1. Opening of Session and the Welcome Address

The Fourth Session of the FIRMS Steering Committee (FSC4), held in FAO, Rome, was opened by the Chairperson, Mr Victor Restrepo, at 9.00 hrs on Monday 26 February 2007. He welcomed the participating FIRMS FSC member representatives of 9 Partner agencies CCAMLR, CCSBT, EUROSTAT, FAO, IATTC, ICCAT, ICES, NAFO, SEAFDEC and representatives of new candidate Partners SEAFO and GFCM. NEAFC, CPPS and WCPFC were welcomed as observers to the meeting.

Ms Sachiko Tsuji, FAO, gave a brief welcome address on behalf of Richard Grainger who unfortunately was unable to attend the meeting. She noted the successful launch of the FIRMS website that took place at the UN Review Conference for Straddling Fish Stocks and Highly Migratory Fish Stocks Agreement (UNFSA) in New York in May 2006 and the continued important work ahead. FIRMS has now reached an important milestone with its first development phase concluded and a new phase starting during which the achievements should be consolidated.

2. Adoption of the agenda

The Chairperson presented the agenda which was adopted with the suggestion to aim at adopting the meeting report on Thursday 1 March (instead of Friday 2 March).

3. FIRMS membership

(i) Progress on the development of FIRMS Partnership

Two agencies were welcomed as new Partners of FIRMS: the General Fisheries Commission for the Mediterranean (GFCM) and the South East Atlantic Fisheries Organisation (SEAFO).
GFCSM has already been contributing to FIRMS through the FAO partnership and expressed its appreciation of the support extended by FAO in this respect. However, in consideration of its increased autonomous status, it now appeared timely to become a formal partner and the Commission had officially requested its Secretariat to submit a request to FIRMS accordingly. It was noted that the new independent partnership agreement between FIRMS and GFCSM may imply changes in FAO’s FIRMS reporting procedures and FAO’s Annex 2 will need to be changed.

SEAFO attended the launch of the FIRMS website in New York in May 2006 and subsequently submitted its request to become a partner in February 2007. The organisation considers FIRMS an important tool for status and trends information and looks forward to the cooperation.

(ii) Review of new perspective partners

The Permanent Commission for the South Pacific (CPPS), the Northeast Atlantic Fisheries Commission (NEAFC) and the Western and Central Pacific Fishery Commission (WCPFC) participated in the meeting as observers.

The representative of CPPS explained to the meeting that the organisation is focusing on improving regional statistics and is particularly interested in learning what other organisations are doing in this respect. However, CPPS is no longer directly involved in stock assessments although scientific meetings are organised.

NEAFC informed the meeting that relevant documents are almost finalised and that the organisation now is close to signing the partnership agreement.

The WCPFC Secretariat has been recommended by its Scientific Committee to evaluate mutual benefits and resource requirements associated with a partnership with FIRMS. However, as explained to the meeting, it is a young organisation – only 18 months – with relatively limited staff and it could be a couple of years before its Secretariat would have the capacity to participate in FIRMS as a full member.

Other organisations that could be invited to join FIRMS were considered. As agreed in FSC3, NEAFC had discussed the possibility of partnership with North Atlantic Salmon Conservation Organization (NASCO) and the North Atlantic Marine Mammal Commission (NAMMCO) and South East Atlantic Fisheries Organization (SEAFO) informally. The 2 former organisations had expressed a certain interest although no commitments were made. It was suggested that the FIRMS Secretariat should follow up on these initial contacts.

The potential membership of the Secretariat of the Pacific Community (SPC) and the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) was discussed. In this context, the WCPFC reported on the evolving data management and science functions in the Western Central Pacific Ocean (WCPO). Under an interim arrangement, the SPC – through its Oceanic Fisheries Programme – is providing science services and data management to WCPFC for tuna and tuna-like species in the WCPFC convention area. In addition to stock assessment work undertaken by members, SPC also advises on the status of WCPFC tuna stocks. For species occurring mostly north of the 20°N in the convention area, the ISC provides scientific advice to the Commission’s Northern Committee and the work of ISC is reviewed by the WCPFC Scientific Committee. Hence, a partnership between FIRMS and WCPFC would be likely to cover data with regard to oceanic tuna and tuna-like species for the WCPO. Similarly, the IATTC obtains some of its stock assessment information via its participation in the ISC. Nevertheless, all the FIRMS data for tuna and other species taken by tuna fishing vessels in the eastern Pacific will be provided by the IATTC. In relation to coastal resources in the South Pacific, it was suggested that the
FIRMS Secretariat approach the SPC’s Coastal Fisheries Programme to research partnership possibilities.

