NUCLEAR LIABILITY IN PRACTICE

The TEPCO FUKUSHIMA DAIICHI NPP ACCIDENT

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WHY ARE NUCLEAR LIABILITY AND COMPENSATION REGIMES IMPORTANT?

A nuclear accident can produce…

- detrimental effects: health, property, environment, economy
- damage: does not stop at political/geographical borders

Governments have responded by…

- ***BALANCING*** (i) assurance of ***adequate compensation for damage*** suffered by victims with (ii) ***protection of nuclear plant investors and suppliers*** from ruinous liability claims
- adopting ***SPECIAL LIABILITY/COMPENSATION REGIMES*** at national and international levels

WHAT IS THE PURPOSE OF NUCLEAR LIABILITY ?

At a national level

- Ensure prompt and ***adequate*** compensation of damage caused to persons and property by a nuclear incident
- Provide a clear legal framework to operators / investors / suppliers to carry out risk analysis (legal certainty)
- Contributes to public acceptance of nuclear power programmes

At an international level

- Provide a uniform/harmonised system: no discrimination among victims of a same accident
- Define the applicable law and competent court
- Ensure enforceability of judgments in other jurisdictions

NUCLEAR LIABILITY AND COMPENSATION REGIMES: BASIC PRINCIPLES

Operator's strict liability:	victims need not prove fault or negligence
Operator's exclusive liability:	• all liability is channeled to the operator; no one else is liable (e.g. investors or suppliers) • no other law than nuclear liability law applies (e.g. tort law)
Operator's liability amount:	specified amount, but few countries provide for unlimited liability
Financial Security:	funds are available when needed; private insurance primarily but other means are available (e.g. mutuals)
Liability Limited in Time:	• 10/30 years from the accident • insurance market requires limitations (e.g. cancer causes)

Operator = licensee or other government recognised entity

NUCLEAR LIABILITY AND COMPENSATION REGIMES: BASIC PRINCIPLES IF TRANSBOUNDARY DAMAGE

Only apply between States that have treaty relations, i.e. have signed the same international nuclear liability convention(s)

Unity of Jurisdiction:	* courts of State where incident occurred have jurisdiction; if place of incident not certain, courts of the State where the liable operator's installation is located have jurisdiction * courts to apply relevant convention + national law to substantive and procedural matters * judgments to be recognised by other States and be enforceable in their territories
Non-discrimination:	no victim discrimination based on nationality, domicile or residence

INTERNATIONAL REGIMES UNDER OECD AUSPICES

1960 ***Paris Convention on Nuclear Third Party Liability*** *(PC - 1968)*

basic liability-compensation convention;
16 Contracting States/Parties (mostly Western Europe)

1963 ***Brussels Convention Supplementary to Paris Convention*** *(BSC - 1974)*

supplementary funding instrument;
13 Contracting States/Parties; all must be PC States

2004 ***Protocols amending Paris + Brussels Supplementary Conventions*** *(RPC + RBSC - not yet in force)*

provide more money to more victims for more types of damage; 16 PC signatories/13 BSC signatories

INTERNATIONAL REGIMES UNDER IAEA AUSPICES

1963 ***Vienna Convention on Civil Liability for Nuclear Damage*** *(VC - 1977)*

basic liability-compensation convention; 40 Contracting Parties (Central/Eastern Europe, Asia, South/Central America)

1997 ***Protocol amending Vienna Convention on Civil Liability for Nuclear Damage*** *(RVC - 2003)*

provides more money to more victims for more types of damage; 13 Contracting Parties

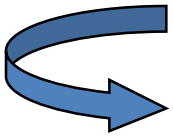
1997 ***Convention on Supplementary Compensation for Nuclear Damage*** *(CSC - 2015)*

global liability-compensation regime (basic + supplementary funding); 9 Contracting Parties

THE LINK BETWEEN PARIS AND VIENNA CONVENTIONS

1988 ***Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention*** (JP - 1992)
28 Contracting Parties (11 PC + 17 VC)

The ***"BRIDGE"*** which ensures that only one convention applies to a nuclear incident regardless of where damage occurs



effectively extends geographical scope of both conventions (Western/Eastern Europe/Asia +++)

Also applies to RPC and RVC

NUCLEAR LIABILITY BASIC PRINCIPLES

Main internationally accepted basic principles:

- Nuclear operator's strict liability
- Nuclear operator's exclusive liability (legal channelling)
- Limitation of liability in amount (few countries provide for unlimited liability)
- Compulsory financial security
- Limitation of liability in time

When the accident occurred, Japan was not yet a party to the CSC but it already applied the above principles in its national legislation, which has remained unchanged since the CSC ratification:

- Civil Code
- Act on Compensation for Nuclear Damage (1961)
- Act on Indemnity Agreements for Compensation of Nuclear Damage (1961)
- Orders for the execution of the above Acts (1962)

THE FACTS
Earthquake magnitude 9 + tsunami + nuclear accident

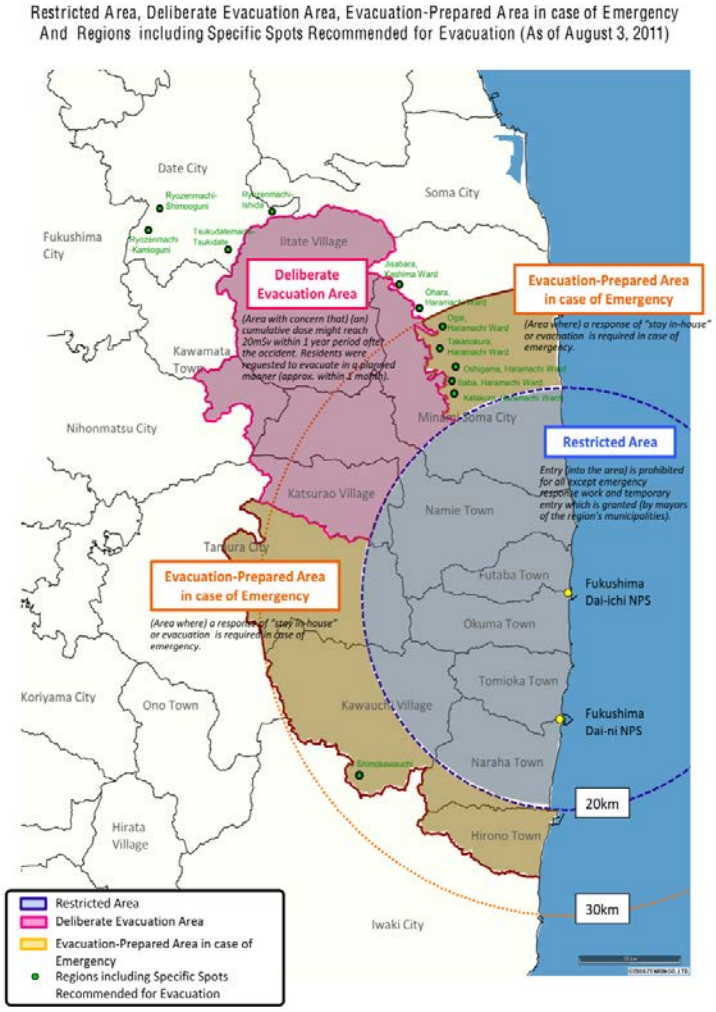
No direct casualties but approx. 160 000 evacuees due to the release of radioactive substances. In January 2016, there were still 100 000 evacuees:

