Seveso Capacity Building Indices

Developed for the DG_ECHO-JRC project Seveso Implementation in EU Neighbourhood Countries

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Country survey on chemical accident prevention

- Developed and disseminated by the JRC
- The survey asked one government focal point to facilitate answers for the country
  - -The survey results are the **government perspective**
  - -**50+ questions in 5 parts**:
  - *Legislative and Regulatory Context, Enforcement, Accident Awareness/Competence, Risk Reduction Measures, Needs & Limitations*
  - **Objectives**
    - -To **establish a basis for dialogue** with the country on its chemical risk management situation
    - -To **establish baseline measures** to assess capacity building progress
- The analysis will be shared with the country and open for comment
  - -A general analysis will be eventually published but without identifying countries
- Follow-up will be on a bilateral basis – 2016 and beyond

Survey responses

European Commission

~~10~~ 11 out of 14 Neighbour Countries

Algeria, Armenia, Belarus, Georgia, Israel, Jordan, Moldova, Palestine, Tunisia, Ukraine and Lebanon*

Responses from:
-Civil Protection (7 + 1)
-Environment (3)

All provided very good quality responses.

*Lebanon responded in December 2015. All results will eventually be updated to include Lebanon and any other late replies.

Responded to survey

Did not respond to survey

Joint Research Centre

Analysis of survey responses

- Individual analysis
  - Qualitative responses summarized in tables
  - Limiting factors index
  - Capacity Building Needs Index
  - CAPP Capacity Index
  - Recommendations for follow-up with each country

- Cross-country analysis
  - Selected categories
  - Indices results
  - General recommendations for follow-up

  - Results
    - Moldova results are provided in this meeting.
    - The full survey report remains a confidential internal report because it gives results are not anonymous.
      - A summary of results without country identifiers published by end of 2016.

Analysis and use of survey responses

The survey requested both qualitative and quantitative information.

Qualitative information. These data will mainly be used to understand two important aspects of a country's programme:

- The type and extent of chemical accident risks the country faces
- Details in regard to specific advantages and disadvantages, gaps and opportunities.

Quantitative analyses. Three types of indices have been created from different survey responses to be used as follows:

- Establish a baseline for measuring progress over time
- Identify strong needs and opportunities for purposes of strategy development

Limiting Factors Index - Description

The **Limiting Factors Index** is derived from responses to Question 49 of the survey.

49. Please indicate which factors (list all that apply) limit your Country from including chemical accident prevention strategies in your planning. Please write in the box at the end of each item the letter that best reflects your opinion.

A Disagree Strongly	B Disagree Slightly	C Neutral	D Agree Slightly	E Agree Strongly

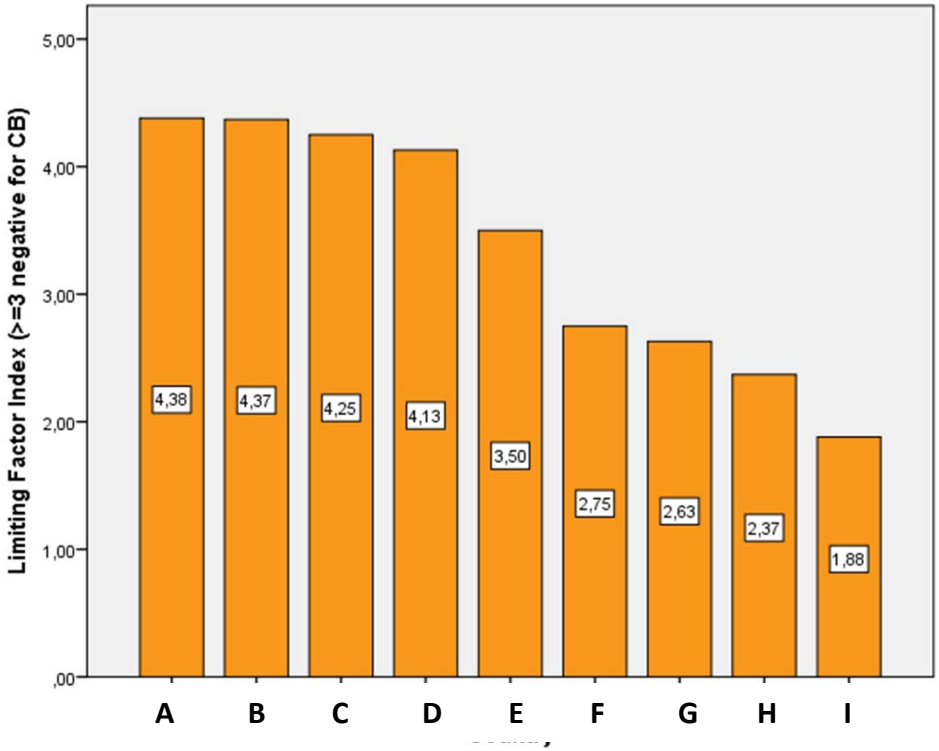
a. Lack of awareness	
b. Lack of knowledge	
c. Lack of adequately trained personnel	
d. Lack of adequate resources	
e. Budget constraints	
f. Not the organization's responsibility	
g. Responsibility not defined	
h. Liability and/or legal issues	
i. Other (Specify):	