The possibility of approaching OECD and APEC was brought up. The potential membership of OECD had been discussed in FSC2 in Copenhagen in 2005 in the context of extending the scope of information included in FIRMS into socioeconomics but no action was taken at that point in time. The current meeting concluded that the two organisations should not be contacted now either. It was felt that the focus of FIRMS at present should be to consolidate existing work on marine resources information. Organisations like OECD and APEC could be contacted at a later stage when potentially expanding the scope of FIRMS.

For the South-East Pacific, IATTC reported the existence of an arrangement for “Swordfish in South-East Pacific” with an overlap with IATTC. CPPS also indicated that there are on-going discussions for the creation of the South Pacific Regional Fisheries Management Organization with High Seas mandate in which CPPS member countries are involved in the negotiations, and that a third meeting will be held in May 2007 in Chile.

Decisions:

- FAO’s Annex 2 should be revised to reflect GFCM’s now formal partnership status, and newly created FAO/SWIOFP Commission.
- The FIRMS Secretariat will follow up on contacting NASCO and NAMMCO for their potential joining of the partnership.
- The FIRMS Secretariat will contact SPC’s Coastal Fisheries Programme to investigate partnership possibilities.
- OECD and APEC will not be approached at this point in time but focus on work on marine resources information and organisations involved in stock assessments.

4. Review of Annex 2 of new Partners

The GFCM representative introduced the contents of Annex 2 of its partnership agreement with FIRMS. He gave a brief description of the information which would be contributed by GFCM, indicating that this would be available mainly for the 38 listed shared stocks within the region. The current restructuring and new developments in the areas of fisheries statistics, databases and information systems within the GFCM should ensure a significant and relevant contribution to FIRMS.

SEAFO summarised the contents of its Annex 2 of which copies had been made available to the meeting. It was noted that stock assessments are currently not available but that SEAFO will rather concentrate on providing fisheries information as of next year. SEAFO will attempt to adhere to the data management policy and standards of FIRMS although some requirements may pose problems and need to be discussed. SEAFO stressed the training, skills, and support aspects needed in the fulfilment of some of the requirements of Annex 2.

FSC noted that Annex 2 of SEAFO’s Partnership Agreement listed Patagonian toothfish (Dissostichus eleginoides) among the species fished in SEAFO’s Convention Area. This species is also the target of fisheries managed by CCAMLR’s in its Convention Area. FSC encourages Partners with species and stocks in common to their areas of
competence to share information and coordinate submissions to FIRMS so as to avoid overlap and replication of information and data held by FIRMS.

5. Review of FIRMS activities during the past year

The Chairperson thanked the Partner agencies for the progress reports made available to the meeting. Attention was also drawn to the Information Paper No 5 (FIRMS FSC4/2007/Inf.5) that gives a standard template for reporting on FIRMS activities. The FIRMS Secretariat presented its progress report prepared for the meeting (FIRMS FSC4/2007/2a) and Partner representatives were invited to supplement this information and make comments. One of the main events during the passed year was the launching of the FIRMS website with its marine resources status and trends information released to the public at the occasion of the UNFSA review conference held in New York in May 2006. Other progress made and points raised in the Secretariat’s report and presented to the meeting included:

(i) Development of inventories of marine resources and of fisheries:

Inventory units, i.e. marine resources and fisheries for CCAMLR, and marine resources WECAFC (by FAO), and case study information on EUROSTAT European fishing fleets have been loaded into the system. CCAMLR reported that fact sheets developed according to this inventory will be submitted, and EUROSTAT that updates to the case study have to be envisaged.

(ii) Reporting on status and trends – marine resource databases:

Two tables in the Secretariat’s report show the status of uploading information, i.e. number of inventoried resources, reference observations and fact sheets as well as updates. There are 786 resources in the inventory and a total of 366 fact sheets have been published. It was noted that the information for some partners needs to be updated since work has progressed and more information is in some cases now available. ICCAT mentioned modifications in its inventory structure and levels at which status and trends are reported.

