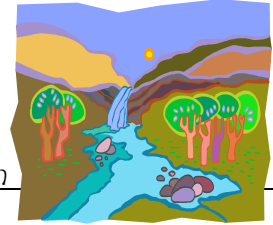


The River Simulation

An Exercise Examining the Origins of Government and Conflict Resolution



Picture a valley. The year is 8000 B.C. Life in this valley is fed by a river that tumbles from a distant range of mountains. Along the banks of this river five villages have developed. Each village has its own customs, leaders, and religious beliefs. While the villagers have little contact with each other, they speak the same language. Some think that there was a time hundreds of years ago when the people of these villages may have belonged to the same family and worshipped the same gods. Others doubt that this could ever have been the case since the villagers often mistrust their neighbours and seldom speak.

In a normal year, the river provides an ample supply of water to irrigate the fields of grain that surround each village. In an ideal year, each village is able to easily feed every member and to gradually increase its population. This, however, is not a normal year. A drought has descended on the valley and the river has been slowed to a trickle. The villagers understand the danger that this drought poses to their survival. If any village tries to take from the river the amount of water that it would ideally need to water its fields, the impact on the other villages will be immediate and severe.

In the valley, a severe drought means that there will be many deaths. This stark reality has compelled the leaders of the five villages to call an emergency meeting. At this meeting, a leader from each village will eventually declare what his/her village plans to do in order to respond to the drought. There are many strategies that might be followed. Not all of these strategies are peaceful. Some people in the valley think that one or more villages may combine and declare war on their neighbours. Rumours about secret deals are already circulating. Others think that the villagers will be able to work out a peaceful strategy to resolve the problems created by the drought.

Regardless of what happens at the meeting of the village leaders, there are a few realities about life in the valley that no one can escape.

- In an ideal year, each village uses 20 litres of water per person per week. At this level, the villages are able to prosper and their populations can increase. To reach this weekly level of consumption for all of the villages, there would need to be 20,000 litres of water in the river. As a result of the drought, there is a maximum of 10,000 litres of water in the river each week.
- The minimum amount of water needed to ensure that no one in a particular village dies as a result of the drought is 15 litres per person per week.
- At 10 litres of water per person per week, roughly 10% of the population of each village will die.
- In the case of a war among some or all of the villages, the side with the largest population will automatically win. As is often the case in war, the losing village or villagers will be forced to leave the valley. Few if any will survive if they are forced to leave the valley in the middle of this drought.
- Wars carry a price and winners and losers will experience a loss of 15% of their population.
- As in real life, wars are often best planned in secrecy and declared with an element of surprise.
- War is not the only option and it may or may not be the best alternative.

Planning Phase

The members of each village will gather in private to (a) determine who will be their designated leader, (b) determine who will serve as their diplomat or diplomats (maximum of two per village), and (c) develop a village plan. During this phase there can be no communication with other villages (10 minutes).

Diplomacy Phase

Each village will have an opportunity to send out a maximum of two diplomats to travel to other villages to discuss plans, make deals, and decide on strategies. During the diplomacy phase, designated leaders cannot leave their own villages. Except for diplomats, everyone else must remain at home to make plans and to receive diplomats from other areas. There are no exceptions to this rule (10 minutes).

Meeting of Village Leaders Phase

A meeting with the five leaders will be held to determine how to deal with the drought. While other villagers are expected to sit near their leader during this meeting, the leaders are the only one's who can speak on behalf of their villages. At this meeting, village leaders are expected to discuss how the villagers can best cope with the drought. Each village leader must speak (5-10 minutes). Following this general discussion, village leaders will have a few minutes to privately discuss what has occurred with the members of their village. During these private discussions, there can be no communications with other villages.

Final Declarations

The leader of Callisto will speak first. The leader of Rhea will speak second. The leader of Io will speak third. The leader of Oberon will speak fourth. The leader of Titan will speak last. In this order, each leader must declare what his/her village intends to do. All declarations are final. Each leader must briefly explain the reasons behind his or her declaration.

Statistics

Village	Population	Ideal Amount of Water Needed for Maximum Propensity (20L/c/wk)	Minimum Amount of Water Needed for No Loss of Life (15L/c/wk)	Amount of Water Available During a Drought (10L/c/wk)	Loss of Life During a Drought (10% population)	Loss of Life During a War (15% population)
Titan	300	6000 L	4500 L	3000 L	30	45
Oberon	230	4600 L	3450 L	2300 L	23	34
Rhea	250	5000 L	3750 L	2500 L	25	38
Callisto	110	2200 L	1650 L	1100 L	12	16
Io	110	2200 L	1650 L	1100 L	12	16
TOTALS	1000	20 000 L	15 000 L	10 000 L	102	Depends