- 70 000 from the Area subject to Evacuation Instructions
- 30 000 from other areas, including voluntary evacuation areas

Evacuation affected the local and national economy: agriculture, tourism, fisheries and industry

To date, no transboundary damage

Victims = evacuees + enterprises affected by evacuation instructions and restrictions



TEPCO FUKUSHIMA DAIICHI NPP ACCIDENT

STRICT & EXCLUSIVE LIABLITY

- **TEPCO, as operator of the NPP where the accident occurred, is solely liable**
  - without needing to prove fault or negligence, victims must only establish a ***causal link*** between the nuclear accident and the damage suffered and are therefore relieved of heavy proof burden
  - all liability is channelled to the operator; victims need not pursue all others "at fault"

- **Practical consequences:**
  - quickly set up a bi-lingual web page to provide information: www.tepco.co.jp/en/comp/index-e.html
  - had to review several times its indemnification procedure to simplify it
  - handled over **2.5 million applications** (no new ones since Dec. 2015)
  - set up call centres; now approx. 6 500 persons involved in claims handling

TEPCO alone had to deal with the claims handling and the payment procedure

NO EXONERATION OF OPERATOR'S LIABILITY

- No grave natural disaster of exceptional character -

World Great Earthquakes

Earthquakes (after 20th century)	Magnitude
Chile Earthquake (1960)	9.5
Alaska Earthquake (1964)	9.2
Sumatra Earthquake (2004)	9.1
Tohoku Earthquake (2011)	**9.0**
Kamchatka Earthquake (1954)	9.0

(Source: United States Geological Survey)

Great Earthquakes in Japan

Earthquakes (after Edo period)	Magnitude	Reference
Tohoku Earthquake (2011)	**9.0**	**Intensity at Fukushima Daiichi Nuclear Power Plant is 6⁺**, which was observed at 7 points in Japan for 2001-2010.
Hoei Earthquake (1707)	8.6	
Ansei Tokai Earthquake (1854)	8.4	
Ansei Nanakai Earthquake (1854)	8.4	
Meiji Sanriku Earthquake (1896)	8.2-8.5	

(Source: The Headquarters for Earthquake Research Promotion)

World Great Tsunami

Places	Height (m)
Shoup Bay (ALASKA) (1964)	67.1
Rhiting (Smatora/INDONESIA) (1930)	48.9
Tohoku Earthquake (Miyako) (2011)	**38.0**
Scotch Cap (ALASKA) (1946)	35.0

(Source: National Oceanic and Atmospheric Administration, Fact-finding Mission of Yokohama National Univ. and Disaster Prevention Research Institute of Kyoto Univ.)

Great Tsunami in Japan

Earthquakes (after Edo period)	Height(m)
Meiji Sanriku Earthquake (Sanriku-cho ryori) (1896)	38.2
Tohoku Earthquake (Miyako) (2011)	**38.0**
Hokkaido Nansei Oki Earthquake (Okushiri) (1993)	31.7
Yaeyama Tsunami (Ishigaki Island) (1771)	30
Meiji Sanriku Earthquake (Tanohata) (1896)	29.1

(Source: Japanese Tsunami Damage Comprehensive List)

AMOUNT OF LIABILITY

- **UNLIMITED LIABILITY of the operator**
  - required to compensate all nuclear damage
  - theoretically, liquidation may be envisaged
- **Compulsory financial security up to ¥ 120 billion (approx. € 1 billion) for each installation** => insurance (usually), deposit or equivalent arrangement approved by the Ministry of Education, Culture, Sports, Science and Technology (MEXT)
- **Governmental Indemnity Agreement of up to ¥ 120 billion for non-insurable risks** (e.g. earthquake, tsunami, eruption) for which operator pays an annual indemnity fee

Because the accident was due to an earthquake + tsunami, TEPCO was not entitled to trigger the insurance policy but the Indemnity Agreement was triggered

LIABILITY LIMITED IN TIME

- **Statute of limitation**
  - right of action fully extinguished **20 years** following the date of the tort
  - victims must file claims within **3 years** from the date s/he has knowledge of both the damage and the person liable

- **Victims may, individually or as part of a group, file a claim**
  - directly to the operator (99.2%)
  - before the **Nuclear Damage Compensation Dispute Resolution Center (ADR Center)** (0.78%)
  - before the civil courts (0.01%)

  } as of Dec 2016

- **Act to interrupt statute of limitation for unsuccessful mediation process at ADR Center** (June 2013): when a mediation process at the ADR Center is discontinued due to absence of prospect of settlement, the petitioner may file an action in court within one month after the notice of such discontinuance, and such action will be presumed to have been filed at the time the case was submitted for mediation with the ADR Center
- **Act to extend prescription period** (December 2013): 3 years prescription period extended to **10 years** **ONLY** for the benefit of Fukushima Daiichi/Daiini victims

WHAT TYPE OF DAMAGE IS COMPENSATED?