Decision:

- Partners will review the progress report with regard to uploaded information and updates and provide the Secretariat with current information.

(iii) Development of applications – mapping:

Enhanced versions of the dynamic mapping of stocks and of the GeoSelector have been developed, in particular with ability for new projections as requested by IATTC and CCAMLR. However, the feature could not be finalised and the dynamic mapping has been temporarily removed from the fact sheet display.

(iv) Development of applications – website shell/layout:

The Secretariat made a visual presentation of the redesigned and re-engineered website. There is a new layout, the search engine has been improved, the site’s powering engine and database software upgraded, and multilingual capability has been enabled (see below). The Secretariat was complimented on its excellent work. However, some suggestions for further improvements were given, i.e. to give increased visibility to the database contents – and less to FIRMS itself – and to make the access to the fact sheets more obvious; or to enable search according to regional or local common names.
Decisions:

- The website layout (menus and figures) should be redesigned to give primary focus to the database contents/fact sheets and less attention to the presentation and background of FIRMS itself.

- Solutions for enabling search according to regional or local common names will be sought.

- The words currently used in the menu choice "Database" should be changed to a phrase that more accurately reflects the contents (e.g., "Status and Trends Fact Sheets")

(v) Languages

A FIRMS donor has expressed interest in a translation of the website into French. The longer-term plan is to also provide Spanish version. A French intranet version was developed as a by-product (a one-week work) of other FIGIS developments, and demonstrated by the Secretariat. However, while the menus and shell pages are translated, the information retrieved from the database (the fact sheets) is still in English. It appeared to the meeting that the use of the multilingual functions would hence be limited and that priority should continue to be given to consolidating the English version.

Decision:

- Translating the FIRMS website into additional languages should not be a priority at this point in time.

(vi) Workflow Management System (WMS)

Two versions of the web based Content Management System (CMS) have been subsequently released and a user assistant has been developed. About 75% of the identified requirements towards a full fledged CMS were implemented so more work is still necessary to finalise it. The MSWord-to-XML conversion mechanism, initially used only for ICES reports, has been enhanced and also used for NAFO’s 2006 reports. Other Partners expressed interest in the system and requested a template of the required reporting format to evaluate whether it would be feasible for them to use it. The IATTC noted some difficulties that had been experienced with the use of some of the tools and that it had been suggested that the FIRMS steering committee should decide on which facilities should be provide by the Secretariat. It was agreed that this issue should be addressed by the TWG in the first instance.

Decisions:

- Secretariat should finalize the CMS. Details on technical aspects should be discussed by TWG members at the next TWG meeting.

- Template of the MSWord-to-XML conversion compatible forms will be made available to all interested Partners.

(vii) New products

The Secretariat made the point that it is important to develop tools for the FIRMS website to make it attractive to potential users. The Secretariat showed a mock-up example of dynamically nested statistical data illustrated through graphs. Another tool shown was a synoptic interface with a variety of views of search results and summarised status and trends information.
A discussion followed on the ownership of dynamically created graphs and on how it can be ensured that the source data of the graphs are updated and compatible to other information available. It was agreed that Partners should decide if and in which fact sheets dynamically created graphs should be included and also which data source they should be linked to. In some cases, a link to the Partner’s own website may be required. Clear explanations should also be included so that the user understands possible differences in data used for the graph and data used for the particular assessment that is summarized in the Fact Sheet.

With regard to the synoptic interface, it was noted that this type of tools is likely to be useful and valuable to users. There is a wide range of possible ways in which the FIRMS database information can be displayed. At this stage, however, it was felt that excessive efforts should not be directed towards developing user tools but that work should continue to be focused on consolidating and strengthening existing information content and functions.

**Decision:**

- For each Fact sheet, each Partner will decide if dynamic graphs are to be included and what data they will use, if any. These instructions will initially be communicated manually to the Secretariat but could in the future be included as a default option in the fact sheet creation process.

