



# SOLAR WATER HEATING (SWH) TECHSCOPE METHODOLOGY & REPORT



## WHAT IS THE SWH TECHSCOPE METHODOLOGY & REPORT?

The *Solar Water Heating TechScope Market Readiness Assessment Report (SWH TechScope Methodology & Report)* was developed under the *Global Solar Water Heating (GSWH) Market Transformation and Strengthening Initiative*, a joint initiative undertaken by the United Nations Environment Programme (UNEP) and the United Nations Development Programme (UNDP) and is funded by the Global Environment Facility (GEF), with co-financing by the International Copper Association (ICA).

The *SWH TechScope Report* was developed to support the growth of the global solar water heating market (SWH) by providing a replicable, high-level, and publicly available *Methodology* to evaluate the SWH market in various countries. The *SWH TechScope Report* can be downloaded from the link below:

<http://www.solarthermalworld.org/content/solar-water-heating-techscope-market-readiness-assessment-report-and-analysis-tool>

## WHAT IS THE AIM OF THIS METHODOLOGY & REPORT?

The aim of this *Methodology & Report* is to improve the understanding of the opportunities and challenges related to developing vibrant SWH markets. It is intended to be used in concert with the Excel-based *SWH TechScope Analysis Tool* to benchmark and evaluate different SWH markets. The *SWH TechScope* uses four *parameters* to evaluate SWH markets in different countries: SWH support framework, national conditions, financing, and business climate. The Report includes a detailed explanation of the assessment *Methodology*, and serves as the instruction manual for the *SWH TechScope Market Readiness Analysis Tool*.

## WHO CAN BENEFIT FROM THE TOOL?

**Policy-makers:** to get an overview of policies and regulations to develop SWH, as well as insights into the effectiveness of policy frameworks in different countries.

**Investors:** to find information on the policy environment, investment environment, business and value chains, and quality control regimes in different countries, all of which can be used to inform investment decisions.

**Developers:** to gain access to information on fossil fuel heating prices, SWH market penetrations, energy production information, and the availability of local financing.

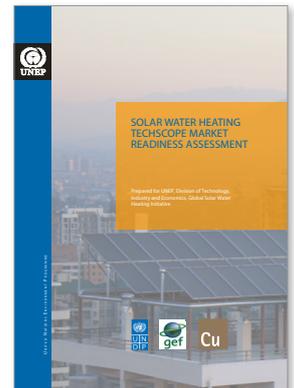
**Researchers:** Find market and policy information.

