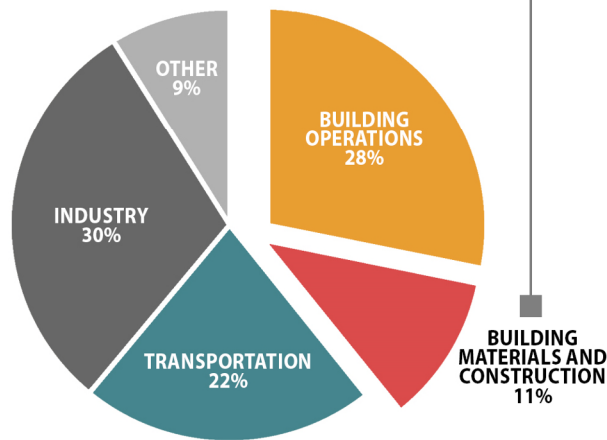


GLOBAL CO2 EMISSIONS



SOURCE: C 2018 2030, INC. / ARCHITECTURE 2030. ALL RIGHTS RESERVED. DATA SOURCES: UN ENVIRONMENT GLOBAL STATUS REPORT 2017; EIA INTERNATIONAL ENERGY OUTLOOK 2017

FOR EXAMPLE, REINFORCED CONCRETE IS A MATERIAL WITH EXTREMELY HIGH EMBODIED ENERGY. WHEN MANUFACTURING THE CEMENT, LARGE AMOUNTS OF CO2 ARE RELEASED IN THE CALCINATION STAGE, WHERE LIMESTONE IS TRANSFORMED INTO CALCIUM OXIDE (QUICKLIME), AS WELL AS IN THE BURNING OF FOSSIL FUELS IN FURNACES. IF WE ADD THESE ISSUES TO THE EXPLOITATION OF SAND AND STONE, TO THE USE OF IRON FOR THE REBAR, TO ITS TRANSPORT TO THE CONSTRUCTION SITE TO BE ADDED TO THE MIX, WE CAN UNDERSTAND THE IMPACT OF EACH DECISION OF A PROJECT ON THE ENVIRONMENT.

ALL HUMAN ACTIVITIES AFFECT THE ENVIRONMENT. ACCORDING TO THE UNITED NATIONS ENVIRONMENT PROGRAM (UNEP), THE CONSTRUCTION SECTOR IS RESPONSIBLE FOR UP TO 30% OF ALL GREENHOUSE GAS EMISSIONS. ACTIVITIES SUCH AS MINING, PROCESSING, TRANSPORTATION, INDUSTRIAL OPERATIONS, AND THE COMBINATION OF CHEMICAL PRODUCTS RESULT IN THE RELEASE OF GASES SUCH AS:

