

## Beyond the phrase ” Not-assumable”

NISHIKAWA Kazuhiro

Director-General, National Institute for Land and Infrastructure Management

---

*(Keywords) Great East Japan Earthquake, unprecedented, unimaginable, imaginative power, inability to think*

Since the Great East Japan Earthquake of March 11 last year, the phrase “not assumable” has been constantly in my mind. It seems to be easily used as an excuse to avoid the responsibility concerning the disaster, and I cannot bear this kind of attitude. On this occasion, from my long experience as a researcher in making and revising technical standards for road bridges, I would like to make some comments on this issue.

Since the disaster, I have tried to persuade my colleagues in the Institute who are involved in revising technical standards for public infrastructure, not to use casually the phrase. It is because I have an intention of making them encouraged to overcome the situation of using the phrase of “Not assumable “in their research works.

Of course, I am aware that this is not easy. But in this message, I am trying to write down what I have considered to avoid the phrase and what should be taken as an actual responsibility. I sincerely hope this message will be served as a useful reference to readers of the NILIM Annual Report.

### Unprecedented and Not -assumable

Hatamura Yotaro, Professor Emeritus of the University of Tokyo and famous as the founder of the “Study of Failure”, has written a book, “Unprecedented” and “ Not assumable”<sup>1)</sup>, which I think many of you may have read. I would like to quote extensively from this work.

“The word ‘Unprecedented’ does not mean ‘Not personally experienced’, but ‘Never before in history’.”

This is natural because the Japanese word for “Unprecedented” which is pronounced “Mizou”, is derived from a phrase in classical Chinese which means, ‘Never before existed’”. Later, it came to be used as “Never experienced”.

Anyway, he says “When a person plans something or decides to make a plan, the person first decides the range they will consider. In this context, ‘Assuming’ means “Defining the boundary of your scope and deciding on the

framework of your consideration.”

I was impressed with this simple explanation, which I think is the key to overcoming the phrase of “Not assumable” being easily used as a kind of avoidance.

In scientific research, even when solving engineering problems, you must kick it off with deciding to select which of the relevant factors to be considered as its influential, which will be OK to ignore because of their impact being minor, and in addition, you must think about how will be the range of the considered factors. It is clear that without appropriate predeterminations above, the outcome of research activities will result in ineffectiveness.

This kind of settings at the beginning of the activities means “Framework” or “Assuming” as named by Professor Hatamura. Therefore in the research activities, when the settings causes unexpected consequence, the “Framework” or the “Assuming” itself should be recognized as a failure, not excused as being “Not assumable”. It should not leave alone as an affair of others, which was assumed for sure by you.

### Assuming influential factors is an advanced decision

I will again quote Professor Hatamura.

“ You can understand ‘Assuming influential factors’ as the word being used at the stage of ‘Setting subjects’. And ‘Considering within the assumed factors’ can be translated to the expression of ‘The frame reached to the conclusion of the subject’. Of course the former is much more difficult.”

Ms.Katsuma Kazuyo, a popular management analyst wrote in her recent book “Trap of Earnest attempt on the existing frame”<sup>2)</sup> that McKinsey, the American management consulting firm she used to work for, can charge high fees because it devotes great efforts to discuss completely to set up the customer’s subjects clear as what kind of matters they are .

For example, these stories, just as in research work, support the saying that if you can identify the problem, you are halfway to solving it.

Therefore, we must recognize the importance of setting up subjects, in other words, “Assuming factors with their considering frame”, instead of treating it lightly.

### **Classifying the Not-assumable**

As described above, it has become clear “Assuming” is done by you. .

Then, why do you assume something when you try to find solutions? How is your mind moving in such case?

In this regard, I would like to find an answer to why so often the phrase “Not assumable” is used as an excuse. This thought, being super original in my approach, but hopefully some hints will be given us to overcome the trap of using the phrase .

[1] “Not assumable” which means “Could not be imagined”

People often say, “I’ve never imagined it would happen.” Using “Not assumable” in this context, it is to be a lack of imaginative power.