## WHAT ARE THE OUTCOMES FROM THE ASSESSMENT?

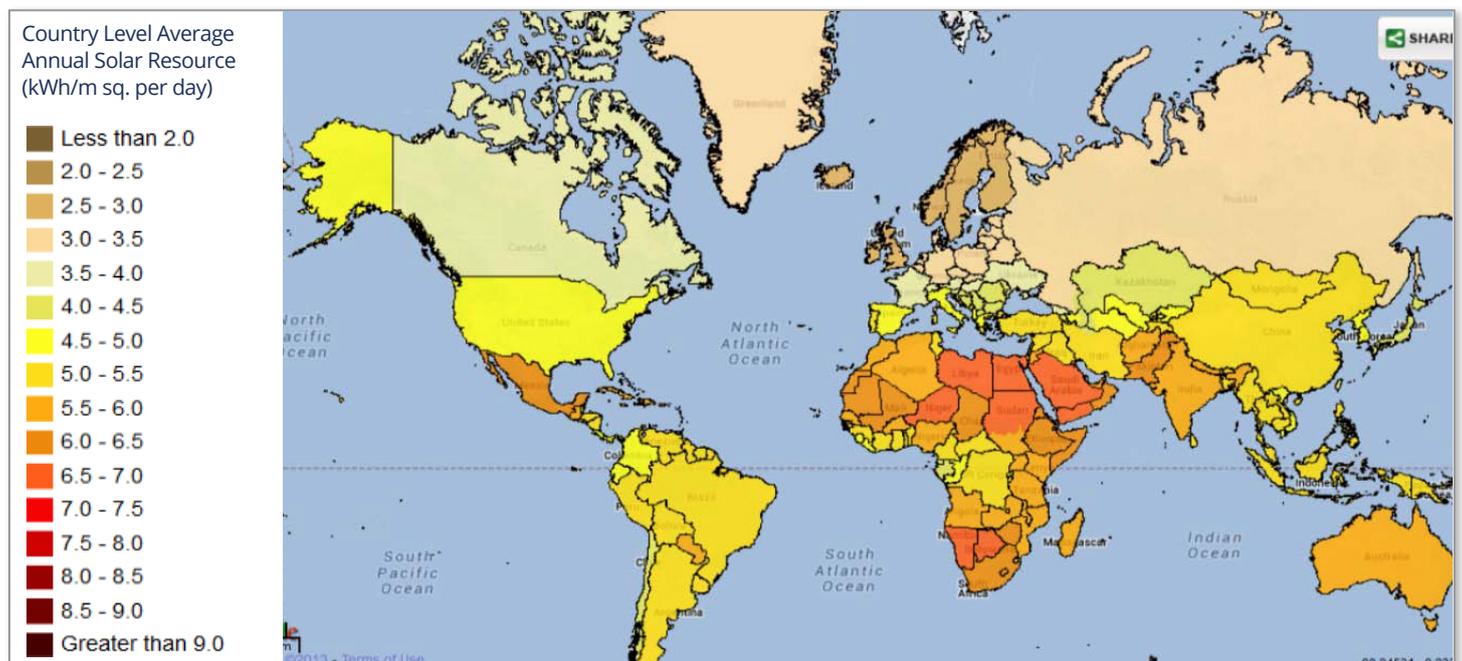
- After applying the *SWH TechScope Market Readiness Assessment Methodology* on a selected country, an overall score will be given. This score is a helpful indicator for stakeholders to evaluate and compare the solar water heating market readiness of a country.
- This Report also profiles the five project countries that received support under the GSWH project — Albania, Chile, Lebanon, India and Mexico— and summarizes their experiences in establishing and growing a vibrant SWH market. The experiences and best practices that emerged can be used to support decision-makers' efforts to create nationally appropriate policies to scale up SWH markets.

## HOW DOES THIS METHODOLOGY WORK?

The *SWH TechScope Market Readiness Assessment Methodology* uses a system of weighted indicators to develop a score for national SWH enabling environments. The *Methodology* takes into account four *parameters* with their corresponding 18 indicators that reflect different elements of the enabling environment for SWH in a given country. Each of the indicators is scored based on a scale of 0 to 5. These indicators are then weighted to develop an overall score for the country.



Country Level Average Insolation (kWh/m<sup>2</sup>/day)





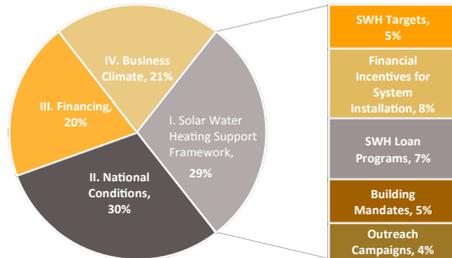
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## WHAT FOUR PARAMETERS ARE CONSIDERED IN THE EVALUATION?

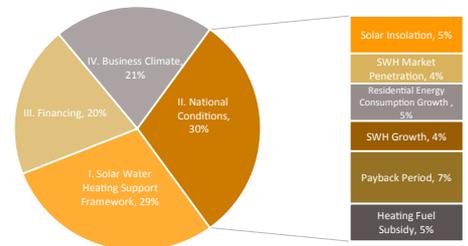
### PARAMETER: SWH SUPPORT FRAMEWORK

This *parameter* reflects how government policies, regulations, and outreach programs can play an important role in scaling up national solar water heating and cooling markets.