**(viii) Development of the Fisheries module**

The eleven case studies of fisheries fact sheets, loaded and disseminated by the Fisheries module, cover four different ‘approaches’ to fisheries, i.e. (i) production system, (ii) resource, (iii) métier, and (iv) management system. There are two display options for extensive (detailed) reports or summarised reports with only limited concise information. Different layout templates have been designed for the different thematic approaches and four examples were shown to the meeting:

- Production system (European Union fishing fleet –North Sea, Skagerrak and Kattgat)
- Resource (Thailand shark fishery)
- Métier (Mediterranean French trawl hake fishery – Gulf of Lion)
- Management System (Northwest Atlantic NAFO fisheries)

The Secretariat requested Partners having contributed case studies to validate the results. Both the accuracy of the information and the general impression given by the Fisheries module fact sheets should be evaluated. The Secretariat also stressed that from a more technical data management view point, a strategic choice on the data model has to be made and validation of one of the two possible options would be desirable before the module be put in production. This validation could be a task of the technical working group. It is expected that the Fisheries module can be included in the public domain of the FIRMS website in about a year’s time. The meeting appreciated the results so far and noted the importance of the Fisheries module approach.

SEAFDEC pointed out that care has to be taken when presenting information on Thai shark catches so as not to give the impression that there is a fishery targeting sharks in Thailand and in countries of the South-East Asian region. The information presented in the case study had been collected through a project activity and shark catches are generated through multigear/purpose fisheries and not by a specialised fishery targeting sharks.
Decisions:

- Partners having contributed case studies will validate the Fisheries module results and convey their comments to the Secretariat as soon as possible.
- Validation of the module and its underlying data model should be a task assigned to the Technical Working Group

(ix) Web trend statistics

The Secretariat presented the results of a web trend analysis carried out for the FIRMS website comparing it to other similar sites such as FishCode-STF, FishCode, the dynamic fact sheets of FIGIS and OceanAtlas. In summary, it would appear that the site has had a good start although it was at the same time felt that the site had not yet had the number of visits it merits considering its potential importance. Reasons for this include that Google does not crawl the FIRMS dynamic fact sheets and that only two Partners have links to FIRMS through their websites. It was suggested that the accessibility to the site needs to be improved and that attractive tools, such as maps and synoptic products (see also above), should be developed.

ICES commented on the lack of links from some Partner websites and explained that ICES has been reluctant provide such a link since the information available on the FIRMS website for its stocks is still limited. It was felt that it would become easier to promote the site once more fact sheets and resource information have been included.

(x) Training and skills development

Training activities to accompany necessary Partners inputs were presented. Members are happy with the support presented by the Secretariat

(xi) Promotional activities

A substantial communication strategy was prepared on the occasion of the UNFSA review conference and launch to the public of FIRMS website, including brochure, press release and side event. Presentations were also made at various RFBs meetings with positive responses judging on the actual follow-up actions.

(xii) Resources and budget

The Secretariat resources in support of FIRMS for 2006 amounted to US$440 000, which is equivalent to 4.4 person years. The resources have included FAO Regular Programme staff, an APO financed by France and funds from the FishCode trust fund with mainly Japan and Norway donors. A major share of the resources (58%) has been dedicated to core software development.

The Secretariat also presented a table showing the resources needed for continuing work in 2007. The total amounts to US$278 000 and includes FAO Regular programme resources (US$152 900), an APO (US$60 700; six months) and other trust funds (US$49 400). It was noted that the source of the latter – other trust funds – has not yet been identified. The budget will be further discussed under Agenda Item No 9 in connection with the Intersessional work plan.
6. **FIRMS Descriptors of Stock Status**

The Chairperson briefly summarised the background of the issue of the FIRMS stock status descriptions and presented the document FIRMS FSC4/2007/3 giving the outcome of the consultations that the different Partner representatives have had with their respective organisations on the possibility to use the descriptors as search terms. While some Partners still need more time to look into the issue, it was noted that only one Partner – NAFO – had been able to accept the proposed descriptors as search terms while several other Partners found their use uneasy. The chairperson’s introduction was furthered by a presentation of ICCAT’s Scientific Committee chairman on how traffic light / panels symbolism can be used to visually present status of stocks together with level of uncertainty in a simplified manner.

