20 Rules for good Risk Assessments

1. Hazards are anything that can go wrong.
2. The same hazard can provoke widely different risk because consequences can vary in time and location.
3. You have to understand the context of the study and what constitutes the system you have to assess.
   3.1. Time spent on defining the system is very well spent.
   3.2. Time spent making sure the logic of your hazard register is correct is very well spent.
4. The largest and costlier mistakes are generally made when defining the system. Shortcuts and logical confusion (which are very common) are very expensive!
5. Past can never be assumed to equal the future. At best it can be used as a point estimate among others.
6. In modern society, he who hides risks dies, sooner or later.
7. If you want to stay out of jail, never use 0 or 1 for probabilities.
   7.1. Zero risk does not exist.
   7.2. Certainty does not exist.
8. Always explicitly deal with uncertainty. A range is far better and more credible than a single number.
9. Mitigations reduce probability of occurrence of scenarios. They do not change consequences. Alterations of the system alter consequences.
10. Don't ever be afraid to ask questions, like a child to people that know the system. Generally they have become “blind” to their risks.
11. Probability Impact Graphs (PIGs), which constitute “common practices” in many industries, don't fly, because they are misleading, lend to biases and censoring and do not give a proper roadmap for future development and risk mitigations.
12. Manageable risks are the one that can be mitigated to become tolerable. Unmanageable risk cannot be brought to be tolerable unless the system is altered.
   12.1. Tolerability has to be defined in order to allow proper decision making.
   12.2. Tolerability definition requires transparent communication with stakeholders.
13. Unless you understand what is manageable vs. Unmanageable, the future is going to hurt.
14. No risk assessment should ever be performed (even of administrative processes) without covering natural hazards (including of course, climate).
15. Risk assessments, allow the design of sensible business continuity plans and emergency response plans.
   15.1 These need to be tested in order to ensure the system works as planned under duress.
   15.2 Always start testing and drilling with a table-top exercise and then keep increasing the difficulty until you reach the “surprise” test level.
16. Talking about resiliency increase without first performing a risk assessment is like shooting in the dark. Lots of money will be wasted.
17. Communication has to be fostered thorough a project and its risk assessment. Communication allows building trust among the parties.
18. People involved in a process, be it a project, a company, a venture are not the best people to build a risk assessment, because they are biased. Third party intervention is absolutely necessary.
19. Consequences of hazard occurrences have to be studied thoroughly: it is not enough to define a few categories and then select the worse as often suggested in PIGs applications.
20. Start early. Often the best competitive advantage is brought by developing risk assessments at pre-feasibility stage already.