- **Pursuant to Compensation Act**
  any damage caused by the effects of the process of nuclear fission of nuclear fuel material, or by the radiation effects or toxic effects of nuclear fuel materials and the like
- **Nature, form and extent of compensation are determined by Civil courts** on a case by case basis pursuant to the “reasonable causation” principle
  => too lengthy in a situation of emergency
- **Dispute Reconciliation Committee for Nuclear Damage Compensation (*Reconciliation Committee*)**
  - Established in April 2011 under MEXT
  - **Mediates** disputes between victims and TEPCO (established the ADR Center, which was operational on 1 September 2011)
  - Issues non-binding **guidelines** to determine heads of damage

GUIDELINES

Preliminary Guidelines on Determination of the Scope of Nuclear Damage Resulting from the Accident	28 April 2011
Secondary Guidelines on Determination of the Scope of Nuclear Damage Resulting from the Accident	31 May 2011
Supplement to Secondary Guidelines	20 June 2011
Interim Guidelines on the Determination of the Scope of Nuclear Damage from the Accident *=> Supersede Preliminary and Secondary Guidelines with respect to matters thereof and provide overall picture of nuclear damage*	5 August 2011
Supplement to Interim Guidelines (*Voluntary evacuation*)	6 December 2011
Second Supplement to Interim Guidelines (*Following revision of evacuation areas – compensation of real estate assets*)	16 March 2012
Third Supplement to Interim Guidelines *(Following revision of evacuation areas – further specifies rumour-related damage and mental anguish compensation for those requiring nursing care)*	30 January 2013
Fourth Supplement to Interim Guidelines *(Following revision of evacuation areas – further specifies damage related to mental anguish and to home relocation or prolonged evacuations)*	26 December 2014

Basic Approach of the Reconciliation Committee

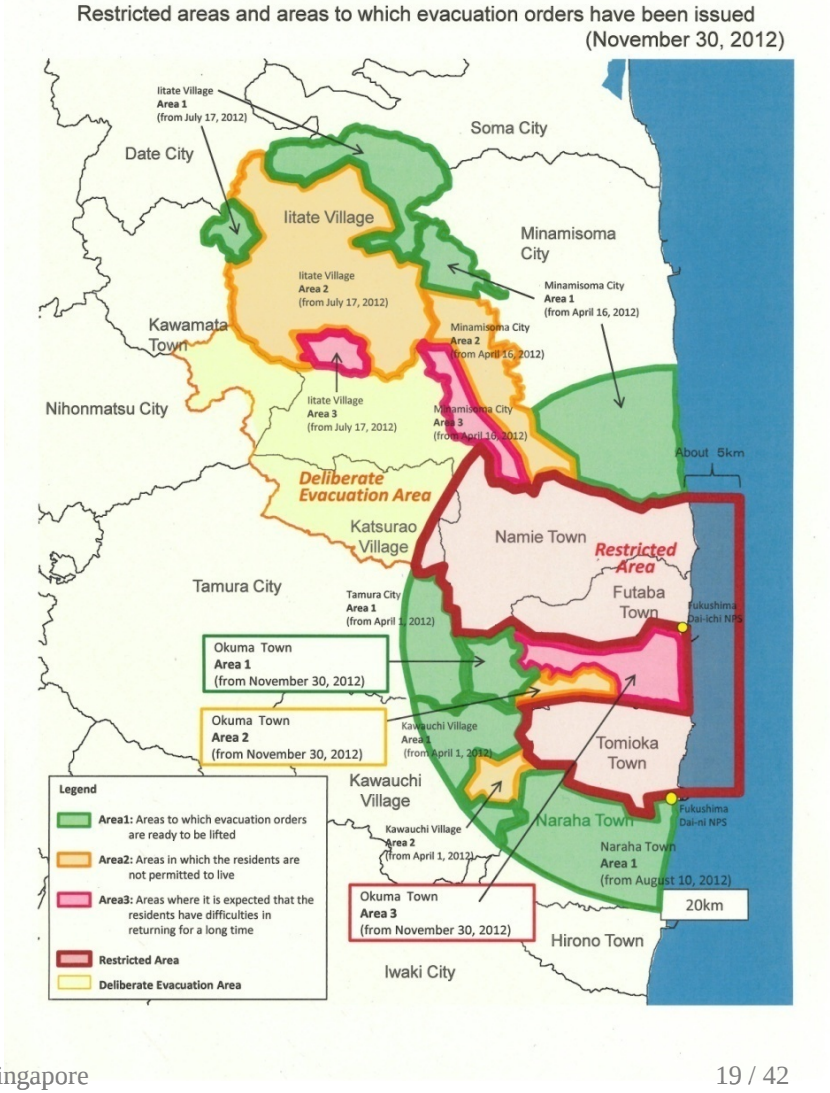
- **Precedent:** criticality accident at the nuclear fuel processing facility at Tokaimura of September 1999
- **Causality:** so long as a causal link between the nuclear accident itself and the damage suffered is logically and reasonably established based upon social convention
- **Distinguishing damage caused by the earthquake/tsunami from those caused by the accident:**
  - not possible to make a clear distinction for certain damage
  - presumption based on a comparison of damage incurred in areas affected by the earthquake but less impacted by the accident

OVERVIEW OF THE HEADS OF DAMAGE

Damage caused by:

- Evacuation instructions
- Voluntary evacuation
- Navigation danger zones
- Shipping restriction orders
- Planting restriction orders
- Rumour

AREA 1	Definitely confirmed ≤ 20 mSv
AREA 2	Could exceed 20mSv (living restrictions)
AREA 3	Currently exceeding 50mSv and may not fall below 20mSv even over a long period (specifically after 5 years)



Damage Related to Evacuation Instructions

- Examination expenses
- Evacuation expenses
  - Travel expenses, removal of belongings from household
  - Accommodation related expenses
  - Increase in living expenses
- Injury or death
- Mental anguish arising from the evacuation / being forced to live as an evacuee or forced to take shelter indoors
- Business damage (reduction in income / additional expenses incurred)
- Damage arising from incapacity to work for an employer (loss of income)
- Examination expenses concerning property/products
- Loss or decrease of movable and immovable property value
- Temporary access expenses
- Homecoming expenses

Rumour-related Damage

- **No established definition of "rumour-related damage":** when leading consumers/trading partners refrain from purchasing or stop trading due to concerns regarding contamination based on facts widely known through media reports and such concern is considered reasonable from an average, ordinary person perspective

