

5. Trends in Global Fisheries Policy

Mr Chairman, Ladies and Gentlemen, while it is indeed an honour to come to Iceland, now my third time over 31 years, and give a public presentation on a fisheries topic, alas, I feel that one must be either unwisely intrepid or simple-mindedly oblivious of the intellectual scrutiny I risk exposing myself to by such a task. This was brought home to me last November (1998) when I attended the seminar on ITQs here in Reykjavik, and saw firsthand the type of close-contact mental combat that went on in the pursuit of fisheries enlightenment. Working in an international bureaucracy, one learns to express oneself, as a matter of instinct, in such a way that it is absolutely unclear as to what are your views on any particular subject. So it will come as no surprise if I start with a little plea, that while I am an employee of the Fisheries Department of the FAO please note I have been invited to address you in a personal capacity - the views I express today - may, but most probably do not, reflect those of my department. Media, if present - please note!

Trends in Global Fisheries Policy: Well my first reaction after I had offered to address this subject was that I might have been completely irrational in attempting to address such an ambitious topic. And although I eventually decided that yes I had been irrational, by that time I have left insufficient time to tackle something a little more tractable. It was clear that I had volunteered myself to wander through quite a mine field, and if I get to the other side without loss of limb, or even life, then I probably have not addressed the topic adequately.

Before starting across this minefield I need to map its borders a little and I want to do this by first discussing the second word in the title of my presentation - POLICY - so you have some conceptual framework as to where I wish to wander. For me, a policy is a way of achieving some management objective or objectives. Thus I will first step back to see if it's possible to discern any global convergence, or agreement, of what should be the objectives of fisheries management before stepping forward to see what policies are being used to achieve them.

As even a moment's reflection indicates, what is to be achieved - the management objectives - depends on who you talk too - governments; industry; and, for want of a better term, other interested parties - the now ubiquitous stakeholders, though such a description

should not be taken to undervalue the influence and importance of these latter groups. For their part, governments have, what we bureaucrats refer to, as normative and operational objectives. The first refers to what they claim to, or should be trying to, do; The second to what they, in fact, end up doing, given that there is an election coming up, or worse still, a shoal of angry fishermen are occupying the minister's outer office. Not surprisingly, in the Decision Theory literature, these are usually referred to as **hidden**, or **unarticulated**, **objectives**.

On a global basis, it is now seven years since Agenda 21, the Rio Declaration on Environment and Development, and the Statement of principles for Sustainable Use that were adopted by the Earth Summit of the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in June 1992. This was the major global event to confront the issues of sustainable use of fisheries resources in recent years and it was intended to be a comprehensive programme of action extending into the twenty first century and covering issues such as poverty, consumption, population trends, environmental degradation and equity. Underlying Agenda 21 is the notion that humanity has reached a defining moment in its history as policies continue to deepen the economic divisions within and between countries and continue the deterioration of the global ecosystem. As one might guess, this led to the creation of a UN Commission on Sustainable Development that meets annually makes pronouncements, and issues a continuing series of reports and analyses.

The important part of Agenda 21 for us is Chapter 17 – “Protection of the Oceans, All Kinds Of Seas, Including Enclosed And Semi-enclosed Seas, And Coastal Areas And The Protection, Rational Use And Development Of Their Living Resources”. Chapter 17 runs to 32 pages of 10 point font, ranging from Integrated Management and Sustainable Development of Coastal Areas, to Sustainable Development of Small Islands with five other major topics between them. This Agenda provided the impetus to FAO to develop its own Code of Conduct for Responsible Fisheries, a more focused guide that outlines in 12 Articles and 209 substantive paragraphs how "States fisheries **should** be prosecuted and managed.

Ministers, and their retinues, usually welcome such normative desiderata; but this is not the story to be dwell on today. Rather, I shall step down from the minister's office to the floors below where operational fisheries policies are thrashed out, usually by bureaucrats

patiently, or impatiently, waiting for windows of opportunity provided by fisheries crises when ministers or other decision makers feel they must act, or when changes in command at the top, be it a change in minister or government, makes possible new policy directions through changes in the political wind.

