

## TOO MANY PEOPLE COMING A LITTLE TOO FAST

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**Editor's Note:** Because of the length and number of materials used, this lesson plan has been condensed. Please, contact Lucinda Bellah, Dayton High School, 801 Ferry Street, Dayton, OR 97114, (503)864-2273 or 2331, for a complete copy. She hopes this is enough to stimulate your own creative juices.

**Purpose:** This lesson is designed to show students what happens when a city's population grows too rapidly for the city to accommodate it. Students will look at and discuss examples of cities growing rapidly today, what problems occur with rapid growth, and ways to solve these problems. Students will also understand what it is like to live in a city where the infrastructure has broken down.

**Teaching Level:** Grades 8-10. This lesson could be used at lower levels with some modification of reading materials.

### Geography Standards:

**Standard #9:** The characteristics, distribution, and migration of human populations on Earth's surface.

**Standard #12:** The processes, patterns, and functions of human settlement.

**Standard #16:** The changes that occur in the meaning, use, distribution and importance of resources.

**Objectives:** After participating in this lesson, students will be able to

1. List services that make their lives easier and comfortable,
2. Identify Zaire and Rwanda on a world map,
3. Generate problems that may arise in a community when too many people migrate into it, and
4. Develop possible solutions to public service problems arising from rapid population increases.

### Materials Required

- beans or rice
- several differently sized cups
- copies of the book *City of Joy* by Dominique Lapierre
- pictures and descriptions / resource materials about Rwanda and Goma, Zaire
- overhead projector

### Procedures

1. As a class, discuss what kind of services that the students and their families have available to them for living in a town or city or rural area. List the services that the students generate on a flipchart (three separate lists). Discuss with the students which services that they might take for granted: telephone, running water, electricity, medicine, waste disposal,... Then discuss what

would happen to those services if the population of their town, city, rural area suddenly doubled or tripled in a short period of time.

2. Explain to the students that they are about to do a demonstration of population growth. The rice represents people migrating to the city, and the cups represent the infrastructure of the city.

a. Divide the students into small groups of 2-4; give each group some rice and one cup of each size.

b. One student in each group will begin by slowly pouring rice into the smallest cup they have.

c. When the cup gets full, the contents of that cup will be poured into the next largest cup by another student. But the student pouring the rice will not pause while the transfer is being done. (You may need to demonstrate this to the class first.)

d. Students will continue in this fashion until the largest cup is full. The goal is to keep the cup (infrastructure) from overflowing without stopping the pouring rice (people migrating). e. Ask the students if there was much trouble with overflow of rice or if they were able to keep up with the person pouring the rice. Why were they able to keep up or not?

f. Tell students they are pouring the rice at a rate of 200 people per week. Have the students repeat the experiment increasing the rate to 400 per week, then 800 per week, then 1200 per week,... until the cups can no longer keep up with the rice.

g. What would it be like in a city where 1500 people / week are entering? Lead the discussion to Goma, Zaire. What problems are going to arise? You are to make a list of the brainstorming ideas on the overhead projector.

3. Each group is to then prioritize the problems to be solved, and then to develop possible solutions. Make certain students are aware of limitations such as lack of trucks to transport materials, lack of manpower, breakdown of airport runways, lack of living accommodations, lack of food, inappropriate waste disposal, inadequate clean water supply,... Remember, the solution to one problem may cause (three) more problems. Each group should prepare a brief presentation of how they prioritized and what their solutions were.

4. Introduce the book *City of Joy* to be read by the students over the following day.

**Extensions / Adaptations:** This lesson could be connected with several different subject-specific curriculums. **Language Arts:** The students could do creative writing, after reading *City of Joy*, about living in this kind of environment. **Math:** Calculations about how many airplanes would be needed to fly in supplies, how many supplies would be needed, how many volunteers, how much medical supplies, how much money to improve sanitary conditions and to build adequate housing. **Geography and Social Studies:** A study of the environmental impact of massive migration could be done by student groups; resource depletion versus time could be the major focus. Discuss current and historical migration patterns and the reasons for migration. Refugees and their dilemma, as well as the dilemmas of the countries involved, could be a topic for research. Research the most common reasons for mass migration. Are mass migration incidents occurring more frequently OR does the media and global accessibility just make it seem as though mass migration is increasing. Discuss the effect that media does have on our perception of the world, the ways in which the media convey portions of a story to entice the viewer / reader in one way or another.