A discussion followed on how to find a way forward leading to the agreement that the FIRMS descriptors should be used as search terms only, at least for the time being. The mapping between Partners’ own reference points and the standard FIRMS terms is an issue to be dealt within Partners internal mechanisms, and mapping rules (including for symbolism) for each homogeneous collection of data should be easily accessible from fact sheets. Stock status references – ‘exploitation rate’, ‘abundance level’ and ‘exploitation status’ – currently appearing in the summaries should be removed, but may be presented (according to Partner’s decision) in fact sheets together with abstracts. Soft ways for presenting search results of summaries should be figured out. Concerning the search term, it was agreed that Biomass level term “Virgin” should be changed to “Pre-exploitation biomass”.

**Decisions:**

- The status descriptors proposed in FSC3 will be used strictly only as search terms. No reference will be made to the standard terms in the fact sheets – unless specified by the Partner/fact sheet owner – and the headings ‘exploitation rate’, ‘abundance level’ and ‘exploitation status’ will be displayed only if some content is specified by Partner/fact sheet owner. Instead, Partners will provide stock status information according to their own criteria as well as an explanation of how the search terms and symbolism translate into these criteria (the ‘mapping’). The ‘Exploitation Status’ categories will not be used as search terms.

- In the summaries search results and summaries, the headings ‘exploitation rate’, ‘abundance level’ and ‘exploitation status’ will be removed but “abstract buttons” and links to the underlying fact sheets giving relevant information as provided by the Partner/fact sheet owner will be maintained.

- The categories for exploitation rate status and stock abundance status will be used as proposed in FSC3 and presented on the first page of document FIRMS FSC4/2007/3 with one exception: the stock abundance category ‘virgin or high abundance’ will be changed into ‘pre-exploitation biomass or high abundance’. These standard lists will be added to the FIRMS List of reference terms.

7. **Feasibility of expanding to national institutions**

The Secretariat presented the document FIRMS FSC4/2007/5 outlining the legal, technical, financial and strategic aspects of opening FIRMS membership to national institutions. Different possibilities of finding donors for strengthening the Secretariat and/or Partner organisations – if such an extension is to take place – were presented. It was suggested that 2007 could be a transition year during which work towards an
expansion be started, possibly by collaborating with the FishCode-STF project and using their website. However, the meeting felt that the current work of FIRMS should be consolidated and better embedded before an expansion can take place. It was noted, though, that the FIRMS Agreement foresees the inclusion of national members and that the paper presented by the Secretariat gives a useful analysis of the various aspects to consider when such expansion will take place in the future, including good balance between the participation of developed and developing countries. One gap noted for further consideration was how (from organizational view point) FSC meetings involving many national members could be conducted.

SEAFDEC agreed with the decision to postpone inclusion of national partners but reminded the meeting of the importance of strengthening national capacities in the area of status and trends information, in particular in developing countries.

Decisions:

• Expansion of FIRMS membership to national institutions will not be considered at this point in time.

• The document FIRMS FSC4/2007/5 should be kept on the website for future reference.

8. FIRMS Information Management Policy (IMP)

The Secretariat presented the document FIRMS FSC4/2007/Inf.3 on FIRMS Information Management Policy. It was explained that Chapter 7 on Information Technology (IT) and Information Standards has been extended and a paragraph added to Chapter 8 in accordance with FSC3 on the dynamic characteristics of FIRMS information standards and the process of developing, reviewing and revising guidelines.

It was noted that in some of the examples given in the document FSC4/2007/Inf.3 reference pictures of the fish species were missing. This was explained by the lack of access to such references by FIRMS and Partners were urged to provide the relevant illustrations when required.

An issue relating to the ‘Reporting year’ in fact sheet headings, appearing in listings of stocks, was brought up by the Secretariat who had found discrepancies in how this year is defined by different Partners. The meeting decided that the year presented together with the stock name in the fact sheet heading should no longer be displayed. For internal data management needs (i.e. in user interfaces where different observations with different years, for the same marine resource unit, are presented side to each other), the Secretariat could use the Reference date (as defined below). In the body of the fact sheet, the following “year” information should be provided: (1) Reference Year: “The year in which the scientific meeting (or equivalent scientific validation process) reviewed the status of the stock pertaining to the fact sheet”. (2) Publication year: “the year of publication of the scientific report where detailed information on the fact sheet is found”. (3) Last year of data: “the most recent year for which data is available in the assessment pertaining to the fact sheet”.