Developing policies: *What are the policies I see developing that I believe will emerge as winners in the following decades?* And, equally importantly, how are these policies being adopted and implemented? To identify these I must first offer my view of what are key issues. Time requires that I be selective. I will not deal with global warming and its effects on ocean biota, or ocean pollution and fish disease epidemics, or loss of fish habitat and bio-diversity, or the loss of genetic diversity and genetic selection caused by selective fishing practices, stock enhancement breeding programmes and the escape or loss of fish from aquaculture programmes that enter the genetic pool, nor the loss of sub-populations of commercially important species as management focus on stocks complexes results in the extirpation of minor and sub-stock components of the same species. And I will not discuss the threats to the survival of species taken as bycatch, whether they be the southern albatross, a magnificent bird that breeds off New Zealand and feeds off Argentina and are hooked in large numbers by longliners; or the elasmobranchs - sharks and rays - that are threatened in almost every type of aquatic habitat from the marine shallows to the abysses, the world's freshwaters and, perhaps more immediately, the disappearance of rays from the North Sea, Northwestern Atlantic and now I read possibly New Zealand where smooth rays, taken as bycatch and previously discarded alive, are now shipped to eager European Union markets - subject to the appropriate tariffs of course.

So what is left to be concerned about? Little many of you may think - I hope you are wrong. What is it we seek from the world's fisheries? To return to my introduction, I noted that many objectives are sought - employment, food, profits for investors and other economic benefits of various forms, sustainable harvests and thus resources; social stability is one the I often hear mentioned in the European, or at least, EU, context. Clearly, as common sense and mathematical theory demonstrates, all such objectives cannot be maximized at the same time - use fisheries as a social welfare system, as on Canada's east coast, and one obtains neither profits through the creation of wealth, nor sustainability of resources. Pursue short-term profit maximization - often a financially rational policy when the sole objective is best use of sunk

capital assets, alas still floating in a sea of operating subsidies - and local area employment will be sunk along with the TAC and the resource biomass from which it is derived, as recent events in the Argentine and Uruguay hake fishery, demersal fisheries from New England to the Gulf of Thailand and past practice in many North Atlantic herring stocks has demonstrated. Single-objective maximization, as these examples show, can fail disastrously.

Views that the oceans would prove to be the "breadbasket" of the world, a popular view when I was a graduate student in the distant past, have proven wrong, a view made yet more irrelevant with the realization of two factors, (i) that inability to pay for food, the consequence of poverty, is the primary determinant of hunger, or inadequate nutrition, rather than an inability to physically provide sufficient calories or amino acids, and (ii), it is becoming clearer that marine fish continue to follow the trend of becoming the food of the wealthy. Some management regimes recognize this reality; and if I explain to people that the objectives of my endeavours is to create wealthy fishermen (I usually say millionaire fishermen, but this is now not that unusual) through good management, the eyebrows of many people merge with their hairline.

Fisheries Policies: What is to be done it maintenance of "social stability" is the major objective? What does this mean?. I have no idea if it means social stagnation, maintaining the *status quo* as perceived by social planners no matter the trends that characterize continual change in human societies, or if it is just one of those comfort words, used as filler when difficult issues must be avoided. Could maintaining "sustainable" fisheries be an appropriate objective? I have yet to find a definition of **sustainable** that is fully acceptable as an operational management planning guide - though its a word that few seem to hesitate to use with little concern as to what it means in management practice. Perversely, it is often much easier to get agreement on what is not sustainable, though such agreement does not necessarily mean appropriate management action will be taken. And, I have always had an inward smile in following the active debate for the need "sustainability" in fisheries that never raised the issue of their dependence on unsustainable sources of fuel – surely this debate should first start with a discourse of the merits of sail power and sun-dried fish.

In the United States, the *Magnuson Act*, now the *Magnuson-Stevens Act*, first set obtaining maximum sustainable yield as the legal management target, a criterion that as early

as 1977, was being disparaged by such as Phillip Larkin as a management illusion, and a dangerous one at that. This subsequently gave way to Optimum Sustainable Yield, though the issue of whose Optimum is successfully skirted. New Zealand is another country in which the management objective is defined in the law in terms of maximizing the yield - there, little *nonsense* about social stability of community traditions, a perspective greatly helped by the recent development of their offshore fishery, and by recent I mean during the last 25 years. Further, theirs is primarily an export fishery - the domestic market taking less than 15% of production, so consumers, as a stakeholder group, have been left to eat mutton.

