External Movable Shading Systems: Strategy to Scaling-up
Cutting direct and diffuse solar radiation: Examples of external shutters and movable blinds from many countries
Shutters and external blinds

- Are used extensively in many places in the world
Algeria
Zambia
Australia
Singapore, Chinatown
Singapore, Malay heritage district
Thailand
Kuwait
Greece
Greece

Indo-Swiss Building Energy Efficiency Project
Greece
Italy
France

- Typical 1930-50 steel shutters
France, Paris

- Early 20th century next to 2010
Switzerland, Zurich
Switzerland, central plateau
Switzerland, Ticino
Switzerland
Switzerland

• detached frame, retrofit
Spain, Andalusia

- Max temperature in summer: 42°C
Spain, Andalusia
Spain, Andalousia
Spain, Malaga
Spain, Balears
Portugal
Germany
Argentina, Buenos Aires
Mexico
Cuba, La Habana
Cuba, La Habana
Cuba, country side
Cuba, Vinales
Incomplete inventory of countries using external shutters