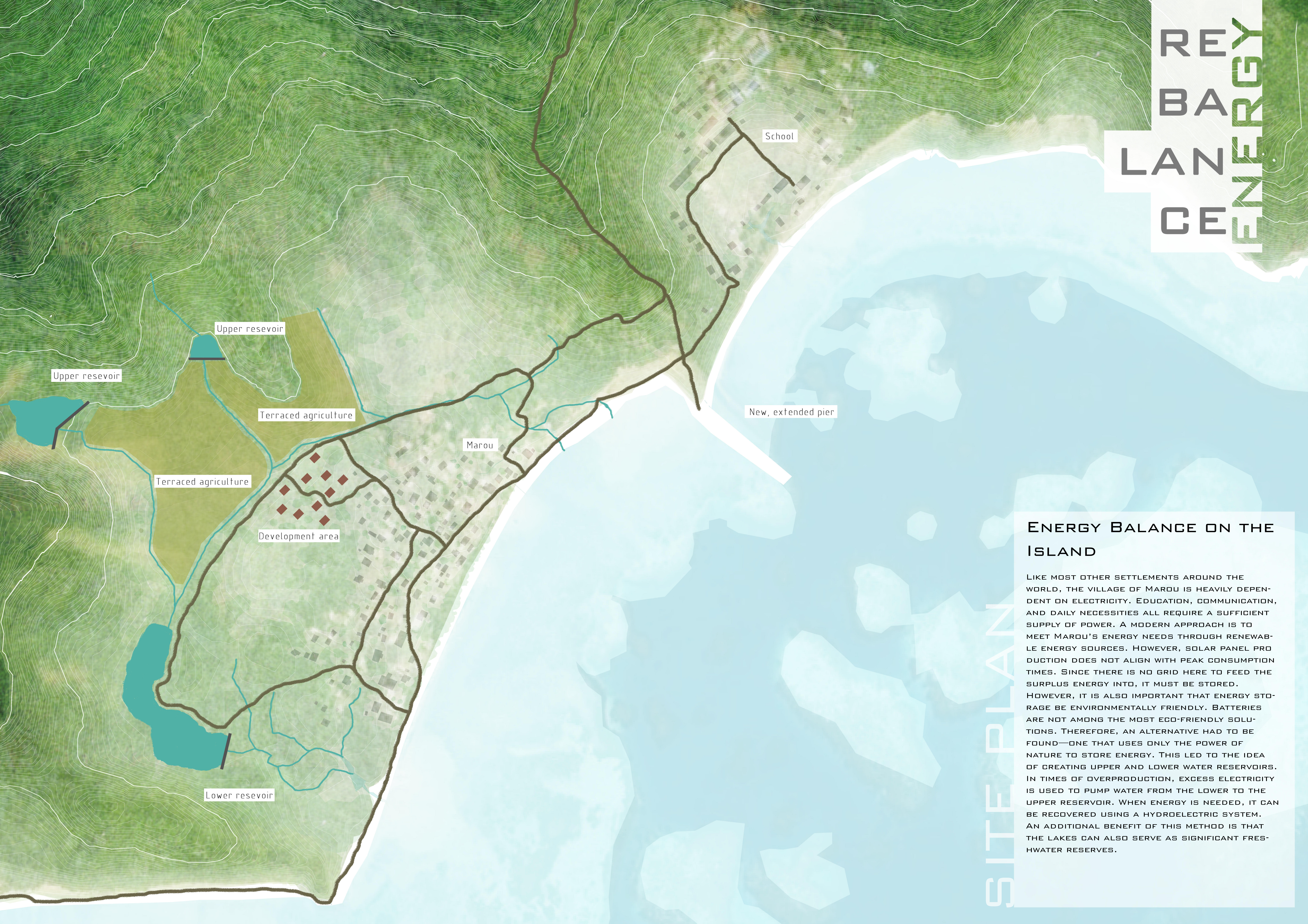


REY BAR LAN CE

ENERGY



ENERGY BALANCE ON THE ISLAND

LIKE MOST OTHER SETTLEMENTS AROUND THE WORLD, THE VILLAGE OF MAROU IS HEAVILY DEPENDENT ON ELECTRICITY. EDUCATION, COMMUNICATION, AND DAILY NECESSITIES ALL REQUIRE A SUFFICIENT SUPPLY OF POWER. A MODERN APPROACH IS TO MEET MAROU'S ENERGY NEEDS THROUGH RENEWABLE ENERGY SOURCES. HOWEVER, SOLAR PANEL PRODUCTION DOES NOT ALIGN WITH PEAK CONSUMPTION TIMES. SINCE THERE IS NO GRID HERE TO FEED THE SURPLUS ENERGY INTO, IT MUST BE STORED. HOWEVER, IT IS ALSO IMPORTANT THAT ENERGY STORAGE BE ENVIRONMENTALLY FRIENDLY. BATTERIES ARE NOT AMONG THE MOST ECO-FRIENDLY SOLUTIONS. THEREFORE, AN ALTERNATIVE HAD TO BE FOUND—ONE THAT USES ONLY THE POWER OF NATURE TO STORE ENERGY. THIS LED TO THE IDEA OF CREATING UPPER AND LOWER WATER RESERVOIRS. IN TIMES OF OVERPRODUCTION, EXCESS ELECTRICITY IS USED TO PUMP WATER FROM THE LOWER TO THE UPPER RESERVOIR. WHEN ENERGY IS NEEDED, IT CAN BE RECOVERED USING A HYDROELECTRIC SYSTEM. AN ADDITIONAL BENEFIT OF THIS METHOD IS THAT THE LAKES CAN ALSO SERVE AS SIGNIFICANT FRESHWATER RESERVES.

SITE PLAN