

The Introduction of SODA(fascine) mattress as foot of dyke protection or river bed stabilization works

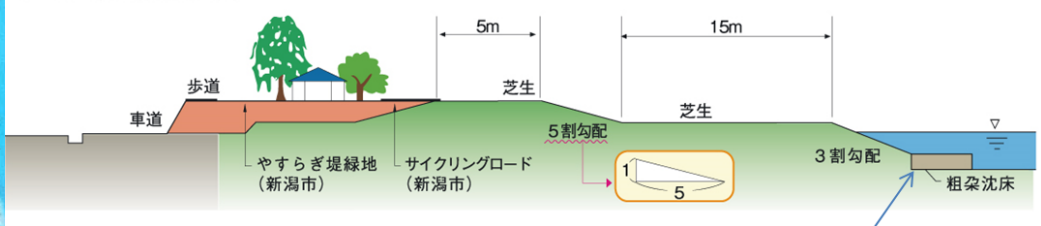
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Main usage of SODA (fascine) mattress



やすらぎ堤の標準断面図



Shinano River's dyke in Niigata city called "YASURAGI TEI", comfortable dyke.

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Outline of SODA (fascine) mattress

伝統工法の主な種類

Major types of traditional works

粗朶沈床

Fascine mattress

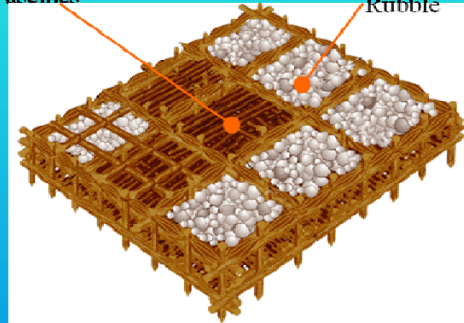
◆目的(Purpose)

- ・流れの遅い河川に用いられ、河岸保護や河道固定に利用される工法で、護岸、根固工として用いる
Used in slow-flowing rivers as bank protection or bed stabilization works

◆効果(Effects)

- ・屈撓性があり、河岸浸食に合わせ沈床が沈み、過度な河床洗掘を防ぐ
Flexible enough to sink with the riverbanks as they are eroded and prevent excessive bed scouring
- ・材料の中心である粗朶は、現地で入手できる
Composed mainly fascines, which are readily available locally
- ・多孔質であるため、生物の生育環境が確保される
Porous enough to accommodate various forms of life

敷粗朶 Fascines
栗石 Rubble



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WHAT IS "SODA" ?

"SODA" IS BRANCHES OF BRUSH WOOD CUT FROM MISCELLANEOUS SMALL TREES IN FIELDS AND FORESTS

TREES WITH STRENGTH AND TENACITY

FOR HURDLE WORK: FLEXISIBILITY



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Assembling SODA (fascine) Mattress

組立完了

柵粗朶組み作業中

Completed SODA mattress

SODA bundle hurdle works

下格子



柵（しがら）粗朶組み

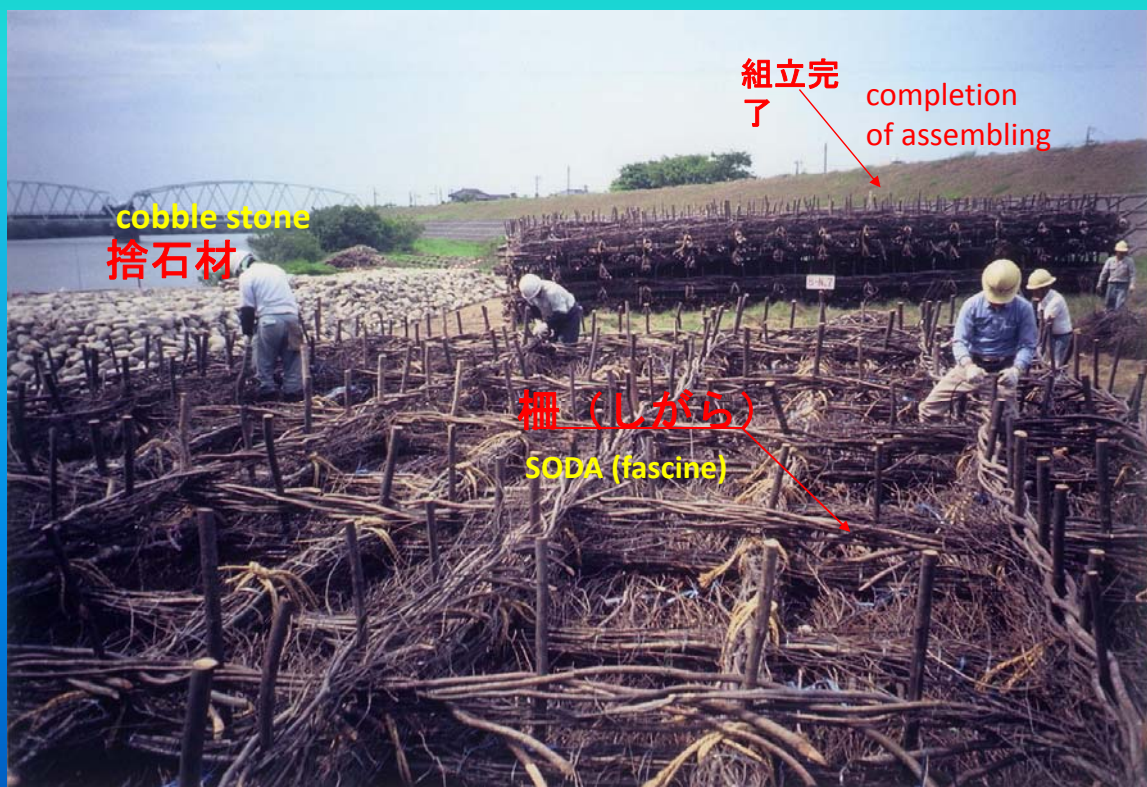
Assembling SODA Mattress

組立完了

completion of assembling

cobble stone
捨石材

柵（しがら）
SODA (fascine)



粗朶沈床据付（沈石投入前）

Setting SODA mattress



沈石投入

Setting Cobble Stone



Features of SODA Mattress

- *Flexible and Durable in water*
- *Porous for good habitat of aquatic life*
- *Suitable to sandy riverbed as foot protection*
- *Effective against sand suction*
- *Mainly adaptable to mild slope river of less than 1/2000.*
- *Setting condition: Below low water level*

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Conclusion

- SODA mattress is considered to be suitable for mild slope rivers in VIETNAM and also it is glad that Japanese traditional river works method "SODA mattress" becomes helpful of the river works in VIETNAM
- In order to improve rivers in VIETNAM, it is recommended to apply appropriate methods which are suit the natural and social conditions of VIETNAM Using local construction material as much as possible.
- The key to successful river improvement is to first implement each river improvement method on an experimental basis and then, according to the results achieved, expand the project areas in stages.

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