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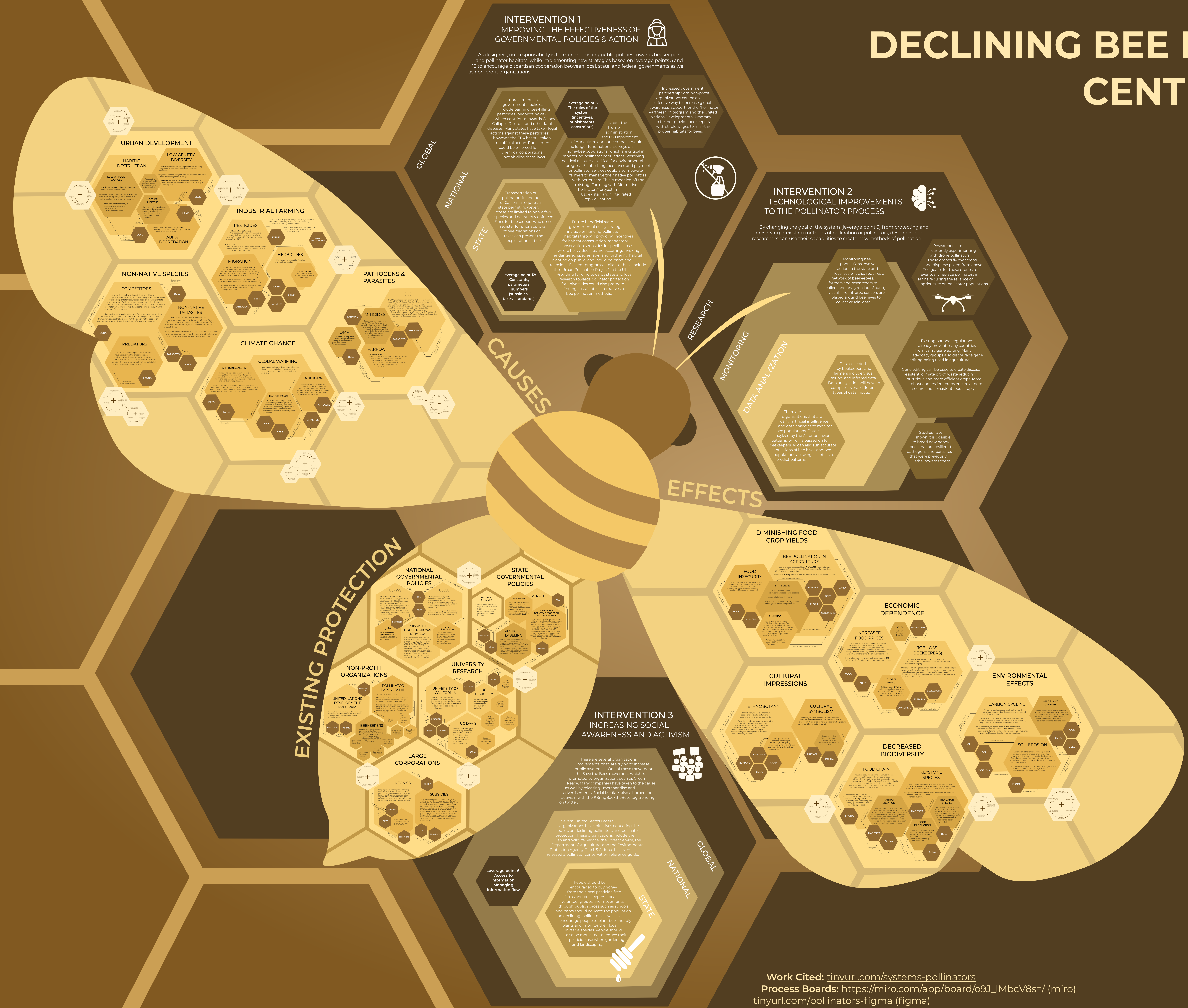
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DECLINING BEE POPULATIONS IN CENTRAL CALIFORNIA

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WHAT?

The pollinator population has been on a steep decline since the early 2000s, with beekeepers reporting an average loss of 30 percent of all honeybee colonies each winter. Specifically in California, around 270,000 colonies were lost between 2015 and 2017; this was 70,000 more than those lost nationwide. Bee population in the winter is expected to decline, normally averaging around 17% loss in population; however, that percentage has more than doubled in recent years.

SO?

With almonds being the state's largest overseas export, California needs 1.6 million domesticated bee colonies to upkeep and pollinate 800,000 acres of the flowering trees. This doesn't include the number of bees needed to pollinate other staple crops like apples, avocados, and grapes. After mid-march, the bees that were being used to pollinate the almonds are then shipped around the US for other pollination services. Declining bee populations will leave these crops unpollinated, leaving farmers cropless, beekeepers jobless, and consumers hungry. Moreover, local environments will suffer from diseases due to a lack of genetic diversity and pollination among plants; many animals and insects that prey on bees lose out on an important food source.

WHY?

We chose to study central California specifically because of the staggering colony losses, losing more bee colonies than the rest of the United States combined. With California being one of the world's agricultural giants, producing \$7.34 billion in milk, \$6.09 billion in almonds, and \$5.41 billion in grapes. Declining pollinator populations would thus have a disproportionate impact not only on California, but on the rest of the United States with one of California's largest industries taking a hit. California's liberal legislation allows for our group to study the current solutions and interventions applied to this complicated web of interactions.

Work Cited: tinyurl.com/systems-pollinators
Process Boards: https://miro.com/app/board/o9J_IMbcV8s=/ (miro)
tinyurl.com/pollinators-figma (figma)