Another policy, perhaps more accurately labelled a management attribute, is that of *Responsibility* usually indicated through some expression of a *Code of Conduct*. It is right to consider "Responsibility" as a policy in the sense that it is an operational choice relating to how the fishery is exploited. However, there is some danger in emphasising this approach, in that by being all encompassing, it may remain a distant goal, desirable, but never achieved. But, I think little hesitation is needed in concluding that on balance, such expressions of intent must be welcomed. They prompt enterprises and other organizations to think about how they should operate and provide direction and some degree of protection, to employees.

To recover the theme I was trying to develop. I find that *Strategically, at the global level, expression of objectives is well achieved* in relation to fisheries management, articulated through international and multilateral forums - in fact some might say that the excellence of articulation is in direct proportion to the difficulty of its implementation. But, implementation at the national level is variable, and usually wanting.

The range of commonly expressed objectives is not large; and rarely can they not be included in a small set which I should present so they are near the front of our mind. These are, in no particular order:

- employment
- social stability and other social-welfare objectives
- creation of wealth/profits
- sustainability of resources (and catches)
- provision of national nutrition

- specific national economic goals, usually, generate export revenues and or influence regional development.

Such objectives have an intuitive appeal, but even among countries with similar management attitudes there can be considerable differences in approach. Take the examples of these countries shown in Table 1, Section 1. Depending on the country, one, two, three of four of these objectives may be attempted. And, as I noted, these are not ranked in any specific order – setting priorities is not the job of a bureaucrat. To recap, I have talked about common management objectives. Usually they are multiple, and conflicting, or incoherent, and often unexpressed.

Now, what are the tools that are emerging as effective policy instruments to achieve these objectives? And here I should return to the keyword in my presentation - POLICY. As I do that, I shall refer to three general policy approaches – generic “no-brand” approaches that I believe are extremely important in relation to fisheries management in many management regimes and will become so in many more.

- The first has to do with the view that problems of supply and allocation should be solved by *markets*, and not by public administrators, no matter how prestigious the universities they attended.
- The second complementary, and emerging, view is that the traditional *command and control* approach to fisheries management, (may I call it the “Capital City syndrome”) has at worst, failed, or is failing miserably, and at best, is cost-ineffective with its success depending on expanding management costs that exceed the benefits they are intended to secure. I do stress that there is good recognition of this failure and devolution is successfully proceeding in many places!
- The third approach might be called it a *policy environment of preference* is that of transparency. Here I do not only mean that those who are affected by management decisions and regulations can see how the process works and participate in it. But, that it is apparent where costs are incurred, for what purpose, and who gains from the benefits of management is identified so that management costs can be related to the stakeholder beneficiaries.

The step from these insights – perhaps best labelled prejudices - to the unfolding of corresponding management policy is, I believe, the fascinating story of current fisheries management policy development even if the pace of this development seems geological with many similarities to the two-steps-forward, one-step-back syndrome.

Of course, it is elemental logic that the best management policies are those that contain incentives for those at whom they are directed to increase their effectiveness. The first beneficiaries of improved management should be the fishermen themselves. Self-evident? Well, perhaps, but to this issue in a minute. When do people have the greatest incentive to conserve and husband something - well - when they own it! When they themselves are most certain of being the beneficiary of investments they make in the property or resource. But those in Iceland well know about this – Icelandic fisheries were among the first to introduce strong property rights through IVQ management – though here too this is a policy that still is a matter for larva-hot debate.

But the issue of property rights in fisheries (or, for our purposes today, access or user rights), while in my view, the pre-eminent policy issue in fisheries management today, has proved remarkably contentious, both ideologically and operationally. For many, stakeholder and non-stakeholder alike, fisheries (invariably mistakenly) offer the last opportunity for the rugged individualist to head out to sea, fight the elements and make a living – a view expressed to me by some marine experts I would have otherwise assumed would have known better. Much less romantically, many people have fundamental misgivings about the unidirectional transfer of public assets, often perceived as a national patrimony, into private hands. Such reservations are accentuated when what were rights of little value at the time of transfer rapidly gain value (as the policy may, implicitly or explicitly intend) turning the recipients of the fishing rights into millionaires. Of course, this is an issue of values, and as such, one that bureaucrats *a priori*, are often poorly qualified to handle, even if their ministers are equally disinclined to confront the social and economic implications of this issue.