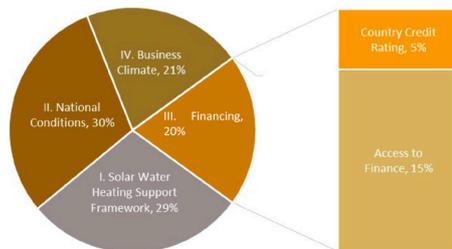
### PARAMETER: NATIONAL CONDITIONS

This *parameter* reflects the impact of important national conditions such as national insolation, energy consumption trends or energy subsidies among others.



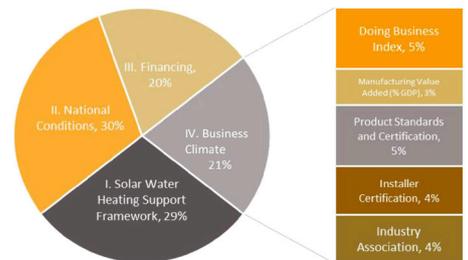
### PARAMETER: FINANCING

This *parameter* assesses the availability of financing and the cost of financing of a SWH project. It incorporates national credit scores published by ratings agencies.



### PARAMETER: BUSINESS CLIMATE

This *parameter* assesses the ease of doing business, the existence of SWH quality standards, and the presence of associations that support SWH.



## SCORING SYSTEM

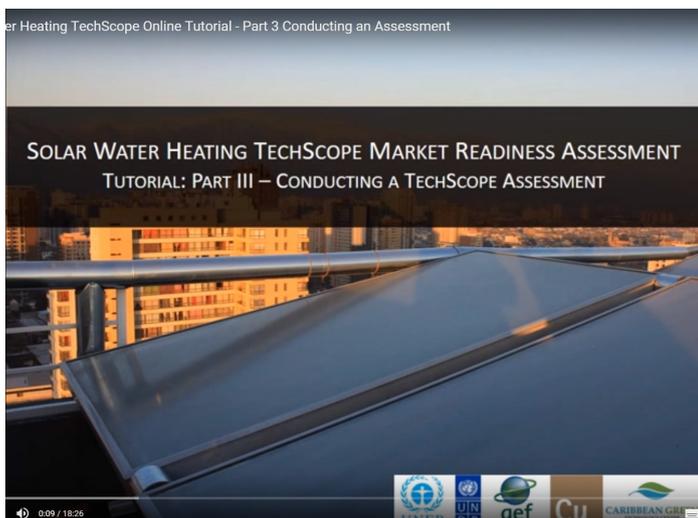
Each indicator is given a score on a scale of 0 to 5. This score is then multiplied by its individual weight and the sum of all weighted scores provides the overall score for the country. A higher score reflects the fact that there is significant policy, financial, and industry infrastructure in place within the country to support and enable SWH deployment. A lower score reflects the fact that some of the "building blocks" for a robust solar heating market may not be in place.

Emerging

Good

Strong

Very Strong



## AVAILABLE ONLINE TUTORIAL!

An **Online Tutorial** explaining the *SWH TechScope Market Readiness Assessment Methodology*, the *SWH TechScope Analysis Tool* and the *GHG Calculator* is available in the three following modules

- Module 1** provides an overview of the *SWH TechScope Methodology & Report*, the *SWHT TechScope Analysis Tool* and the *GHG Calculator* including the rationale for developing the tool. <https://www.youtube.com/watch?v=FuaEy58Fubw>
- Module 2** provides a detailed explanation of the *SWH TechScope parameters*, associated indicators and publicly available data sources. <https://www.youtube.com/watch?v=PvPKdjzMKtg>
- Module 3** demonstrates how the *SWH TechScope Report and Analysis Tool* can be applied to assess a country's SWH market by using the example of parameters, associated indicators and publicly available data sources. [https://www.youtube.com/watch?v=PxPtW3K\\_vec](https://www.youtube.com/watch?v=PxPtW3K_vec)