



Analysis – User and Provider Activities

User activities: The pattern observed in the *Salinispora tropica* case exhibits many typical elements of bioprospection and R&D in the pharmaceutical field. These are, e.g. the initial research by a public institution, transfer of the genetic resource and research results to a research-oriented company, a series of strategic patents and the involvement of another medical company at the stage of clinical trials. More companies will be involved if a drug could be produced and marketed.

Provider activities: Although the *Salinispora tropica* case begun pre-CBD, the role of the provider country is symptomatic for a large number of post-CBD bioprospection cases. A lack of strategic approaches towards the valorisation of national genetic resources and a lack of policy and legislative activities on ABS result in missed opportunities with regard to benefit sharing and finally endogenous development. The absence of monitoring and compliance mechanisms result in a lack of information on the utilisation of provider's genetic resource.

OPPORTUNITIES PROVIDED BY THE NAGOYA PROTOCOL:

Benefit sharing could have been ensured and the R&D and commercialisation process made more transparent for the provider country through national ABS legislation and in particular comprehensive and effective PIC and MAT, taking into account sector specific milestones.

- Monitoring of the research purpose right from the beginning of the R&D process
- When the research shifted from non-commercial to commercial, the Bahamian government could have ensured its share of a possible benefit
- Shift from non-commercial to commercial utilisation: a second MAT and PIC, particularly in regards to monetary benefits, would include third parties, especially commercial users, in ABS agreements
- The Bahamas could have benefited from provisions related to Intellectual Property Rights (IPR), e.g. co-inventorship and sharing of royalties and licence fees
- Changes of ownership: MAT provisions must cover possible changes of ownership over genetic resources, derivatives, information and IPR through acquisitions or after bankruptcies. Contractual benefit sharing obligations need to be handed over to new owners.

Key institutions and provisions (checkpoints, provisions of conflict resolution) to ensure compliance are still absent on the national and international level. The entry into force of the Nagoya Protocol in October 2014 represents a crucial step towards establishing such compliance mechanisms.



Salinispora tropica is a marine actinomycete bacteria first discovered and described by the Scripps Institute of Oceanography (University of California). Until now *S. tropica* is exclusively found in the marine sediments of the Bahamian coasts.



The marine organism *Salinispora tropica* creates the natural product Salinosporamide A, which is effective as anti-cancer treatment. Under the brand name Marizomib® the substance is currently being tested in clinical trials and may receive medical approval in the near future.

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funded by



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Published by:
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
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As at September 2014
GIZ is responsible for the content