- **Causal link:** when consumer/trading partner is concerned about contamination risk in relation to product/service, and such psychological concern is reasonable from the perspective of an average ordinary person => to be considered on a case-by-case basis

- **Sectors concerned:**
  - agriculture, forestry and fisheries
  - food industry, tourism, manufacturing, services, exports

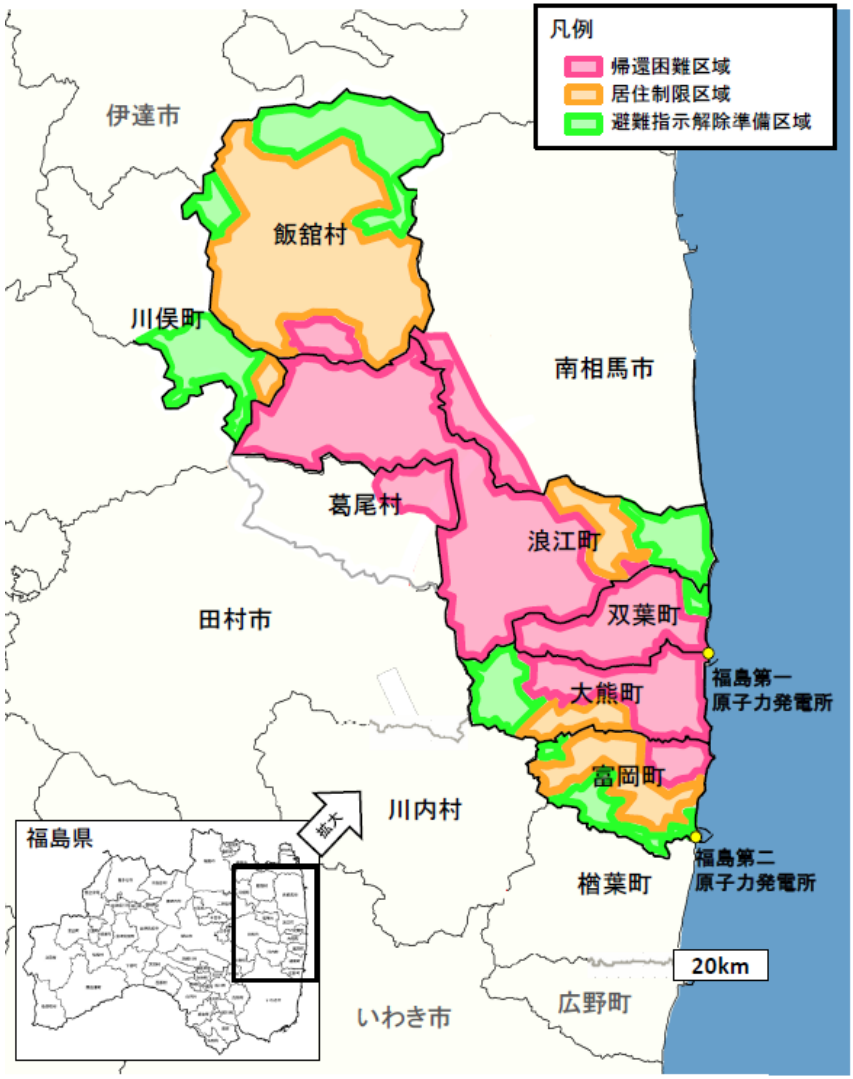
- **Types of damage:**
  - business damage (loss of income and reasonable additional expenses)
  - damage arising from incapacity to work for an employee
  - examination expenses

MOST RECENT STATUS OF THE EVACUATION ZONES

As of 12 July 2016

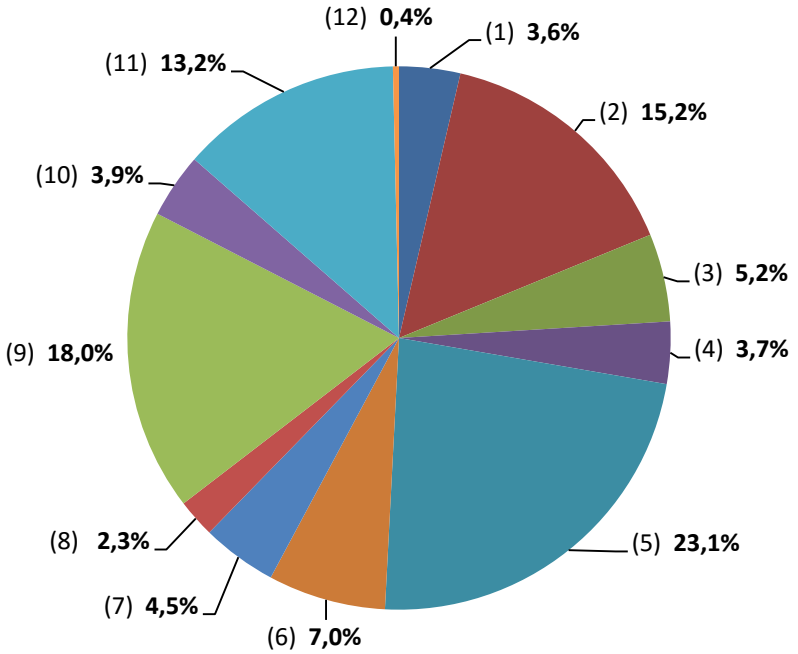
AREA 1	Currently exceeding 50mSv and may not fall below 20mSv even over a long period (specifically after 5 years)
AREA 2	Could exceed 20mSv (living restrictions)
AREA 3	Definitely confirmed ≤ 20 mSv

Areas to which evacuation instruction have been issued



Status of compensation as of December 2016

Category of damage	Agreed amount (Billion Yen)
●Payments to natural persons	
1. Cost of radioactivity checking	**252.2**
2. Mental anguish	**1051.9**
3. Damage due to "voluntary evacuation" etc.	**362.7**
4. Damage due to work incapacity	**256.1**
●Payments to legal persons and sole proprietors	
5. Business damage caused by the shipping restrictions, and related damage	**1 603.0**
6. Other business damage	**485.8**
7. Indirect loss, etc.	**310.5**
8. Block payment (business damage and indirect loss etc.)	**157.8**
●Payments not categorized by nature of the victims	
9. Loss or reduction of property value	**1 247.6**
10. Difference between the value of the former residences and the cost of acquiring new residences	**268.0**
11. Decontamination	**916.8**
12. Fukushima Prefecture Residents Health Care Fund	**25.0**
●Total	**6 937.9**



Based on information provided on TEPCO's website: www.tepco.co.jp

What About the Environment?

