

The Green Revolution Game¹

Basic Scenario

Assume the class to be a village in rural India. Divide the class into four groups as follows (for small classes, round off the percentages):

- A - 10 % of class: large farmers; 75% have access to GRP (see below); all require 2 laborers
- B - 20 % of class: medium-sized farmers; 50 % have access to GRP and require 1 laborer each
- C - 40 % of class: small farmers; 25% have access to GRP
- D - 30% of class; landless laborers

GRP = Green Revolution Package: high yield varieties of seed, fertilizers, pesticides, and wells for irrigation

Laborers must sell their labor for food or else they will starve.

Those farmers without access to GRPs grow traditional grains and have no other inputs.

Allow 5-10 minutes for groups to gather, identify with their roles, and for the landless to find work. The instructor then announces what kind of year this is: good, drought *or* pest, or drought *and* pest. The crop yield for that year for each category of farmers is then determined according to the table below.

Farmer/Resources	Good Year	Drought or Pest	Drought and Pest
A -- GRP	+	+	0
-- Traditional	+	0	-
B -- GRP	+	+	0
-- Traditional	0	-	-
C -- GRP	0	0	0
-- Traditional	0	-	-

+: surplus; laborers and farmers are fed
 0: sufficient grain to feed farmers and their families, but not the laborers, and to sow the grain next year
 -: deficit; must buy, borrow, beg, steal food and seed grain for next year

Elaborated Scenarios

Run variations of the basic scenario for consecutive years:

a) For the first year assume that no one has GRPs, but the social division in the village is the same. Have a good year, then a bad year. Discuss who has survived and what remedies might be implemented to overcome bad year crises.

b) Then run the basic scenario (where some farmers have GRPs) for consecutive years, introducing one of the alternative options listed below after each year:

- I -- if a farmer is in a deficit one year, he could become a landless laborer next year
- ii -- if three small farmers (group C) decide to form a cooperative, they can be treated as a medium farmer with access to GRP

After each year, discuss who has benefited and why. What would be necessary remedies?

Note that this game assumes that if a farmer has access to any new technology, he has the entire GRP. This is not necessarily so in reality. Lack of water, or fertilizer or pesticides not applied in the correct way can in fact lead to *lower* yields than traditional varieties.

¹The *Green Revolution Game* is adapted from Slater, Frances. 1986. *People and environments: Issues and enquiries*. Collins Educational: London, after the original by Chapman, Douler & Payne.