More commonly, many challenge that rights-based fisheries management offers the advantages its proponents (I among them) claim – and the English expression that is brought to mind is "the devil is in the detail". To such challenges one must concede that to have property, it must have associated several characteristics, not least that of being able to be defended, either legally or physically, as Hugo Grotius noted, nearly 400 years past. Systems of property rights must function - registers of rights must be maintained; quota owners must not significantly transgress their access or harvesting rights and usually, for this to happen, appropriate enforcement and deterrence must exist. This is not the case for the majority of the world's fisheries management regimes, nor for most of them does this look feasible in the near term. Proponent of this form of management that I am, I concede that further progress with this form of management will be slow, constrained by the inability of most management regimes to provide the administrative capacity rights-based management needs. I emphasise though, that criticisms of a ideological origin should not be confounded with those that are operational - often the case when critics wish to disguise the basis of their opposition or have simply not thought their arguments through.

But what are the trends in adoption of rights-based management? Lets see.

- 1976 Scotia-Fundy herring (weak rights re transferability) and the introduction of co-management with the government
- 1976 Iceland starts with Herring in a IFQ programme

- 1980s Holland – flatfish and Scotia-Fundy with Scallops through “Enterprise Allocations”
- 1983 Icelandic Cod
- 1983 New Zealand starts its QMS programme

- 1990 mid-Atlantic Surf Clam & Quahog -
- 1990 Most Icelandic stocks enter a FUS
- 1990s Australia (1st the Northern Prawn Fishery) now all states, with, e.g. 6 species under transferable quota management in Western Australia alone
- 1992 Florida Spiny Lobster Fishery (input rights)
- 1995 Alaska Halibut and Sable Fish
- British Columbia - e.g. 6 species as well as the major ones

Namibia - limited durability and restraints on transferability

Chile (though here the two step/one step process)

UK – but no guarantees of durability of the 'rights' which is resulting in interesting forms of speculation

2000-2010 Argentina, Peru and Uruguay (?); UK.

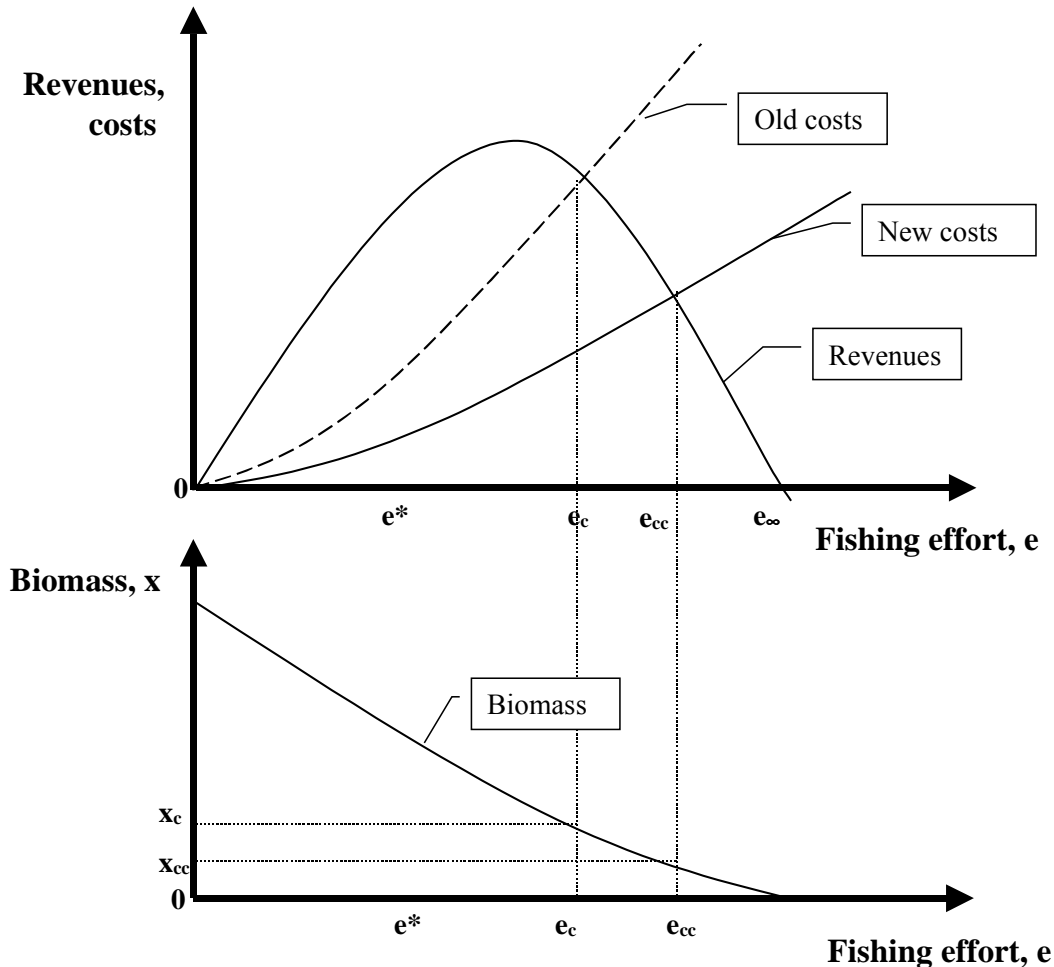
The notable feature of this growth in rights based management is that there has been almost no going back! When problems have been encountered have been solved by strengthening the property rights, not returning to any earlier system. And, in case there is any doubts, almost all who have introduced this management system will admit in hindsight to many implementation deficiencies if not failures. I think that is it an indication of the benefits, flexibility and robustness of such management systems, that given the problems that have often been encountered, this form of management has survived.