- **Environmental damage not compensated *per se* under the Compensation Act *unless* there is a causal link:** *e.g.* if a farmer loses his income due to an impaired environment
- **Act on Special Measures concerning the Handling of Environment Pollution by Radioactive Materials** issued August 2011 and entered into force 1 January 2012
  - deals with the remediation program of the areas affected
  - Government is in charge of decontamination works **but operator will ultimately bear the relevant costs**
  - reasonable estimation is not possible under the current circumstances as concrete measures are not identifiable

Not explicitly provided in the Compensation Act but TEPCO shall bear the costs of decontamination pursuant to 2011 Act

CALCULATION METHOD TAKES INTO ACCOUNT:

- **The geographical situation of the victims**
  - those forced to leave the affected area (evacuees)
  - those who were outside the area at the time of the accident and who had their main home within the affected area
  - those forced to take shelter indoors in the affected are

- **Difficulties of providing proof**
  - usually lump sum based on an estimate using objective criteria, e.g. statistical data

- **The period**

Period 1	accident + 6 months	11 March – 11 Sept 2011
Period 2	end of Period 1 + 6 months	11 Sept 2011 – 11 March 2012
Period 3	from end of Period 2 to termination	until returning home may be considered

HOW MUCH HAS TEPCO PAID?

- **TEPCO received little more than 2.5 million applications**
  - approx. 84% from individuals
  - approx. 16% from corporations and sole proprietors
- **Provisional payments started in April 2011**
  - TEPCO started provisional payments to evacuees, agriculture/forestry/fisheries companies and SMEs
  - **approx. ¥ 150 billion (€ 1.3 billion)**
- **Permanent compensation payments started in September 2011**
  - Based on the Interim Guidelines issued by the Reconciliation Committee in August 2011
  - **approx. ¥ 7 trillion (€ 58 billion)**

STATUS OF INDEMNIFICATION PAYOUTS

Records of Applications and Payouts for Indemnification of Nuclear Damage

As of 02/03/17

	Individuals	Individuals (Losses due to voluntary evacuation)	Corporations and Sole Proprietors	
Applications				
Applications received (cumulative)	Approx 975,000 cases	Approx 1,308,000 cases	Approx 439,000 cases	
Permanent Indemnification				
Number of permanent indemnification cases(cululative)	Approx 874,000 cases	Approx 1,295,000 cases	Approx 372,000 cases	
Amount of permanent indemnification *	Approx 2,839.7 Bil Yen	Approx 353.6 Bil Yen	Approx 3,623.8 Bil Yen	
Cumulative Payouts				
Permanent indemnification *			Approx 6,817.1 Bil Yen	①
Provisional compensation			Approx 152.9 Bil Yen	②
Total amounts paid			Approx 6,970.0 Bil Yen	①+②

* Amounts paid as provisional compensation are not included.

www.tepco.co.jp/en/comp/images/jisseki-e.pdf

As of February 2017, TEPCO has paid approx. ¥ 7 trillion (€ 58 billion)
TEPCO's estimations in Feb 2013: approx. ¥ 3.2 trillion (€ 27 billion);
in Jan 2017: approx. ¥ 8.4 trillion (€ 70 billion)
Financial security: ¥ 120 billion (approx. € 1 billion)

GOVERNMENTAL FINANCIAL SUPPORT

***Where nuclear damage occurs in excess of the financial security amount**, Government must give the operator such aid as is required for it to compensate the damage and as approved by the National Diet (Art. 16 Compensation Act)*

- **Governmental support necessary even though against market rules and principle of self-responsibility**,… because Government must ensure:
  - all victims receive sufficient compensation promptly
  - supply of electricity, indispensable for people's living and the economy: TEPCO provides power to 35% of the Japanese population, mostly Tokyo. It has thermal, hydro and nuclear power plants.
  - the situation at the Fukushima Daiichi NPP is stabilised
- **Liquidation would not be a solution**:
  - would increase procedural burden on the victims
  - victims would be ranked equal to other general creditors, secured creditors (such as the ones holding corporate bonds issued by TEPCO) would be paid in priority
  - victims would not be entitled to submit claims for damage suffered after the procedure started
  - compensation would only be paid after conclusion of the procedure

FIRST PHASE: State Provisional Payments

- ***Cabinet Decision Sept 2011***: benefits **tourism-related SMEs** in 4 prefectures (Fukushima, Ibaraki, Tochigi and Gunma) which sustained **unfounded rumour damage** for which payment of compensation by TEPCO is expected to require some time
- From Sept 2011 until 29 Feb 2012:
  approx. ¥ 1.7 billion (almost € 14 million) paid for 50 cases
- Number of applications decreasing with progress of TEPCO's compensation payments
- Government acquires the rights of claims of the indemnified victims against TEPCO

SECOND PHASE: Establishment of the Nuclear Damage Compensation *and Decommissioning* Facilitation Corp.

- **Established Sept 2011**
  - registered capital of ¥ 14 billion (approx. € 117 million)
  - equity shared 50/50 between the Government and nuclear operators such as TEPCO and J-POWER
- **Main Purpose**: if actual amount to be compensated by an operator exceeds the financial security amount, the Corporation will provide necessary support so that compensation measures are implemented promptly and appropriately by the operator, while ensuring the smooth management of the business activities associated with the nuclear installation concerned and a stable supply of electricity
- **"Decommissioning"** was added in August 2014

Financial Support provided by the Corporation as of Jan 2017: approx. ¥ 6.9 trillion (€ 57 billion) in 60 instalments

www.tepco.co.jp/en/press/corp-com/release/2016/1311651_7763.html

Financial Support
– Financed by Operators' Contributions –

- Operators of nuclear installations in Japan to contribute based on fixed criteria such as the volume of electricity generated
- Contributions are kept by the Corporation as **RESERVES**
- Corporation to provide financial assistance by way of:
  - issuing funds
  - share subscription and corporate bond acquisition
  - loan funds
- Guarantee liabilities associated with borrowing of funds
- When they have received funds from the Corporation, the operators have no duty to repay the funds

