The role of the Arab STAG is to provide scientific information and technical advice to the Arab Region and coordinate strategic engagement of science, research and technology with decision-makers to increase to Arab Region’s resilience and strengthen the regional and national disaster risk reduction (DRR) programs to serve Sustainable Development. Setting a voluntary action statement comes in perfect coordination with the Arab STAG role and functions that contains actions on a short and a long term. Short term actions are related towards the implementation of the Arab Regional Strategy for DRR, to be implemented within two years’ time frame. These actions can be resumed to developing a status report on science and technology in DRR in the Arab Region, organizing the Arab Science-Policy dialogue focusing on DRR, engaging the Arab STAG with the global STAG, supporting Sustainable Development & Climate Change, developing a network of science institutions and prepare a roster of experts on DRR. Measurable indicators and means of verification for these actions are identified below. Long term actions set are related to the implementation of Sendai Framework priorities towards a) Risk Prevention, b) Risk Reduction and c) Strengthening Resilience. As long term actions, the Arab STAG proposed to get engaged with governments to increase investment of public and private sectors on science & technology in DRR, prepare sectoral guidance how to bring science and technology in sectorial plans, and promote DRR, research and innovation inclusion in higher education through regional related organizations. Actions and deliverables are detailed below:

A. Short term actions related towards the implementation of the Arab Regional Strategy for disaster Risk Reduction and to be implemented in 2 years’ time frame (2020), with measurable indicators and means of verification, must concentrate on:

1-Develop a status report on science & technology in DRR for the Arab Region: Stocktaking on status of science knowledge and technical availability on disaster risks and resilience (what is known, what is needed, what are the uncertainties, etc.) in the region is an important prerequisite to identify research and technology gaps and set recommendations for research priority areas and human resource development needs in the DRR field;

i. Implementation level: Country National scale
    Assessing the status of science and technology for DRR can be achieved through inventory about conducted and on-going projects, scientific and technical production, hazard and risk mapping, the expertise in DRR related fields (scientific, technical and academic), organizations and universities tackling DRR, the courses, the degrees and Long Life Learning programs for capacity building purposes, the
masters and PhD thesis tackling the subject, documents in libraries, etc.

ii. Targets: DRR practitioners, Higher education institutions and research centers in each country are the number one target of this action

iii. Indicators & Means of Verification:
   - Regional status report for each country
   - Science based best practices and success stories.
   - Exhaustive databases of scientific and technology DRR related production (reports, articles)

iv. Timeframe: by 2019

2-Initiate a regional conference or symposium in order to organize the Arab Science-Policy dialogue focusing on DRR: To advocate and promote DRR in the Arab Region and defend the role of Science & Technology for DRR, it is necessary to organize conferences, seminars and regional schools in order to expand the network of the group, share experiences & knowledge, develop common projects and disseminate the best practices for evidence based DRR decision making.

   i. Implementation level: Regional or even Global
   ii. Targets: Scientists, policy makers, academia, civil society and experts from all involved disciplines: It is of paramount importance to invite experts and researchers in the fields of earth sciences, social sciences, economists, engineering, etc. This dialogue would get together experts from different disciplines and regions.
   iii. Indicators & Means of Verification:
      - Participation
      - Papers and recommendation of conferences and symposium
      - Road plan for science-policy interface
      - Common project proposals
      - Reports
   iv. Timeframe: by 2020

3-Engage the Arab STAG with the global STAG: This action is of key importance since it contributes to the effectiveness of the Arab STAG and its international success. Moreover, exchanging experience and information of the Arab region with the Global STAG would be extremely helpful.

   i. Implementation level: Global
   ii. Targets: Arab STAG members, scientists and stakeholders & Global STAG members
   iii. Indicators & Means of Verification:
      - Meetings
      - Reporting
• Common projects and involvement in action plans
• Contribution/input to global STAG priority studies and orientations

iv. Timeframe: by 2020

4-Engaging with Arab STAG on sustainable development and Climate Change: Linking DRR, sustainable development and Climate Change is a must in order to serve the SDGs, build resilience taking into consideration of changes of hazard frequency and intensity induced by Climate change.

