Perception and Tasks for the Occupational Protection

Keynote Lecture on Occupational Protection

Seong Ho, NA, Ph.D

Korea Institute of Nuclear Safety

PERCEPTION

- new artificial sources around individual living
- Safety Culture integrates:
  - monitoring techniques and tools
  - guidance and systematic approach
  - motivations and benefits
  - feedbacks and implementation
- uncertainties in radiation risk estimation
  - study will continue for statistically significant during next decades
  - collecting and compiling global information including new radiation work sectors

PERCEPTION

- the study of carcinogenic risk estimation will continue
  - technologies of medical treatment and diagnosis of earlier cancer will keep improving
  - average human age is getting over 80
  - still concerns of carcinogenic risk against low radiation dose
  - prevention of high dose and accident will should be high priority

PERCEPTION

- lower priority of occupational protection
- economic regression and deregulation
- the increasing nuclear facilities:
  - nuclear renaissance
- optimization:
  - safety
  - lacks of young professions
  - public acceptance

PERCEPTION

- current trend in nuclear sector :
  Fig. 1-3
- other radiation work sectors :
  Fig. 4-5

Fig 1. Total number of reactors included in ISOE

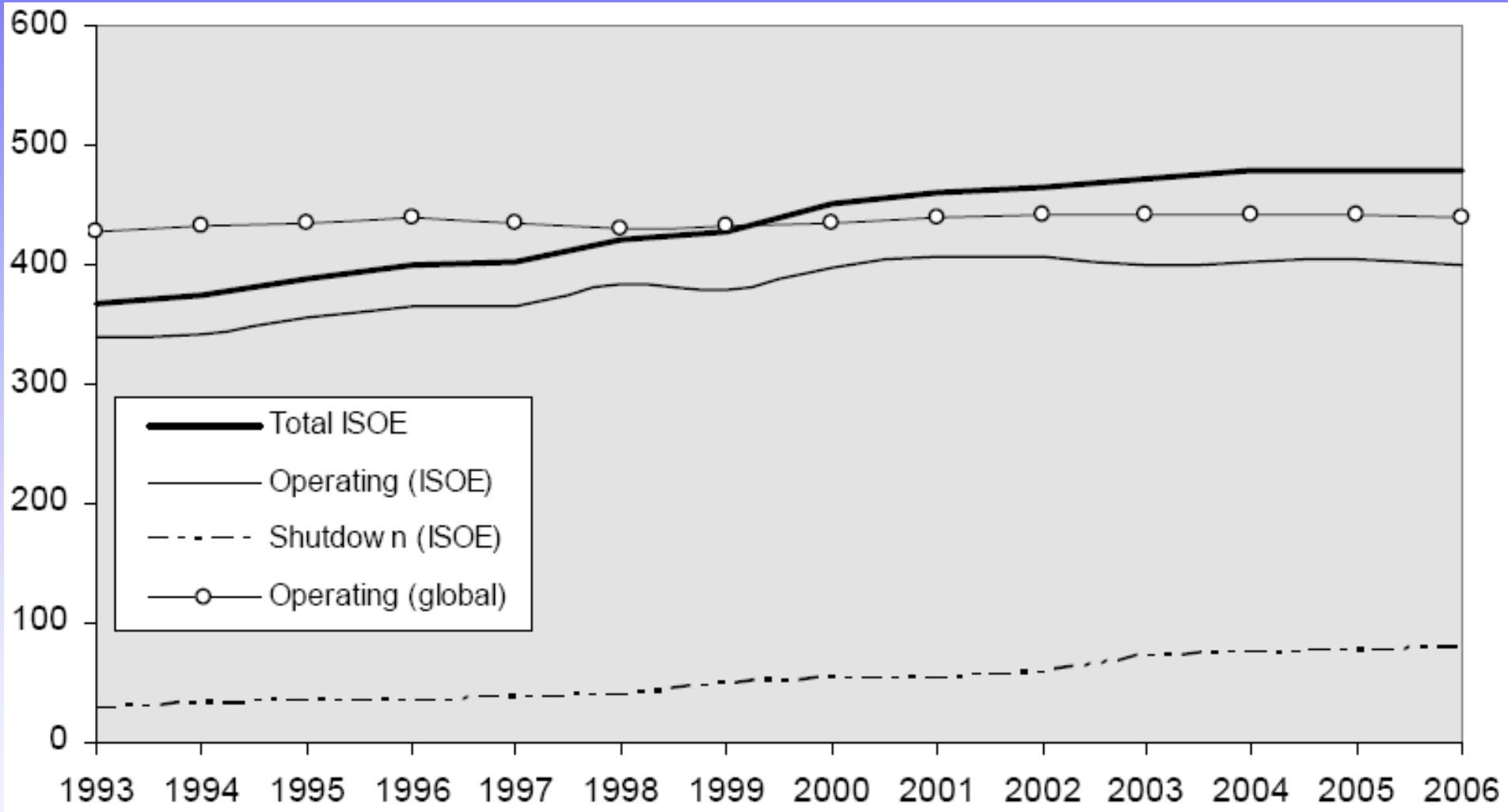


Fig 2. The global trend of collective dose in Nuclear Power Plants

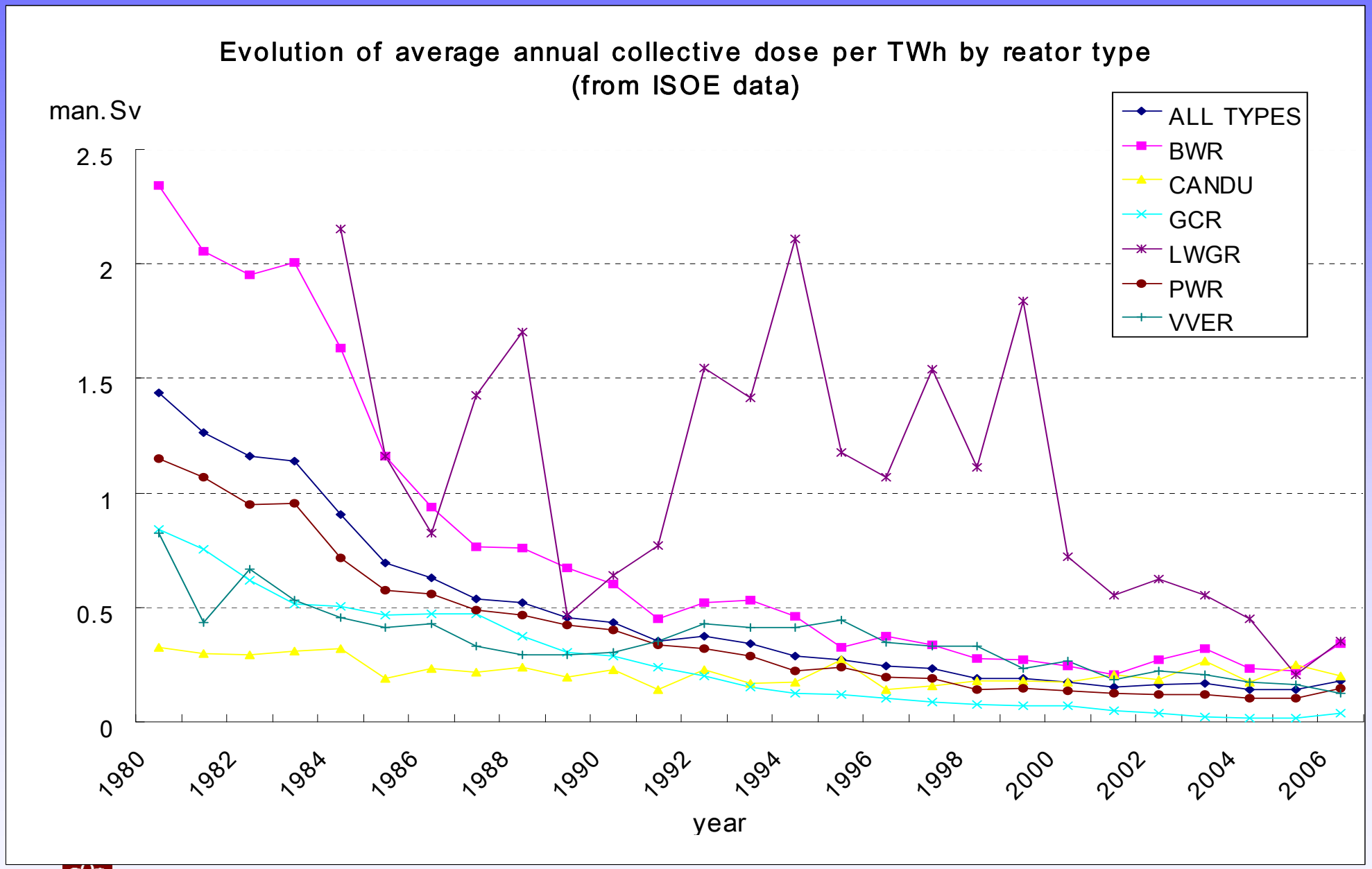


Fig 3. The trend of collective dose by country in Pressurized Power Reactor

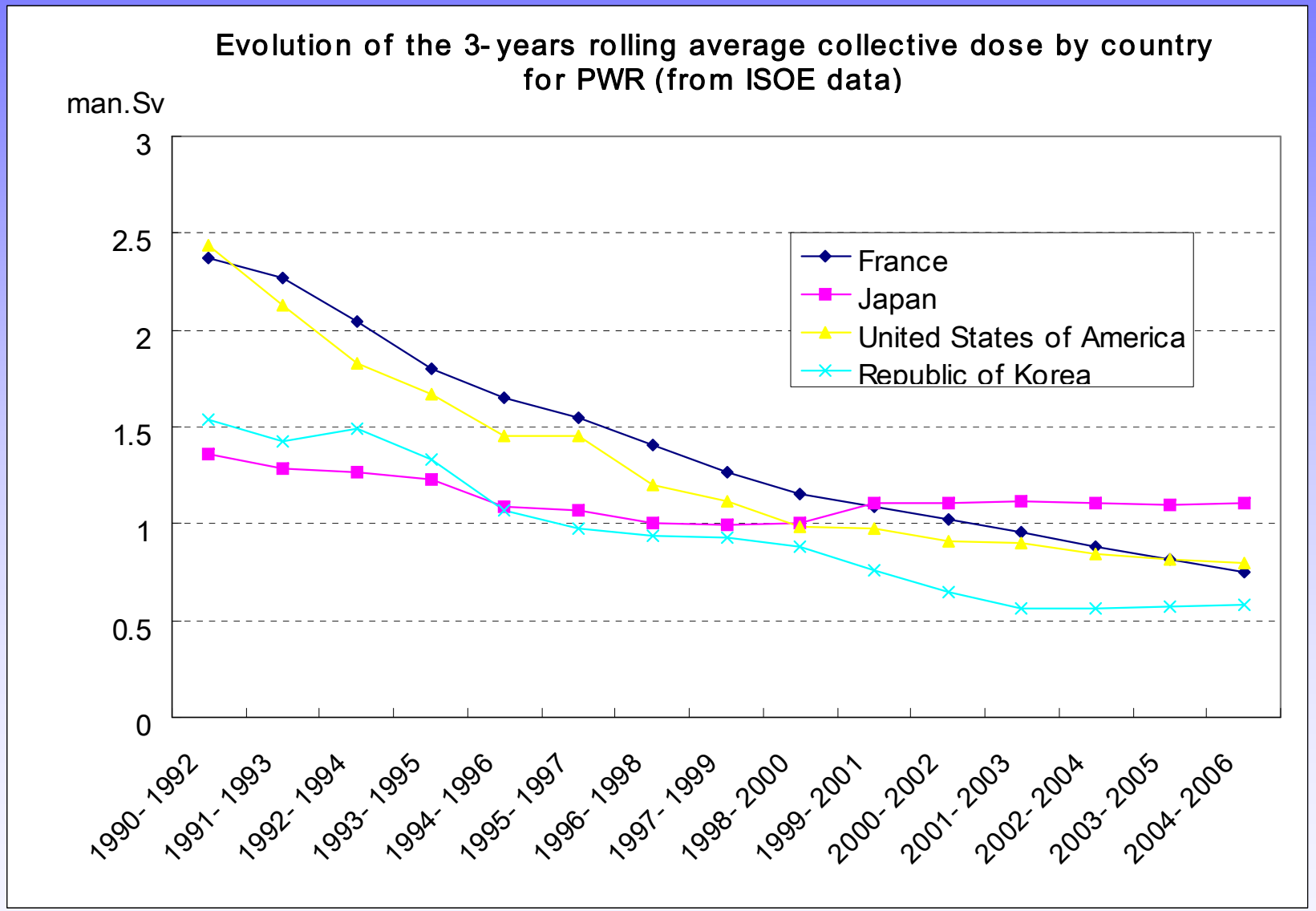


Fig.4 Annual Collective Dose by Category in Korea

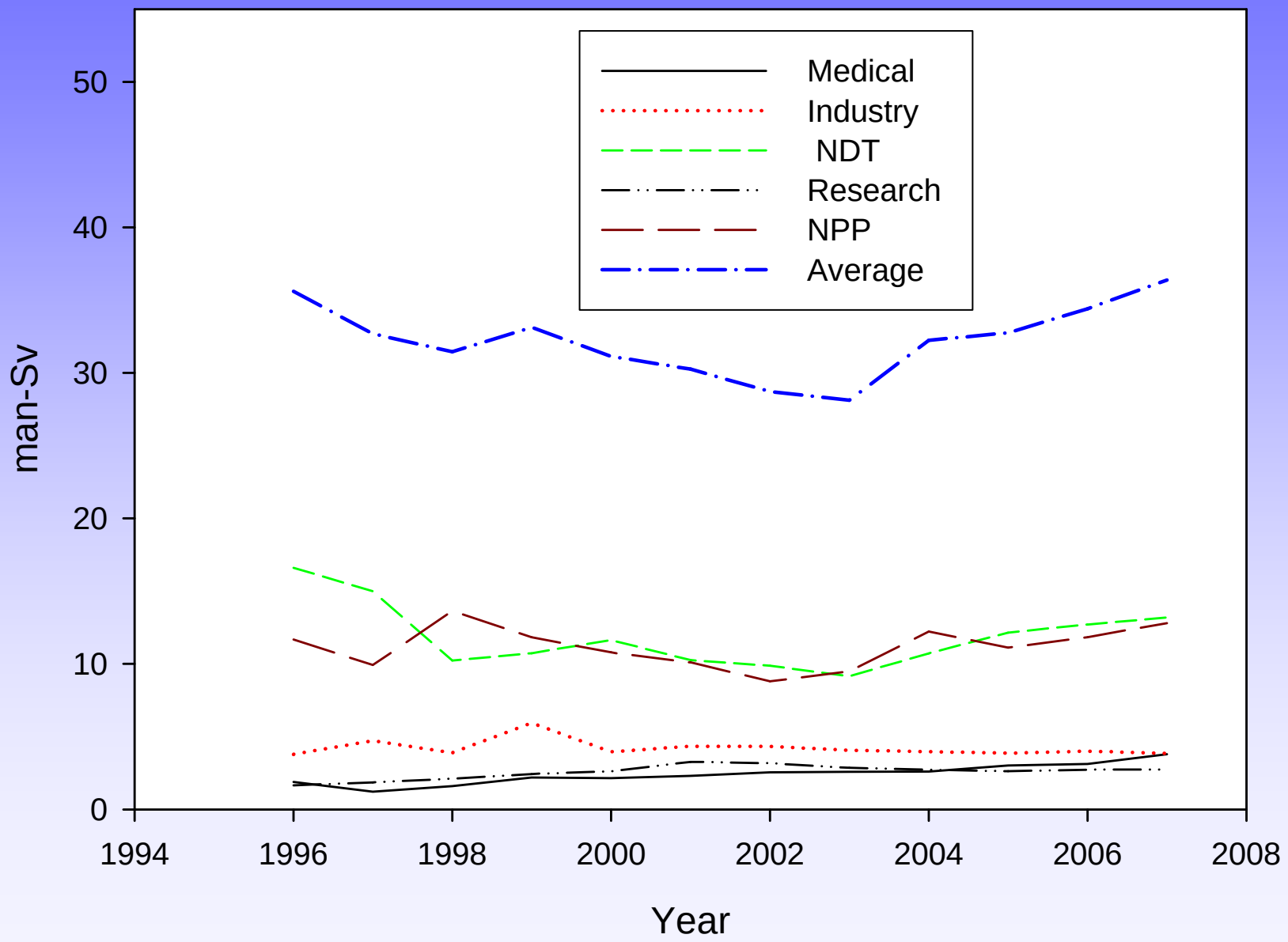
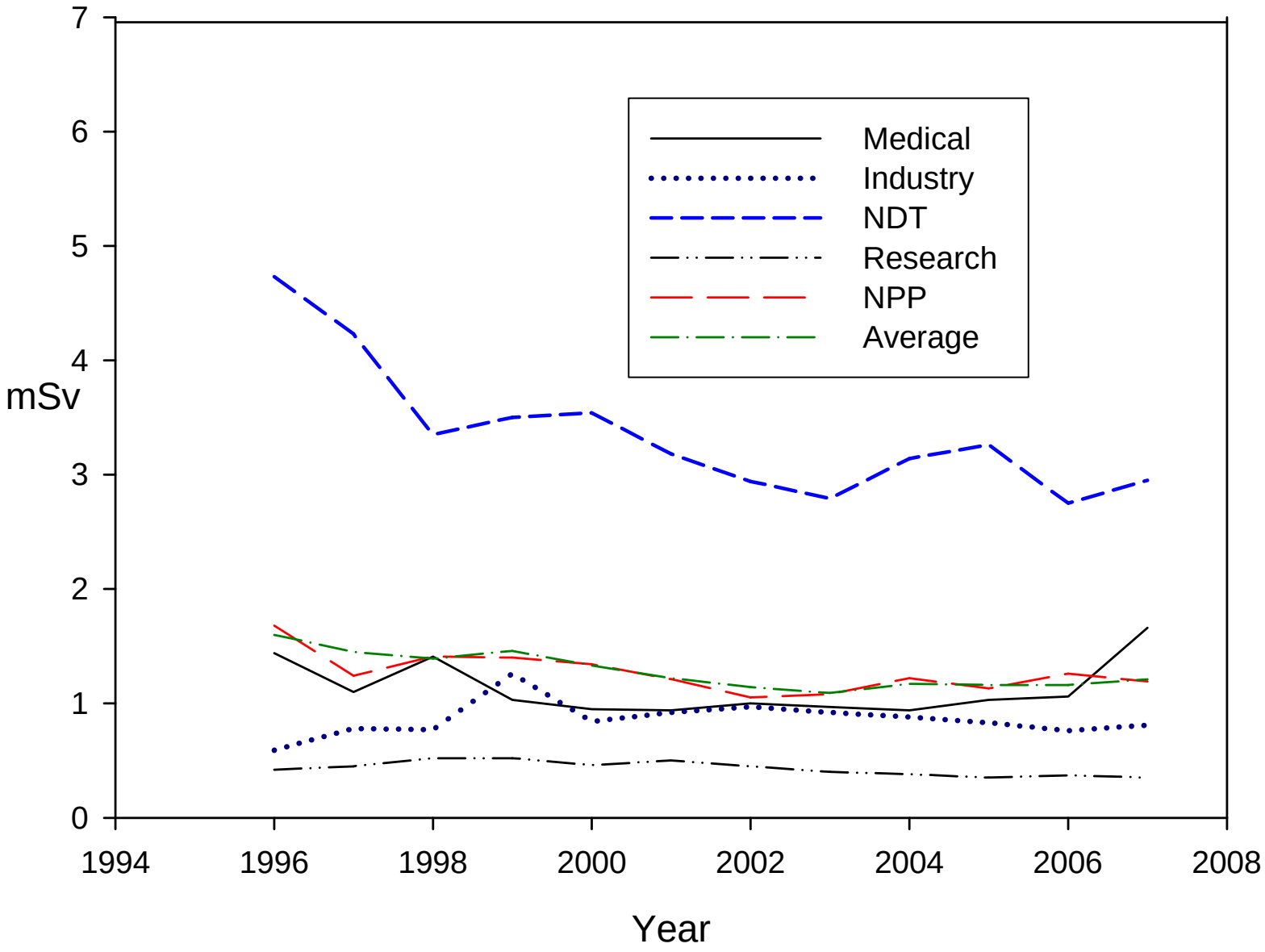


Fig. 5 Average Annual Dose per Worker by Category in Korea



CONCLUSIONS

- natural source modified by human activities
- the medical exposures to the patient and the public,
- the proactive roles of regulatory body and international organizations.
- structural approach to feedback experience and lessons learned into current actions
  - keep the occupational protection regime in alive.

CONCLUSIONS

- Integrated radiation protection and a good safety culture
- phenomena of the current dramatic changes
- real time basis communication mechanism
- sharing fast developed information of technologies and various radiation field
- involvement of different stakeholders
- use of existing standards and guidance first and following feedback
- integrate information and share for further improvement.

CONCLUSIONS

- experience in the Republic of Korea with on-line communication basis
- much valuable outcomes:
  - practices are balanced with on-line stakeholders
  - purchasing from vendors and its licensing process are runs in a same track
  - producing a source and its decommissioning are in the same track
- an terror like accident occurs in a remote city is controlled shortly within initial stage
  - on-line communication with relate local organization and alert voluntary radiation experts around the site.

Thank you for your attention

shna@kins.re.kr