Financial Support
– Governmental Special Financial Assistance –

- **When Reserves are not enough**
- **Government Bonds** which may be redeemed by Corporation at any time to provide funds to the operator
- Pre-condition: **Special Business Plan** needs to be drawn up jointly with the Corporation, and operator should among others specify business rationalization and clarify management accountability; pre-agreement of other interested parties who may have benefited from a liquidation
- **Repayment:**
  - requesting operator must pay a special contribution in addition to the normal contribution
  - Corporation has to reimburse Treasury from general contributions and special contribution, in effect electricity charges received by operators are used to pay the Treasury

THIRD PHASE: TEPCO's *(Temporary?)* Nationalisation

- **9 May 2012**: Government approved a **¥ 1 trillion (approx. € 8.3 billion)** bailout
- **21 May 2012**: TEPCO's Board approved the issuance of Preferred Shares to be bought by the Corporation
- **31 July 2012**: the Corporation pays the total price for the Preferred Shares and becomes the controlling shareholder of TEPCO with 54.69% of shares

*"Going forward, based on our financial basis strengthened by this capital increase, and in accordance with the Comprehensive Special Business Plan, the Company will strive to achieve, concurrently, the implementation of swift and due **compensation** to those afflicted by damage, steady progress in the **decommissioning** and ensuring **stable electricity supply**, and to enhance the Company's **enterprise value** through thorough management streamlining and effective utilization of managerial resources cultivated by the Company"*
(TEPCO Notice regarding issuance of Preferred Shares by Third Party Allotment)

NEA REPORT

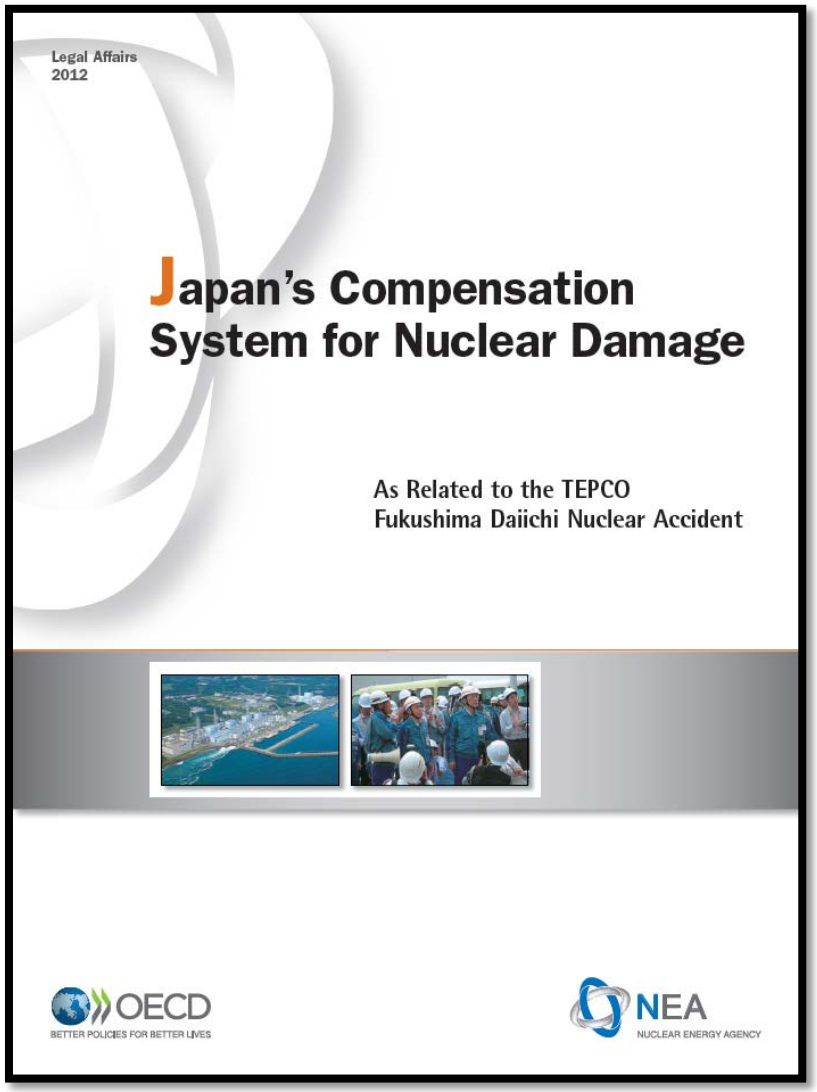
Prepared in close cooperation with the Japanese authorities in 2012 ***(in the process of being updated)***

Content

- English translation of major Japanese statutes, guidelines and ordinances
- several commentaries by Japanese experts

Purpose: provide insights to States and legal experts as they reflect on potential improvements in their national regimes and international framework for nuclear liability

Available at www.oecd-nea.org/law/fukushima/7089-fukushima-compensation-system-pp.pdf



Current situation at Fukushima Daiichi NPP: keeping it safe until full decommissioning

Unit 4 of the Fukushima Daiichi Nuclear Power Plant
(Source: TEPCO website)

Timeline from March 2011 to completion of decommissioning:
www.tepco.co.jp/en/decommissiontraject/index-e.html

WHAT ARE THE LESSONS LEARNED FROM A LEGAL PERSPECTIVE ?

LEGAL PREPAREDNESS AND RESPONSE

TIME IS OF THE ESSENCE

- Relying on **basic international law** in such situation would not be for the benefit of the victims (time and money consuming... victims need to be compensated asap)
- Why only talk about **emergency preparedness and response** to prepare for a nuclear incident ? Legal aspects must be taken into account too.
- When a nuclear incident occurs, the legal framework allowing the efficient and adequate indemnification of victims must be in place; there is **no time to start enacting basic laws**
- A country should adhere to a/several nuclear liability convention(s) that would govern its **relationship with its neighbouring countries** and their nationals who may be affected by the nuclear incident

LEGAL FRAMEWORK ALSO NECESSARY TO DEVELOP / MAINTAIN NUCLEAR ENERGY

- **Public acceptance** implies that the public understands the benefits of having a national & international nuclear liability regime; one of the key elements to obtain public acceptance for nuclear projects