Is this type of management regime successful? Where effective administration is possible, despite the added management costs – which may be significant as they add to 'government' rather than diminish it, I believe the answer is unequivocally yes. But, while some people debate the amount of incentives they provide, it should be remembered:

- they don't solve all ills – and normal vigilance must be maintained
- incentives to cheat remain and require effective penalties - e.g. loss of rights in extreme cases
- many of the usual management requirements remain, e.g. resource analyses to determine TACs, etc.

The Markets: I mentioned the elixir of the markets. Fisheries, of all natural resource sectors, are most sensitive to damage by distortions, and of course by this I mean - subsidies. And where better place to raise this ugly topic. I am sure you have all seen the relation shown in the following figure - the general relation between costs and returns in fisheries. With competition between vessels, capital investment increases until it is no longer profitable to do so. It is common what then happened - subsidize operations costs, drop and so does catch. But what is the solution? Based on experience of course, more subsidies. What can be said?

In three words, this is madness!! According to some sources, EU subsidized the fishing industry in 1997 to the tune of 1.4 billion Euros, or $\text{€}5400/\text{fishermen}$! Who ultimately benefits? Who pays?



(Source - WTO)

Why is it that societies are so unable to address this issue of fisheries? Or asked a little differently, how is it that fisheries have been able to occupy a position that would be denied to other sectors of our economy? Both the WTO and GATT, its predecessor, were able to address the issue in subsidies in the area of manufactured goods. But despite the similar rationale, the 1994 WTO's Uruguay round of negotiations ended with fish products excluded from their trade agreement; while vessel construction subsidies remained impervious to rational debate on the need to abolish shipbuilding subsidies. And it should be kept in mind, the emphasis in these deliberations was on the conditions of trade – and not the costs imposed on either the environment through excess fishing, the forgone yields through either growth or recruitment overfishing, or simply the wasted capital resources through forgone benefits that a

less stupid allocation of scarce assets would have provided.

In 1992, in an admittedly approximate analyses of data from the late 1980s (by which I mean the estimate could be equally under as overestimated), FAO concluded that annual fishing costs - \$124 billion – exceeded revenues by a staggering \$54 billion – an estimate which has received more support than approbation.

And are there any winners? I ask these questions rhetorically, but they are extremely important. And of course, the damage is not only limited to Europe as excess subsidized capacity in the form of surplus fishing vessels is exported around the world. A massive inflow of fishing capacity from Europe into Argentina has collapsed the hake stocks - stocks that also provide the basis of the neighbouring Uruguayan hake fishery. By chance I came across this article in the August edition of Fishing News International. By design or by chance, the second article was below. Not only are there no government subsidies for fisheries in New Zealand, the fishing industry must pay 100% of management costs.