Cross-country analysis - Limiting Factors Index

The **Limiting Factors Index** summarises responses to 8 questions **representing specific elements that can affect capacity building success** in different ways.

Specifically, respondents were asked which factors could limit the country in advancing chemical accident prevention strategies.

The index has a 5-point scale (from **1=low limitation** to **5=high limitation**).



[Note: One country's index was not computed do to failure to respond to all 8 questions comprising this index.]

Capacity Building Index - Description

The **Capacity Building Index** is derived from responses to Question 49 of the survey.

50. Please indicate below what is needed to guarantee effective chemical accident risk reduction in your Country. Please write in the box at the end of each item the letter that best reflects your opinion.

A Disagree Strongly	B Disagree Slightly	C Neutral	D Agree Slightly	E Agree Strongly

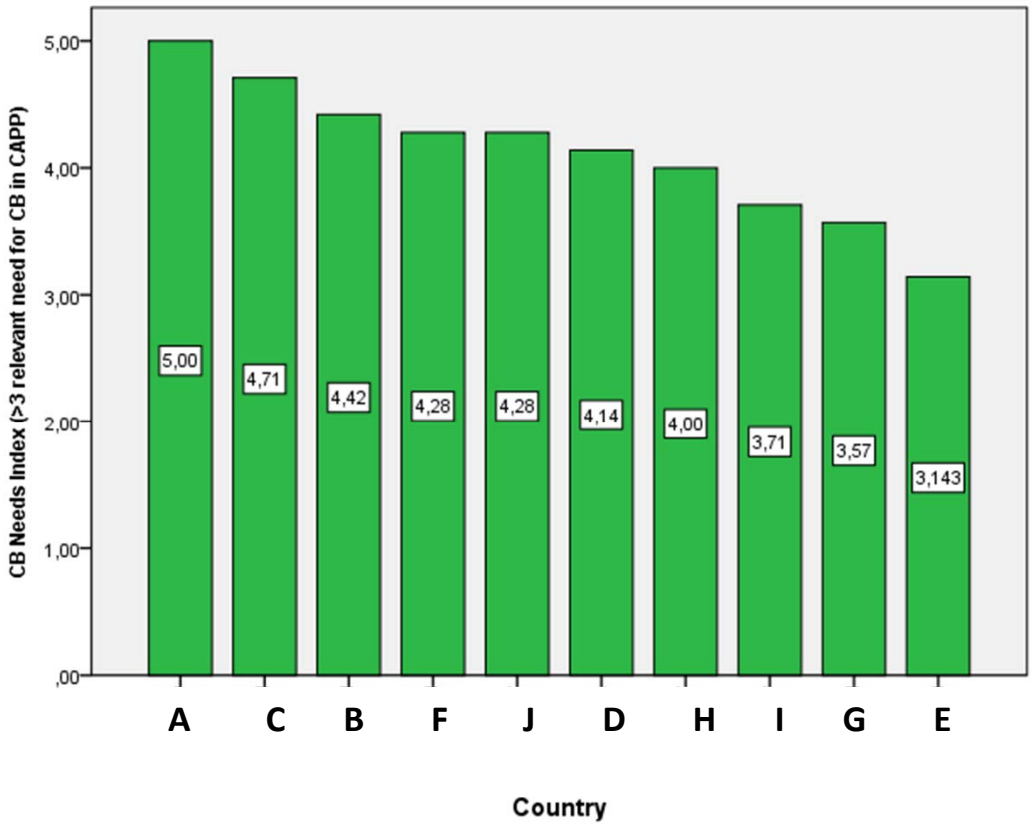
a.	Training of officials in charge of chemical-accident prevention and mitigation on chemical accident risk reduction is needed.	
b.	Training of industry operators on chemical accident risk reduction is needed.	
c.	Guidance documents for operators of industrial establishments/installations on chemical and Natech accident risk assessment, prevention and mitigation are needed for improved chemical accident risk reduction.	
d.	A complete inventory of significant chemical hazard sites is needed.	
e.	Guidance on chemical and Natech accident risk assessment, prevention and mitigation at the community level is needed for improved accident risk reduction.	
f.	Chemical and Natech risk maps to inform land-use-planning decisions and emergency planning are needed.	
g.	More effective enforcement of existing chemical accident and preparedness plans is needed.	