Among the general descriptors used by FIRMS, there are terms defining the ‘Depth zone’, i.e. coastal, shelf, slope, abyssal or unspecified. The Secretariat suggested to add ranges to these ‘depth zone’ terms to make them more meaningful from depth range perspective. Moreover, it was suggested to add a ‘Geoform’ or ‘Sea floor physiography’ category to the list of general descriptors. The terms seamount, estuaries, fjords,
canyons and lagoons would be included in this category (together with the option ‘unspecified’).

Decisions:

- The format for the extended IMP was agreed upon and version 2 endorsed.
- Partners will provide reference pictures when these are not available to FIRMS from other sources.
- A category for ‘Geoform’ or ‘Sea floor physiography’ will be added to the list of FIRMS general descriptors, containing the above mentioned list of terms.
- A year will not be displayed as part of a fact sheet name. In the fact sheets, Partners should submit information on three years: Reference year (usually pertaining to the year of the pertinent scientific meeting), publication year, and last year of data in the assessment. The above agreed definitions will be added in the FIRMS IMP as part of the existing Data dictionary Guidelines.

9. Intersessional work plan

The Chairperson opened Agenda Item No 9 by summarising some of the earlier discussions emphasising the need to consolidate and finalise current work before moving onto expanding the thematic and geographic coverage of FIRMS.

The Secretariat presented its work plan proposal for 2007:

- Finalise the FIRMS modules, i.e. the Content Management System (CMS), the Fisheries module and the mapping software.
- Develop, load and disseminate fisheries inventories for at least eight Partners.
- Provide assistance to partners, including training to in particular new Partners and in WMS for Technical Working Group (TWG) members.
- Promote FIRMS and the website.

The meeting decided that a TWG meeting should be held to support the completion of these tasks, with emphasis on CMS training for Partners as well as validation of the fisheries module and its related data model. Referring to Agenda Item No 5 (viii), the meeting was reminded that the Secretariat should contact Partners having participated in the fishery case studies to validate the information before the TWG meeting.

With regard to promotional activities, the decisions made in FSC4 to concentrate primarily in consolidation of the current system should be taken into consideration by the Secretariat.

The need to review FIRMS global coverage with regard to status and trends information was mentioned. Concerns regarding the potential lack of information on, for example, the South China Sea were expressed.

Referring to Agenda Item No 5 (xii), the adequacy of the proposed budget was brought up. It was noted that some elements of the budget are still not confirmed but the Secretariat was confident that sufficient funding could be made available through consultations with the Fishcode-STF project and French donor.

SEAFDEC expressed the concern that the remaining work of the case study needs to be fulfilled soon in order to show to the member countries on the benefits that could be derived from the partnership in FIRMS.
Nevertheless, there is a need to solicit external funding for future activities. While the FIRMS Partnership Agreement clearly spells out the financial obligations of the Partners and of FAO in its capacity as Secretariat, Partners were encouraged to explore additional sources of funds and support the Secretariat in contacting donors as appropriate. Eurostat offered to follow up on earlier contacts (in January 2007) between FAO and DG Fish in this respect.

Decisions:

- The inter-sessional work plan presented by the Secretariat was endorsed by the meeting subject to adjustments in accordance with decisions taken during FSC4 under the various previous agenda items.
- A meeting of the TWG (TWG2) will be convened either shortly before or after the northern hemisphere summer. The Secretariat will prepare TWG2 Terms of References in consultation with the chairperson and dispatch it to the Partners for their endorsement. The Secretariat will coordinate approval on a date for that meeting.
- Partners will support the Secretariat in seeking additional funding for future FIRMS activities.

10. Planning for the 5th Session of FSC (FSC5)

The meeting agreed that the next FSC Session should be organised in about a year’s time, in order to build on the existing momentum. Dates and venue for FSC5 meeting will be discussed and agreed on by correspondence and should take into consideration potential savings if held in conjunction with meetings that most of FIRMS partners are expected to attend.

11. Any other business

During the adoption session, GFCM, NEAFC and SEAFO became new Partners to FIRMS.

12. Election of Chairperson and Vice-Chairperson

A new Chairperson, Johanne Fischer (NAFO), and Vice chairperson, David Ramm (CCAMLR), were elected for the coming session and inter-sessional period.

13. Adoption of the report

The report was adopted on Thursday 1 March 2007. The Meeting was adjourned.
Annex 1  
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