Individual would be nice
 - Personalized itinerary
 - × Costly
- + Group is more affordable
 - Find a touring company that provides a small group experience (<=20 people</p>
 - Consult books and websites
 - Vilize advice from an "expert" Josie!
 - * 10-16 travelers/group
 - * Nice, but not luxurious accommodations



WHAT PART OF AFRICA?

- **×** Eastern versus Southern
 - + Eastern in November
 - × Temps are 75° 85°; short rains
 - × Wildlife Viewing is fair to excellent
 - + Southern in November
 - × Temps are 85° 95°; wet season
 - × Wildlife Viewing is fair to good
 - + Decision:





DEFINING OUR REQUIREMENTS: WHERE

Eastern Africa?



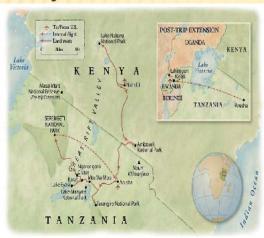
Southern Africa?



Decision: Eastern Africa - Kenya & Tanzania

WHICH ITINERARY?

- Touring Company two itineraries:
 - + Kenya & Tanzania:



Safari Serengeti



- Remember our requirement to limit 1-night stays; eliminate if possible?
 - + Decision: Safari Serengeti
 - Only 1 one-night & four nights in Serengeti
 - × Spend our 30th anniversary in Serengeti!

INTEGRATING MORE INTO THE TRIP

- × Pre-extensions:
 - + Masai Mara (Kenya)



+ Foothills of Kilimanjaro (Tanzania)



Post-Extension: Zanzibar



- Can't do pre- and post-extensions limited time
- Decision: Masai Mara (now we get Kenya too!)

SCOPE CREEP?

- * The conversation:
 - + Larry: "What do you mean there is no time to go to the Giraffe Center, Nairobi National Park ..."
 - + Mary: "We are only in Nairobi one night. We fly to the Masai Mara the next day."
 - + Larry: "Can't we go early?"
- Decision: Let's go 2 days earlier!

REALITY STRIKES

* To meet Larry's Requirements:

Karen Blixen Museum



Giraffe Center:



Nairobi National Park



Elephant Orphanage:



- We needed to go 3 days early!
- And still I forgot the Railway Museum!

EXECUTING - PREPARING FOR THE TRIP

- × Shots!
 - + Yellow fever, typhoid, Meningitis, Hepatitis A & B
- × Visas: Kenya & Tanzania
- × Currency:
 - + Dollars: new and crisp
 - + Schillings (Kenyan)
- × Gear
 - + Clothes: avoid dark colors TseTse flies
 - + Meds: malaria, diarrhea
 - + Bug Repellant: DEET!
 - + Luggage Limits & the Duffel bag

Now we are ready to take the trip!

EXECUTING - FIRST LEARN A LITTLE SWAHILI

- > Jambo Hello/Good Morning
- * Tafadhali Please
- Asante/Asante Sana Thank you
- × Karibu Welcome
- × Simama Stop
- Sowa Sowa Okay
- × Pole Pole Slowly
- Lala Salama Good night

VERIFICATION AND VALIDATION

- × Slide show of a sample of photos from the trip
- Questions?
- Do you think my trip met my requirements?
- Do you think I took the right trip based on my requirements?

THE END

Asante Sana & Lala Salama

BACK-UP SLIDES

NAIROBI SITES: WEBSITES

- Nairobi National Park:
 http://www.kws.go.ke/parks/nairobi-national-park
- Xaren Blixen Museum:
 http://www.museums.or.ke/karen-blixen/
- Elephant Orphanage:
 https://www.sheldrickwildlifetrust.org/
- Giraffe Center: https://giraffecenter.org/
- Railway Museum:
 https://www.facebook.com/nrailwaymuseum/
- * Kazuri Bead Factory: https://www.facebook.com/kazuribeadskenya/