Cross-country analysis - Capacity Building Needs Index

The **Capacity Building Needs Index,** was calculated as the averaged combination of 7 survey responses.

This composite index represents the overall need for capacity building.

The index has a 5-point scale (from **1=low limitation** to **5=high limitation**).



[Each country is assigned the same letter as in the previous slide.]

The CAPP Capacity Index*

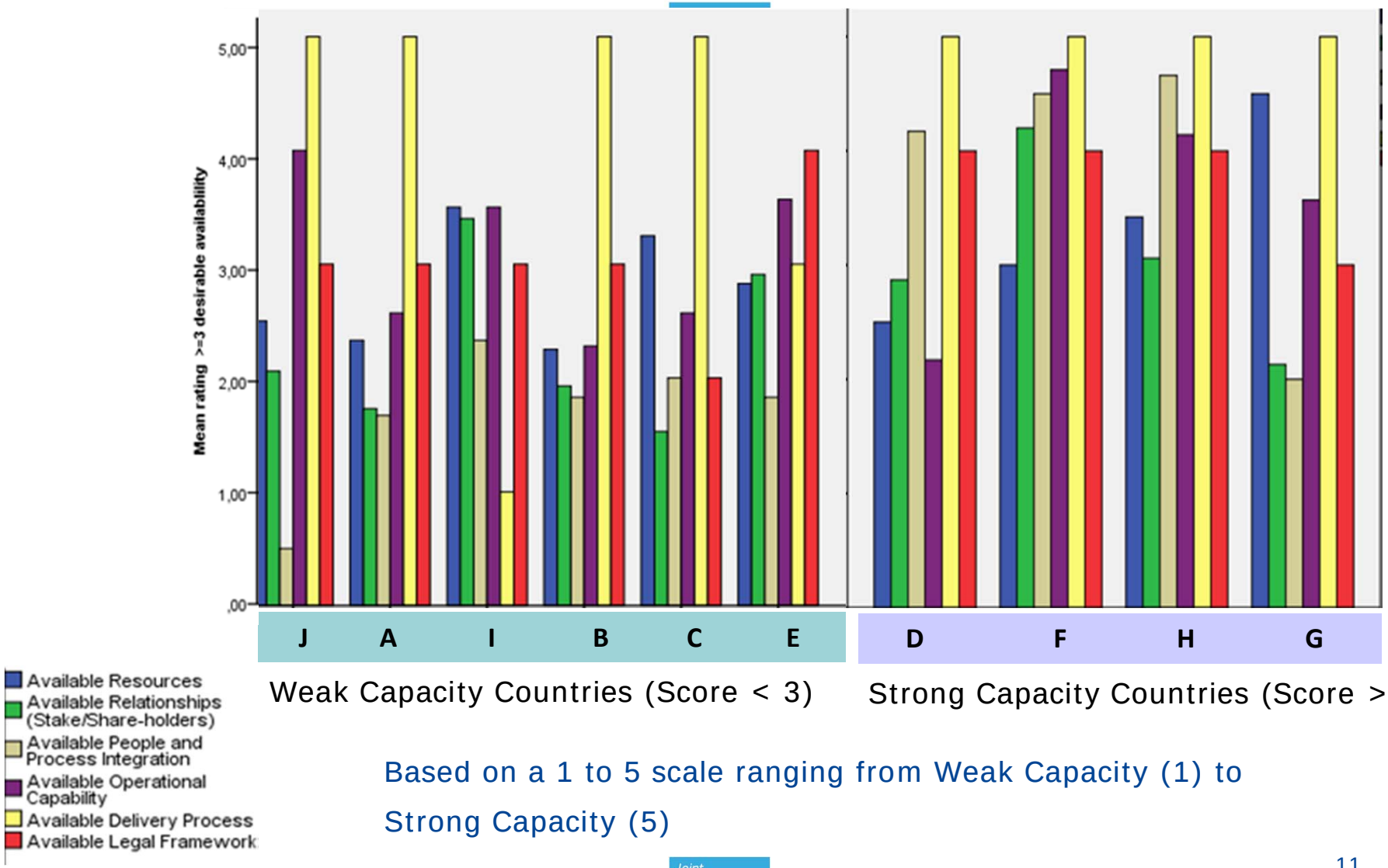
The **CAPP Capacity Index** is a third measure based on the **Capacity Building Hierarchical Process** Model(Van Wijk et al, 2015)