- **Operators / investors / suppliers** require a clear legal framework to carry out risk analysis and assess financial consequences, i.e. implies that countries ratify an international nuclear liability convention

- **Nuclear insurers** require harmonisation of legislation in order to allow the pooling of risks (insurance/reinsurance), and clear definitions to determine the insurance coverage

TEPCO FUKUSHIMA DAIICHI NPP ACCIDENT RELATED CLAIMS

Group action against suppliers before the District Court in the Southern District of California (United States)

- Action brought by US Navy sailors who were aboard the USS Ronald Reagan
- Allege they were injured during the emergency response to accident
- Requests compensation for health impact
- US district court admitted the jurisdiction and the lawsuit is on-going

Group action against suppliers before the District Court in Tokyo (Japan)

- Requests compensation for mental anguish caused by the accident
- Argument: legal channelling violates the constitution and suppliers are responsible due to defects of reactors

ENHANCING NUCLEAR LIABILITY RELATIONS BETWEEN STATES

- **States (whether nuclear or not) are encouraged to provide in their national legislation the internationally-accepted nuclear liability principles and to adhere to a nuclear liability convention, more specifically:**
  - Joint Protocol + Revised Paris Convention (RPC) or Revised Vienna Convention (RVC)
  - CSC or CSC + RPC or RVC
- To ensure an adequate and harmonised compensation of victims
- To allow international nuclear trade and similar treatment of operators
  - **Romania / U.A.E.:** joined several nuclear liability conventions, i.e. Revised Vienna Convention + Joint Protocol + CSC

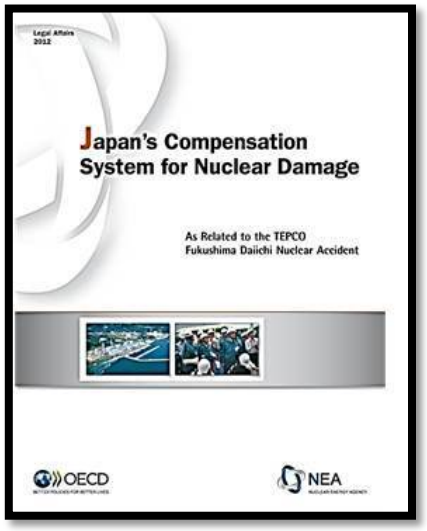
Nuclear Power Generating Countries & Economies

Status of ratification of international nuclear liability conventions (as of February 2017)

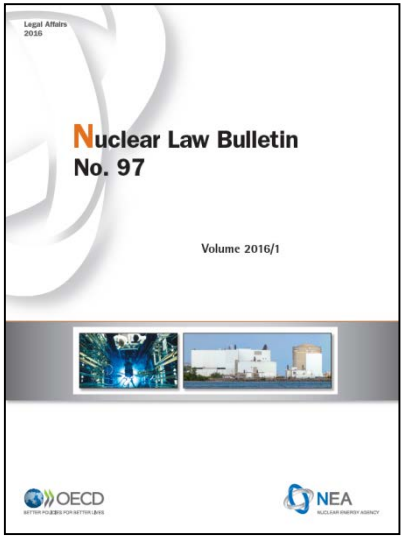
Country	Reactors: operating + under construction (UC)*	Conventions ratified	Country	Reactors: operating + under construction (UC)*	Conventions ratified
Argentina	3 + 1 UC	VC; RVC; CSC	Mexico	2	VC
Armenia	1	VC	Netherlands	1	PC; BSC; JP; [RPC; RBSC]
Belarus	2 UC	VC, RVC	Pakistan	4 + 3 UC	
Belgium	7	PC; BSC; [RPC; RBSC] ***	Romania	2	VC; RVC; JP; CSC
Brazil	2 + 1 UC	VC	Russian Federation	35 + 7 UC	VC
Bulgaria	2	VC; JP	Slovak Republic	4 + 2 UC	VC; JP
Canada	19	[CSC]	Slovenia	1	PC; BSC; JP; [RPC; RBSC]
China	37 + 20 UC		South Africa	2	
Czech Republic	6	VC; JP; [RVC]; [CSC]	Spain	7	PC; BSC; [RPC; RBSC; JP; VC]
Finland	4 + 1 UC	PC; BSC; JP; [RPC; RBSC]	Sweden	10	PC; BSC; JP; [RPC; RBSC]
France	58 + 1 UC	PC; BSC; JP; [RPC; RBSC]	Switzerland**	5	PC; BSC; RPC; RBSC; [JP]
Germany	8	PC; BSC; JP; [RPC; RBSC]	Ukraine	15 + 2 UC	VC; JP [RVC; CSC]
Hungary	4	VC; JP	United Arab Emirates	4 UC	RVC; JP; CSC
India	22 + 5 UC	CSC	United Kingdom	15	PC; BSC; [RPC; RBSC; VC; JP]
Iran, Islamic Republic of	1		United States	99 + 4 UC	CSC
Japan	42 + 2 UC	CSC			
Korea, Republic of	25 + 3 UC		Chinese Taipei	6 + 2 UC	

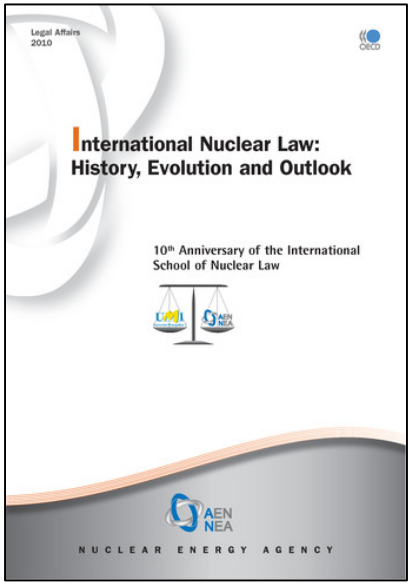
* Source: IAEA PRIS (www.iaea.org/PRIS/WorldStatistics/OperationalReactorsByCountry.aspx)
** Switzerland deposited its instrument of ratification of the PC and BSC as amended by the 2004 Protocols; these conventions will only enter into force for Switzerland upon the entry into force of the 2004 Protocols. *** Text between square brackets [ ] means signed but not yet ratified