CO₂ - CH₄ - N₂O - O₃ - HALOCARBONS - WATER VAPOR



HURRICANES



FLOODS



ICE MELTING



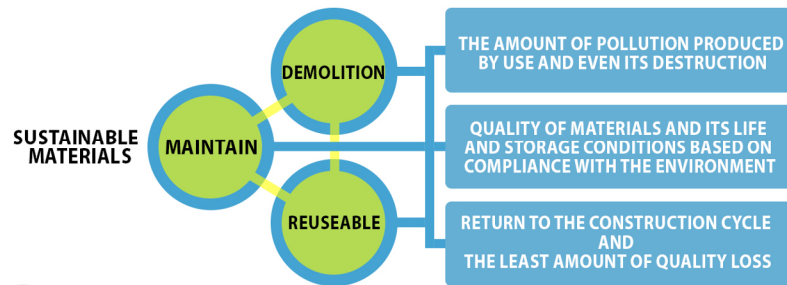
WATER SCARCITY



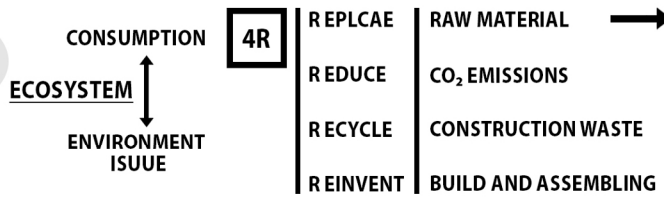
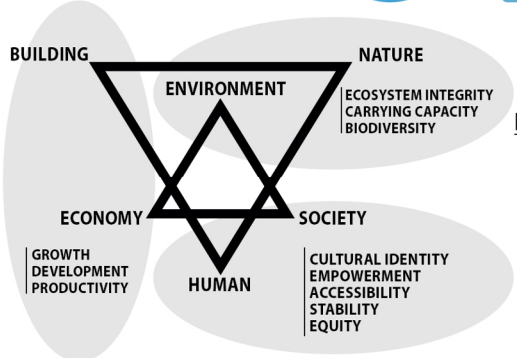
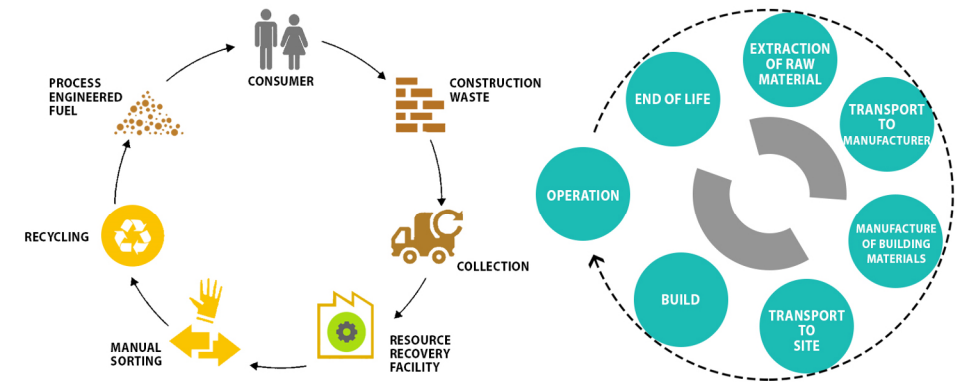
DESERTIFICATION

WHEN THESE GASES ARE RELEASED INTO THE ATMOSPHERE, THEY ABSORB A PORTION OF THE SUN'S RAYS AND REDISTRIBUTE THEM IN THE FORM OF RADIATION IN THE ATMOSPHERE, WARMING OUR PLANET. WITH A RAMPANT AMOUNT OF GAS RELEASED DAILY, THIS LAYER THICKENS, WHICH CAUSES SOLAR RADIATION TO ENTER AND STAY IN THE PLANET. TODAY, THIS 'LAYER' HAS BECOME SO THICK THAT MANKIND IS BEGINNING TO EXPERIENCE SEVERE CONSEQUENCE, SUCH AS DESERTIFICATION, ICE MELTING, WATER SCARCITY, AND THE INTENSIFICATION OF STORMS, HURRICANES, AND FLOODS, WHICH HAS MODIFIED ECOSYSTEMS AND REDUCED BIODIVERSITY.

OUR RESPONSE



CONSIDERING THE AMOUNT OF FUEL AND ENERGY USED FOR THE MATERIAL PRODUCTION PROCESS UNTIL IT'S DESTRUCTION.



STRUCTURE

IN THIS PROCESS, THE DESIGN OF THE FRAME OF A HOUSE OF SOLID AND COST-EFFECTIVE STRUCTURE MUST BE DONE. THE STRUCTURE OF THE BUILDING HAS A DIRECT RELATIONSHIP WITH THE TECHNOLOGY OF THE COUNTRY. CURRENTLY, STRUCTURAL TECHNOLOGY IS USED IN IRAN, CONCRETE AND METAL STRUCTURES. IF THEY ARE USED FOR THIS PROJECT, IT WILL END UP REGARDLESS OF TIME, COST AND ENVIRONMENT. TO DO THIS, WE NEED A STRATEGY AND A SUSTAINABLE APPROACH THAT LOOKS TO THE FUTURE.

SCAFFOLDING

THE ELEMENTS THAT ARE DESIGNED AND THOUGHT OF IN THE BUILDINGS OF THIS DESIGN ARE DEFINED AS A TOOL IN CONSTRUCTION. PROPER USE OF IT CAN PLAY THE ROLE OF A STRONG STRUCTURE, ALONG WITH OTHER TECHNOLOGIES THAT WILL BE BETTER IN TERMS OF ECONOMICS AND TIME AND FAST IMPLEMENTATION.

COVER MATERIAL

THE REASON AND PURPOSE OF CHOOSING MATERIALS, THE IMPORTANCE OF THE ISSUE SHOULD BE CONSIDERED IN NATURE AND THE HUMAN ENVIRONMENT, IN ADDITION TO ECONOMIC AND CULTURAL BENEFITS SHOULD BE DEFINED AS ECOLOGICAL AND IN A WAY THAT DOES NOT HARM THE ENVIRONMENT OVER TIME.

MUD CLAY BRICK



THE REASON AND PURPOSE OF CHOOSING MATERIALS, THE IMPORTANCE OF THE ISSUE SHOULD BE CONSIDERED IN NATURE AND THE HUMAN ENVIRONMENT, IN ADDITION TO ECONOMIC AND CULTURAL BENEFITS SHOULD BE DEFINED AS ECOLOGICAL AND IN A WAY THAT DOES NOT HARM THE ENVIRONMENT OVER TIME.