This model assesses actual capacity based on the following **6 factors** (also called the **BIOCD+R model**) :

(B) Having the necessary resources
(C) Maintaining a relationship with stakeholders and shareholders
(I) Integrated people and processes
(O) Having an operational capability
(D) Maintaining the assessment and delivery process
(R) Having a legal framework in place compliant with international law

Survey responses were matched to each of these factors to create a **Chemical Accident Prevention and Preparedness (CAPP) Capacity measure** for each country

CAPP Capacity Index - Country results



Weak Capacity Countries (Score < 3)

Strong Capacity Countries (Score > 3)

Based on a 1 to 5 scale ranging from Weak Capacity (1) to Strong Capacity (5)

Comparison of Countries Across Indices

Two countries stand out as being on a good track (F and H).

Three countries have some promising infrastructure elements (E, G and I).

The 5 remaining countries have more significant challenges than the others (A, B, C, D and J).

Country	Limiting Factors Index	Capacity Building Needs Index		CAPP Capacity Index
A	4.38	5.00		2.72
B	4.37	4.42		2.71
C	4.25	4.71		2.72
D	4.13	4.14		3.45
E	3.50	3.14		3.02
F	2.75	4.28		4.24
G	2.63	3.57		3.37
H	2.37	4.00		4.24
I	1.88	3.71		2.79
J	-	4.28		2.84

General Conclusions from the Survey

-**Four countries** have a **Strong Capacity Outlook** in terms of current capacity for effective CAPP implementation. **Six countries** have a **Weak Capacity Outlook.**

-The **lack of a formal definition of "major chemical accident"** is frequent ACROSS countries

-**CAPP training and competence** (both officials and operators) is weak for several countries. Reliance on external university experts and consultants is frequent

-There is a **presence of several Ministries dealing with dedicated functions** on CAPP management and control. This frequently increases coordination efforts, lack of shared strategy and understanding.

-A majority of countries indicated **a high need for technical support for risk assessment and risk mapping** for decision-making.

-Safety Inspection requirements are frequently weak or lacking.

-Lack of human resources and process integration are common issues

-**Implementation of targeted legislation** appears often to be ineffective.

-Two countries have adopted the Seveso Directive into national legislation (Tunisia and Ukraine).