Working Group on
Societal and Economic Research Applications

MISSION:

To advance the science of the social and economic application of weather related information and services and reviews and assist in the development and promotion of societal and economic related demonstration projects.
Members
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WWRP FDPs/RDPs

- Sydney 2000 (S2000)
- Beijing 2008 (Beijing08)
- Shanghai World Expo 2010 (WENS & TLFDP)
- Vancouver 2010 (SNOW V-10)
OBJECTIVE OF THE S2000 FDP

To demonstrate the capability of modern forecast systems and to quantify the associated benefits in the delivery of a real-time nowcast service.
To evaluate the WWRP FDP qualitatively and quantitatively through identifiable social, societal or economic impacts arising from the application of the FDP output
IMPACT STUDY

To evaluate how forecasters employed the enhanced FDP information to produce more *useful* nowcasts

To evaluate how selected *end users* accessed, utilized, and acted upon those enhanced forecasts in the context of broader decision processes
Implications of lessons learned from Sydney 2000

Documentation of any identifiable change in project effectiveness between the 2 Olympics

Understanding of critical metl thresholds for various events/situations

Documentation of how decisions were made in response to specific hazardous weather events

Defining forecast "quality"
Impact Study

- Series of structured surveys
- Interviews (formal/ad-hoc) (telephone/face2face)
- Web-based (including e-mail)
- Unobtrusive observation of forecasters
Lessons Learned:

There should be a systematic collection of baseline data on both forecaster and user-decision processes;

Significant training and practice with the forecast products by forecasters and end-users is essential for the efficient use and confidence in the output.
Lessons Learned:

The operational testing of new weather products throughout the development stage should be strongly encouraged.

An effective consultation process should be *built in* to future similar projects.
Period: 8 Aug–17 Sep 2008

OBJECTIVE OF THE B08 FDP/RDP

to contribute to the better understanding and improved forecasting of high impact weather events in summer season in Beijing

♦ through a demonstration of state-of-the-art nowcasting systems

♦ research and development of 6 to 36 hours mesoscale ensemble prediction system (MEPS)

in support of decision-making in 2008 Olympic meteorological service.
To evaluate the WWRP FDP/RDP qualitatively and somewhat quantitatively through identifiable societal or economic impacts arising from the application of the weather forecast outputs.
Lessons Learned from S2000:

There should be a systematic collection of baseline data on both forecaster and user-decision processes;

- 4 yrs (2005–08) of continuous survey and comparative analysis

Significant training and practice with the forecast products by forecasters and end-users is essential for the efficient use and confidence in the output.

- training for forecasters, media, volunteers, extensive public awareness campaign
Lessons Learned from S2000:

The operational testing of new weather products throughout the development stage should be strongly encouraged.

- User requirements given prime importance

An effective consultation process should be *built in* to future similar projects.

- Adopted a *merge style service*
Lessons Learned:

It is very important to develop and keep a small size team in the weather service with long term support to conduct independent studies on socio-economic impact assessment for the purpose of improving service and efficiency.

It is necessary to make full use of all types of media in the dissemination of weather information.

It is very important to set up efficient and effective mechanisms for getting user feedback so that new products can be developed to meet user needs.
Additional Findings

The degree of satisfaction of Olympic decision-makers at all levels on FDP products is 4.5 (5 pt scale)

Demanda for FDP products increased from 63% in 2005 to 100% in 2008

For business users: overall accuracy of short-term forecast improved by more than 60%

- Future efforts should continue to strive to better quantify results.
FDPs will serve to exhibit and formally quantify the benefits to be derived from improved understanding and enabling technologies.

Supporting document should discuss:

- Forecast procedure and method of disseminating forecasts
- Expected impact of the proposed FDP on society
RDPs will lead to the development and demonstration of improved and cost effective forecasting techniques, with emphasis on high impact weather, and to promote their application among WMO Member States.

Supporting document should discuss:

- How end users have been involved in the development of the research proposal;

- The manner in which the research is expected to impact on society;

- The proposed method whereby societal impacts are to be incorporated into the RDP.
SPASIBA

Thank you