If there can be said to be a glimmer of hope in this dismal story, it is that a small group of countries are forcing the debate of this issue, and of course as is well known, Iceland is among them. Given the trends I mentioned earlier of greater transparency, both political and financial, an approaching crises in so many world fisheries – and I would reject any charge of alarmism or extremism in making such a statement, I believe that the focus of concern must be increased on the damages subsidies are causing. Clarification of the issues must continue, as confusion between causes and effects remain. The Committee of Fisheries was instructed to investigate the issue. But instead of turning to the causes of excess capacity – in my view inappropriate conditions of access rights and distortions, if not outright damage caused by subsidies – the focus of the debate has been on how to better describe the symptoms of the problem through more exhaustive analyses of what characteristics of fishing boats determines fishing success – a fruitless task.

Perhaps there is some societal need for a pre-confrontation rituals of approach and retreat before the causes are unequivocally described for what they are. If so this is a great pity and one that I hope will stimulate debate, indeed, confrontation on the damages these practices are causing.

Two other pieces of the jigsaw of the successful management approach remain and I will deal with them briefly in closing.

Rights and Responsibilities: It is an axiom that, with rights come responsibilities. Well, if fishermen are to get rights what responsibilities should they have? Before continuing, I should mention a short anecdote. As you heard, my professional fisheries career was mainly in Canada during an era of Central Command and Control - Ottawa knew best and we, their regional foot soldiers told the fishermen how it was going to be! If the fishermen didn't like it, and they never did, they complained and lobbied their members of parliament, who lobbied the minister of fisheries who then overruled often wise management decisions because, self-evidently fishermen had more votes than department of fisheries' bureaucrats (which I note in passing was then more than 4000 strong in Canada). When finally the federal government confronted its unsustainable deficit spending and substantially raised fishermen's licence fees - under a controversial cost recovery programme - fishermen suddenly started coming to management meetings and demanded a constructive role in management rather than the traditional adversarial way of whatever was offered, demanding 20% more. User pays, user really does say. New Zealand offers a wonderful example of that and as I have noted Government policy is 100% management cost recovery. There are ferocious debates over what is a management cost and what marine activities are more appropriately deemed "in the public interest". But the industry has risen to the responsibility. Quota holders have formed their own management companies and through the national policy of making management services "contestible" i.e. open to tender, several fisheries organizations have won the contracts to do their own research work. Do property rights help?

Who deals with uncertainty in Fisheries Management and how? Policy Directions: This is not something that needs an introduction, though I am sure most people have heard a dozen phrases for this concept - precautionary approach, precautionary principle, risk assessment, risk management, adaptive management and many more. But there are some fundamental features that all stakeholders must know and respect. Those in industry are well aware of the risk in their operations and how to handle it, whether they do so explicitly or intuitively. If one is still in the fisheries business (or alive for that matter) – then that person is a successful risk manager.

Given that uncertainty is so pervasive in so many aspects of fisheries management, - from agreement on what policy will best achieve society's objectives through to much more technical issues such as how much fish – the TAC – should be harvested from a single management stock – it is little wonder that there have been a number of management responses, or perhaps more accurately, experts' proposals on what should be done to accommodate such uncertainty. The most common is that of the Precautionary Approach. Though this concept has been expanded to cover most aspects of Fisheries Management, its core concept remains vital – that decisions should not be deferred because of lack of 'scientific' proof to support a conservation action. An alternate expression relates to the burden of proof before undesirable management decisions must be taken.

In the management areas, as in Iceland, and many others are familiar with, the Precautionary Approach remains an emergency measure and not a tool of day-to-day or year-to-year management. In these situations the problem must be recast in the field of risk assessment and risk management. The methods for risk assessment in fisheries exist – but this is a field still in its infancy – not yet far beyond presenting cumulative probability density functions describing expectations about the size of a stock's biomass.

The challenge now is to move in to risk management, helping decision-makers to understand the implications of different actions they can take in the decision making context. In particular, undertaking the difficult task of re-expressing management decisions in terms of potential losses, and particularly identifying situations where managers are drawn into risk prone decisions that logical analyses shows will lead to disaster. The only question unanswered being to do with the timing. This is not a trivial activity. However, the methodologies are well developed and have been available for decades and are in my view, appropriate to the problems to be confronted. In this case, I believe that it is we, the technical support community, who has been remiss in advancing this approach to problem solving.