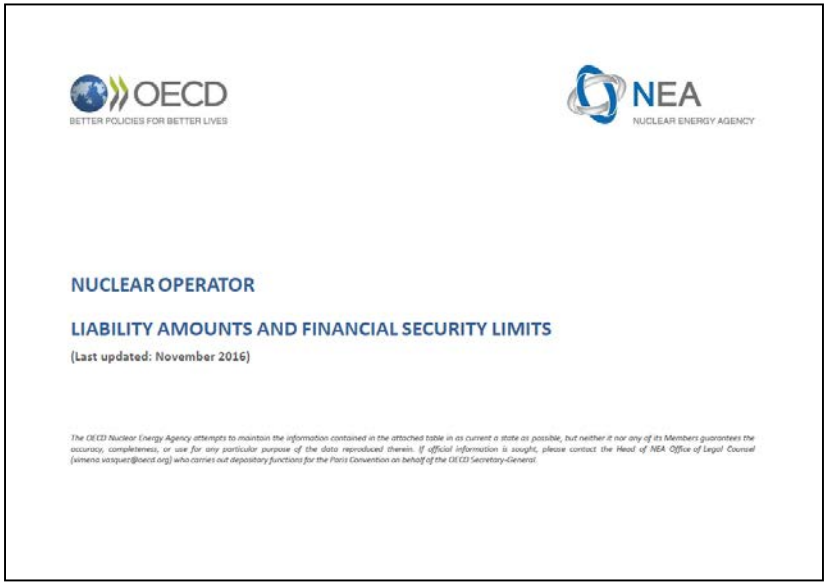
THANK YOU FOR YOUR ATTENTION!

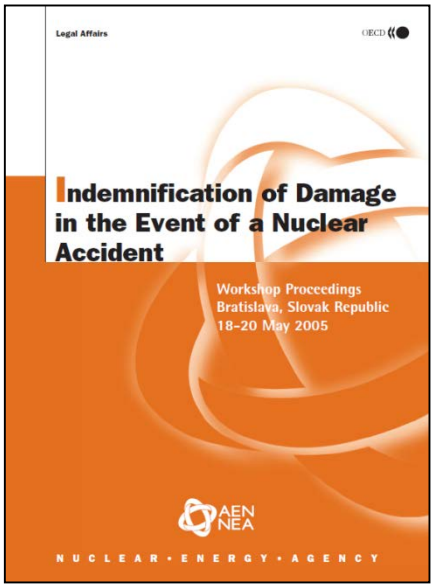


All OLC publications and reports are available at **www.oecd-nea.org/law/**



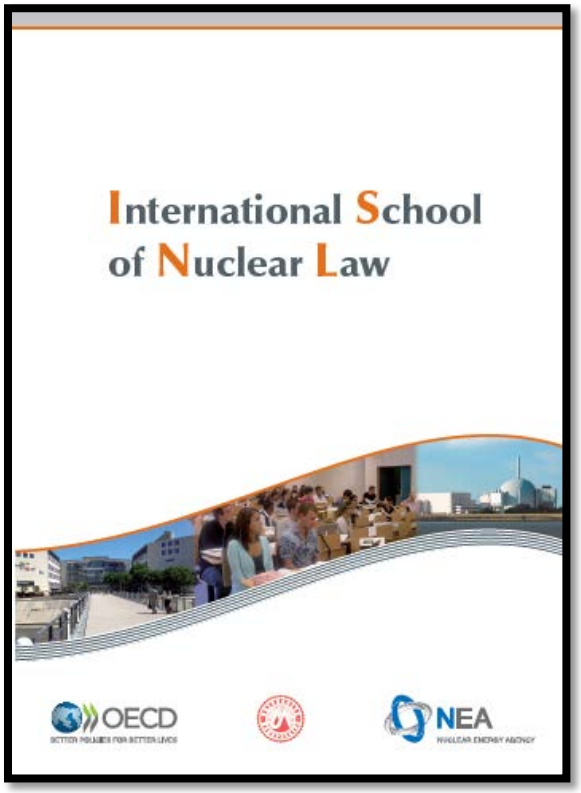






NEA Education Programmes

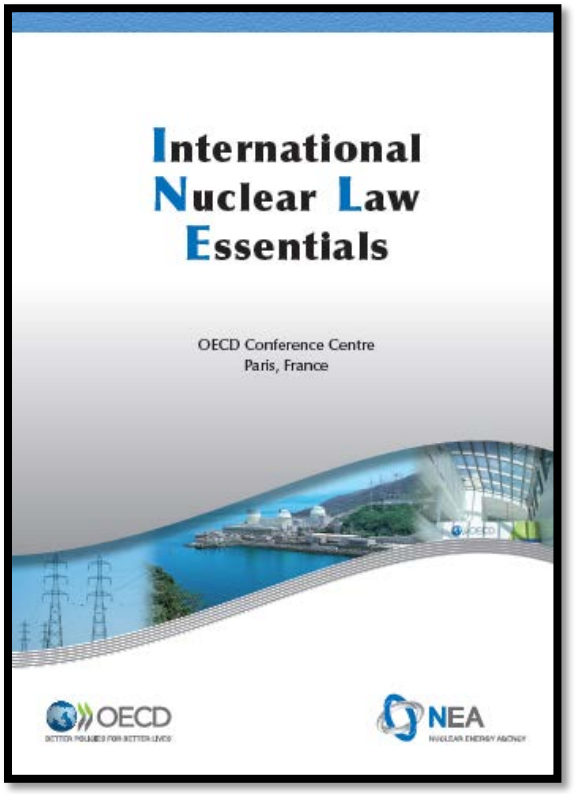
- The **International School of Nuclear Law** (ISNL): a two-weeks summer course held in the south of France. Created in 2000.
- A co-operative programme with the University of Montpellier. Participants may opt to pass a University diploma.
- Participants must hold at least an undergraduate university degree in a relevant discipline.
- Over 860 students have participated



For more information: www.oecd-nea.org/law/isnl/

NEA Education Programmes

- The **International Nuclear Law Essentials** (INLE): a one-week course held in Paris at the OECD Conference Centre or at the National University of Singapore. Created in 2011.
- Builds on the foundation of the ISNL. Participants must have at least one year of relevant professional experience and a basic understanding of law as it relates to nuclear energy.
- The next INLE course will be held in February 2018.



For more information: www.oecd-nea.org/law/inle/