i. Implementation level: National & regional
ii. Targets: DRR practitioners, SDGs and Climate Change experts (scientific and academic community). Encouraging the cooperation between Scientific institutes tackling sustainable development, climate change and disaster risk reduction
iii. Indicators & Means of Verification:
   • Increase in number of studies linking DRR, SD and CC
   • Implementing this linkage in courses
   • Action-oriented and multidisciplinary integrated curricula and research projects in DRR, CC and SDGs
   • Related Curriculum, papers, seminars and conferences

iv. Timeframe: 2020

5-Develop a network of science and technology institutions to get an extended network for Arab STAG: Promote, prioritize and advance multi-disciplinary research and technology aspects of disaster risk in an integrated environment; enhance team efforts in hazard and disaster monitoring and research, building on existing networks, universities and initiatives; and integrating various stakeholder needs on all levels.

i. Implementation level: Regional
ii. Targets: Higher education (universities, etc.) and scientific research centers and institutions
iii. Indicators & Means of Verification:
   • Scientific committees
   • Establish working groups themes-dependent
   • Developing common projects and multi-institutional proposals
   • Networks and national/regional working groups
   • Common scientific initiatives and production

iv. Timeframe: 2020
6-Prepare a roster of experts on DRR for better network connection and recognition of expertise in Science and Technology for DRR in the Arab Region: This list would contain the experts grouped into their disciplines and the contact and affiliation of each expert, Implementation level: Regional

i. Targets: DRR technical and scientific experts, academics and practitioners

ii. Indicators & Means of Verification:
   - An up-to-date list
   - Certain criteria for personal key identification
   - DRR multidisciplinary community of experts
   - Database of experts

iii. Timeframe: by 2020

B. Long term actions, related to the implementation of Sendai Framework priorities towards a) Risk Understanding & Prevention, b) Risk Reduction and c) Strengthening Resilience, will concentrate on:

1- Engage the Arab STAG with governments to increase investment of public & private sectors on science & technology in DRR. Prepare to a local or national event to demonstrate the guidelines, policy and actions of sciences and technology role in DRR and the priority scale of that

   i. Implementation level: National

   ii. Targets: governmental studies centers, ministries, public and private sectors

   iii. Indicators & Means of Verification:
       - Success stories
       - guidelines for the role of sciences and technology in DRR adopted by either local or national government
       - Dedicated policies, declarations, regulations and financial incentives

   iv. Timeframe: 2030

2- Prepare sectoral guidance how to bring science & technology in sectorial plans: Setting DRR actions on a sectoral level has been shown to be very effective for building resilience.

   i. Implementation level: Local and National

   ii. Targets: Sectoral institutions, municipalities, local governments, planners

   iii. Indicators & Means of Verification:
       - Engagement of science institutions in DRR at local level
       - Percentage of ministries, local government adoption of sectoral-based projects & strategies
       - Sectoral guidance
• Number of studies/reports tackling the risk by sectors

iv. Timeframe: 2030

3- Promoting multi-disciplinary DRR, research and innovation inclusion in higher education as well as professional training through regional related organizations: Implementing DRR in the curriculums is a very effective starting point to enlarge the scientific network on DRR. This will ensure human resource development in the DRR field.

i. Implementation level: Local, national, regional,

ii. Targets:

• Develop DRR curriculums to be embedded in Higher education studies
• Encourage grants for academic Research related to DRR
• Encourage affiliations with foreigner institutes already developed in the field.
• Promote E-learning and Blended Technology DRR studies

iii. Indicators & Means of Verification:

• At least 5 countries in the region will have at least 1 university providing Master level programs in DRR
• Increase in the conducted research\activities and innovations in the DRR domain
• DRR, CC & SDGs multidisciplinary and transnational degrees, schools and research projects
• Establish DRR unit inside these educational and research institutes.
• Certified Training programs/courses on DRR
• Double degrees, mobility of students, academics and technical staff

iv. Timeframe: 2025