Even when you are senior, many of you are usually not concerned with things out of your specialty. This is because of you having self-constraints on your mind, so you do not respond to what you are seeing and what you hearing, in case you have no interests in them. Also, what you call bureaucratic compartmentalization or trapped in a narrow specialization are similar phenomena.

To improve imagination power, you have to consciously expand your recognition frame which restricts your dairy life. Predicting how disasters will be like is, I think, a same process of improving this ability, and needless to say, the necessity of constant seeking to increase the accuracy, in spite of no perfection in its efforts.

[2] “Not assumable” which means “Stopped thinking “

Actually, there are many cases you hear”Such cases were thought as no needs to be considered because of no comments in national standards and related manuals.” This is a kind of “Stopped thinking”. Professor Hatamura also warns, “In this case of “Not assumable”, it means you cannot do the job without manuals, and once you got the manual, you abandon your own thinking.”

I think that not only those who are in charge of drafting manuals, but also technology experts should continuously ask the question to themselves, “How do I judge and respond to such

case as is in the situation of no manuals. In other words, how do you take actions in ‘Not assumable’ situations?” An engineer who will not be responsible for such behavior may be valued as a cost

[3] “Not assumable” which means “ Given up” Other case of using “Not assumable” is happened when you think there is no way to respond, or no possibility of getting budgets, you sometimes give up to proceed, which can be a pattern of “Not assumable.”

I would like to pick up an example for bridge managements; In case of external force increased while using conventional design methods, the goal of calculation may be that the dimensions is to become preposterous or the cost is to be unbearable, and the both approaches will be unfeasible. In this case, I will recommend resetting the subject as to the bridge management in order to change your mind more flexibly. Lately, you know the term “preventing disasters” has often been replaced with “mitigating disasters”, which is itself a sort of resetting the subject.

In the field of road bridge managements, as is already practiced when a new major damage due to earthquake disaster has occurred, a new strategy of how to mitigate the damage has been proposed under resetting of the subject; To ensure toughness (ductility) to prevent collapse if bridge piers cannot withstand earthquake forces, or at least to prevent bridge collapse and save human lives (bridge fall prevention device), and if possible, to limit the consequence of damaged members and to speed up restoration, or to permit only emergency vehicles to cross the bridge, and so on.

[4] “Not assumable” which means “was missed in the assuming “

The final category will be belong to the psychological term of “Normalization bias”. This term refers to a tendency for people to believe that although they know something will occur, they do not think it will harm them. Now that the devastating disaster has been neither unprecedented nor unexperienced, administrative managers are not permitted to express in this story.

Major disasters are rare, but this closely resembles the advance of deterioration of infrastructure which occurs slowly over time. In either case, there is a strong temptation to

overlook it and postpone countermeasures. To overcome this, individual efforts plus initiatives at the organization or system level are required.

### **Conclusion**

Concerning the four categories, the indispensable key words are imaginative power (category1), I think, and another is how to think continuously (category2). It seems that, people performing their works for a long time, just like Sun Wu Kong with a band framed around his head, they lose their ability to expand the boundaries enclosing their thinking. In the case of Wu Kong, the Buddha attached the band to admonish him for his conceit, but the band of each of us wearing seems to put on by ourselves or our organization (members of our industry), so as to stop thinking and becoming free from the responsibility. How about occasionally daring to remove the headband (boundaries) to climb upon a cloud and fly in the broad sky of imagination? This will expand your field of vision to stimulate the thought processes.

I will conclude with a warning by Professor Hatamura, who was not the Buddha:

“‘Not-assumable’ events have not occurred. It was that you had not been thinking anything about them.”

### **References**

- 1) Y. Hatamura: *Mizou to Soteigai* (Unprecedented and Not-assumable), Kodansha Gendai Shinsho, July 2011.
- 2) K. Katsuma: *Majime no wana* (Trap of Earnest attempt on the existing frame), Kobunsha Shinsho, October 2011